

PRESENTATION TO THE NUCLEAR WASTE TECHNICAL REVIEW BOARD

STATUS OF THE CIVILIAN RADIOACTIVE WASTE
MANAGEMENT PROGRAM

BY

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Introduction

Chairman Cohon and Members of the Board:

Thank you for the opportunity to speak with you today and provide my perspective on the status of the Civilian Radioactive Waste Management Program and our plans for the coming year. When Dan Dreyfus spoke with you last October, the Program was in the early stages of implementing the revised Program Plan published in June 1996. Congress endorsed this plan in the 1997 Appropriations Act, and the President's 1998 budget request for the Program supports its continued implementation. With adequate funding, we will complete the viability assessment of the Yucca Mountain site next year and maintain momentum toward geologic disposal as set forth in the Nuclear Waste Policy Act of 1982, as amended.

Congress is once again considering legislation to address the near-term management of spent fuel. The Senate has passed a bill, similar to legislation that it passed last year, siting an interim storage facility on the Nevada Test Site, with alternate siting provisions if the President, upon consideration of the viability assessment, determines that the site is not suitable. The House is considering legislation that would direct the Department to begin waste acceptance at an interim storage facility on the Nevada Test Site by January 2000, irrespective of the viability assessment. As you are aware, the Administration opposes the preemptory siting of an interim storage facility near Yucca Mountain before the viability assessment has been completed. The Administration believes that a decision on the siting of an interim storage facility should be based on objective, science-based criteria and should be informed by the viability assessment of Yucca Mountain. Consequently, the President has stated that he would veto either bill, if presented in their current form.

Despite its opposition to the current legislation, the Administration remains committed to resolving the complex and important issue of nuclear waste management. Secretary Peña has stated his willingness to work cooperatively with Congress on nuclear waste disposal issues. Whatever the outcome, the Federal Government's longstanding commitment to permanent

geologic disposal should remain the centerpiece of the Nation's high-level radioactive waste management policy.

The near-term management of commercial spent fuel remains an important issue to utilities and others. On December 17, 1996, the Department formally notified Standard Contract holders that it would be unable to begin accepting their spent nuclear fuel at either a repository or an interim storage facility by January 31, 1998. Legal action was subsequently taken by the utilities, and the case is still being considered by the court. In the interim, the Department is proceeding with the following dual-track approach to address the anticipated delay in accepting spent fuel:

- First, we have begun a process with contract holders to determine what actions under the standard contract would be appropriate to address the anticipated delay.
- Second, the Secretary has committed the Department to continuing discussions simultaneously with representatives of the utilities, States, and other stakeholders to seek mutually-agreeable solutions to the delay.

On June 3, 1997, the Department notified contract holders of its preliminary determination that the delay is unavoidable pursuant to the terms of the contract. While the Department believes, based on the contract, that it is not obligated to provide financial remedy for the delay, it recognizes that such delay may result in hardship to certain contract holders. Therefore, the Department is willing to consider utility proposals to amend individual contracts to mitigate the impacts of the delay in accepting spent fuel.

Viability Assessment

Over the past several years, the Yucca Mountain Project has focused on addressing major unresolved technical issues. This will permit us, by 1998, to provide the four components of the viability assessment required by the 1997 Appropriations Act. While the viability assessment is not one of the decision points defined in the Nuclear Waste Policy Act, its completion is expected to be significant to the development of a repository. The viability assessment will give policy makers key information regarding the prospects for geologic disposal at Yucca Mountain to justify continued funding of the Program. The viability assessment also serves as an important management tool for the Program. The development of the components will help integrate the ongoing activities and the assembled information will guide the completion of site characterization by identifying those areas where additional scientific and technical work is required to evaluate the site and prepare a defensible, complete, cost-effective, and timely license application. General agreement between the Program and its overseers and regulators on these remaining activities is central to the continuation of the geologic disposal program. This is especially important in an ever tightening Federal budgetary situation where so much emphasis has been placed upon balancing the budget and reducing the Department's discretionary funding allocations.

The presentations later today and tomorrow by staff and contractors from the Yucca Mountain Site Characterization Office will provide the Board further details regarding the activities that support the viability assessment. I will be here and look forward to hearing the Board's views on our plans and approaches so that we can appropriately address these concerns as we complete the components of the viability assessment.

Updating the Regulatory Framework

In its most recent report, the Board notes that the regulations governing spent fuel disposal should be updated because they are too detailed and were enacted too early in the repository development process. We agree. Our revised Program Plan recognized the need to update these regulations to reflect policy changes since the enactment of the Nuclear Waste Policy Act, the realities of the budget constraints on the Program, and, in particular, the technical understanding gained in more than a decade of site investigations. We have considered these factors in the proposed amendments to our siting guidelines. It is similarly important that these factors be considered by the U.S. Environmental Protection Agency (EPA) and the U.S. Nuclear Regulatory Commission (NRC), respectively, in developing radiation protection standards and revising the licensing criteria for a repository at Yucca Mountain. The Department believes that the resulting regulations and the licensing process should focus on issues central to protecting public health and safety and the environment, and not require a degree of proof that is beyond what science and engineering can reasonably provide.

In December 1996, we published a notice of proposed rulemaking to revise our repository siting guidelines as they would be applied in evaluating the suitability of the Yucca Mountain site. The approach we propose focuses on overall system performance as the basis for decisions about site suitability and repository development. The suitability decision need not and should not depend on individual attributes of the site outside the context of an assessment of the performance of the proposed engineered repository. The public comment period on the proposed rule ended May 16, 1997. We are presently evaluating all the comments, including those from the Board.

Recent Developments

I am pleased to report that we have continued to make significant progress since the Board's last meeting. The speakers who follow me will describe our progress in performance assessment, engineering design, and site characterization.

We completed excavation of the 7,900-meter (five-mile) loop of the exploratory studies facility at Yucca Mountain on April 25, 1997. From this point forward, work in this facility will focus primarily on thermal and hydrologic testing, and confirming our understanding of the rock where the repository would be constructed. In August 1996, we completed initial construction of the Northern Ghost Dance Fault Alcove. This alcove is the first of two that provide access to the

Ghost Dance fault, a major geologic feature of the repository setting. Testing in these alcoves will help to determine the flow properties and chemistry of water in the fault zone.

The Board has recommended accelerated excavation of an east-west drift to obtain information on the area west of the current exploratory studies facility. We agree with the Board and are conducting the detailed planning for an additional small-diameter, exploratory drift to the west of the main tunnel. This excavation will help to improve our understanding of the rock characteristics and hydrologic processes that are important to the design, construction, and performance of a repository at Yucca Mountain.

Over the last year, we continued work on the critical elements of a repository and waste package design, and on obtaining the information needed as input to the design process. Repository design activities addressed thermal management; performance confirmation design; waste handling emplacement and retrieval; development of systems, structures, and components important to safety that have little or no regulatory precedent; and design basis event analyses. Waste package design activities addressed criticality analysis methodology development; preliminary thermal, structural and shielding analyses; containment barrier fabrication; closure feasibility analyses; and conceptual invert design and material selection. These efforts will support preliminary designs for components of an engineered barrier system that contributes to isolation and retardation of radionuclides.

Waste Acceptance, Storage, and Transportation

Our Waste Acceptance, Storage, and Transportation Project is focused on the planning and long lead time activities that must precede the removal of spent nuclear fuel from reactor sites, once a Federal facility becomes available. These activities are consistent with the Administration's policy on siting an interim storage facility.

During the past year, we developed a market-driven approach that will rely on maximum use of private industry capabilities, expertise, and experience to provide the necessary services and equipment required to accept and transport commercial spent nuclear fuel to a Federal facility. We are presently working to establish a competitive procurement process to award fixed-price, multi-year, performance-based contracts.

To address long lead time requirements related to centralized storage, we completed a non-site-specific design for a centralized interim storage facility and submitted a topical safety analysis report for this design to the NRC staff on May 1, 1997. The staff docketed the topical safety analysis report on June 10, 1997, after completing an acceptance review. We believe that the staff's complete review of this report will reduce the time required for subsequent preparation and staff review of a license application.

Conclusion

Through implementation of our revised plan, we have focused the Program on the key issues and maintained the momentum of the repository program. Within the next 15 months, we will complete the viability assessment which will serve as a significant benchmark for the Program. The products associated with the viability assessment will provide all parties, including the Board, with a better understanding of geologic disposal at Yucca Mountain and the significance of the data then available. It will also help inform the ongoing revisions to the regulatory framework and guide the completion of site characterization. We intend to keep you apprised of our progress and look forward to a constructive dialogue as we carry out our mutual responsibilities.

Thank you for the opportunity to brief the Board. I would be happy to answer any questions you may have.