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OCRWM Bulletin

United States Department of Energy
Office of Civilian Radioactive Waste Management
Washington, DC 20585

November 1986

Standard Contract for Disposal of Spent Nuclear Fuel and/or High-Level Radioactive Waste Amendment

The Nuclear Waste Policy Act of 1982 (NWPA) provides a comprehensive framework for disposing of spent nuclear fuel (SNF) and high-level radioactive waste of domestic origin. Among other things, the NWPA provides a mechanism (the Nuclear Waste Fund) for financing the cost of disposal of such material.

Utility Responsibilities

Payment of fees

Provide fuel assembly data

Prepare for transport:

- all preparation, packaging, inspection, and loading activities
- incidental cask maintenance, protection, and preservation
- comply with specifications for packaging

Under the NWPA, nuclear utilities, through contracts with the U.S. Department of Energy (DOE), pay a 1 mill (1/10 of a cent) per kilowatthour disposal fee for electricity generated beginning April 7, 1983. For electricity generated prior to April 7, 1983, utilities pay a one-time fee based on assembly status and burnup. As of September 30, 1986, $1.145 billion in ongoing fees and $1.426 billion in one-time fees have been collected. The contract specifying the terms and conditions under which DOE will accept and dispose of SNF for these fees was published as a final rule in Vol. 48, *Federal Register*, Page 16590, April 18, 1983, and in Vol. 10, *Code of Federal Regulations*, Part 961. This contract represents the sole legal instrument for the interface between DOE and the utilities for disposal of SNF. It establishes the legal requirements and operational responsibilities of the signatories with respect to:

- fees and terms of payment,
- utility responsibilities,
- DOE responsibilities,
- waste acceptance procedures and issues, and
- administrative matters.

DOE Responsibilities

Accept title and dispose of SNF

Establish acceptance priority and delivery schedule

Verify contents and provide casks and transportation

Provide written procedures for cask handling and loading

Ensure that utility canisters will be compatible with DOE casks

Provide information, tools, equipment, lifting, spare parts, and consumables for incidental cask maintenance

Indemnify utilities against liability claims in connection with activities beyond the contract scope

Provide training for utility personnel

At the present time, there are 80 contracts in effect with 66 purchasers to provide disposal services for 150 reactors. The main responsibilities of the contracting parties (DOE and the utilities) are shown.

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For further information about the national program or for copies of new publications and documents listed in the "OCRWM Bulletin" contact the U.S. Department of Energy, OCRWM, Office of Policy and Outreach, Mail Stop RW-40, 1000 Independence Avenue, SW, Washington, DC 20585 (202) 252-5722. The OCRWM Information Services Directory is available to provide sources of program information for the States, Indian Tribes, involved parties, and the public.

OCRWM Fiscal Year 1987 Budget and Financial Highlights

A continuing resolution of Congress providing budget authority for fiscal year (FY) 1987 was signed into law on October 18, 1986, by the President. This resolution will provide funding for the Nuclear Waste Fund and civilian research and development (R&D) programs for all of FY 1987. The OCRWM FY 1987 appropriation for the Nuclear Waste Fund is $499 million, compared to a request of $769.3 million. This represents about the same level of funding as the FY 1986 appropriation. However, only $420 million of the total is available immediately. The remaining $79 million is available only subject to prior approval by Congress and certification by the Secretary of Energy that he has made a good faith effort to comply with the requirements of the NWPA, relative to consultation with the States selected for site characterization for a repository. No funding is provided for drilling of any exploratory shaft at any site in FY 1987, and the Secretary has pledged that none will be carried out.

Activities will proceed for the first repository consistent with reduced funding levels. Activities to be undertaken include issuing site characterization plans; making grants and other payments to affected States and Indian Tribes, and to local jurisdictions; and conducting design activities as well as engineering tests and analyses to support the waste package and repository designs for the first repository. In addition, efforts will continue toward ensuring adequate quality assurance for site characterization activities.

Funding will also support domestic and international cooperative agreement activities, and investigations of alternative rock types. Other program activities receiving support include generic activities related to the monitored retrievable storage (MRS) facility. Efforts associated with transportation and system integration will continue, including the award of contracts for cask design and prototypical rod consolidation equipment. No funding is provided for the subseabed program.

The Nuclear Waste Fund is financed from fees collected from owners and generators of spent nuclear fuel and high-level radioactive wastes. Funds invested in Treasury securities as of September 30, 1986, totaled $1.6 billion. Projected receipts for FY 1987 are $455 million.

A summary of the OCRWM budget for FY 1987 is shown. ★

OCRWM Fiscal Year 1987 Budget
(Dollars in Thousands)

	FY 1986 Appropriation	FY 1987 Budget*
NUCLEAR WASTE FUND		
Repository Development		
• First Repository	$386,050	
• Second Repository	35,500	
Monitored Retrievable Storage	3,000	
Transportation and Systems Integration	21,275	
Program Management and Technical Support	53,212	
TOTAL	$499,037	$420,000**
CIVILIAN RADIOACTIVE WASTE R&D		
Spent Fuel Storage Development	$ 8,481	6,300
Alternative Disposal Concepts	7,207	—
Program Direction	303	200
TOTAL	$ 15,991	$ 6,500

*Preliminary, subject to change.

**This amount is available immediately; however, $499,000 was appropriated. The exact distribution of available funds has not yet been determined.

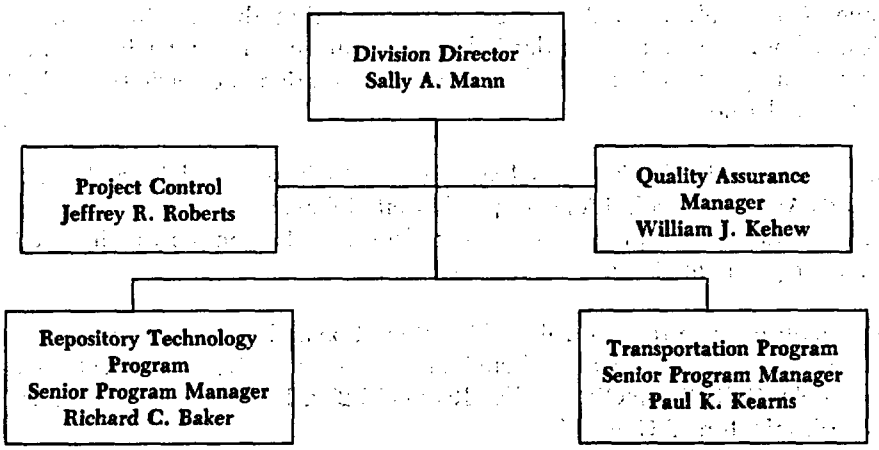
Repository Technology and Transportation Division Established

A Repository Technology and Transportation Division (RTTD) has been established in the Chicago Operations Office to manage responsibilities related to development of repository technology and transportation of high-level waste. The new division combines these two programs to strengthen waste management capabilities by integrating them under a single Division Director while promoting cross utilization of information and personnel. Dr. Sally A. Mann is the RTTD Director, reporting to Donald L. Bray, Assistant Manager for Project and Technology Management.

Within this Division, a Repository Technology Program (RTP) branch has been established to develop an integrated technology base for the second repository and to provide support in the resolution of generic technical issues regarding geologic repository development. The RTP branch will focus its efforts on the identification and resolution of technical issues that are not site-specific while evaluating the feasibility of various geologic media, including but not limited to, crystalline rock. The RTP branch has been established as a result of Secretary of Energy John S. Herrington's decision to postpone indefinitely all second repository siting activities formerly under the direction of the Crystalline Repository Project Office. Richard C. Baker has been named Senior Program Manager for this branch.

The other component of the Division, the Transportation Program (TPO) branch, will support OCRWM transportation efforts through maintenance of an institutional outreach network, analysis of environmental and economic factors, and program integration. The TPO branch will concentrate on multiple aspects of transporting waste from reactor sites to storage/disposal site(s), including issue resolution, institutional planning and interactions, and integration with others involved in the transportation program. Dr. Paul K. Kearns is the TPO Senior Program Manager. ★

Organizational Chart for the Repository Technology and Transportation Division



New Publications and Documents

"Program Summary, Office of Remedial Action and Waste Technology" — November 1986, DOE/NE-0075

Within DOE, three offices share responsibility for waste management: the Office of Remedial Action and Waste Technology, OCRWM, and the Office of Defense Waste and Transportation Management. This report, by the Office of Remedial Action and Waste Technology, provides a summary of its project organizations and objectives, as well as activities and plans. The report is available from the National Technical Information Service, U.S. Department of Commerce, Springfield, VA 22161.

"Permanent Geologic Disposal Systems for Waste—International Cooperative Program" — November 1986, DOE/RW-0097

This document describes OCRWM's international activities in salt and crystalline rock disposal, spent fuel storage, interactions with the International Atomic Energy Agency, and Nuclear Energy Agency of the Organization for Economic Cooperation, and provides technical assistance to nonnuclear-weapons countries in spent fuel storage and disposal. Developments in geologic disposal of radioactive waste in foreign countries are also described.

Copies of new publications and documents are available from the U.S. Department of Energy, OCRWM, Office of Policy and Outreach, Mail Stop RW-40, 1000 Independence Avenue, SW, Washington, DC 20585.

Draft OCRWM Financial Assistance Guidelines Issued

The purpose of the financial assistance program under the NWPA is to ensure that affected States and Indian Tribes have sufficient financial resources to participate in the radioactive waste management program. Because their needs and plans may vary, financial assistance guidelines are being developed to ensure that:

- all States and Indian Tribes involved in the repository program are treated fairly and consistently,
- activities funded by the grants are consistent with the NWPA, and
- financial assistance consideration is given to other elements of the program. For example, an MRS facility, should it be approved by Congress, would trigger the financial assistance provision related to the MRS program. In addition, Federal interim storage and a Test and Evaluation Facility, should they be used or developed, would also cause financial assistance provisions in the NWPA to be implemented.

Geologic Repository Program

Activities eligible for support will vary depending on the phase of the repository development process. In the notification/nomination phase, examples of activities that are eligible for support include those leading to Consultation and Cooperation Agreements; providing review and comment to DOE on documents such as plans, reports, and proposed rules; attending DOE-sponsored meetings and workshops; and disseminating information to the public. Other activities eligible for support include intergovernmental coordination, and monitoring, analyses, and studies.

During the site characterization phase, examples of permissible activities include review of documents relating to potential impacts of a repository on the States, Indian Tribes, and their residents; financial assistance for the development of a request for impact assistance; monitoring, testing, and evaluation; public information programs; and intergovernmental coordination.

Guidelines for other phases of the geologic repository program (e.g., licensing, operations, and decommissioning) have not yet been developed and are not included in the draft financial assistance guidelines. Also reserved for later inclusion in the guidelines is a section relating to Payments-Equal-to-Taxes (PETT). The NWPA, Section 116(c)(3), provides for PETT payments to be made to States and units of general local government.

Transportation Program

It has been determined by OCRWM that it will use cooperative agreements with certain regional organizations to enable States, Indian Tribes, and other parties to participate in the identification and resolution of issues associated with the transportation of spent nuclear fuel and high-level radioactive waste from reactors to the repository site. Potential host States and affected Indian Tribes may use grant funds issued under these guidelines to address transportation issues that are the direct result of hosting a radioactive waste disposal site.

Other topics covered by the draft internal general guidelines for financial assistance include procedures for:

- discontinuation of financial assistance when a site does not progress from one phase to the next or is eliminated from the selection process;
- review, negotiation, and concurrence actions to be followed by DOE Project Offices; and
- DOE Headquarters review.

Copies of the draft financial assistance guidelines were provided in fall 1986 to the affected States and Indian

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Standard Contract for Disposal of Spent Fuel

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On November 7, 1986, DOE published a Notice of Proposed Rulemaking in Vol. 51, *Federal Register*, Page 40684, that would amend the standard disposal contract in order to conform to a December 6, 1985, decision of the U.S. Court of Appeals for the the District of Columbia. In this decision (Wisconsin Electric Power Co. et al. v. Hodel), the Court ruled that the ongoing 1 mill per kilowatthour fee in the standard disposal contract should be based on net generation of electricity rather than on gross generation of electricity as adopted in the final rule.

The proposed rule, the first formal modification to the standard disposal contract, amends Article I—Definitions to specify that "kilowatthours generated" means net generation. It also proposes to revise the forms and accompanying instructions to reflect payments based on net generation.

Comments on the proposed rulemaking should be addressed to Samuel Rousso, Office of Civilian Radioactive Waste Management, U.S. Department of Energy, Docket No. OCRWM-NOPR-86-202, Room GB-270, 1000 Independence Avenue, SW, Washington, DC 20585. ★

Draft OCRWM Financial Assistance Guidelines Issued

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Tribes, and other interested parties for their review and comment. A unified draft reflecting their comments is being prepared, and the revised document, after internal agency review, will be coordinated with affected States and Indian Tribes by the end of November or early December 1986. It is anticipated that a 45-day comment period will be scheduled, with publication of the final OCRWM financial assistance guidelines tentatively planned for late February or early March 1987. ★

Other Program Items

Cask Testing Plan

The first phase of Transportation Systems Acquisition includes development of spent fuel and radioactive waste casks required by DOE for civilian radioactive waste transport. One of the initiatives (known as from-reactor casks) in this first phase will allow DOE to ensure the availability of NRC-certified casks for shipments of spent fuel and consolidated fuel rods from most reactors to facilities in the Federal disposal system. Cask testing is an integral part of this initiative and a draft cask testing plan has been completed. The objectives of the plan are to:

- define cask testing needs,
- identify regulatory roles in the OCRWM testing program,
- determine schedules and facility requirements, and
- ensure adherence to approved quality assurance procedures.

The development program will include engineering, design verification, acceptance, and operational testing. Engineering tests will be required on all cask designs to provide data on material performance or performance of cask components. Design verification tests will be performed to demonstrate design safety and to evaluate cask performance relative to NRC design criteria. After each cask is fabricated, a set of acceptance tests must be performed before shipments can be made in the cask. After passing the acceptance tests, operational tests will be conducted; these tests include handling the cask at a variety of facilities, monitoring cask system performance during transit, and transferring the cask between transportation modes.

DOE will either perform or require its contractors to perform the necessary tests. Engineering and design verification tests will be conducted at the national laboratories as appropriate. All testing results will be used to determine which of the prototype designs are qualified to become fleet casks. ★

Selected Events Calendar

December 9-10 Nuclear Regulatory Commission (NRC)/DOE Meeting on Defense Waste Processing Facility Vitrification Process, Waste Form and Supporting Data Base; DOE Headquarters, 1000 Independence Avenue, SW, Washington, DC. (See note below for recorded message providing further details.)

December 9-11 Institutional/Socioeconomic Coordination Group Meeting, Las Vegas, NV. Contact Barry Gale (202) 252-1116.

January 20-22 Environmental Coordinating Group Meeting, Las Vegas, NV. Contact Jerry Parker (202) 252-5679.

January 21-22 Quality Assurance Coordinating Group Meeting, Albuquerque, NM. Contact Carl Newton (202) 252-9300.

February 10-13 Atomic Industrial Forum (AIF) Conference on Insurance and Indemnity Issues, San Diego, CA. Contact AIF Conference Office (301) 654-9260.

March 1-5 Waste Management '87, Tucson, AZ. Contact Morton Wacks (602) 621-2475.

March 15-18 AIF Fuel Cycle Conference '87, Boston, MA. Contact AIF Conference Office (301) 654-9260.

For details on DOE/NRC meetings call (1/800) 368-2235 for a recorded message. In the Washington, DC, area call 479-0487.

A telephone recording service has been established for the announcement of upcoming meetings related to the waste management program of the NRC. The number is (1/800) 368-5642, Ext. 79002. Washington, DC, area residents should call 427-9002.

For information on meetings and events occurring between issues of the "OCRWM Bulletin" use OCRWM INFOLINK, an Electronic Bulletin Board that can be accessed through a standard computer communications capability on (202) 252-9359 or (202) 252-5406, or call Tim Conner (202) 252-6356. The "OCRWM Bulletin" now is available through INFOLINK.

Other Program Items (continued)

Cooperative Agreement With National Conference of State Legislatures

Negotiations with the National Conference of State Legislatures (NCSL) were completed in November 1986, leading to a cooperative agreement for the NCSL to provide assistance to State legislatures and to DOE in the implementation of the NWPA. The purpose of the cooperative agreement is to encourage State and public participation and to strive to obtain additional local input as the first repository site selection process enters the technically and socioeconomically complex site characterization phase.

The NCSL, a nonprofit umbrella organization, is the only national legislative organization governed by the States and directly funded by contributions from general tax revenue of the 50 States. The NCSL is a nonpartisan organization serving the informational, technical, and research needs of the Nation's 7,500 State legislators and their constituents. The specialized qualifications of the NCSL enable it to provide a neutral organizational forum that encourages free and open communication concerning high-level radioactive waste management.

Continued assistance to State legislatures will be provided by the NCSL in the form of research and publications, an information clearinghouse, a legislative working group, and State and/or regional seminars on technical and process issues. The NCSL will share information and perspectives of its staff with DOE staff. ★

Collaboration Among International Crystalline Rock Repository Programs

Directors of crystalline rock programs from Canada, Finland, France, Japan, Spain, Sweden, Switzerland, the United Kingdom, the United States, the Commission of European Communities (CEC), and the Nuclear Energy Agency of the Organization for Economic Cooperation (OECD/NEA) completed a meeting to review and discuss their programs on November 3 and 4, 1986. The 2-day meeting, chaired by Ben C. Rusche, Director of OCRWM, provided the first opportunity for the Directors to meet as a group to consider the issues and approaches being taken to develop the technology for identifying and confirming the suitability of crystalline rock sites for a radioactive waste repository. The Directors agreed that existing mechanisms through OECD/NEA, the CEC, and international agreements would continue to be ued for further cooperation, and that crystalline rock is a promising host for a geologic repository for radioactive waste. They agreed to meet again in 1 year.

Prior to the meeting in Paris, Mr. Rusche visited London, where he signed a new bilateral agreeement with Mr. A.M. Allen, Chairman of the United Kingdom Atomic Energy Authority, on radioactive waste management. The agreement continues the close cooperation and technical exchange conducted in the past. The exchange of technology includes treatment, transportation, and disposal of radioactive waste, as well as the decontamination and decommissioning of used facilities. ★

*U.S. GOVERNMENT PRINTING OFFICE: 1986-181-180:40193