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RADIOACTIVE WASTE MANAGEMENT

New U.S. Financial Initiatives:

Covering The Cost Of Managing Radioactive Waste

By

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NEW U.S. FINANCIAL INITIATIVES:
COVERING THE COST OF MANAGING RADIOACTIVE WASTE

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INTRODUCTION

One of the more significant achievements of the last session of the U.S. Congress was the passage of the Nuclear Waste Policy Act of 1982 (the Act) which was signed into law on January 7, 1983. This Act establishes a step-by-step process by which the President, the Congress, the affected individual States and Indian Tribal nations, the U.S. Department of Energy (DOE), and other Federal agencies can work together in the siting, construction, and operation of a high-level nuclear waste repository at a site yet to be identified. The Act mandates that the first repository be operational by January 1, 1998.

The responsibility for carrying out the functions of the Secretary of Energy under the Act has been assigned to the Project Director of the Nuclear Waste Policy Act Project Office. This Project Office will be operational until the mandated Office of Civilian Waste Management is activated. For purposes of identification, I am Director of the Project Office's Business Operations and Financial Management Division.

Although the Act's provisions encompass many elements, I shall focus today on the new financial initiatives embodied in the legislation. The foremost initiative is the establishment of two separate "special" Funds in the U.S. Treasury; the Nuclear Waste Fund and the Interim Storage Fund. The Nuclear Waste Fund is the statutory financing approach for the Department's radioactive waste disposal program. The Act directs utilities to pay a mandatory fee to cover the Department's expected costs for nuclear waste disposal.

The Interim Storage Fund is the financing mechanism for the provision of Federal interim storage capacity, not to exceed 1,900 metric tons for spent nuclear fuel from civilian power reactors. Basically, interim storage of this fuel is the responsibility of the owners and generators of nuclear wastes. Storage at the government facilities will be provided only if the utilities do not have adequate storage capacity, as certified by the Nuclear Regulatory Commission (NRC).

The underlying rationale behind these two Funds is to ensure that all the costs of performing disposal and storage activities will be borne by the organizations responsible for generating the wastes and spent fuel. Since the two Funds are identical in features, I will confine my remarks to the Nuclear Waste Fund.

In brief, the mandated Nuclear Waste Fund is established under the U.S. Treasury and operated by the Department of Energy. The Secretary of Energy is granted the authority to enter into contracts with generators and owners of high-level waste and spent fuel for the acceptance of title to, transportation of, and disposal of these materials. The contracts are to provide for the payment of fees to the Department sufficient to offset the expenditures incurred for disposal.

This Fund is now operational. The bulk of the Fund's revenue is anticipated from two sources. Beginning on April 7, 1983, we started billing utilities with nuclear reactors at a rate of 1 mill/Kwh for nuclear waste disposal. Initial revenues of \$98 million are projected for FY 1983. During FY 1984 and out years, revenue flow will approximate \$30 million monthly, based

on this 1 mill per kilowatt hour charge. This equals 300 billion dollars on an annual basis. Because of the requirement for full cost recovery, the 1.0 mill per Kwhr fee will be reviewed annually and adjusted, if necessary, to accommodate changes in program costs due to inflation and program redirection. In addition to the charge on future generation, there presently is existing spent fuel with anticipated revenue valued at approximately \$2 billion in inventory at reactor sites. The valuation was derived by developing a one-time fee, stated in dollars per kilogram, which is equivalent to an average charge of 1.0 mil per kilowatt hour for electricity generated by such fuel.

WASTE FUND GOALS OBJECTIVES

The major goal of the Act is to finance the construction of a nuclear waste repository by providing sound financial management and accountability of the resources which are collected from the utilities and used in developing nuclear waste disposal services.

Because of the size of the revenues and expenditures involved--several hundred million dollars annually--the national interest in nuclear waste management and the use of fees from the private sector, Fund activities will be reviewed, audited, and closely scrutinized by a number of parties. In particular, Congress, the General Accounting Office, and the utilities will want evidence that the Fund is being managed in a manner that meets high standards of accountability and financial control. Specific statutory requirements include an annual audit by the Comptroller General and an annual report to the Congress on the activities and expenditures of the office.

The objectives supportive of the goal statement are shown in Appendix I.

WASTE FUND OPERATIONS

The concept behind the financial operations recognizes that the total waste management system is composed of revenue generating activities (that is, nuclear power generators and the inventory of spent reactor fuel) and cost generating activities (for example, design and construction of facilities, research and development, and transportation). The essence of sound financial management is to maintain a balance between the revenue and cost generating activities by establishing procedures for the assessment and collection of the fee. To that end, the Department is in the process of preparing an integrated system which provides for the maintenance of the fragile relationship between costs and revenues, which sets forth the terms and conditions under which the disposal services will be made available. Additionally, we are establishing a set of accounting procedures which will ensure effective control by expenditures and enhance the process of accountability. In developing these procedures, the experience of other Federal revenue collection operations, such as uranium enrichment services, the Bonneville Power Administration and the Tennessee Valley Authority were analyzed. Some aspects of the operations of these organizations are unique; however, we have obtained much valuable operational experience and financial expertise pertinent to the types of activities planned by our Office.

In summary, the key concept to keep in mind in creating the operational financing mechanism is that owners and generators of spent reactor fuel and/or high-level waste are required to bear the full cost of nuclear waste disposal activities by paying fees into the Nuclear Waste Fund as mandated.

USES OF THE WASTE FUNDS

The Act specifies quite clearly how the revenues collected may be expended. The Secretary may make expenditures from the Nuclear Waste Fund for purposes of:

- o The identification, development, licensing, construction, operation, decommissioning, and post-decommissioning maintenance and monitoring of any repository, monitored retrievable storage facility, or test and evaluation facility constructed under the Act;
- o The conduct of nongeneric research, development, and demonstration activities under the Act;
- o The administrative cost of the radioactive waste disposal program;
- o Any costs that may be incurred by DOE in connection with the transportation, treating, or packaging of spent nuclear fuel or high-level radioactive waste to be stored in a monitored retrievable storage site, or to be used in a test and evaluation facility; and
- o The provision of assistance to States, units of general local government, and Indian tribes as mandated.

The Secretary is also constrained because the amount of expenditures are subject to the appropriations process. Essentially, the program submits a yearly budget which outlines how funds will be expended. Congress, through the appropriations process, establishes a spending ceiling for any given year. The program cannot exceed this ceiling for authorized work without the expressed consent of the Congress. This appropriations control on expenditures leads naturally to the principle of borrowing and investing, two procedures also authorized in the legislation. If the program

receives revenues in excess of their appropriated amount, the additional funds may be invested in U.S. Government Securities. The investment strategy is developed within the Department and actual transactions are coordinated with the Treasury Department. The converse is also true. If the program receives revenues less than the appropriated amount, the added requirements may be borrowed from the Treasury of the United States. A note is signed between the Secretary of the Treasury and the Secretary of Energy. The program may not invest funds while in a debt situation.

Oversight responsibility for the civilian radioactive waste management program resides ultimately with the Congress. As the primary source of funding, the utilities desire some degree of oversight over the direction of the program. A number of options exist, including the establishment of a formal advisory board. However, there are no plans to establish such a mechanism at this time. It is expected that the utilities, both individually and collectively, will provide comments to the Department and Congress on an ad hoc basis to convey their ideas or proposals for how the radioactive waste management program should be implemented. In turn, the Department will make program cost and fee analyses, progress reports, and other relevant data and analyses available to the utilities.

BUDGET FORMULATION AND EXECUTION

Budget formulation for the program will include the annual preparation and submission of a triennial budget and justification, through the Office of Management and Budget, to Congress. Congressional appropriations for the funds are subject to triennial authorization. In contrast to budget sub-

missions of previous years, where the nuclear waste management program was a non-revenue producing entity, program activities will now be a separately identified entity in the Federal budget.

Separate identification in the Federal budget at an account level requires preparation of additional documentation for submission to OMB and the Congress. These documents include, among other things: schedule of amounts available for appropriation; program and financing schedules; and narrative statement on program and performance.

The budget execution process is primarily the responsibility of each program office, assisted by the program budget staff and the Department Controller's Office of Budget. Essentially, the execution process works as follows.

Congressional control levels, as contained in appropriation bills and accompanying committee reports, determine the allocation of funds. Obligational authority is allotted through an Approved Financial Program (AFP). Field offices and contractors submit requests or proposals for changes to AFP's to the program offices, where they are evaluated and coordinated by the program technical and budget staffs. Based on staff recommendations, the program manager makes a decision concerning the disposition of the request or proposal. The decision is then transmitted to the field offices by letter from the program office and is implemented by a change to the AFP. AFP changes are submitted by the budget staff to the Controller's Office of Budget, where they are reviewed, approved, and ultimately communicated to the field.

In addition to following, the Department's administrative control of funds procedures, program office and field office technical staffs also monitor and analyze contractor activities and progress. The Uniform Contractor Reporting System and monthly reports from the Controller's Office are used to ensure adherence to Departmental policies and procedures. These controls enable the Department to detect fraud and abuse and to initiate program vulnerability assessments.

ACCOUNTING

Accounting for the collection of fees, contract disbursements, payroll and travel, allocations of nondiscreet overhead and other indirect costs, and depreciation will be performed on an accrual accounting basis at Headquarters.

Since the Department will pay interest on disbursed appropriations and earn interest on the undisbursed fee portion of the funds, it must closely monitor cash disbursements. Furthermore, since both Funds have borrowing and investing authority, cash flow becomes very important. In this respect, both Funds are unique because there are very few programs in the Department that must carefully monitor their disbursements. Because of the anticipated workload impact, an ADP system has been developed for automatic fee collections, with billing occurring on an exception basis only.

REPORTING

Financial reporting may be segregated into internal and external--to other Federal agencies and the public. Internally, a budget and reporting and accounting structure has been established to (1) identify revenues by type and (2) specify capital and noncapital costs incurred, by major activity, by

location, and by organizational structure. An accounting structure such as this will provide internal management reports with sufficient detail to control costs, identify problem areas, measure progress, and fix responsibility.

Within the Department, transactions affecting the Funds will be processed according to this structure. Financial data received from operating contractors, consistent with this structure, will be consolidated at Headquarters for reporting purposes. This structure will also provide a basis for the preparation of external reports to the Treasury and the Office of Management and Budget and for commercial type financial statements which will be issued to utilities.

Special reports, supplemented by revenue projections and fee verification data, will enable the Secretary of the Treasury to report annually to the Congress on the financial condition and operations of the Funds and permit the Director, Office of Management and Budget, to provide pertinent information to the President, Congress and the public.

BORROWING AND INVESTING

The statute specifically authorizes the Funds to borrow monies from the U.S. Treasury. Much like the execution of loan documents in a commercial environment, the Secretary of Energy and the Secretary of Treasury must formally agree on the terms, maturities, and conditions of the obligations. This will be accomplished with a promissory note, executed by the Secretary of Treasury, and by the Secretary of Energy.

The promissory note is, as you know, a legally binding loan instrument. In addition, a memorandum of understanding will contain information on how interest is to be calculated, how the Funds will draw monies against the

note, how Treasury will pay interest on funds drawn but unexpended, what balances must be reported to Treasury, and the frequency of the reports.

The Funds, pursuant to the statute, may unilaterally repay monies borrowed without penalty, or, with the approval of the Secretary of Treasury, request that interest payments be deferred. Any interest payments deferred, however, will themselves be subject to interest until paid.

Prior to the execution of the promissory note and the memorandum of understanding, Congress must provide a dollar limitation on the amounts the Funds may borrow, and it must specify the availability of the borrowing authority, e.g., "X dollars which shall remain available until used," or, "not more than X dollars at any one time." Congress will specify limitation and availability, based upon agency budget submissions in the President's Budget, in an appropriation bill. It is anticipated that the Funds will receive the type of borrowing authority where repayments of amounts borrowed will not restore borrowing authority previously used.

The Nuclear Waste Fund is currently operating on the FY 1983 Continuing Resolution appropriations that were transferred to the Fund, as mandated by the Act. In FY 1984, the fees collected from the utilities may not be sufficient to finance operations and service existing debt. The Department has requested borrowing authority in the FY 1983 budget; however, the Congress did not specifically provide appropriations language approving the borrowing authority. If it were needed, borrowing authority could be requested by the Department; approved by Congress, and used to cover future funding gaps, i.e., needs in the budget process.

In order for borrowing authority to be used for this purpose, adequate lead time is required to allow for incorporation in the budget process.

Under the Act, the Department may request the Secretary of the Treasury to invest amounts in excess of current needs in securities of the Federal government, such as Treasury bills, notes, and bonds.

A capability will be established within the Office to project program costs and revenues, from the present into the outyears, to determine when cash will be required and, conversely, when excess funds will be available, and for how long. Because of Treasury prohibitions against simultaneous borrowing and investing by an agency, initial fund surpluses will be used to redeem any outstanding program debt with the Treasury. The investment approach discussed above requires the Department to make decisions on the timing and magnitude of investments in Treasury securities.

AUDITING

The Comptroller General is required by the Act to conduct an annual audit of the program. As envisioned, this audit will be conducted by, or under the supervision of, the Department Inspector General (IG) and reviewed by the General Accounting Office. The Department Inspector General is charged with the responsibility for coordinating, supervising, and providing policy direction for auditing and investigative activities relating to economy and efficiency, for the detection and prevention of fraud, abuse, and inefficiency, and for keeping the Secretary and Congress fully informed of his findings.

CONTRACTING

The statute authorizes the Department to enter into contracts with generators or owners of high-level radioactive waste or spent nuclear fuel of domestic origin for storage and disposal services. We have a "standardized" contract for disposal. We are not certain how we will handle the interim storage contract at this time.

Several basic principles have been reflected in the disposal contracts prepared to date:

- o Both the Government and the utility have obligations to carry out their designated responsibilities. Failure to meet these commitments, such as the availability of disposal services, can have a severe impact on the other party. Although damages could provide some compensation, both the utilities and the Government would suffer if the other party did not meet its obligation.
- o The Act provides that title to high-level waste and spent fuel shall pass to the Department on delivery and acceptance of the material. The right of the utilities to the residual value of the uranium and plutonium is recognized in general terms. However, no precise formula or computation is proposed at this time. If and when reprocessing occurs, the Government will evaluate its waste management expenses in light of its full-cost recovery guidelines, and any remaining credits or values will be passed on to the utilities. With the large uncertainty in the timing, magnitude, and participation in commercial reprocessing, it is difficult to be more explicit at this time.

Federal activities that involve policy formulation, management, and the allocation and control of resources must, under the Office of Management and Budget Circular A-76, be performed by Federal employees. Therefore, fund management will be retained entirely as a Federally-staffed function, not under contract (except as needed for support services), and will be performed at Department Headquarters.

CONCLUSION

In closing, I consider that the new U.S. financial initiatives for covering the cost of waste disposal and spent fuel provide a logical and practical way to help achieve the Federal Government's nuclear waste management objectives.

APPENDIX I

Objectives

1. Implement and manage the Nuclear Waste Fund.
2. Establish and implement the Interim Storage Fund, if and when a determination is made that the provision of Federal away-from-reactor (AFR) storage is required.
3. Establish and maintain a detailed financial management system which provides information for accounting and decision making.
4. Develop investment and borrowing strategies and advise the DOE Controller on cash requirements for the Funds.
5. Identify and track program expenditures for detailed accountability.
6. Use the Department's existing systems and procedures to the maximum extent and thus avoid redundancy.
7. Develop financial reports and statements as needed to meet DOE and non-DOE requirements.
8. Establish a solid team of experienced financial managers and staff very early to provide good management from the inception of the Fund.
9. Utilize the capabilities and services of supporting organizations within the Department to ensure compatibility with general Departmental procedures and activities.
10. Project revenues from fees, investments and interest on balances due, and verify kilowatt hours generated and paid for.
11. Prepare estimates of all program costs, perform sensitivity analyses, and conduct annual analyses to determine if fees need to be revised.
12. Verify quantities of existing spent fuel, degree of burnup as of April 7, 1983, and fees owed on this fuel.
13. Participate in the formulation, execution, and administration of contracts between DOE and the utilities.