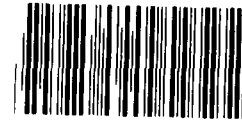


GAO

May 1987

# NUCLEAR WASTE

## Quarterly Report on DOE's Nuclear Waste Program as of March 31, 1987



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United States  
General Accounting Office  
Washington, D.C. 20548

Resources, Community, and  
Economic Development Division

B-202377

May 13, 1987

The Honorable J. Bennett Johnston  
Chairman, Committee on Energy  
and Natural Resources  
United States Senate

The Honorable James A. McClure  
Ranking Minority Member  
Committee on Energy and Natural Resources  
United States Senate

On March 26, 1984, you requested that we provide quarterly status reports on the Department of Energy's (DOE) implementation of its nuclear waste program. (See section 4 for a list of previous quarterly reports.) The Nuclear Waste Policy Act of 1982 (Public Law 97-425) established a national program and policy for safely storing, transporting, and disposing of nuclear waste. As part of this program, the act requires DOE to develop, schedule, site, and construct a geologic repository for the permanent disposal of high-level radioactive nuclear waste. In addition, the act requires DOE to carry out the siting and development activities for a second repository; however, DOE must obtain congressional authorization before constructing such a facility. The act also established within DOE the Office of Civilian Radioactive Waste Management to carry out the act's provisions and established the Nuclear Waste Fund to finance the program.

This fact sheet provides the status of DOE's nuclear waste program activities for the quarter ending March 31, 1987. Activities during the quarter include the following:

- On January 28, 1987, DOE released a draft amendment to the mission plan (the program's principal planning document) for a 60-day public comment period. DOE plans to revise the draft amendment, as appropriate, and formally submit it to the Congress. In the draft amendment, DOE extended by 5 years its target date for

beginning first repository operations--from 1998 to 2003. The draft amendment also included information on the Secretary of Energy's decision to postpone site-specific activities for the second repository. DOE believes that the revisions represent its best estimate of how the program will be successfully implemented; however, the program as revised by DOE will not meet the milestones set out in the Nuclear Waste Policy Act. Although DOE has proposed revisions, the status of the revisions is uncertain pending congressional reaction to DOE's proposals.

- On March 31, 1987, DOE submitted its monitored retrievable storage (MRS) proposal and related documents to the Congress. DOE had been prohibited from submitting the proposal until the U.S. Supreme Court decided, on March 30, 1987, not to review a lower court's previous decision that the Nuclear Waste Policy Act did not require DOE to consult with any state before submitting the MRS proposal to the Congress.
  
- During this quarter, DOE received comments from utilities, state regulators, and others on its December 2, 1986, Federal Register Notice of Inquiry on proposals for the calculation of fees for defense waste disposal. The commenters expressed a variety of concerns and opinions on DOE's preferred defense waste cost allocation proposal. However, the comments were fairly consistent regarding the need for DOE to ensure that fees paid for defense waste disposal be equivalent to fees paid under civilian spent fuel contracts, as required by the Nuclear Waste Policy Act.
  
- The Nuclear Waste Fund collected over \$135.4 million in fees and investment income during the quarter and obligated about \$139 million for program activities. The fund balance as of March 31, 1987, was about \$1.5 billion.

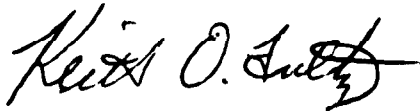
To determine the status of the activities discussed in this fact sheet, we interviewed those DOE officials responsible for planning and managing the waste program, responding to litigation, and managing its financial activities. We reviewed DOE program documents, publications, correspondence

and studies, related legal documents, and financial data. We did not verify DOE's financial system data because this verification could not be accomplished within the time frame of this review and because this information is audited annually by a private certified public accounting firm.

We discussed the facts presented with cognizant DOE officials and incorporated their views where appropriate. These officials told us that the fact sheet accurately reflects the program's status for the quarter ending March 31, 1987.

We are sending copies of the fact sheet to the Chairmen of the Senate Committee on Governmental Affairs, the House Committee on Government Operations, and the House Committee on Energy and Commerce; the Secretary of Energy; the Nuclear Regulatory Commission; and other interested parties. If you have further questions, please contact me at (202) 275-1441.

Major contributors are listed in appendix I.

A handwritten signature in black ink, appearing to read "Keith O. Fultz". The signature is written in a cursive, somewhat stylized script.

Keith O. Fultz  
Associate Director

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### ABBREVIATIONS

DOE	Department of Energy
EPA	Environmental Protection Agency
GAO	General Accounting Office
MRS	monitored retrievable storage
NRC	Nuclear Regulatory Commission
NWPA	Nuclear Waste Policy Act
OCRWM	Office of Civilian Radioactive Waste Management

## SECTION 1

### OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT

#### ACTIVITIES DIRECTED TOWARD LEGISLATED

#### REQUIREMENTS DURING JANUARY-MARCH 1987 QUARTER

##### BACKGROUND

Enactment of the Nuclear Waste Policy Act of 1982 (NWPAA) on January 7, 1983, was a major milestone in the nation's efforts to manage highly radioactive nuclear waste. NWPAA established a national program and policy for safely storing, transporting, and disposing of nuclear waste. As part of this program, NWPAA required DOE to develop, schedule, site, construct, and operate deep underground facilities (repositories) for the safe and permanent disposal of nuclear waste. NWPAA also required that DOE conduct a study of the need for and feasibility of a monitored retrievable storage (MRS) facility where the waste could be stored, monitored, and subsequently retrieved for permanent disposal in a repository. Under various assumptions, the estimated cost of the program is between \$21 billion and \$41 billion (1985 dollars).

In accordance with NWPAA requirements, in May 1986 DOE recommended to the President three candidate sites for further geologic testing (site characterization). On May 28, 1986, the President approved the three sites--Yucca Mountain in Nevada, Deaf Smith County in Texas, and Hanford in Washington. Following this testing which DOE estimates will last about 5 to 7 years, depending on the site, DOE plans to select one site for the nation's first nuclear waste repository.

As part of the nuclear waste management program, NWPAA also required DOE to develop a comprehensive "mission plan," which is to provide sufficient information to permit informed program decisions. In July 1985, DOE submitted the plan to the Congress. The plan contained DOE's overall strategy and plans for implementing NWPAA. DOE officials characterized the mission plan as a living document that was subject to change as program circumstances changed. As a result, DOE expected to review the plan as often as once a year and update it as often as necessary.

NWPAA also required the President to evaluate and determine whether high-level radioactive waste generated by DOE for national defense programs should be disposed of in a defense-only repository. Unless the President found that defense waste would be disposed of in a defense-only repository, NWPAA required the Secretary of Energy to proceed promptly with arrangements for using one or more of the commercial repositories for disposing of the waste. Such arrangements are to include the allocation of the costs of developing, constructing, and operating a repository. In

addition, NWPA required the federal government (that is, DOE) to pay into the NWPA-created Nuclear Waste Fund, which is financed by the generators of nuclear waste, the costs resulting from disposal of defense waste in any repository developed for commercial users.

In February 1985, DOE submitted a report to the President to provide input for a decision on the disposal of defense waste. The report recommended that defense waste and commercial spent nuclear fuel be disposed of in the same repository as part of a cost-savings measure. On April 30, 1985, the President accepted DOE's recommendation and directed DOE to arrange for the disposal of both defense and civilian nuclear waste in the same repository.

DRAFT AMENDMENT TO  
MISSION PLAN RELEASED

On January 28, 1987, DOE released a draft amendment to the mission plan for a 60-day public comment period. According to DOE, the draft amendment was prepared to inform the Congress, affected states and Indian tribes, other federal agencies, and the public of significant developments in and new information on the nuclear waste management program. Among the developments discussed in the draft amendment were DOE actions affecting the first and second repository programs and state/Indian tribe consultation and cooperation.

In the draft amendment, DOE revised the schedule for the first repository by extending the date to begin repository operations from January 31, 1998, to 2003. DOE cited several reasons for extending the first repository schedule, including the recognition that (1) more time should be provided in the future for consultation and interaction with the states, affected Indian tribes, and other parties and (2) more technical information is needed for DOE's environmental impact statement and the repository license application.

DOE also included in the draft amendment information to support the Secretary of Energy's May 1986 decision to postpone site-specific activities directed toward identifying candidate sites for the second repository. Specifically, DOE believes that site-specific work on the second repository should be postponed until the mid-1990s or later on the basis of current projections of when the first repository would reach its authorized limit of 70,000 metric tons. In the absence of site-specific work, DOE plans to continue a second repository program with studies focusing on technology development.

In the area of state/Indian tribe consultation and cooperation activities, DOE pointed out that before the draft amendment was published, DOE, state, and Indian tribe officials met to arrive at a mutually acceptable definition of consultation and cooperation. According to DOE, participants in this meeting agreed that a



mutually acceptable definition would be useful. However, DOE officials believed such a definition could not be developed in time for inclusion in the draft amendment. One of our reports previously recommended that DOE better define consultation and cooperation in the mission plan.<sup>1</sup>

At the time of our review, DOE had received about 30 written comments from states, Indian tribes, and others on the draft mission plan amendment. These comments contained a wide range of views on the appropriateness of DOE's planned revisions. In response to these comments, DOE plans to revise the amendment, as appropriate, and formally submit it to the Congress.

#### Uncertainties surrounding implementation of the mission plan amendment

As discussed above, DOE's draft mission plan amendment details two major mid-course revisions to the nuclear waste management program--extension of the date for beginning first repository operations and postponement of site-specific work for the second repository. According to DOE, these revisions resulted from an in-house assessment of the program's repository schedule. DOE believes that the revisions represent its best estimate of how the program will be successfully implemented and which schedule will be used; however, if implemented, the program as revised by DOE will not meet the milestones set out in NWPA.

Although DOE plans to extend the date for repository operations from 1998 to 2003, it believes that an MRS facility could begin waste acceptance by 1998. By utilizing a MRS facility in this manner, DOE believes it can meet its contractual obligation to begin accepting waste for disposal from utilities by January 31, 1998. In commenting on these plans, the congressional delegation from Tennessee, the state where DOE proposes to site an MRS facility, commented that DOE's acceptance of waste at an MRS facility would not fulfill the contractual obligation to begin disposal. The delegation also pointed out that disposal is defined in NWPA to mean the emplacement in a repository of waste with no foreseeable intent of recovery whether or not such emplacement permits the recovery of the waste. Consequently, Tennessee believes there is some question as to whether DOE's strategy is consistent with NWPA's requirement that waste disposal begin by January 31, 1998.

DOE's plans for the second repository represent a direct departure from NWPA's milestones. Specifically, NWPA requires that DOE recommend to the President by July 1, 1989, three sites for

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<sup>1</sup>See Institutional Relations Under the Nuclear Waste Policy Act of 1982 (GAO/RCED-87-14, Feb. 9, 1987).

second-repository site characterization. Under the revised approach, outlined in the draft amendment, DOE plans to begin a search for second repository sites in the middle to late 1990s. We have reported previously that DOE's failure to meet the 1989 deadline would violate NWPA.<sup>2</sup> In commenting on DOE's second repository plans, several states, Indian tribes, and others have stated that the decision to indefinitely postpone site-specific work violates NWPA because it makes it impossible for DOE to meet the statutory deadlines.

Although the draft mission plan amendment proposed changes to the program's schedules, it cannot alter NWPA milestones. As discussed above, there is some debate on whether DOE is required to begin repository operations in 1998; however, implementation of DOE's second repository plans would not permit the Department to meet NWPA milestones. At this point, the status of the proposed changes is uncertain pending congressional reaction to the draft amendment.

If the Congress wants DOE to adhere to NWPA's deadlines, it might wish to consider legislation specifically mandating that the schedules be met and appropriating nonimpoundable funds expressly for that purpose. However, regardless of how the Congress reacts to the proposed changes, DOE has said in the draft amendment that its experience in siting the first repository indicates that the 1989 milestone to recommend candidate second repository sites is unrealistic, even if DOE were to attempt to meet it. It is also possible that the Congress may not take any action on DOE's draft mission plan amendment; however, as we have reported previously (see footnote on this page) congressional inaction in response to DOE's planned revisions would not constitute approval of the draft amendment. DOE agrees with us in this regard.

Although uncertainty remains about the final actions that will or will not be taken on the proposed revisions, DOE believes that amendments to the mission plan are an appropriate and orderly means of enabling the Department to present its positions concerning the program before the Congress. In this way, DOE believes that its plans can be brought before the Congress to aid in congressional decisionmaking on whatever legislative action may be appropriate.

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<sup>2</sup>See Study of Legal Issues Concerning Postponement of the Second Repository Program, B-223315, B-223370, Sept. 12, 1986.

MRS PROPOSAL SUBMITTED  
TO THE CONGRESS

On March 31, 1987, DOE submitted its MRS proposal to the Congress. DOE was enjoined from submitting the proposal until the U.S. Supreme Court decided on March 30, 1987, against reviewing a prior legal decision that NWPA did not require DOE to consult with any state before DOE submits the MRS proposal to the Congress. (See section 3 for more details on the litigation affecting the MRS proposal.) In its proposal, DOE recommended that an MRS facility be built as an integral part of the nuclear waste management system. Specifically, DOE recommended that the Congress

- approve the construction and operation of an MRS facility at the former Clinch River Breeder Reactor site in Oak Ridge, Tennessee;
- direct DOE to take specific measures responsive to the concerns and recommendations of state and local governments;
- adopt legislative language ordering DOE to implement the plan submitted to the Congress for developing the MRS;
- place a legislative ceiling of 15,000 metric tons on the spent nuclear fuel storage capacity of the MRS; and
- require that DOE be precluded from accepting waste at the MRS until NRC grants a construction authorization for the first repository.

Along with the proposal, DOE also submitted an environmental assessment and a program plan that described certain activities, costs, and schedules for siting, constructing, and operating an MRS facility. Comments from the Environmental Protection Agency (EPA), the Nuclear Regulatory Commission (NRC), and the state of Tennessee were also provided with the proposal.

If the Congress approves the MRS proposal, DOE estimates that engineering, construction, operation for 31 years, and subsequent decommissioning of an MRS facility would cost about \$3 billion. DOE also estimates that about 1,000 workers would be employed during construction and 600 workers would be needed to operate the MRS facility. DOE states in its proposal that most of these costs will be offset by savings at the repository and in at-reactor storage costs. These costs would be paid from the Nuclear Waste Fund. We are completing an assessment of the MRS proposal and expect to issue our assessment report in the near future.

COMMENTS RECEIVED ON DOE'S  
DEFENSE WASTE COST ALLOCATION PROPOSAL

NWPA requires that fees paid for the disposal of high-level radioactive waste or spent fuel generated or owned by any department of the United States be "equivalent to" fees paid under civilian spent-fuel contracts. Currently, nuclear utilities, through contracts with DOE, pay a 1-mill (one-tenth of a cent) per kilowatt hour disposal fee for spent fuel. DOE, however, has not yet completed procedures for allocating the cost of defense waste disposal or for determining the amount of fees that DOE must pay to cover such costs.

On December 2, 1986, DOE published a Notice of Inquiry in the Federal Register on its preferred approach for allocating costs associated with the disposal of high-level radioactive waste from atomic energy defense activities conducted by DOE's Office of Defense Programs. The notice invited public comment and provided information on three alternative defense waste cost allocation methods. The following summarizes each allocation option presented in the notice.

- Option 1--Full cost recovery based on facility usage and activities performed: A fee that equals the total disposal cost of defense waste by DOE, with common costs shared on the basis of (1) areal dispersion (space required), (2) piece count (ratio of the total defense waste canisters to the total number of spent-fuel waste packages), and (3) processing time at the repository's waste-handling facility. Total costs of developing the disposal system would be shared proportionately between the civilian and defense (DOE) sectors.
- Option 2--One mill electric generation equivalent fee: A fee based on a 1-mill per kilowatt hour electric-generation equivalent for the defense reactor operations that produce these wastes. The total fee would be based on DOE's estimates of the electric-generation-equivalent for past and future reactor operations generating defense waste.
- Option 3--Cost shares proportional to avoided costs: A fee based on DOE's cost estimate of separate repository systems for civilian and defense waste reduced by the savings from sharing a repository. Under this fee option, DOE would estimate the total cost of separate repository systems for civilian and defense wastes. Cost savings resulting from a combined repository system would be shared in proportion to the costs avoided in a joint facility.

For each option, the Notice of Inquiry also presented DOE's estimate of the cost to dispose of defense waste. The notice identified option 1--the full cost recovery using sharing

formulas--as DOE's preferred method for allocating defense high-level waste costs and invited public comment on the cost allocation proposal.

#### Comments received on DOE's proposal

At the time of our review, DOE had received 25 written comments from utilities, states, and others on its proposed method for calculating defense waste disposal fees. Commenters expressed a variety of concerns and opinions related to DOE's proposal. Although there was no consensus on which option provided the most equitable fee allocation, the comments were fairly consistent regarding the need for DOE to adhere to NWPA's requirement that amounts paid for defense waste disposal be equivalent to fees paid under civilian spent fuel contracts.

More than half of the commenters expressed strong dissatisfaction with DOE's procedural handling of the defense waste cost-allocation proposal. They were concerned that the notice of inquiry process did not provide for adequate participation by affected parties to ensure equitable fee treatment between civilian and defense waste producers. This concern was raised because there are no formal requirements that DOE respond to concerns raised by commenters during the notice of inquiry process. DOE had previously used rulemaking (which requires DOE to respond to public comments) in adopting the fees that utilities would pay for civilian waste disposal. Commenters believed that their interests were not being adequately protected because the notice of inquiry process did not require that DOE take specific action on public comments. They also commented that there was no assurance that essential matters, such as the timing of defense payments, will later be open for public comment. Commenters also noted that the notice of inquiry did not commit DOE to publicly disclose how final results were going to be reached or why it had accepted or rejected comments.

Others indicated that rulemaking is necessary to ensure equitable cost allocation between the civilian and defense waste sectors because of the potential for a conflict of interest between the two DOE offices negotiating defense-waste disposal arrangements. According to the Edison Electric Institute, "internal discussions between DOE's Office of Defense Programs and DOE's Office of Civilian Radioactive Waste Management are not likely to represent adequately the views of the other real parties in interest--the utilities and their customers." Similarly, the National Association of Regulatory Utility Commissioners stated that the notice of inquiry process was not conducive to ensuring that the civilian sector is treated equitably because the information released, received, and resolved is entirely controlled by DOE. It also noted that the notice did not provide any information on the discussions that ensued between the two DOE offices regarding the alternative proposals. The Association

pointed out that DOE's "budget could benefit from an agreement that allows the disposal of defense waste to be subsidized by (utility) ratepayers" if the perceived conflict of interest is not resolved.

A number of concerns relating to the adequacy of the proposal were also expressed. The notice of inquiry provided information solely related to the alternative cost allocation methodologies. In contrast, the rulemaking process for the civilian standard contract finalized issues such as the timing of payments, interest on late fees, one-time fees for waste previously generated, acceptance procedures, and delivery schedules. Commenters expressed concern that, without rulemaking, these other important issues may not be open for public comment. One commenter indicated that the notice did not provide enough detail to independently derive DOE's cost results.

Numerous commenters also indicated that the methodologies employed in DOE's preferred defense waste cost-allocation proposal do not fairly allocate costs between the civilian and defense waste sectors, resulting in a ratepayer subsidy of the defense waste disposal program. Overall, commenters criticized DOE for applying assumptions that commenters believe overstates the amount of civilian spent fuel relative to defense waste. Specifically, they said that DOE's methodology overstates civilian waste levels because the methodology is predicated on the assumption that utilities will begin ordering new nuclear plants such that substantial additional nuclear power plant electrical generating capacity would begin coming on line every year starting in 2001. Utilities commenting on DOE's proposal contend that a more accurate estimate of civilian spent fuel would be based on the current inventory of nuclear power plants.

Moreover, some commenters criticized DOE for applying methodologies that, in their view, do not account for the total amount of defense waste generated by DOE's atomic energy activities which could eventually require disposal in geologic repositories. According to one commenter, there is an additional potential of 21,500 canisters of defense waste from single-shell waste storage tanks at DOE's Hanford Reservation and another 16,000 canisters of waste from DOE's defense operations in Idaho. These amounts would go beyond the 16,000 canisters of defense waste that DOE estimated in the notice of inquiry. In addition, commenters criticized the notice for allocating a disproportionate share of cost savings associated with combining civilian and defense waste to the defense sector.

#### OTHER ACTIVITIES

-- On February 11, 1987, DOE issued a Request for Proposal for the Design and Implementation of a Licensing Support System. The system will provide the mechanism for storing

documents needed to support repository licensing.  
Proposals were due March 30, 1987.

- On February 12, 1987, DOE held its quarterly meeting with states and Indian tribes in Spokane, Washington. The meeting was opened to the public for the first time. Topics of discussion were the draft mission plan amendment, the Licensing Support System, transportation, grants, financial assistance guidelines, and site characterization plans.
- On February 13, 1987, DOE published in the Commerce Business Daily a notification of Intent to Issue a Request for Proposal to acquire a systems engineering and development contractor to manage the first repository program. This was a notification of intent to issue the proposal request in 60 days.
- On February 27, 1987, NRC published an advance notice in the Federal Register for public comment on its intention to modify the definition of high-level radioactive wastes. NRC proposed that high-level waste include wastes which are both highly radioactive and in need of permanent isolation. In NWPA, the definition of high-level radioactive waste differs from NRC's existing definition. Consequently, completion of this proposed rulemaking will help ensure that NRC's regulations on high-level waste are consistent with the act's requirements.

SECTION 2

STATUS OF THE NUCLEAR WASTE FUND,

MARCH 31, 1987

NWPA established the Nuclear Waste Fund, a separate fund maintained by the Department of the Treasury, to finance the nuclear waste program. It receives fees paid by the owners and generators of high-level radioactive waste and disburses funds to finance Office of Civilian Radioactive Waste Management (OCRWM) activities. (Previous quarterly reports listed in section 4 explain how the fund receives fees and makes disbursements.) As of March 31, 1987, the fund had a balance of about \$1.5 billion. (See table 2.1.)



Table 2.1: The Nuclear Waste Fund, March 31, 1987a

Beginning fund balance (Jan. 1, 1987)	\$1,455,003,734
Fees from waste owners (Jan.-Mar. 1987)	106,574,466
Investment income collected (Jan.-Mar. 1987)	28,801,034
<b>Total funds available</b>	<b><u>1,590,379,234</u></b>
Disbursements	(105,583,673) <sup>b</sup>
Change in cost of and face value of long-term investments	<u>(25,022,167)<sup>c</sup></u>
<b>Fund balance, March 31, 1987</b>	<b><u>\$1,459,773,395</u></b>
Cash balance, March 31, 1987	\$ 116,395
Funds invested, March 31, 1987	\$1,459,657,000
Unpaid obligations, March 31, 1987	\$ 303,335,145 <sup>d</sup>

<sup>a</sup>All fiscal year 1987 dollar figures for section 2 are based on preliminary figures from DOE's financial information system. Final figures will not be available until after this report's due date.

<sup>b</sup>These figures include amounts disbursed in January-March that were obligated in current and prior years.

<sup>c</sup>Actions such as early redemptions of Treasury notes cause the face value to be reduced at that point in time. It does not, however, denote a loss to the fund.

<sup>d</sup>This figure includes amounts of undisbursed obligations remaining from current and prior years.

NUCLEAR WASTE FUND  
RECEIPTS AND COSTS

DOE has contracted with 66 owners and generators of spent fuel for a 1-mill-per-kilowatt-hour fee to be paid quarterly into the fund to finance the waste program. One new contract was signed this quarter. The fund began receiving quarterly fees late in fiscal year 1983 and as of March 31, 1987, had collected a total of about \$1.4 billion, of which about \$105.1 million was collected this quarter.

Owners of spent fuel generated before April 7, 1983, must pay a one-time fee into the Nuclear Waste Fund for the disposal of their spent fuel. This fee must be paid before delivery of spent fuel to the federal government. About \$1.5 million was collected during this quarter.

NWPA provides that when the amount of the Nuclear Waste Fund exceeds current needs, DOE may request the Secretary of the Treasury to invest these excess funds in Treasury financial instruments in amounts as the Secretary of Energy determines appropriate. In the quarter ending March 31, 1987, DOE collected daily overnight investments interest of about \$312,305 and long-term investments interest (90 days or more) of about \$28.5 million.

OCRWM can obligate amounts from the Nuclear Waste Fund only as appropriated, regardless of the balance in the fund. (See table 2.2.) OCRWM's appropriations for fiscal year 1986 totaled \$499 million. Appropriations for fiscal year 1987 are \$499 million. The conference report stipulates that \$79 million of this amount is subject to prior approval of the Subcommittees on Energy and Water Development, House and Senate Committees on Appropriations. The \$79 million is also subject to certification by the Secretary of Energy; he is to certify that DOE has made a good faith effort to comply with the requirements of consultation with states selected for site characterization. The Secretary will also provide a detailed explanation of his efforts. No funds are provided for drilling any exploratory shafts at any sites in fiscal year 1987.

OCRWM obligates funds by awarding contracts and grants, and also disburses funds for its civil service payroll and other program needs. Actual costs are recorded when invoices are received, and disbursements are recorded when payments are made. Obligations, costs, and disbursements are recorded in DOE's financial information system by the field finance offices that receive allocations from the fund. During the quarter, expenses totaled about \$108.5 million for the five major cost activities. (See table 2.3.)

Table 2.2: Nuclear Waste Program Appropriations

Carryover from prior years, as of September 1986	\$ 21,778,417
Fiscal year 1987 appropriation	<u>499,000,000</u>
Total for fiscal year 1987	\$520,778,417
Total amount obligated as of March 31, 1987	<u><u>\$309,761,225</u></u>

Table 2.3: Nuclear Waste Fund Costs, March 31, 1987

<u>Funding category</u>	<u>First quarter FY87 costs</u>	<u>Second quarter FY87 costs</u>	<u>Third quarter FY87 costs</u>	<u>Fourth quarter FY87 costs</u>	<u>Cumulative FY87 costs</u>
<u>First repository:</u>					
Development, construction, operations	\$60,735,740	\$83,891,158	\$ -	\$ -	\$ -
Capital equipment	871,284	1,598,150	-	-	-
Plant acquisition and construction	-	-	-	-	-
<b>Total</b>	<b><u>61,607,024</u></b>	<b><u>85,489,308</u></b>			
<u>Second repository:</u>					
Development, construction, operations	4,909,201	2,313,080	-	-	-
Capital equipment	17,000	64,000	-	-	-
Plant acquisition and construction	-	-	-	-	-
<b>Total</b>	<b><u>4,926,201</u></b>	<b><u>2,377,080</u></b>			
<u>Monitored retrievable storage:</u>					
Development, construction, operations	97,866	254,122	-	-	-
Capital equipment	-	-	-	-	-
Plant acquisition and construction	-	-	-	-	-
<b>Total</b>	<b><u>97,866</u></b>	<b><u>254,622</u></b>			
<u>Program management and technical support:</u>					
Management and support	9,644,060	13,477,518	-	-	-
Capital equipment	110,026	48,167	-	-	-
Plant acquisition and construction	-	-	-	-	-
<b>Total</b>	<b><u>9,754,086</u></b>	<b><u>13,525,685</u></b>			
<u>Transportation and system integration:</u>					
Design, development, and testing	5,325,946	6,830,426	-	-	-
Capital equipment	186,268	5,838	-	-	-
<b>Total</b>	<b><u>5,512,214</u></b>	<b><u>6,836,264</u></b>			
<b>Total</b>	<b><u>\$81,897,393</u></b>	<b><u>\$108,482,959</u></b>	<b>\$</b>	<b>\$</b>	<b>\$</b>

Source: DOE's financial information system.

Most waste disposal activities have been and are being carried out by contractors. During the quarter, DOE spent about \$95 million and obligated about \$139 million. About \$113.6 million, 81 percent of the total amount obligated, was for contractor services. Since inception of the fund, OCRWM has obligated about \$1.5 billion for over 140 contracts.

### SECTION 3

#### LITIGATION RELATING TO

#### THE NUCLEAR WASTE PROGRAM

During the quarter ending March 31, 1987, the U.S. Court of Appeals for the Ninth Circuit made decisions on several motions and petitions filed by DOE, states, and others. The U.S. Supreme Court also denied Tennessee's petition to review an appeals court's earlier decision, regarding the MRS program. Also, during this quarter, none of the other pending cases were resolved (see previous quarterly reports for more detailed information on the individual cases) and no new lawsuits were filed.

#### PENDING LITIGATION

On November 13, 1986, DOE filed a motion to consolidate cases involving the siting guidelines with other cases that involved various aspects of the siting process for the first repository, including the environmental assessments, the Secretary of Energy's and the President's role in nominating and selecting the three candidate sites, DOE's determination of preliminary suitability of the candidate sites, and DOE's decision to postpone the second repository program. On March 4, 1987, the U.S. Court of Appeals denied DOE's motion to consolidate the siting guidelines and environmental assessment cases and granted the state of Washington's motion for expedited briefing of the challenges to the second repository decision. Petitioners' (states and others) briefs are currently due by May 5, 1987. DOE's response is to be filed within 30 days, thereafter.

The states of Washington and Nevada had filed petitions in the Ninth Circuit for review of DOE's decision to deny the states use of NWPA grant funds to seek judicial review of actions taken by the Secretary of Energy under the NWPA. To date, all parties have filed briefs discussing the merits of this petition, and oral arguments were heard by the U.S. Court of Appeals on February 12, 1987. As of the quarter ending March 1987, the parties were awaiting the court's final decision.

On March 4, 1987, the U.S. Court of Appeals denied motions filed by petitioners for discovery, without prejudice for refileing, which would have allowed them to serve DOE with requests to produce program documents relating to DOE's first and second repository decisions. However, DOE has made a voluntary effort to make their files of information accessible. The discovery process on the first repository cases was scheduled to start officially on April 15, 1987. According to DOE's General Counsel, approximately 20 attorneys representing the petitioners will be examining DOE's siting guidelines and second repository records. The process is

expected to last 120 days in headquarters and 90 days in the project offices.

The U.S. Court of Appeals also denied petitioners' request for a "special master or establishment of special procedures governing discovery and fact finding" on March 4, 1987.

State of Tennessee v. Herrington

On November 25, 1986, a three-judge panel from the U.S. Court of Appeals for the Sixth Circuit concluded that NWPA does not require the Secretary of Energy to consult with any state before he sends to the Congress his proposal for the location, construction, and operation of one or more MRS facilities. The panel also concluded that under NWPA, the Federal Courts of Appeals have original jurisdiction over actions involving consultation and cooperation requirements applicable to MRS. This decision reversed an earlier U.S. District Court's decision that the U.S. District Court had original jurisdiction and dismissed that court's injunction preventing DOE from submitting the proposal to the Congress.

As a result of the appeals court's decision, the state of Tennessee filed a petition for stay or extraordinary writ of injunction on November 25, 1986. Three days later, the Secretary of Energy filed a motion in opposition to a stay or injunction and a counter-motion for immediate issuance of mandate or dissolution of injunction. The state of Tennessee filed a motion in opposition to DOE's counter-motion on December 1, 1986.

On December 4, 1986, the state of Tennessee filed a petition for rehearing with a suggestion that the case be reheard by the Appeals Court's full 12-judge panel. This motion was denied on December 31, 1986, and on January 5, 1987, the state of Tennessee requested a further stay of the injunction to allow time for an appeal to the U.S. Supreme Court. The Court of Appeals granted a further injunction on January 7 for 30 days and, once an appeal is filed, a further stay until a Supreme Court decision is reached.

During the 30-day period, Tennessee filed a petition for "writ of certiorari" to have the U.S. Supreme Court review the Appeals Court's decision. On March 30, 1987, the U.S. Supreme Court declined to review the case. The next day, DOE submitted its MRS proposal to the Congress. DOE also submitted with the proposal an environmental assessment and a program plan that describes certain activities, costs, and schedules for siting, constructing, and operating an MRS facility.

National Resources Defense Council,  
Inc., et al. v. the Environmental  
Protection Agency and the United  
States of America

The states of Maine, Minnesota, Texas, and Vermont and various environmental groups, including the Natural Resources Defense Council, Inc., and the Environmental Policy Institute, have filed suits challenging EPA's High-Level Waste Standards, which were published in September 1985. The suits were consolidated, and in March 1986 briefs were filed in the U.S. Court of Appeals for the First Circuit in Boston. These states and environmental groups allege that EPA standards are arbitrary and capricious and that the groundwater and individual protection provisions of the standards violate provisions of the Safe Drinking Water Act. According to an attorney from the Department of Justice, oral arguments were heard during the last quarter (Sept. 1986-Dec. 1986), and the court had not yet announced its decision.

Lakes Environmental  
Association v. DOE

On April 25, 1986, the Lakes Environmental Association, a group of local property owners in Maine, petitioned the U.S. Court of Appeals for the First Circuit to review and set aside certain aspects of DOE's general siting guidelines and the screening methodology for the second repository.

During this quarter, this case was transferred to the Ninth Circuit unopposed and consolidated with the other environmental assessments cases. (See previous GAO quarterly reports for more information.) This case was still pending at the end of this quarter.

NEW LITIGATION THIS QUARTER

According to DOE's Office of General Counsel, no new lawsuits were filed during this quarter.

SECTION 4

GAO REPORTS ON THE NUCLEAR WASTE PROGRAM

ANNUAL REPORTS TO THE CONGRESS

Department of Energy's Initial Efforts to Implement the Nuclear Waste Policy Act of 1982 (GAO/RCED-85-27, Jan. 10, 1985).

Nuclear Waste Policy Act: 1984 Implementation Status, Progress, and Problems (GAO/RCED-85-100, Sept. 30, 1985).

Nuclear Waste: Status of DOE's Implementation of the Nuclear Waste Policy Act (GAO/RCED-87-17, Apr. 15, 1987).

QUARTERLY REPORTS TO THE  
SENATE COMMITTEE ON ENERGY  
AND NATURAL RESOURCES

Status of the Department of Energy's Implementation of the Nuclear Waste Policy Act of 1982 as of September 30, 1984 (GAO/RCED-85-42, Oct. 19, 1984).

Status of the Department of Energy's Implementation of the Nuclear Waste Policy Act of 1982 as of December 31, 1984 (GAO/RCED-85-65, Jan. 31, 1985).

Status of the Department of Energy's Implementation of the Nuclear Waste Policy Act of 1982 as of March 31, 1985 (GAO/RCED-85-116, Apr. 30, 1985).

Status of the Department of Energy's Implementation of the Nuclear Waste Policy Act of 1982 as of June 30, 1985 (GAO/RCED-85-156, July 31, 1985).

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of September 30, 1985 (GAO/RCED-86-42, Oct. 30, 1985).

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of December 31, 1985 (GAO/RCED-86-86, Jan. 31, 1986).

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of March 31, 1986 (GAO/RCED-86-154FS, Apr. 30, 1986).



Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of June 30, 1986 (GAO/RCED-86-206FS, Aug. 11, 1986).

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of September 30, 1986 (GAO/RCED-87-48FS, Nov. 5, 1986).

Nuclear Waste: Quarterly Report on DOE's Nuclear Waste Program as of December 31, 1986 (GAO/RCED-87-95FS, Feb. 19, 1987).

#### OTHER CONGRESSIONAL REPORTS

Nuclear Waste: Monitored Retrievable Storage of Spent Nuclear Fuel (GAO/RCED-86-104FS, May 8, 1986).

Nuclear Waste: Impact of Savannah River Plant's Radioactive Waste Management Practices (GAO/RCED-86-143, July 29, 1986).

Nuclear Waste: Issues Concerning DOE's Postponement of Second Repository Siting Activities (GAO/RCED-86-200FS, July 30, 1986).

Nuclear Waste: Cost of DOE's Proposed Monitored Retrievable Storage Facility (GAO/RCED-86-198FS, Aug. 15, 1986).

Nuclear Waste: Institutional Relations Under the Nuclear Waste Policy Act of 1982 (GAO/RCED-87-14, Feb. 9, 1987).

Nuclear Waste: Status of DOE's Nuclear Waste Site Characterization Activities (GAO/RCED-87-103FS, Mar. 20, 1987).

#### REPORTS TO AGENCY OFFICIALS

Department of Energy's Program for Financial Assistance (GAO/RCED-86-4, Apr. 1, 1986).

#### OTHER DOCUMENTS

NUS Corp. et al., B-221863, June 20, 1986 (Decision).

Letter Response on GAO's MRS Fact Sheet, B-202377, Aug. 21, 1986.

Study of Legal Issues Concerning Postponement of the Second Repository Program, B-223315, B-223370, Sept. 12, 1986.

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