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

FOR RELEASE ON DELIVERY
EXPECTED AT 9:45 A.M.
MARCH 5, 1985

STATEMENT OF
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BEFORE THE
SUBCOMMITTEE ON ENERGY AND THE ENVIRONMENT
HOUSE COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
ON
DEPARTMENT OF ENERGY IMPLEMENTATION
OF THE NUCLEAR WASTE POLICY ACT OF 1982

Mr. Chairman and Members of the Subcommittee:

We appreciate the opportunity to be here today to discuss the Department of Energy's efforts to implement the Nuclear Waste Policy Act of 1982. The act requires us to report to the Congress on the results of an annual audit of DOE's Office of Civilian Radioactive Waste Management. Also, at the request of the Senate Energy and Natural Resources Committee, we prepare quarterly status reports on DOE's program activities. My testimony today is based on our recently issued annual and quarterly reports.[1]

[1]Department of Energy's Initial Efforts to Implement the Nuclear Waste Policy Act of 1982, GAO/RCED-85-27, January 10, 1985.

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, October 19, 1984, and 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, January 31, 1985.

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In those reports, we noted that DOE has made significant progress toward implementing major legislative requirements. DOE, however, faces a difficult challenge in meeting repository siting deadlines mandated by the act, ensuring adequate financing for the high cost of the program, and enhancing management controls over repository planning and execution. In regard to program financing, we noted the potential for earlier collection of millions of dollars in user fees, and our January 1985 report to the Congress made specific recommendations to the Secretary of Energy to reexamine program financing arrangements.

Before discussing these areas, perhaps some perspective on the Nuclear Waste Policy Act would be useful.

BACKGROUND

The Nuclear Waste Policy Act established a range of federal programs and facilities to deal with storage and permanent disposal of spent nuclear fuel and high-level radioactive wastes.[2] Because of their long radioactive life, these materials must be isolated from the environment for a period of time in excess of 10,000 years. Consequently, the repository program authorized by the act will be a high-cost, long-term effort. DOE estimates that it will cost over $20 billion in the next 50 years to site, construct, and operate two repositories and related activities. The act places the responsibility for paying program

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[2]Spent nuclear fuel is the used uranium fuel that has been removed from a nuclear reactor. High-level wastes result from the reprocessing of spent nuclear fuel from commercial reactors, or from defense reactors that are used to produce nuclear weapons material.

costs on the generator or owner of highly radioactive materials. Current costs are being borne by the consumers of nuclear electricity. The act envisioned that states, local governments, Indian tribes, and the public would participate in the planning and development of DOE's program.

SITING WASTE REPOSITORIES

The act established a step-by-step process for the siting of geologic repositories. The Secretary of Energy, in February 1983, notified six states that DOE would further evaluate nine candidate sites for the first repository. These states included Louisiana, Mississippi, Nevada, Texas, Utah, and Washington. Site identification was based on years of federal investigation of three different types of geologic rock formations (basalt, salt, and tuff) for the permanent disposal of highly radioactive materials.

In December 1984, DOE issued general guidelines that will be used to evaluate the suitability of candidate sites. The guidelines specify conditions on such matters as geohydrology and population density that qualify or disqualify any site from development as a repository.

Also in December 1984, DOE announced its intent to propose to the President three sites in Nevada, Texas, and Washington State for detailed on-site tests. This testing program, referred to as site characterization, includes construction of exploratory shafts to depths of a proposed repository. The purpose of site characterization is to gather the detailed information necessary to select a site for repository construction.

Draft environmental assessments on each of the nine candidate sites form the basis for DOE's preliminary site proposals. They are now undergoing public review and comment before being finalized and before the Secretary of Energy makes a formal recommendation to the President. The act required the Secretary of Energy to make this recommendation not later than January 1, 1985, but DOE does not expect to be in a position to do so until at least mid-1985.

Legal challenges could further affect DOE's progress in siting the nation's first waste repository. Beginning in December 1984, at least four lawsuits have been filed by two states, private associations, and individuals in reaction to DOE's siting activities. Courts have been asked to review and set aside the siting guidelines and, specifically, the Texas site selection process. As of the end of February, the courts had not yet addressed the merits of the suits. DOE's General Counsel told us it could not estimate when the cases would finally be adjudicated, or if more cases on these activities might be initiated.

FINANCING THE PROGRAM

The Congress created, as part of the act, the Nuclear Waste Fund to separately account for program receipts and expenses. It also authorized DOE to enter into contracts with generators and owners of highly radioactive materials that would establish specific payment terms. The contracts DOE entered into with nuclear utilities in 1983 represent a major step toward (1) placing the financing responsibility for the disposal program on the generators or owners of highly radioactive materials and

(2) providing the program an assured source of revenues. DOE, however, faces a difficult challenge in assuring adequate program revenues in the long term.

Ongoing fees paid by nuclear utilities are expected to be the major, long-term source of program revenue. For fiscal year 1986, DOE's budget projects receipts of about $401 million in such fees. The act requires DOE to review annually the amount of fees collected to determine whether they will provide sufficient revenue to offset program costs. Reports issued by DOE and the Congressional Budget Office (CBO) in the summer of 1984 indicate that increases in the ongoing fee will be needed to account for the effects of inflation, and possibly real cost growth, at some point in the long life of the disposal program. For example, CBO in August 1984 reported that the Nuclear Waste Fund is extremely sensitive to the effects of annual inflation and nuclear power growth projections. The report noted that to fill two repositories the Fund could accumulate deficits at the present fixed fee ranging between $600 million (high nuclear growth) and $8.5 billion (low nuclear growth).

Aside from the uncertainty in long-term program revenues, we believe that, from a sound financial management and equity standpoint, DOE should fully evaluate ways to more promptly collect fees from all anticipated users of its repository services. DOE has established procedures for the collection and payment of fees for the spent fuel owned by the nation's utilities and other commercial owners. However, DOE has not done so for the high-level wastes (1) produced by DOE defense programs (which

account for about 98 percent of the high-level wastes in the United States) and (2) maintained by New York State (which account for the remaining 2 percent). (The latter wastes resulted from a commercial reprocessing plant at West Valley, New York, which operated from 1966 until 1972. New York State subsequently assumed responsibility for maintenance of the West Valley wastes.)

Although we have no overall estimate, we found that DOE might be able to accelerate millions of dollars in payments from these anticipated repository users. Each of the various methods we examined has significant obstacles that DOE would need to address. For example, DOE and utilities would have to agree to contract amendments. Utility representatives told us they would oppose any amendments that would add to utility or consumer costs.

Let me give you examples of various methods that we believe warrant further consideration.

--For utilities generating nuclear electricity, DOE could seek to accelerate payments of ongoing fees by instituting monthly, rather than current quarterly, payment periods. Under present payment procedures, fees for electricity generated in a given quarter are due to DOE 30 days after the end of the quarter. Given the time value of money, collecting these fees each month, rather than each quarter, should result in additional revenues for the Nuclear Waste Fund. We estimated that an additional $2.7 to $8 million

annually could result from monthly collections. The $2.7 million figure assumes payment of fees 30 days after the end of each month, as is the practice utilities use to charge residential customers for electricity. The $8 million figure assumes DOE would use estimated monthly billing procedures and collect the fees at the start of each month, a practice Treasury urges agencies do in related circumstances.

--For commercial owners of previously discharged spent fuel, DOE could seek to subject deferred payment of one-time fees to commercial, rather than the current Treasury, interest rates. Based on DOE estimates, such commercial owners (mostly utilities) owe the Nuclear Waste Fund a total of $2.3 billion in one-time fees. DOE has given them until June 1985 to select one of three deferred payment options. Two of the options involve payment of compound interest from April 7, 1983, at Treasury rates. The third is an interest-free option, if the utility elects to make full payment before June 30, 1985, or 2 years after it signs a contract with DOE, whichever comes later. Given the difference between commercial and Treasury rates (commercial rates were about 2 percent higher than Treasury rates when we made our analysis), applying a commercial rate of interest should result in additional revenues to the Fund. For example, we estimated that if all utilities chose an interest option using commercial rates, the Fund could realize additional revenues of $20.7 million annually

for 10 years in one instance and $46 million annually for up to 15 years in the other instance. Treasury strongly supports subjecting the deferred payments to commercial, rather than Treasury, interest rates.

--For defense high-level waste it owns, DOE could seek appropriations to begin payments in fiscal year 1986 or 1987 if the President does not determine that use of a separate repository for such defense waste is required. DOE transmitted a report to the President on February 6 that recommended defense waste be disposed of in the same repository as commercial waste, primarily for cost-saving reasons. If the President concurs in DOE's recommendation, the act requires DOE to "proceed promptly with arrangement" for allocating costs of repository development between commercial and defense waste. DOE has estimated that disposing of defense wastes in the commercial repository would add between $758 million and $1.5 billion in construction and operating costs. A portion of the costs for development and evaluation activities for the commercial repository, estimated at about $4.5 billion, would also have to be allocated to the defense waste, but a final allocation mechanism has not been agreed upon. Accordingly, we were not able to develop estimates of additional revenues that could accrue to the Nuclear Waste Fund from DOE payments.

--For high-level waste maintained by New York State, DOE could seek accelerated payment of funds held by the state

for the care of such waste under contractual arrangements that pre-date the Nuclear Waste Policy Act. In June 1983, DOE urged New York State to "prudently manage" about $5.5 million that had been set aside for the "perpetual care" of these wastes. At that time, DOE envisioned that the $5.5 million, considering compound interest, would sufficiently cover New York's obligation to pay the disposal costs of the West Valley waste by the time the first repository is scheduled to become operational in 1998. We did not evaluate whether the amounts in New York State's perpetual care fund would be adequate to recover a fair share of DOE's costs. All other anticipated users of DOE's repository services are required to deposit fees into the Nuclear Waste Fund in advance of disposal to pay for the costs of repository development. If DOE seeks prompter payment from New York State, an amendment to a cooperative agreement between DOE and New York State would be needed. DOE must first decide, however, what is an appropriate fee to charge to the disposal of all high-level wastes--defense wastes as well as those maintained by New York State.

We recommended that DOE (1) evaluate ways to more promptly collect fees from all generators and owners of highly radioactive materials and (2) establish fees for the disposal of high-level wastes owned by the federal government and maintained by New York State. In commenting on our annual report, DOE said it is exploring alternatives to improve the program's revenue stream and that our recommendations were under study.

PROGRAM ORGANIZATION

Organizationally, it has been a difficult transition period for DOE's nuclear waste disposal program. DOE had to restructure its organizational responsibilities at headquarters to put the Waste Office in place and staff it. At the same time, DOE had to begin implementing the act's requirements. In addition, the DOE Waste Office was headed by two different acting directors until the appointment of a permanent director in May 1984.

DOE has put in place a headquarters office to direct the overall program, but its managers do not have the authority to directly control the field staff who execute the program through a multitude of contractors. The field staff are assigned, controlled, and evaluated by managers in DOE's field offices. For fiscal year 1984--the first year a separate personnel authorization was established for the act's implementation activities--about half of the 191-staff-year ceiling was allocated to three DOE field offices. These field offices during fiscal year 1983 obligated, under 210 prime contracts or subcontracts, almost 90 percent of the program's $254 million in available appropriations.

Under this decentralized field management approach, which is typical of most DOE programs, the DOE Waste Office will need to pay particularly close attention to developing strong management controls over repository planning and execution. The DOE Waste Office recognizes the importance of this consideration and has taken actions to establish such controls. For example, beginning in fiscal year 1985, DOE upgraded its capability to collect more detailed cost data on program subactivities. Moreover, DOE is in

the initial stages of designing a program-wide planning and control system as a means to measure actual performance in accomplishing technical, cost, and schedule objectives.

UPCOMING PROGRAM EVENTS

Before concluding my remarks, Mr. Chairman, I would briefly like to note a few additional program activities required by the act that could set the program's pace and direction for many years to come. These are the Department's mission plan, anticipated to be submitted to the Congress this May, and the Department's proposal for the construction of government facilities for the long-term storage of radioactive waste, due to the Congress this June. The mission plan will present DOE's strategy for implementing the act and will become effective 30 calendar days after it is received by the Congress. Regarding government storage facilities, congressional authorization is required for their construction. DOE's recent budget assumes congressional authorization to proceed with activities that DOE believes are critical for the deployment of storage facilities, namely siting and licensing. I have attached to my prepared statement a listing of other key program events.

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That concludes my prepared statement. We will continue to monitor and evaluate selected activities and program initiatives of DOE's Waste Office through forthcoming annual audits and our quarterly status reports. We will be pleased to answer any questions at this time.

ATTACHMENT

KEY EVENTS IN DOE WASTE PROGRAM DURING 1985

Event	Date Anticipated by DOE
President's determination on commingling defense high-level waste in a commercial repository (sec. 8 of NWPA)	Unknown - DOE transmitted its report to the President on February 6.
Submission of DOE's study to the Congress on alternative approaches to financing and managing DOE's program (sec. 303)	3/85
Submission of the Mission Plan for a 30-day congressional review period prior to its use as the basis for program decisions (sec. 301)	5/85
Submission of proposal to construct one or more government storage facilities for congressional review and authorization (sec. 141)	6/01/85
Publication of final environmental assessments (sec. 112)	8/85
Nomination of 5 sites as suitable for characterization (sec. 112)	Late Summer 1985
Recommendation to the President of 3 sites for site characterization (sec. 112)	Late Summer 1985
President's approval/disapproval of Secretary's recommendation (sec. 112)	Fall 1985