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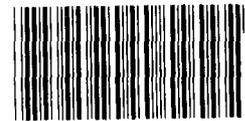
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REPORT BY THE U.S.

General Accounting Office

Status Of The Department Of Energy's Implementation Of The Nuclear Waste Policy Act Of 1982 As Of September 30, 1984

In March 1984, the Senate Committee on Energy and Natural Resources requested that GAO report quarterly on the status of DOE's progress in implementing the Nuclear Waste Policy Act of 1982. This first report covers program activities that occurred from July through September 1984. It highlights several management initiatives taken during the period by the Office of Civilian Radioactive Waste Management, the Office charged by the act with the responsibility for implementing its provisions. Also included is a description of the status of the Nuclear Waste Fund, the separate fund that receives fees from the owners of operating nuclear power plants and other waste-producing facilities and finances the development and construction of the nation's first geologic repository for commercial nuclear waste.



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UNITED STATES GENERAL ACCOUNTING OFFICE
WASHINGTON, D.C. 20548

RESOURCES, COMMUNITY,
AND ECONOMIC DEVELOPMENT
DIVISION

October 19, 1984

B-202377

The Honorable James A. McClure
Chairman, Committee on
Energy and Natural Resources
United States Senate

The Honorable J. Bennett Johnston
Ranking Minority Member
Committee on Energy and Natural Resources
United States Senate

In response to your request, this report provides our first quarterly status report on the Department of Energy's implementation of the Nuclear Waste Policy Act of 1982. It discusses the Department's progress in meeting legislated deadlines; summarizes the status of the Nuclear Waste Fund; and discusses management reorganization, information system development, and personnel initiatives.

As arranged with your offices, we plan no further distribution of this report until 7 days after the date of this report, unless you publicly announce its contents earlier. At that time, we will send copies to appropriate legislative committees, federal agencies, and other interested parties.


J. Dexter Peach
Director

D I G E S T

The Nuclear Waste Policy Act of 1982 established a national policy for the long-term safe disposal of spent nuclear fuel and other high-level radioactive nuclear waste. The act requires the Department of Energy (DOE) to develop and construct permanent repositories to dispose of such materials and to conduct related research, development, and demonstration projects. It also requires the owners and generators of highly radioactive materials who have a contract with DOE for disposal of those materials to pay fees (user fees) into a special fund established in the U.S. Treasury to finance all costs associated with developing and operating repositories. The act established the Office of Civilian Radioactive Waste Management within DOE to administer the waste disposal program.

In March 1984, the Senate Committee on Energy and Natural Resources requested that GAO report quarterly on the status of DOE's progress in implementing the act. This first quarterly report primarily focuses on the Office of Civilian Radioactive Waste Management's activities that were directed toward legislated deadlines that had already passed or came due during July through September 1984. It also highlights the Office's July 1984 reorganization and other management initiatives, and discusses the current status of the Nuclear Waste Fund. Because final data was not available when this report was issued, preliminary DOE financial data was used for the fourth quarter of fiscal year 1984.

STATUS OF SELECTED ACTIONS
TO MEET LEGISLATED DEADLINES

The Nuclear Waste Policy Act of 1982 (hereafter referred to as "the act") established several program requirements and set deadlines for DOE to develop and construct geologic waste disposal repositories. In particular,

the act calls for DOE to recommend by January 1985 three sites to be the subject of detailed geological studies. One of these sites will most likely later be recommended as the site for the first repository.

During the last quarter of fiscal year 1984, the Office of Civilian Radioactive Waste Management (hereafter referred to as the "DOE Waste Office") focused on the following three major requirements of the act:

- Developing a comprehensive report, known as the mission plan, that will establish the schedule of events leading to completion of the objectives of the act. The act required the DOE Waste Office to submit to the Congress by June 1984 a mission plan that would provide the information necessary to make decisions to carry out the repository program. In May 1984, the DOE Waste Office released a formal draft plan for comment. As of September 1984, comments had been received from over 100 sources, including states, federal agencies, and public interest groups. DOE Waste Office officials expect to issue the final plan in early 1985. (See p. 5.)
- Issuing final guidelines that will be used to evaluate nine potential repository sites in advance of selecting three sites for detailed geological studies. The act required the DOE Waste Office to issue guidelines to be used to evaluate potential repository sites by July 7, 1983. In July 1984, the DOE Waste Office obtained the Nuclear Regulatory Commission's concurrence with draft guidelines, as required by the act. DOE Waste Office officials expect to issue the guidelines in November 1984. (See p. 6.)
- Completing environmental assessments for the nine potential sites. Environmental assessments are also needed to evaluate the candidate sites in order to determine which three sites should be further studied. Completing draft environmental assessments was the top priority of the DOE Waste Office at the end of fiscal year 1984. DOE Waste Office officials told GAO that draft assessments would be released in December 1984. (See p. 8.)

Progress was made during the quarter toward accomplishing each of these three requirements, but in each case the initial milestone was missed. DOE Waste Office officials told GAO that in each case the extra time was necessary to allow full participation by states, Indian tribes, and the public. Because of these delays and because DOE plans to allow a 90-day public comment period before preparing the final environmental assessments, DOE Waste Office officials estimate that the recommendation of three sites for detailed characterization studies will be postponed from January 1985 to mid-1985. (See p. 8.)

Other selected activities

The following actions were also taken during the quarter to accomplish other legislative requirements:

--In July 1984, the DOE Waste Office issued its second legislatively mandated annual report on the adequacy of user fees established under the act. The report states that the present fee--1-mill (0.1 cent) per kilowatt-hour--should produce revenues sufficient to offset costs, assuming inflation does not exceed 2 to 3 percent. The report acknowledges, however, that its analysis does not consider ongoing changes to the draft mission plan that could affect cost assumptions. The DOE Waste Office plans to issue another report in January 1985 that will be consistent with the final version of the mission plan. (See p. 8.) An August 1984 study by the Congressional Budget Office stated that the 1-mill fee will likely need to be raised sometime in the future because costs would exceed revenues due to inflation. That study also pointed out that indexing the fee to the inflation rate would provide some insurance against the growth in actual program costs. (See p. 9.)

The act provides that unless the President determines otherwise by January 1985, defense high-level nuclear wastes will also be deposited in the geologic repository to be constructed under the act. In August 1984, DOE's Office of Defense Programs distributed for comment a draft report recommending that commercial and defense waste be deposited in a single repository rather than building a

separate repository for defense wastes. The draft report estimates that this will reduce the cost of nuclear waste disposal by about \$1.5 billion. DOE plans to forward its final report to the Office of Management and Budget by November 1984. (See p. 10.)

--The act also required DOE to study alternative approaches to managing the waste program and to report to the Congress in January 1984. DOE expects to issue its report to the Congress by January 1985. The delay was caused by the time it took DOE to find qualified and willing members for an advisory panel to study the area. During a September 1984 meeting, the panel, whose members include state, Indian tribe, and public interest group representatives, voted to recommend to DOE that a public corporation manage the nation's nuclear waste program. Because of the controversial nature of this recommendation, the panel plans to review that vote during its scheduled October 1984 meeting. (See p. 11.)

STATUS OF SELECTED DOE WASTE OFFICE MANAGEMENT INITIATIVES

The act established the Office of Civilian Radioactive Waste Management to carry out DOE functions under the act. The DOE Waste Office was formally established in October 1983, and in May 1984, a director was appointed and confirmed by the Senate.

During the fourth quarter of fiscal year 1984, the DOE Waste Office took the following management initiatives.

--The Director reorganized the DOE Waste Office to centralize policy development and to provide a focus for federal/state relations. (See p. 13.)

--The DOE Waste Office took some initial steps toward establishing an internal program management system that would include an automated information component. (See p. 16.)

--The DOE Waste Office issued new internal guidelines to standardize its state assistance program and to help individual DOE project offices to deal with grant requests equitably. (See p. 16.)

--The DOE Waste Office awarded a \$1.3 million contract to a certified public accounting firm to audit the financial statements of the Nuclear Waste Fund. (See p. 19.)

Throughout the fiscal year, the DOE Waste Office hired additional staff to fill all but 12 of its 200 authorized positions. (See p. 20.)

STATUS OF THE NUCLEAR WASTE FUND

The Nuclear Waste Policy Act established a separate fund to be maintained in the U.S. Treasury to finance the nuclear waste program. The fund has received about \$258 million from appropriations enacted before the act was passed. It also accumulates two types of fees paid by the owners and generators of nuclear waste. They are

--a one-time fee for nuclear waste generated before April 1983 and

--a 1-mill per kilowatt-hour fee paid every 3 months by the generators of nuclear power.

As of September 30, 1984, DOE had executed contracts with each of the owners of operating nuclear power plants and other waste-producing facilities for acceptance of nuclear waste for disposal in return for their payment of fees into the fund. As of September 30, 1984, none of the one-time fees had been paid. By September 1983, however, the owners had paid about \$73.6 million into the fund as a result of the 1-mill fee. During fiscal year 1984, the fund's first full year of operation, an additional \$329.5 million was paid into the fund. (See p. 22.)

The DOE Waste Office makes disbursements from the fund to pay for program activities. Funds cannot be disbursed without prior congressional appropriations. In concurrence with appropriations made in fiscal years 1983 and 1984, the DOE Waste Office obligated about \$322 million for various program activities during fiscal year 1984. About 77 percent of the obligations were for repository development activities, including preliminary site studies and the preparation of site environmental assessments. (See p. 23.)

At the end of the fiscal year, the DOE Waste Office had unpaid obligations of about \$135.2 million. In addition, the Waste Office needs to repay the U.S. Treasury about \$258 million for the appropriations it had received. DOE Waste Office officials told GAO that repayment to the U.S. Treasury depends upon when the owners of nuclear waste pay their one-time fees. (See p. 25.)

AGENCY COMMENTS

GAO did not obtain formal agency comments on a draft of this report.

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ABBREVIATIONS

DOE	Department of Energy
GAO	General Accounting Office
NRC	Nuclear Regulatory Commission
NWPA	Nuclear Waste Policy Act of 1982
OCRWM	Office of Civilian Radioactive Waste Management

CHAPTER 1

INTRODUCTION

Enacted on January 7, 1983, the Nuclear Waste Policy Act of 1982 (NWPA) (Public Law 97-425) established a comprehensive, national program directed toward the construction of geological repositories for the long-term disposal of highly radioactive nuclear waste. The Department of Energy (DOE) intends to begin accepting title to the nuclear waste for disposal under provisions of the NWPA in January 1998. The NWPA established several requirements and related deadlines aimed at accomplishing that objective. It also established the Office of Civilian Radioactive Waste Management (OCRWM) to carry out the NWPA and established the Nuclear Waste Fund to finance the program.

The NWPA requires us to report to the Congress on the results of an annual audit of OCRWM. The first annual audit focused on DOE's progress in laying the groundwork for implementing NWPA requirements for repository siting, program financing, and program organization and staffing. We expect to issue the first annual audit report by the end of calendar year 1984. On March 26, 1984, the Senate Committee on Energy and Natural Resources requested in addition that we report on a quarterly basis the status of OCRWM activities to implement the NWPA. This first quarterly report complements the first annual report by discussing actions which took place during the last quarter of fiscal year 1984.

This chapter provides an overview of OCRWM's program activities and discusses the report's scope and methodology. Chapter 2 focuses on selected OCRWM activities during the last quarter of fiscal year 1984, especially those directed toward legislative requirements that were accomplished during the quarter or whose milestones have already passed. Chapter 3 discusses several selected management initiatives OCRWM has taken during the last quarter of fiscal year 1984; and chapter 4 describes the current status of the Nuclear Waste Fund. Appendix I contains a list of the legislatively required actions for the repository program.

OVERVIEW

The safe disposal of spent nuclear fuel and other high-level radioactive waste in the United States has been a matter of national concern since the first civilian nuclear reactor began generating electricity in 1957. These materials, which remain potentially hazardous for tens of thousands of years, must be isolated from the environment until their radioactivity decays to levels that will pose no significant threat to people or the environment. Electric utilities have accumulated over 10,000 metric tons (over 22 million pounds) of highly radioactive spent nuclear fuel. Most of it is stored in the form of spent fuel rods in deep pools of water at the reactors. Some utilities anticipate shortages of spent fuel storage facilities in the next few years. DOE

estimates that by the year 2000, approximately 50,000 metric tons of radioactive spent fuel will have accumulated.

Enacted on January 7, 1983, the NWPA requires DOE to develop deep geologic repositories to accommodate such disposal and to conduct related research, development, and demonstration projects. The act also established OCRWM within DOE to administer the waste disposal program. OCRWM's costs are to be paid from the Nuclear Waste Fund, a special fund established by the act, to finance the waste program. The fund receives fees from the owners of operating nuclear power plants and owners of high-level nuclear waste generated in the past. The full cost of the program was estimated in 1982 to be about \$20 billion in constant dollars. This cost estimate includes development, construction, and decommissioning costs of two geologic repositories projected to extend through the year 2032.

The act authorized DOE to enter into contracts with all generators and owners of highly radioactive materials. The contracts were to establish (1) terms and conditions under which DOE will dispose of these materials and (2) procedures to collect fees to provide for full recovery of the government's disposal costs. Contracts include a one-time fee for spent fuel generated before April 1983 and a 1-mill (0.1 cent) per kilowatt-hour fee¹ to be paid every 3 months. The one-time fee is to cover the cost of disposing of high-level nuclear waste generated prior to April 7, 1983. Under the contracts, the owners are to individually select, within 2 years of contract execution, one of three methods of paying this fee and inform DOE which method each will use. Most owners will make their decision by June 30, 1985. The total amount expected from the one-time fee is about \$2.3 billion. The 1-mill fee is to cover the disposal costs of spent fuel generated after April 7, 1983. As of September 30, 1984, DOE had contracts with each of the 63 owners of the nation's 145 licensed reactors. According to DOE and Nuclear Regulatory Commission (NRC) officials, a new reactor cannot receive an operating license until covered by a DOE contract.

OCRWM, located at DOE headquarters in Washington, D.C., is supported by DOE's operations offices. In particular, OCRWM project offices in Columbus, Ohio; Las Vegas, Nevada; and Richland, Washington, are responsible for conducting repository development activities in the three main geological media under consideration

¹Total amounts paid by owners during the last quarter of fiscal year 1984, based on 0.1 cent per kilowatt-hour, ranged from about \$3,000 to about \$8.5 million.

for selection for the first site.² These offices in turn rely on contractors and DOE's national laboratories to conduct certain activities.

In February 1983, DOE formally identified nine potential areas in six states for the first repository. After an analysis of available data and completion of a number of requirements, the act calls for the Secretary of Energy to recommend three sites to the President for further consideration in January 1985. After detailed site characterization studies are completed for these three sites, the act calls for the President to recommend to the Congress one site by March 31, 1987, for repository construction. Potential sites for a second repository are now planned to be identified after July 1986 with a final site recommendation made to the Congress by March 31, 1990.

OBJECTIVES, SCOPE, AND METHODOLOGY

On March 26, 1984, the Senate Committee on Energy and Natural Resources requested that we report on a quarterly basis the status of OCRWM activities to implement the act. This first quarterly report provides information on selected OCRWM activities which occurred during the quarter ending September 30, 1984. The objectives of this report are to highlight major OCRWM program activities whose legislative deadlines had already passed or came due during the quarter, to describe several OCRWM management initiatives, and to present financial information describing the current status of the Nuclear Waste Fund.

To obtain information on the status of OCRWM program activities and to describe management initiatives, we reviewed DOE and OCRWM program documents, publications, correspondence files and studies, and interviewed OCRWM managers and operating personnel responsible for planning and managing activities associated with the research and development of the waste repositories. We also talked with project managers in each of the three DOE project offices supporting OCRWM.

To obtain information on Nuclear Waste Fund receipts and disbursements, we contacted DOE officials responsible for the Department's financial information system. We also obtained financial data directly from the system. Given the reporting time frame, it was necessary to use preliminary financial data from the

²Geologic media are the underground rock formations in which the radioactive waste will be placed. The host rocks of the formations now being considered are basalt lava, a molten material from volcanoes or fissures; tuff, a hard, compacted ash from volcanoes; and rock salt, a sedimentary rock formed by the evaporation of water from a saline solution. The Richland Office is primarily working with basalt, while the Columbus and Las Vegas offices are examining salt and tuff sites, respectively.

system for the fourth quarter of fiscal year 1984. Those cases are clearly identified in the report.

Our review was performed in accordance with generally accepted government auditing standards, except that we did not verify data obtained from DOE's financial information system. This task could not be accomplished within the time frame of this report. Also, as requested by the Senate Committee on Energy and Natural Resources' office, we did not obtain official agency comments. However, we informally provided OCRWM program officials a draft of this report and discussed it with them. On the basis of their comments, we made appropriate revisions.

CHAPTER 2

STATUS OF OCRWM ACTIVITIES DIRECTED TOWARD LEGISLATED REQUIREMENTS DURING THE JULY-SEPTEMBER 1984 QUARTER

This chapter discusses OCRWM efforts during the last quarter of fiscal year 1984 to meet several legislative requirements whose deadlines had already passed or came due during the quarter. In particular, it describes the status of OCRWM's efforts to

- complete the mission plan, which is to contain a schedule of milestones that will direct OCRWM toward accomplishing the waste program's goals, and
- finalize the siting guidelines and environmental assessments needed to identify the sites to be studied in more detail prior to selection of a first repository site.

While OCRWM made progress toward completing these requirements, final issuance of each had not been accomplished as of September 30, 1984. According to OCRWM officials, the delays were largely caused by OCRWM's efforts to ensure the full participation of states, Indian tribes, and the public. Because of delays in meeting these requirements, OCRWM officials told us that the recommendation of three locations to be the subject of detailed site characterization studies would be delayed from the January 1985 date established in the act until mid-1985.

Other activities that took place during the last quarter of fiscal year 1984 related to the fulfillment of legislative requirements included:

- OCRWM's issuance of the annual fee adequacy report,
- DOE's issuance of a draft report on defense wastes for comment, and
- the vote by DOE's advisory panel on alternative management approaches to recommend that a public corporation manage the waste program.

The following sections describe these activities.

MISSION PLAN NOT YET COMPLETE

Section 301 of the Nuclear Waste Policy Act requires DOE to prepare a comprehensive report, to be known as the mission plan, to provide an informational basis sufficient to permit informed decisions to carry out the repository program and related research. DOE officials stated that the plan is to contain a

schedule of milestones directed toward meeting the legislated milestones of the act.

The act required that DOE submit a draft mission plan to the states, affected Indian tribes, NRC, and other government agencies for their comments by April 7, 1984. A final revision of the mission plan was to be submitted to the appropriate committees of the Congress by June 7, 1984.

In December 1983, DOE prepared and distributed for comment a one-volume "working draft" of the mission plan covering the overall program strategy and plans. OCRWM officials considered this to be an additional step, not required by the act, which they took in an attempt to surface major issues and to coordinate with those individuals and organizations closely associated with the program, in advance of the legally mandated formal draft. More than 60 sets of comments with varied criticisms of the plan were received.

On May 8, 1984, the formal draft of the mission plan was distributed for review with a 60-day deadline (July 9, 1984) for comments. DOE received comments from over 100 states, federal agencies, private organizations, and individuals. As of September 1984, OCRWM officials were making changes they deemed appropriate for the final plan. The officials said that they expect to issue the final plan in early 1985.

According to the draft plan, the basic objectives of the program are to (1) ensure waste acceptance for disposal by January 31, 1998, (2) establish geologic repositories for waste disposal, and (3) assist utilities in providing spent fuel storage prior to federal acceptance. The primary strategy to achieve these ends is to site and construct a repository ready for operation in 1998. In the event of delays, DOE would arrange either for continued storage at the utilities or, in the case of extended delays, for storage at a monitored retrievable storage facility pending transfer to a repository. In any event, according to the draft plan, DOE will begin accepting spent fuel in 1998 according to a pre-determined waste acceptance schedule. That schedule will be designed to permit owners and generators of spent fuel to establish firm planning schedules for determining their own on-site interim storage needs.

SITING GUIDELINES
NOT YET ISSUED

When the NWPA was enacted in January 1983, DOE had a number of general areas under study for a geologic repository. In February 1983, DOE formally identified nine of these areas as potentially acceptable sites for the first repository and notified the governors and legislatures of the concerned states, as well as affected Indian tribes. The nine sites are located in three different geological media in six states: Louisiana, Mississippi, Nevada, Texas, Utah, and Washington.

Section 112 of the act required DOE to issue by July 7, 1983, siting guidelines approved by NRC. The guidelines are to serve as a basis for nominating at least five sites from the nine identified as potentially acceptable at the beginning of the program and for recommending three sites for detailed characterization studies as required by the act.

On February 7, 1983, DOE issued proposed siting guidelines for public comment. Subsequently, DOE conducted five public hearings around the country. Due to the volume and nature of the comments, DOE assembled a task force which redrafted the proposed guidelines and extended the comment period to July 7, 1983. DOE conferred with NRC on proposed guidelines before formally sending the guidelines to NRC for concurrence on November 22, 1983. NRC decided that the general public should be provided an additional opportunity to comment on the guidelines and established procedures for receiving public comments. These procedures were published in the Federal Register on December 15, 1983.

On the basis of the comments received, NRC developed criteria for evaluating the proposed guidelines and published them in the Federal Register on March 14, 1984. The criteria included specifications that the guidelines must not

- be in conflict with NRC rules and requirements for licensing the disposal of high-level waste in geologic repositories nor
- contain provisions that conflict with NRC responsibilities as embodied in the NWPA.

On the basis of the developed criteria, NRC issued a preliminary decision indicating concurrence if DOE made several revisions to the guidelines. NRC allowed the public to comment on its preliminary decision until May 1984. During this time, the NRC staff met with DOE to resolve NRC's conditions for concurrence. On May 14, 1984, DOE submitted revised guidelines to NRC for concurrence, and on July 3, 1984, NRC formally approved the guidelines.

Following NRC concurrence, OCRWM submitted the guidelines to the Office of Management and Budget for review. That office approved the guidelines in September. As of September 30, 1984, OCRWM officials stated that they expect to issue the guidelines in final form in November 1984. DOE and NRC have largely attributed the more than 1-year delay in issuing the guidelines to their extensive efforts to ensure that states, Indian tribes, and the public had ample opportunity to comment on their development.

DRAFT ENVIRONMENTAL
ASSESSMENTS NOT YET ISSUED

While the siting guidelines provide the criteria for evaluating potential repository sites, environmental assessments of the nine proposed sites are also needed to support the recommendation of sites for repository development. These assessments are required under section 112(b)(1)(E) of the NWPA and are to include the probable impacts of activities relating to site characterization and the steps that may be undertaken to avoid such impacts. At the end of the quarter, completion of these assessments was the top priority of the OCRWM management.

To develop the assessments, DOE initially held open hearings in the area of each of the nine potentially acceptable sites between March and May 1983. To assure quality, consistency, and coordination, DOE established an environmental assessment group from headquarters and the project offices to develop guidance for DOE field offices on preparing assessment documents and to resolve issues which arise during their preparation.

The draft mission plan initially called for OCRWM to release draft assessments for public comment in August 1984, well in advance of the act's January 1985 deadline for recommending three sites for further detailed study. As of September 30, 1984, however, the draft environmental assessments had not been released. Delays were caused by the size and complexity of the assessments (over 13,000 pages) and the desire of OCRWM management to issue complete, objective assessments that will meet all of the act's requirements. OCRWM officials expected the assessments to be released for formal comment in December 1984.

After their release, DOE plans to allow a 90-day public review and comment period before issuing the final assessments. Given that timetable, the assessments will not be complete in time to meet the act's January 1985 deadline for recommendation of three sites for detailed characterization studies. OCRWM currently does not expect the Secretary of Energy to recommend the three sites until mid-1985. We did not assess the effects of this delay on other legislated milestones. OCRWM officials stated, however, that it would have no effect on DOE's accepting title to nuclear waste for disposal in January 1998.

OTHER ACTIONS REQUIRED BY THE ACT
TAKING PLACE DURING THE QUARTER

During the quarter, actions were directed toward other legislative requirements. In particular, OCRWM issued a report on fee adequacy, and DOE's Office of Defense Programs issued a draft report concerning the upcoming presidential decision on defense waste storage. DOE's advisory council on alternative management approaches also met during the quarter and voted to recommend that a public corporation manage the waste program. The following sections describe these actions.

Annual fee adequacy report
issued as required by NWPA

Section 302 of the NWPA established a 1-mill per kilowatt-hour fee for electricity generated by a civilian nuclear power reactor on or after April 7, 1983. This fee, to be paid into the Nuclear Waste Fund, is to cover the government's full cost of making available nuclear waste disposal services. The act requires it to annually review the amount of fees collected to determine whether they will provide sufficient revenues to offset program costs. If DOE determines that either insufficient or excess revenues are being collected, DOE must propose an adjustment to the fee.

In a 1983 report,¹ DOE evaluated the adequacy of the 1-mill fee and concluded that the projected revenues generated by the 1-mill fee would cover its best estimates of program costs, if the annual inflation rate did not exceed 3 percent. DOE cautioned, however, that the potential for cost increases in technology-intensive programs, such as its repository program, often exceeds initial estimates.

On July 26, 1984, OCRWM issued its second annual report² on its review of user fees established under the act. That report also found that the 1-mill per kilowatt-hour fee should produce revenues sufficient to offset projected program costs, assuming that inflation does not exceed 2 to 3 percent.³ The report noted that there is substantial uncertainty about both revenue and cost projections and that more reliable data will be available in the late 1980's. Hence, the report concludes that any recommendations to raise the 1-mill fee should be measured against the uncertainties of the present program. OCRWM officials told us that they

¹Report on Financing the Disposal of Commercial Spent Fuel and Processed High-Level Radioactive Waste (DOE/S-00201, July 31, 1983).

²Nuclear Waste Fund Fee Adequacy: An Assessment, DOE, July 26, 1984.

³In August 1984 the Congressional Budget Office released a report entitled Nuclear Waste Disposal: Achieving Adequate Financing that indicated the 1-mill fee will likely need to be increased to account for the effects of inflation at some point during the long life of the disposal program. In addition, the report stated that indexing the fee to offset inflation would provide some insurance against growth in actual program costs.

want to avoid changes in the "real" cost of the fee but that eventually adjustments may need to be made for inflation.⁴

DOE also stated that the 1984 annual report was completed before extensive revisions were made to the mission plan and therefore should be viewed as an interim study. According to OCRWM officials, the office plans to publish another fee adequacy evaluation in January 1985 which will be consistent with the final version of the mission plan submitted to the Congress.

DOE has drafted a defense waste report as required by the NWPA

Section 8 of the NWPA requires the President of the United States, by January 7, 1985, to evaluate and determine whether defense high-level radioactive waste should be disposed of in a defense-only repository. Unless the President determines otherwise, defense waste will be disposed of in the commercial repository under development. The President's evaluation is to consider factors relating to cost efficiency, public acceptability, health and safety, regulation, and transportation.

DOE's Office of Defense Programs, responsible for the defense waste evaluation, distributed a draft report⁵ for comment on August 10, 1984. All comments were to be received by the Office of Defense Programs by September 24, 1984. After analyzing the comments, DOE expects to send its final report to the Office of Management and Budget by November 15, 1984.

The draft report recommends that commercial and defense wastes be deposited in a single repository because of cost efficiency. The report states that using a single repository rather than building two separate repositories would reduce the total cost of nuclear waste disposal by \$1.5 billion. The report also states that none of the other factors evaluated, such as safety requirements, transportation considerations, and public acceptability, resulted in a significant advantage for either option.

⁴Section 302(a)(4) authorizes the Secretary to propose adjustments to the fee if he determines insufficient revenues are being collected to ensure full cost recovery. The Secretary must transmit his proposal to the Congress. The adjusted fee becomes effective after 90 days unless either House of Congress adopts a resolution disapproving it. The Supreme Court held a similar legislative veto unconstitutional in Immigration and Naturalization Service v. Chadha, _____ U.S. _____, 103 S. Ct. 2764 (1983). H.R. 4690, introduced on January 31, 1984, would have amended the NWPA to provide that proposed fee adjustments would become effective only upon enactment of a joint resolution of the Congress. No action was taken on this bill before the Congress adjourned.

⁵An Evaluation of Commercial Repository Capacity for the Disposal of Defense High-Level Waste, July 1984.

Advisory panel plans to recommend
that a public corporation manage
the waste program

Section 303 of the NWPA requires the Secretary of Energy to perform a study of alternative approaches to managing the construction and operation of all civilian radioactive waste management facilities. The NWPA specifically requests the study to consider the feasibility of establishing a private corporation to manage the waste program. The NWPA required a report containing the results of the study to be submitted to the Congress by January 7, 1984.

DOE decided that an advisory panel would prepare a study for the Secretary of Energy to lend credibility, expertise, and outside viewpoints to the issue. DOE selected 13 panel members with a diversity of experience, geographical locations, and professional/institutional interests and expertise. (See appendix II for a list of panel members.) However, the panel's selection was not made until December 1983 because of problems in finding members whom DOE thought were qualified and were willing to participate. Because of that delay, the panel's final report is not currently expected to be sent to the Secretary of Energy until November 1984.

The panel met three times during the quarter. At its September 25-26 meeting, the panel reviewed drafts of the report's chapters and debated the merits of four alternatives it had decided to study. Those alternatives are to

- (1) keep the OCRWM with some modification,
- (2) establish an independent federal commission for waste management,
- (3) establish a private corporation to run waste management, and
- (4) create a public or a mixed public/private corporation.

Seven of the panel's 13 members voted to recommend a public corporation as the best alternative for managing the nation's nuclear waste program. Because of the controversial nature of the decision which would require a major revamping of the waste program, the panel agreed to review its decision in its scheduled October meeting.

According to the panel, the corporation would be run by a small (7 members) presidentially appointed board of directors serving staggered terms of at least 5 years and meeting on an as-needed basis. An advisory council would be appointed to deal exclusively with siting issues. The corporation's president, whom the board would select, would be responsible for all day-to-day activities. In addition, the corporation would be exempt from all federal Civil Service requirements. The panel believes that

this type of management structure would best provide stability, credibility, internal flexibility, and political immunity to the management and disposal of high-level radioactive waste.

Upon submission of the panel's final report, the Secretary of Energy plans to consult with the Director of the Office of Management and Budget and the Chairman of NRC, as required by the act. DOE then plans to submit its report to the Congress in January 1985, about 1 year later than required by the NWPA.

CHAPTER 3

STATUS OF SELECTED

OCRWM MANAGEMENT INITIATIVES

Enacted in January 1983, the NWPA established OCRWM to carry out DOE functions under the act. Shortly after passage of the NWPA, the Secretary of Energy organized a temporary project office to carry out the near-term requirements of the NWPA until a formal office could be activated. In October 1983, the Secretary formally approved and activated OCRWM, and in May 1984 a director was appointed and confirmed by the Senate.

Since its establishment, OCRWM has been working to strengthen its management of the varied activities of the program and the DOE field offices responsible for implementing the program. Toward that end, OCRWM officials took the following management initiatives during the fourth quarter of fiscal year 1984:

- In July, the Director reorganized OCRWM to centralize management planning and control.
- In September, OCRWM's Office of Administration began to develop the requirements for an internal program management system that would include an automated information component.
- In September, OCRWM issued new internal guidelines to standardize its state assistance program.
- In September, OCRWM's Office of Management contracted with a certified public accounting firm to independently audit the financial statements of the Nuclear Waste Fund.

By the end of the year, OCRWM had also filled most of the 200 available headquarters and field positions. Earlier in the year, the availability of staff had been a problem.

The following sections describe these management initiatives.

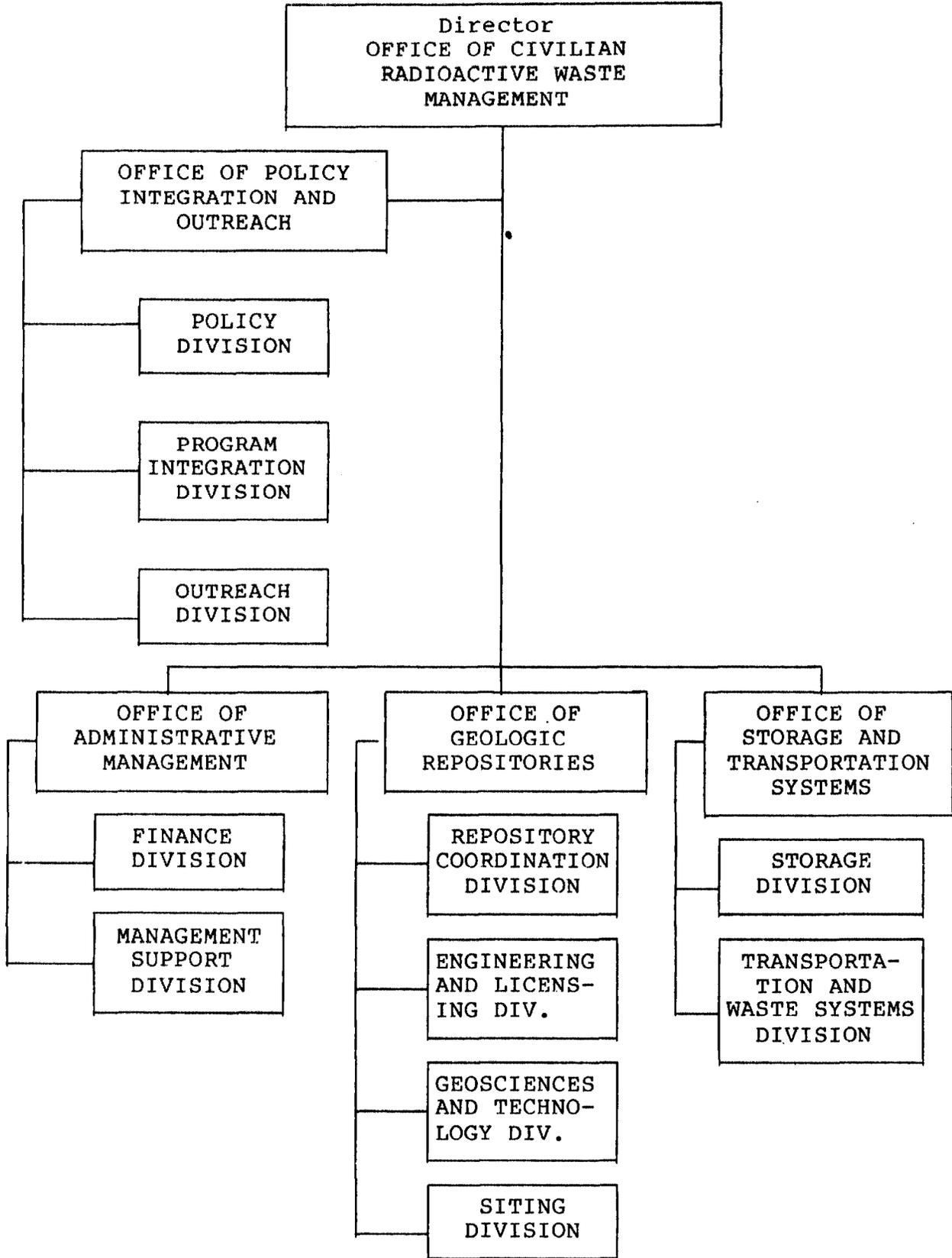
OCRWM REORGANIZATION EMPHASIZES POLICY OVERSIGHT

When OCRWM was established in October 1983, it consisted of the Director's office, an Institutional Relations Office, and three separate program offices responsible for management, repository development, and storage systems. Actual management and program planning was decentralized, being conducted in large measure by the program offices and the field offices. In July 1984, the Director reorganized OCRWM by restructuring the three program offices and creating the Office of Policy, Integration and Outreach.

The new policy office, which absorbed the staff of the Institutional Relations Office, was formed to centralize planning for the waste program, to assure the integration of headquarters and field activities, and to coordinate communications, public relations, and institutional relations policy development and implementation. The head of the office reports to the Director. The office had 20 staff members in September 1984. Within the office are three divisions, each responsible for one of the office's main functions: policy formation, program integration, and outreach to states and other institutions.

OCRWM's current organization is shown on the next page.

OCRWM ORGANIZATIONAL CHART AS OF SEPTEMBER 30, 1984



Source: DOE.

DEVELOPMENT UNDERWAY OF INTERNAL
MANAGEMENT INFORMATION SYSTEM

Since OCRWM was established, it has lacked a centralized internal management system to assist its headquarters personnel in managing the complex and varied activities associated with the waste program. In particular, current detailed information on the performance of major subcontracts awarded by prime contractors that are managed by the field offices has not been available to OCRWM headquarters management.

OCRWM's new Office of Administrative Management is in the process of developing a program management system, including an automated management information system, to enable OCRWM managers to better monitor and analyze its program areas. As a first step, that Office initiated a concept paper in September 1984, expected to be completed in November 1984, which will define the information to be included in the system. Objectives tentatively defined for the system include

- providing overall management guidelines, policies, and procedures for all aspects of the program;
- monitoring and reporting program progress against all legislative and major DOE milestones;
- analyzing and forecasting the impact of engineering approaches and management policies on contract costs and schedules;
- providing engineering analysis of the requirements of the waste disposal system under the NWPA and mission plan; and
- providing total life-cycle costs to determine the adequacy of fees charged to owners of radioactive waste.

By May 1985, OCRWM plans to have in place an automated management information system to organize, by major cost categories, all program activities for headquarters and field personnel, including contractors. OCRWM plans to have its software programs in place to permit progress reporting by all personnel, including monthly reports on cost schedules and technical performance. OCRWM Office of Management officials told us that between May and December 1985, they will finalize and complete the program management system.

FEDERAL ASSISTANCE IS BEING PROVIDED
TO STATES AND TRIBES TO ENABLE THEM TO
PARTICIPATE IN THE WASTE PROGRAM

The NWPA provides opportunities for affected states and Indian tribes to participate in the process of selecting sites for the repository. For example, within 90 days after identifying

potentially acceptable repository sites, DOE is required to notify the state governor and legislature and the governing body of any affected Indian tribe. Once a site has been selected for characterization, the NWPA requires DOE to enter into a binding written agreement (called a consultation and cooperation agreement) with affected states and tribes to attempt to resolve their concerns, if such an agreement has not already been negotiated.

The NWPA allows DOE to provide financial assistance to affected states and tribes in a variety of ways. For example, DOE is authorized to make grants to affected states or tribes to aid them in

- reviewing activities for potential economic, social, public health and safety, and environmental impacts;
- developing requests for impact assistance;
- participating in monitoring, testing, and evaluating site characterization activities;
- providing information to residents; and
- requesting information from and making comments to the Secretary of Energy.

As the following table shows, through the fourth quarter of 1984, OCRWM, primarily through the field offices, had obligated funds for 35 grants totaling about \$10.3 million to states, Indian tribes, and national organizations representing their interests.

Federal/State Assistance from Nuclear Waste Fund for FY 1984

DOE Office administering grant	Obligations						Total from inception of the act
	Total number of grants	First quarter	Second quarter	Third quarter	Fourth quarter	Total FY 84	
Chicago Operations Office	27	\$ 402,723	\$552,402	\$1,534,574	\$1,551,292	\$4,040,991	\$ 5,923,936
Nevada Operations Office	2	0	0	646,083	553,917	1,200,000	1,550,000
Richland Operations Office	4	871,602	154,561	1,101,438	-111,410 ^a	2,016,191	2,397,949
Headquarters	<u>2</u>	<u>0</u>	<u>205,000</u>	<u>0</u>	<u>216,873</u>	<u>421,873</u>	<u>421,873</u>
Total	<u>35</u>	<u>\$1,274,325</u>	<u>\$911,963</u>	<u>\$3,282,095</u>	<u>\$2,210,672</u>	<u>\$7,679,055</u>	<u>\$10,293,758</u>

^aNegative figure due to a grant modification that returned \$111,410 more than was obligated in grants during the quarter.

Source: DOE's financial information system.

During fiscal year 1984, states used these funds for various activities. For example, Washington used grant funds to finance its ongoing negotiation of a consultation and cooperation agreement with DOE. In other cases, grant funds were used to

--finance several meetings of state representatives with DOE, NRC, and other federal officials and

--set up state offices to deal with various aspects of the waste program.

The Director of OCRWM's Institutional Relations office told us in June 1984 that headquarters had experienced problems coordinating relations with states. He said that this was due, in part, to states' dealing primarily with project office technical people in three different DOE offices. Furthermore, since each project office is organized differently, OCRWM found it difficult to implement a standard policy for dealing with the states.

Following the reorganization, the new Office of Policy, Integration and Outreach was given the responsibility of providing consistency, uniformity, and equity in state assistance. Toward that end, OCRWM issued in September 1984 revised guidelines for providing financial assistance to states and tribes.

The new guidelines are to help individual project offices deal with requests for grants equitably and consistently by (1) establishing a single framework within which DOE field offices can respond to requests and negotiate and award grants, (2) ensuring that all states and tribes involved in the process are treated as equitably as possible, and (3) ensuring that activities funded by the grants are consistent with the act.

CONTRACT SIGNED WITH CERTIFIED
PUBLIC ACCOUNTANT IN SEPTEMBER 1984

Because of the size of the program, the number of contractors, the complexity of collection, disbursement, and accounting procedures for program funds, and because of the utilities' interest in knowing what uses OCRWM is making of fees collected, DOE has contracted for auditing services for the fund. On September 4, 1984, DOE signed a contract with a certified public accounting firm, Main Hurdman, for \$1,304,284 to provide professional auditing services related to the Nuclear Waste Fund for fiscal years 1983 and 1984 with up to 3 additional option years.

The scope of work covered in the contract includes examining financial statements of the fund and determining whether the statements present the financial position and results of operations in accordance with generally accepted accounting principles and whether laws and regulations affecting financial statements have been complied with. The examination is to be performed in accordance with (1) generally accepted auditing standards published by the American Institute of Certified Public Accountants and (2) the U.S. Comptroller General's Standards for Audits of Governmental Organizations, Programs, Activities, and Functions. These standards direct that the audit will include a review of internal financial controls. Additionally, the accounting firm may be asked to give professional opinions and special expertise for short-term projects in special situations such as interpreting accounting principles, verifying electricity generation data, and evaluating the waste fund's accounting systems.

The accounting firm will prepare monthly reports which summarize monthly progress and problems encountered. We will begin reviewing these reports next quarter and report on the progress of the audit in our future quarterly reports.

OCRWM HIRED ADDITIONAL STAFF
THROUGHOUT THE FISCAL YEAR

Since its establishment in October 1983, OCRWM has had difficulty in locating and hiring personnel qualified to fill headquarters positions. OCRWM officials stated that this is due in part to the (1) lack of response to position openings by engineers and other technicians and (2) existing grade and salary structure which will not allow hiring at the high grades deemed necessary by the Office.

The following schedule shows that OCRWM made progress during the year in filling positions both at headquarters and in the field project offices. As of the end of the year, only eight vacancies existed at headquarters and four in the field. OCRWM officials stated that they are attempting to fill all headquarters vacancies and are encouraging the field offices to do the same. The personnel ceilings for headquarters for fiscal years 1985 and 1986 have been raised to 131 and 145, respectively, but are subject to further DOE and Office of Management and Budget review. OCRWM officials stated that these levels should provide adequate staff to perform headquarters missions.

OCRWM Staffing Levels During Fiscal Year 1984

Program office	Full-time personnel ceiling	Number of full-time personnel on board			
		Dec. 83	Mar. 84	June 84	Sept. 84
Director's office	4	0	1	3	4
Institutional Relations office	8	3	6	9	-
Policy office ^a	-	-	-	-	20
Management office	31	8	20	25	24
Repository office	42	23	26	30	29
Storage office	<u>15</u>	<u>3</u>	<u>7</u>	<u>15</u>	<u>15</u>
OCRWM head-quarters total	<u>100</u>	<u>37</u>	<u>60</u>	<u>82</u>	<u>92</u>
Chicago	58	34	43	45	54
Richland	28	17	28	28	32
Nevada	<u>14</u>	<u>5</u>	<u>8</u>	<u>10</u>	<u>10</u>
Field total	<u>100</u>	<u>56</u>	<u>79</u>	<u>83</u>	<u>96</u>
Program total ^b	<u>200</u>	<u>93</u>	<u>139</u>	<u>165</u>	<u>188</u>

^aPolicy office was created in July 1984 and included the Institutional Relations office.

^bTotal does not include 17 years of staff time used by other DOE offices and charged to the Nuclear Waste Fund.

CHAPTER 4

STATUS OF THE NUCLEAR WASTE FUND

AS OF SEPTEMBER 30, 1984

The NWPA established a separate fund to be maintained by the Department of the Treasury to finance the nuclear waste program. The Nuclear Waste Fund, hereafter called "the fund," accumulates fees paid by nuclear power plant owners to support the program and disburses funds to finance OCRWM activities. During fiscal year 1984, the fund received about \$329.5 million, mostly in the form of fees from nuclear power plant owners, and disbursed about \$271.4 million for program activities during the year.

OCRWM has two other potential sources of funding to support its activities: an Interim Storage Fund and appropriated research funds. It does not anticipate use of the Interim Storage Fund, another special fund authorized by the act, in the near future. However, OCRWM spent about \$18.1 million during fiscal year 1984 in appropriated funds for research not directly related to repository development.

NUCLEAR WASTE FUND
RECEIPTS AND OBLIGATIONS

As described in chapter 1, by September 30, 1984, DOE had contracted with 63 nuclear power plant owners for the payment of fees into the fund to finance the waste repository program. The fund began receiving fees late in fiscal year 1983 and by the end of fiscal year 1984 had collected about \$73.6 million. During fiscal year 1984, receipts totaled about \$329.5 million. The following schedule shows receipts into the fund during fiscal year 1984 by quarter.

Fees Collected During
FY 1984 by Quarter

<u>FY 84</u>	<u>Amount</u> <u>of fee</u>
First quarter	\$ 79,450,849
Second quarter	83,011,167
Third quarter	87,757,714
Fourth quarter	<u>79,319,163</u>
Total	<u>\$329,538,893</u>

OCRWM cannot obligate money from the fund without a congressional appropriation. Once a congressional appropriation authorizes its use of the fund, OCRWM allocates funds to its various divisions and field offices according to its program

budget. OCRWM obligates from the fund by awarding contracts and committing resources for its Civil Service payroll and other program management needs. Actual costs are recorded when invoices are received, and disbursements are recorded when payments are made. Obligations, costs, and disbursements are recorded into the system by the field project offices and program divisions which receive allocations from the fund. For fiscal year 1984, they were recorded under six major cost activities: repository development; federal/state assistance; monitored retrievable storage development; program management and technical support; interest expense; and capital equipment.

As the following table shows, most of the funds (77 percent) were obligated in fiscal year 1984 for repository development. Activities in this category are primarily performed by the field offices and the Office of Geologic Repositories and include (1) the development, verification, and application of geological repository performance assessment models, (2) preliminary site characterization studies, (3) repository design development, and (4) the preparation of environmental assessments. The following table shows obligations from the waste fund by each major activity during fiscal year 1984.

Status of Obligational Authority Nuclear Waste Fund
by Quarter FY 1984

<u>Funding category and quarters</u>	<u>Total allotment available^a</u>	<u>Obligations for quarter</u>	<u>Cumulative obligations</u>
Repository development			
First	\$227,150,000	\$131,013,427	\$131,013,427
Second	221,069,004	46,933,954	177,947,381
Third	231,526,230	34,382,995	212,330,376
Fourth ^b	248,990,230	36,164,463	248,494,839
Fed./state assistance			
First	9,000,000	1,274,325	1,274,325
Second	9,016,812	911,963	2,186,288
Third	8,565,564	3,282,095	5,468,383
Fourth ^b	7,872,688	2,210,672	7,679,055
Monitored retrievable storage			
First	11,000,000	6,270,000	6,270,000
Second	11,000,313	2,503,807	8,773,807
Third	11,000,000	2,186,000	10,959,807
Fourth ^b	11,000,000	40,193	11,000,000
Program management and tech. support			
First	47,627,000	12,347,245	12,347,245
Second	63,917,634	10,838,601	23,185,846
Third	53,879,624	7,112,265	30,298,111
Fourth ^b	43,402,210	12,132,950	42,431,061
Interest expense			
First	3,000,000	0	0
Second	4,700,000	0	0
Third	4,700,000	0	0
Fourth ^b	3,616,000	3,600,000	3,600,000
Capital equipment			
First	8,898,000	5,830,000	5,830,000
Second	9,332,500	330,219	6,160,219
Third	9,422,000	831,745	6,991,964
Fourth ^b	8,823,723	1,818,488	8,810,452
Totals			
First	\$307,044,150	\$156,734,997	\$156,734,997
Second	\$319,036,263	\$ 61,518,544	\$218,253,541
Third	\$319,093,418	\$ 47,795,100	\$266,048,641
Fourth ^b	\$323,704,851	\$ 55,966,766	\$322,015,407

^aTotal funds available for the year as the result of DOE's budget allocation process; the total amount may change throughout the year as adjustments are made to the total budget.

^bFourth quarter figures are based on preliminary data from DOE's financial information system.

OVERALL STATUS OF THE
NUCLEAR WASTE FUND

When the act was passed, Section 302(c) of NWPA required DOE to transfer unexpended appropriations for the ongoing nuclear waste program to the waste fund. Subsequently, DOE transferred about \$254 million into the fund in fiscal year 1983. Another \$4.6 million was transferred into the fund in fiscal year 1984 under other appropriations that had been passed prior to the establishment of the fund. These funds are to be repaid with interest. (About \$3.3 million was paid in interest during fiscal year 1984 for the use of appropriated funds during fiscal year 1983.) The fund can also borrow additional moneys as needed and invest excess funds if available.

The following table summarizes the overall status of the fund as of September 30, 1984, and shows that the fund has sufficient cash from the 1983 appropriation transfer and from fees collected to cover all financial requirements through 1984. OCRWM officials stated that payback of the appropriated debt to the U.S. Treasury is dependent on the timing of the receipt of the estimated \$2.3 billion in one-time fees from the owners of the nuclear waste generated prior to April 1983, as discussed on page 2. DOE does not expect owners to decide until mid-1985 how and when they will pay the one-time fee.

Status of the Nuclear Waste Fund
End of Fiscal Year 1984

Beginning cash balance 10/1/83	\$158,469,129
Receipts:	
1st quarter	\$79,450,849
2nd quarter	83,011,167
3rd quarter	87,757,714
4th quarter ^a	<u>79,319,163</u>
Total receipts	329,538,893
Funds transferred in from other appropriations during the year	<u>4,660,701</u>
Total funds available	\$492,668,723
Actual disbursements:	
1st quarter	47,108,208
2nd quarter	75,170,551
3rd quarter	68,211,416
4th quarter ^a	<u>80,929,309</u>
Total disbursements	<u>271,419,484</u>
End-of-year cash balance	<u>\$221,249,239</u>
End-of-year unpaid obligations	<u>\$135,197,015</u>
Total appropriated debt owed to the Treasury	<u>\$258,443,533</u>

^aFourth quarter figures are based on preliminary data from DOE's financial information system.

OTHER FUNDING SOURCES

A second source of funding available to the Waste Management Office is the Interim Storage Fund. This is another separate fund authorized by the act. If the fund is used, it will receive fees from utilities that apply for and receive from the government interim storage services for spent fuel. Fees for interim storage are to be based on an estimate of the pro rata costs of storage and related activities, including acquisition, construction, operation, and maintenance of interim storage facilities. To date no utilities have applied for interim storage services

from the government, and DOE officials do not anticipate use of interim storage in the near future.

OCRWM also receives funds through DOE's annual appropriation process for its civilian waste research and development program. These funds are used to conduct research efforts in areas that are not directly related to the geologic repositories and therefore are not financed by the Nuclear Waste Fund. Research efforts include studies on subseabed disposal, fuel integrity, cooperative demonstrations with utilities, and international activities. The schedule below shows fiscal year 1984 accrued costs for the civilian waste research and development program.

Fiscal Year 1984 Costs for Civilian Radioactive Waste R&D Program
(in millions of dollars)

	<u>1st quarter</u> <u>costs</u>	<u>2nd quarter</u> <u>costs</u>	<u>3rd quarter</u> <u>costs</u>	<u>4th quarter</u> <u>costs</u>	<u>Total FY</u> <u>costs</u>
Spent fuel storage R&D	\$.86	\$1.22	\$1.41	\$2.23	\$ 5.72
Alternative disposal concepts	1.99	1.92	1.94	1.66	7.51
Generic methods and supporting studies	2.15	.86	.42	.53	3.96
Program direction	<u>.25</u>	<u>.18</u>	<u>.29</u>	<u>.24</u>	<u>.96</u>
Total civilian radioactive waste R&D	<u>\$5.25</u>	<u>\$4.18</u>	<u>\$4.06</u>	<u>\$4.66</u>	<u>\$18.15</u>

Source: DOE's financial information system.

LEGISLATIVE DEADLINES ASSOCIATED WITHTHE NUCLEAR WASTE PROGRAM

This appendix contains the Nuclear Waste Policy Act legislative deadlines that DOE lists as applicable to the design and construction of a nuclear repository. Those milestones in the act pertaining to the test and evaluation facilities and the interim storage program are not included because DOE (1) has delayed decisions related to the need for the test and evaluation facilities and (2) does not anticipate use of the interim storage program in the near future.

Required Actions for the
Geologic Repository Program

<u>Required action</u>	<u>Required schedule (days after enactment)</u>	<u>Section reference in NWPA</u>
1. Notify states with potentially acceptable sites	Not later than 90 days --April 7, 1983	116(a)
2. Respond to state request for written agreement by beginning negotiations	Within 60 days of request	117(c)
3. Complete negotiations	Within 6 months of notification	117(c)
OR		
Status report to Congress	6 months plus 30 days	
4. Provide timely and complete information to states on determinations or plans	Within 30 days of request for information	117(a)
5. Issue general guidelines for recommendations of sites for repositories	Not later than 180 days --July 7, 1983	112(a)
6. Recommend 3 sites to President for detailed characterization	Not later than January 1, 1985	112(b)
7. Presidential approval or disapproval of sites for characterization	Within 60 days	112(c)
8. Negotiate written agreement with affected state if none exists	Begin--60 days after approval for site characterization	117(c)
OR		
Status report to the Congress	6 months plus 30 days	
9. Provide payment to state and local governments in lieu of taxes on site characterization activities equivalent to other real property and industrial activities	Each fiscal year	116(c) (3)

<u>Required action</u>	<u>Required schedule (days after enactment)</u>	<u>Section reference in NWPA</u>
10. Prepare and submit to NRC, to state governor, and to state legislature for review and comment: --Site characterization plan --Waste package plan --Repository conceptual design that takes into account likely site-specific requirements	Before sinking exploratory shafts	113(b)
11. Submit status reports on site characterization to NRC and to states	Every 6 months	113(b) (3)
12. Notify governor and legislature of decision to recommend site for approval	At least 30 days before submission to President	114(a)
13. President submits site recommendation to the Congress	Not later than March 31, 1987 (President may extend by 12 months if he acts before 3/31/86)	114(a)
14. Await possible notice of disapproval from state governor or legislature	60 days	116(b)
15. Await congressional resolution of siting approval to override state	90 days of continuous session	115(c)
16. Submit construction application to NRC	Within 90 days of approval under sec. 115	114(b)
OR		
Submit new site recommendation to the Congress	Within 1 year of disapproval	114(c)
17. NRC provides reports on application status to the Congress	Annually	114(c)

<u>Required action</u>	<u>Required schedule (days after enactment)</u>	<u>Section reference in NWPA</u>
18. NRC must approve or disapprove application for construction of first repository	Before later of: January 1, 1989, or 3 years from application (4 years with explanation to Congress)	114(d)
19. Provide financial and technical assistance to state for impact mitigation	Commence within 6 months construction authorization	116(c)
20. Repeat nomination process for 5 additional sites beyond those named in first round	Not later than July 1, 1989	112(b)
21. President submits site recommendation for second repository to the Congress	Not later than March 31 1990	114(a)
22. NRC must approve or disapprove application for construction of second repository	Before later of: January 1, 1992, or 3 years from application	114(d)
23. In return for payment of fees, DOE will dispose of high-level waste or spent fuel	Beginning not later than January 31, 1998	302(a)

Other Provisions Relevant
to the Repository Program

<u>Required action</u>	<u>Required schedule (days after enactment)</u>	<u>Section reference in NWPA</u>
1. Establish a one-time fee per kilogram heavy metal for spent fuel or solid waste generated prior to April 6, 1983	Not later than 90 days --April 7, 1983	302(a)
2. Establish procedures for collection and payment of 1-mill per kilowatt-hour fee and fee per kilogram heavy metal	Not later than 180 days --June 6, 1983	302(a)
3. Review adequacy of fees--propose adjustment if required	Annually	
4. Submit proposed changes in fee to Congress	Annually	
5. Affirm in writing to NRC that persons seeking issue or renewal of licenses are negotiating contracts with DOE in good faith	Before NRC can issue or renew licenses	302(b)
OR		
Enter into contracts to accept, transport, and dispose of spent fuel or high-level waste with waste generators	With any facility receiving license issue or renewal --Before NRC can issue or renew license and	302(b)
	With utilities operating nuclear plants --June 30, 1983	
6. Submit draft mission plan to states, tribes, NRC and other federal agencies	Not later than 15 months--April 7, 1984	301(b)
7. Submit mission plan to committees of Congress	Not later than 17 months--June 7, 1984	301(b)

<u>Required action</u>	<u>Required schedule (days after enactment)</u>	<u>Section reference in NWPA</u>
8. Implement mission plan	30 days after submission to the Congress	301(b)
9. Submit study to Congress on alternative financing	Within 1 year --January 7, 1984	303

MEMBERS OF THE ADVISORY PANEL ON ALTERNATIVE MEANS
OF FINANCING AND MANAGING WASTE FACILITIES

Diarmuid F. O'Scannlain (Chairman)	Senior Partner Ragen, Roberts, O'Scannlain, Robertson and Neill
E. Linn Draper, Jr.	Senior Vice President Gulf States Utilities Company
Brig. General Mahlon E. Gates, USA (Retired)	Vice President-Operations Southwest Research Institute
Rodman D. Grimm	President DG&R Investment Corporation
Bruce W. Johnson	Chief Operating Officer Sealaska Corporation
Barbara Keating-Edh	President CONSUMER ALERT
Dr. Terry R. Lash	Deputy Director Illinois Department of Nuclear Safety
Melvin Sampson	Member Tribal Council, Yakima Indian Nation
Dr. S. Fred Singer	Geophysicist George Mason Univerisity
David W. Stevens	Special Assistance to the Governor for Energy and Natural Resources, Washington
Sidney M. Stoller	Chairman, S.M. Stoller Corporation
Larry J. Wallace	Former Chairman of the Indiana Public Service Commission
Arnie Wight	Member New Hampshire State Legislative

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