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OCRWM Bulletin

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

August 1987

Compliance with Consultation and Cooperation Provisions of the Nuclear Waste Policy Act of 1982

Background

In a conference committee report (Report #99-1005: *Making Continuing Appropriations for Fiscal Year 1987*), released on October 15, 1986, House and Senate conferees agreed to provide \$499 million for the Nuclear Waste Disposal Fund. Of this sum, \$420 million was made available immediately and \$79 million was made available "subject to prior approval of the subcommittees on Energy and Water Development Appropriations of the House of Representatives and the United States Senate and subject to certification by the Secretary of Energy that he has made a good faith effort to comply with the requirement of... [Section 117(c) of the Nuclear Waste Policy Act], relative to consultation with the States selected for site characterization for a repository." The continuing resolution also requires the Secretary to provide a detailed explanation of his efforts.

In accordance with the provisions of the continuing resolution, the DOE has issued a report to Congress, highlighted below, that documents DOE's progress in consulting and cooperating with States and Indian Tribes under the provisions of the Nuclear Waste Policy Act (NWPA), and provides the basis for the Secretary's certification to Congress of DOE's good faith effort to comply with Section 117(c) of the NWPA.

Written Consultation and Cooperation Agreements

Written consultation and cooperation (C&C) agreements authorized by the NWPA serve as an important basis for DOE's relationship with affected States and Indian Tribes by allowing both parties to mutually define the consultation process. To this end, DOE formally invited all affected parties to enter into negotiations for written agreements following the President's approval of three sites for characterization. DOE previously had entered into negotiations with Washington, the Yakima Indian Nation, and the Confederated Tribes of the Umatilla Indian Reservation. However, no agreements have been completed. DOE has requested that negotiations be resumed.

On January 29, 1987, John H. Antonnen of DOE wrote to J. Herman Reuben, chairman of the Nez Perce Tribal Executive Committee, to notify him of DOE's determination that affected Indian Tribes would be eligible to receive financial assistance for the development of a report requesting impact assistance under Section 118(b) of the NWPA. This determination was in answer to questions raised by the Nez Perce Tribe in response to DOE's renewed offer to negotiate a C&C agreement. On April 28, 1987, Chairman Reuben informed DOE that the Nez Perce Tribe was prepared to begin negotiations for a C&C agreement.

A meeting was held on June 11, 1987, to discuss the procedures that will govern the conduct of negotiations. The next six negotiating sessions were also scheduled.

DOE continues to make good faith efforts to begin negotiations with Nevada and Texas. In addition, DOE has indicated its willingness to negotiate incremental C&C agreements as recommended by the General Accounting Office (GAO). DOE remains firmly committed to seeking negotiations for C&C agreements and will negotiate in good faith with all affected parties. The certification report describes in detail the efforts by DOE to negotiate written C&C agreements.

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Published by the U.S. Department of Energy (DOE), Office of Civilian Radioactive Waste Management (OCRWM)

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) 586-5722. The OCRWM Information Services Directory is available to provide sources of program information for the States, Indian Tribes, involved parties, and the public.

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OCRWM Issues Analysis of the Total-System Life-Cycle Cost for the Civilian Radioactive Waste Management Program

The total-system life-cycle cost (TSLCC) analysis for DOE's Civilian Radioactive Waste Management Program is an ongoing activity that helps determine whether the revenue-producing mechanism established by the NWPA—a fee levied on electricity generated in commercial nuclear powerplants—is sufficient to cover the costs of the program. The report provides cost estimates for the fifth evaluation of the fee and is consistent with the program strategy and plans contained in the Mission Plan Amendment submitted to Congress in June 1987 (see *OCRWM Bulletin*, June 1987). The total-system cost for the reference cases in the improved performance system (i.e., the system that includes a facility for monitored retrievable storage [MRS]) is estimated at \$32.1 to \$38.2 billion, expressed in constant 1986 dollars, over the entire life of the system. The range in the estimate represents options in site and geologic media for both repositories. These costs are \$1.5 to \$1.6 billion more than that of the authorized system (i.e., the system without the MRS facility). These estimates include costs for both civilian and defense waste.

The current estimate of the total-system cost for the reference cases in the improved-performance system is \$3.8 to \$5.4 billion higher than the estimate for the same system in the 1986 TSLCC analysis. Nearly all the increased cost is because of an increase in the costs of development and evaluation (D&E)—(e.g., \$5.2 billion of a \$5.4 billion increase); all other system costs are essentially unchanged.

Most of the D&E increase is related to the costs of developing the first and second repositories. For the first repository, the cost increases are attributed to increases in the work content of selected activities that precede the submittal of the license application to the Nuclear Regulatory

Commission (+\$0.7 billion), the schedule extension for these activities (+\$0.8 billion), increased costs for the license application design of the repository (+\$0.4 billion), and a combination of added work content and schedule extension for selected activities occurring after the submittal of the license application (+\$0.2 billion). The increase in D&E costs for the second repository is because of the proposed schedule change for site specific activities as described in the Mission Plan Amendment (+\$0.5 billion), a change in assumptions about the costs of site specific characterization (+\$0.5 billion), and increases in the work content in the same program areas as in the first repository (+\$1.1 billion). The remainder of the increase from last year's D&E cost estimate (+\$1.0 billion) is due to increases in the costs of developing the transportation system, performing systems integration activities, mitigating the socioeconomic impacts of each repository, and administration by the Federal government.

The cost difference between the improved performance system and the authorized system is smaller than the difference estimate in last year's TSLCC analysis. This year, the improved performance system was estimated to cost \$1.5 to \$1.6 billion more than the authorized system, whereas last year the incremental cost

was \$1.7 to \$2.6 billion. For the same repository site combinations studied in both analyses, the maximum reduction in this incremental cost was \$0.9 billion. This reduction was primarily due to more detailed repository and surface facility design information. Other reductions in estimated costs were due to changes in assumptions about transportation, i.e., more efficient cask loadings for shipments from the MRS facility and more efficient waste canisters.

The TSLCC analysis serves several purposes beyond the assessment of fee adequacy for the Nuclear Waste Fund. By providing for all parts of the currently planned waste management system a detailed set of cost estimates that flow from an even more detailed set of program assumptions, the TSLCC analysis provides a reference point from which cost sensitivity and system tradeoff studies can be performed and evaluated on a comparable basis. By analyzing the reasons why the cost estimates differ from those of previous years, the TSLCC analysis also provides an ongoing chronicle of program strategy, major developments, and the planned cost of the entire program as it evolves through time. For details on the contents of the multi-volume TSLCC analysis see New Publications and Documents, page 6. ☆

Currently Scheduled OCRWM Short-Term Program Milestones

Sept. 1987	Issue draft environmental regulatory compliance plans.
Nov. 1987	Issue final program reference cost baseline.
Dec. 1987	Issue <i>Federal Register</i> notice for calendar year 1988 federal interim storage (FIS) fees.
	Submit annual update of FIS deployment report to Congress.

Other Program Items

Prenotification Procedures Revised for High-Level Waste Transport

As a result of a recent change in DOE prenotification policy, transit states will now receive written notification in advance of unclassified shipments of spent fuel and high-level radioactive waste. The new requirement is virtually identical to Nuclear Regulatory Commission prenotification requirements. Written guidance to implement the policy has been developed and coordinated with field staff and will take effect by August 1, 1987. A separate letter has been sent to the Governor of each affected State with information on this change in policy.

According to the new policy, written notification must be sent to the Office of the Governor or the Governor's designee. A notification delivered by mail must be postmarked at least 7 days before transport of a shipment within or through a State. A notification delivered by messenger must reach the appropriate office at least 4 days before transport of a shipment.

Among the elements that the notification for spent fuel shipments must include are:

- the name, address, and telephone number of the shipper, carrier, and receiver;

- a description of the waste shipments as specified by the Department of Transportation in 49 Code of Federal Regulations 172.202 and 172.203(d);
- a listing of the routes to be used within the State; and
- a point of contact to call for additional emergency response information.

Notification of schedule changes of more than six hours will be made by the shipper telephoning a responsible individual in the Office of the Governor or the Governor's designee. Information concerning shipments must be protected by informed parties until after the shipment is scheduled to reach its destination. ☆

Project Agreement Signed by DOE and the National Cooperative for the Storage of Radioactive Waste in Switzerland (NAGRA) in the Field of Flow and Transport in Fractured Media

On June 8, 1987, Ben C. Rusche, Director of OCRWM, acting on behalf of DOE, and H. Issler and C. McCombie, acting for NAGRA, signed a project agreement for collaboration on a technical project related to the safety of nuclear waste disposal in fractured crystalline rock. This project concerns modeling of flow and transport through fractured rock in general and the interpretation and modeling of field data required for assessment of potential geologic waste disposal facilities. The results from the project will be used in both the United States and Switzerland. The tasks to be carried out (see Table below) will use data obtained from test sites, underground rock laboratories, and potential waste disposal sites in Switzerland.

DOE—NAGRA Joint Project Tasks

Task	Purpose
Determination of fracture hydraulic parameters by means of fluid-logging in boreholes	Develop well test interpretation methods to determine key fracture hydraulic parameters.
Determination of fracture hydraulic parameters by means of hydraulic testing in boreholes	Investigate and, if necessary, develop well test interpretation methods to determine formation of hydraulic properties.
Flow and transport in fractured media	Develop statistical methods to model flow and transport through fractured media.
Influence of gas flow on solute transport in fractured media	Develop methods to investigate and to model the influence of gas flow on solute transport through fractured media.
Design of methodologies by means of an underground rock laboratory	Investigate and, if necessary, develop methodologies to determine formation of hydraulic properties to be applied in an underground rock laboratory.
Coupling of transport and geochemistry	A code known as TIP models heat and mass transport by thermodynamically coupled processes. The purpose of this study is to extend the capabilities of the TIP code to include chemical reactions.

To support the tasks identified above with DOE laboratories and contractors, DOE will spend an estimated \$1.8 million over a period of 3 years. As its contribution to the project, NAGRA will provide the services of necessary NAGRA or contractor staff and data already acquired to date by NAGRA to be used under this project agreement. ☆

Compliance with Consultation and Cooperation Provisions of the Nuclear Waste Policy Act of 1982

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Past and Ongoing Consultation and Cooperation Activities

Distinct from the pursuit of written agreements, DOE has also pursued a process of consultation consisting of ongoing and extensive interactions with States and Indian Tribes. This consultation process is intended to fulfill the spirit and intent of the NWPA and includes the following recent initiatives:

- *Defining Consultation and Cooperation*—In response to a GAO recommendation, DOE met with potential repository host States and Indian Tribes in New Orleans in November 1986 to explore ways to better define consultation and cooperation in the Mission Plan and to explore ways to improve working relationships. In a May 1987 DOE meeting with repository States and Indian Tribes held in Las Vegas, NV, the meeting participants discussed the future development of operating principles governing consultation and cooperation. At this meeting, DOE agreed to work with the affected repository States and Indian Tribes to establish a forum and format by which operating principles would be developed.
- *Opening Coordinating Groups*—Coordinating groups develop policy options for repository program areas such as geosciences, licensing, waste package and facility design, environmental impacts, institutional relations, and quality assurance. Three of the coordinating groups have been open to State and Indian Tribal participation since 1985. In response to State and Indian Tribal requests and a GAO recommendation, DOE has also opened the remaining coordinating groups to State and Tribal participation. A

DOE Headquarters task force has developed procedures for all groups and a system to monitor meeting action items and commitments. Since 1984, Office of Geologic Repository (OGR) senior management have also met regularly with senior representatives of repository States and Indian Tribes to discuss major policy issues. At the request of the States and Indian Tribes, the meetings are now open to the public and are held in locations chosen by the repository States and Indian Tribes.

- *Holding More Frequent Senior Management Meetings*—Senior OGR and Project Office technical managers are meeting more frequently with State and Indian Tribal officials to discuss policy issues informally.
- *Developing Comprehensive Participation Plans*—To clearly define day-to-day working-level interactions, DOE is developing site-specific participation plans in close consultation with affected parties. Each participation plan will define a program for informing and involving affected parties in ongoing interactions and activities related to program milestones. Although these plans are not required by the NWPA, DOE regards them as major program documents that will strengthen participation by the affected parties.
- *Expanding Independent Oversight*—In response to States' and Indian Tribes' concerns and a GAO recommendation, DOE is working with the National Academy of Sciences (NAS) to expand opportunities for independent oversight of the repository program. It was recently agreed that the NAS will establish site-specific panels to oversee the technical aspects of site

characterization. These panels would operate under NAS procedures that would include opportunities for State and Indian Tribal participation.

- *Strengthening Financial Assistance Programs*—States and Indian Tribes have provided extensive and constructive comments on several versions of OCRWM's internal financial assistance guidelines. DOE met with State and Tribal representatives on May 11-12, 1987, to explore issues associated with a proposed rulemaking on financial assistance. Meanwhile, DOE has streamlined its grant review process to ensure that funds are provided in a timely and predictable manner.
- *Expanding Information Systems*—DOE is exploring ways to upgrade OCRWM's Information Management System to improve procedures for sharing information with States and Indian Tribes, and to make OCRWM's electronic mail system, "INFOLINK," more interactive.

DOE is committed to a process of consultation and cooperation that is explicit enough to be widely understood and flexible enough to accommodate changing program needs. While DOE has issued invitations to negotiate and has responded favorably to all requests for negotiations by States and Indian Tribes, decisions to commence negotiations with DOE must be made by each State and Indian Tribe. At the same time, DOE believes that a healthy consultation and cooperation process will not only meet the intent of the NWPA that States and Indian Tribes be enabled to participate in and oversee the waste management program, but that it will produce substantive program benefits by broadening the base of ideas and information that supports DOE policy and decision making. ★

Selected Events Calendar

- Sept. 15-17** Environmental Coordinating Group Meeting, Washington, D.C. Contact Jerry Parker (202) 586-5679.
- Sept. 17-18** Western Interstate Energy Board High-Level Waste Transportation Committee Meeting, Seattle, WA. Contact Lori Freil (303) 377-9459.
- Sept. 22-23** Geosciences Coordinating Group Meeting, Washington, DC. Contact Don Alexander (202) 586-1238.
- Oct. 1** DOE Meeting with States and Indian Tribes, The Grand Kempinski, Dallas, TX. Contact Judy Leahy (202) 586-8320.
- Oct. 6-7** Transportation Coordinating Group Meeting, Marriott Hotel Southeast, Denver, CO. Contact Susan Denny, (202) 586-2439. For reservations contact Marriott at (303) 758-7000.
- Oct. 15** Project Management Coordinating Group Meeting, Washington, DC. Contact Richard Blaney (202) 586-9896.
- Oct. 21-22** Quality Assurance Coordinating Group Meeting, Amarillo, TX. Contact Karl Sommers (202) 586-1639.
- Nov. 17-19** Repository/Waste Package Coordinating Group Meeting, Washington, DC. Contact Mark Frei (202) 586-9322.
- Dec. 1-3** Institutional Socioeconomic Coordinating Group Meeting, Las Vegas, NV. Contact Barry Gale (202) 586-1116.

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) 586-9359. The OCRWM Bulletin is now available through INFOLINK. ☆

New Publications and Documents

Analysis of the Total-System Life-Cycle Cost for the Civilian Radioactive Waste Management Program, DOE/RW-0047, June 1987, (Revised Reprint of April 1986 issue)

This two-volume report summarizes the total-system life-cycle cost (TSLCC) analysis performed for the fifth annual evaluation of the adequacy of the fee collected for the Nuclear Waste Fund. Presented in this report are the rationale for various cases studied, analytical interpretations of the DOE's management strategy, brief descriptions of the cost estimation methods by cost component, summaries of the cost estimates, and comparisons of the estimates with the results of previous TSLCC analyses.

Quarterly Report on Program Cost and Schedule, Second Quarter FY 1987, DOE/RW-0145.

This report provides a summary of the cost and schedule performance for the Civilian Radioactive Waste Management Program. Performance data are presented for each of the major program elements. Also included is the status of the Nuclear Waste Fund revenues and disbursements. Performance data through March 31, 1987, are included in the report.

For the convenience of *OCRWM Bulletin* readers, a compilation and order form for OCRWM publications issued in 1987 is attached. Requests for publications will be honored subject to the continued availability of the publications.

ORDER FORM FOR OCRWM 1987 PUBLICATIONS

Number/Date	Title	Copies Requested
DOE/RW-0120 January 1987	Implementation Plan for Deployment of Federal Interim Storage Facilities for Commercial Spent Nuclear Fuel	_____
DOE/RW-0121 January 1987	OCRWM Backgrounder: <i>Transportation Casks for Spent Nuclear Fuel and High-Level Radioactive Waste</i>	_____
DOE/RW-0122 January 1987	OCRWM Backgrounder: <i>Transportation Routing Issues Related to the Shipment of High-Level Nuclear Waste</i>	_____
DOE/RW-0123 January 1987	OCRWM Backgrounder: <i>Addressing Concerns About Water Through Repository Siting and Design</i>	_____
DOE/RW-0124 January 1987	OCRWM Backgrounder: <i>Shipments of Spent Nuclear Fuel in Support of Nuclear Waste Policy Act Research and Development Programs</i>	_____
DOE/RW-0126 January 1987	OCRWM Backgrounder: <i>Quality Assurance for Nuclear Waste Repositories</i>	_____
DOE/RW-0127 January 1987	OCRWM Backgrounder: <i>Federal Agencies Involved in the Implementation of the Nuclear Waste Policy Act of 1982</i>	_____
DOE/RW-0129 February 1987	Factsheet: <i>Implementation of the Nuclear Waste Policy Act of 1982</i>	_____
DOE/RW-0035/1 Rev 1, Vol I-III March 1987	Monitored Retrievable Storage Submission to Congress	_____

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DOE/RW-0136 April 1987	Waste Acceptance Preliminary Specifications for the West Valley Demonstration Project High-Level Waste Form (OGR/B-9)	_____
DOE/RW-0137 April 1987	OCRWM Backgrounder: <i>Activities During the Site Characterization Phase of the Geologic Repository Program</i>	_____
DOE/RW-0138 April 1987	OCRWM Backgrounder: <i>Cooperative Demonstration Projects for Spent Nuclear Fuel</i>	_____
DOE/RW-0139 April 1987	OCRWM Backgrounder: <i>Studies of Alternative Methods of Radioactive Waste Disposal</i>	_____
DOE/RW-0140 April 1987	OCRWM Backgrounder: <i>Characteristics and Inventories of Nuclear Waste</i>	_____
DOE/RW-0141 April 1987	OCRWM Backgrounder: <i>Public Participation in the Development of the Transportation Institutional Plan</i>	_____
DOE/RW-0142 April 1987	Annotated Outline for Site Characterization Plans (OGR/B-6)	_____
DOE/RW-0143 May 1987	Transportation Institutional Plan: Executive Summary	_____
DOE/RW-0038 May 1987	Information Services Directory (An update of the August 1986 publication)	_____
DOE/RW-0144 April 1987	OCRWM Annual Report to Congress for Fiscal Year 1986	_____
DOE/RW-0145 1987	Quarterly Report on Program Cost Schedule (2nd Quarter ending March 1987)	_____
DOE/RW-0146 June 1987	Annual Capacity Report June 1987	_____
DOE/RW-0020 June 1987 (Revised Report)	Nuclear Waste Fund Fee Adequacy: An Assessment	_____
DOE/RW-0047 Vol I-II June 1987	Analysis of the Total System Life Cycle Cost for the Civilian Radioactive Waste Management Program	_____

Please send all requests for publications to U.S. Department of Energy, OCRWM, Office of Policy and Outreach, Mail Stop RW-40, 1000 Independence Avenue, SW, Washington, DC 20585.

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