

QUARTERLY PROGRESS REPORT TO CONGRESS
U.S. DEPARTMENT OF ENERGY OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
JULY 1 – SEPTEMBER 30, 2006

Introduction

In testimony on July 19, 2006, the Director of the Department of Energy's (DOE) Office of Civilian Radioactive Waste Management (OCRWM) committed to provide quarterly progress reports to the House Energy and Air Quality Subcommittee. The purpose of this report is to:

- Review progress and accomplishments of the last quarter
- Identify major upcoming activities
- Highlight significant challenges

These reports will document significant trends, major developments, and important new initiatives relating to our progress in building a national disposal system for spent nuclear fuel and high-level radioactive waste. While each report will focus on the previous and upcoming quarters, it will also elaborate on the long-term challenges facing this critical national project.

OCRWM has announced a schedule for submitting a license application no later than June 30, 2008, and a best achievable schedule for initial repository operations in 2017. While submittal of the license application can be achieved by 2008 without legislative action, construction and operation of the repository cannot occur by 2017 without further legislative action as discussed in testimony provided to the Subcommittee on September 13, 2006.

Accomplishments

Completed Lead Laboratory Transition – We have completed the transition of responsibility for the postclosure safety assessment from Bechtel SAIC, OCRWM's management and operating contractor, to Sandia National Laboratories, our designated lead laboratory. Sandia is now managing all national laboratory postclosure analysis and science work on the Yucca Mountain project.

Established Project Directors – We have assigned project directors to key activities to ensure that there is direct authority and accountability to complete work on schedule and within budget. A senior Federal Project Director has been assigned to oversee the development of the license application to ensure it is proceeding in accordance with DOE project management orders; management of the Licensing Support Network and preparation of the Supplemental Environmental Impact Statement (SEIS) have also been assigned to dedicated senior Federal Project Directors.

Dedicated License Application Project Team – Preparation, review, validation, production, and delivery of the license application is now the responsibility of a dedicated License Application Project Team. In addition to a senior Federal Project Director, the project team includes

representatives from OCRWM as well as from the management and operating contractor, and Sandia National Laboratory. We are performing activities in accordance with DOE management orders and ensuring that the work meets all applicable Nuclear Regulatory Commission (NRC) requirements. A detailed project plan and schedule is being developed and progress is being reviewed at monthly project review meetings attended by senior management from OCRWM, Bechtel SAIC, and Sandia.

Received Critical Decision 1 (CD-1) Approval – The Department recently approved the conceptual design for the canister-based system for the repository. This process formalized the broad outlines of the revised concept for handling spent fuel at the repository, including incorporation of the transport, aging, and disposal (TAD) canister into facility designs, the layout of facilities at the site, the concept for the waste handling process, and the overall approach to repository construction and operations. With the inclusion of these changes to the repository concept, the Program is proceeding with developing preliminary facility designs to support the development of the license application.

Review and Upgrade of Management Processes – We have begun an organizational assessment process to evaluate major business and management processes which must be improved in order to effectively execute the OCRWM program elements. We have also begun to implement an annual business planning process and the linkage of organizational goals and objectives to individual performance plans.

Safety Conscious Work Environment – We are continuing to focus on further developing our Safety Conscious Work Environment, a fundamental aspect of a healthy nuclear culture, by continuing to encourage the self-identification of problems by all Program personnel. This is a management focus area that requires continued work. Recently completed employee survey data are being compiled and evaluated to determine areas requiring management intervention.

Upcoming Activities

Cash Flow Analysis – We have requested an independent review of our new cash flow requirements which reflect the new repository surface facilities design and the Program schedule. OCRWM will evaluate and incorporate the results of this review, as appropriate, and develop an updated cash flow analysis through completion of repository surface facilities for initial operations in 2017. This work is expected to be completed in November 2006.

Integrated Baseline – The information from the independent review of our cash flow requirements, along with schedule and scope data from our major participants, will form the key inputs for an integrated project baseline through initiation of repository operations. This is expected to be completed by May 2007.

TAD Specification – The Department adopted a new initiative to use a canister-based approach to waste acceptance, transportation, and disposal and is currently redesigning the surface facilities of the repository to incorporate this new approach. Industry response to this change has been generally positive. We anticipate that a performance specification for the TAD system will be available this November. OCRWM intends to utilize private industry for development of

TAD systems. We expect that conceptual designs of the TAD canisters will be available in early 2007. We are incorporating the canister-based approach into the license application to be submitted to the NRC.

U.S. Geological Survey (USGS) Email Extent of Condition Report – The Department is currently finalizing our root cause analysis of the situation and culture at the USGS which resulted in emails that clearly showed contempt for quality assurance requirements. These emails were written between 1998 and 2004 and were identified to OCRWM in March 2005. We have completed an extensive investigation to determine the extent of the quality-adverse culture connoted in the emails and will be releasing our report later this year. Our investigation has shown that there was no widespread or pervasive pattern across the Program of instances suggesting a cavalier attitude toward quality assurance or willful noncompliance with quality assurance requirements. We will, however, be taking corrective actions to ensure both the quality of the technical work products that will be the bases for the license application to the NRC as well as taking the necessary actions to assure that quality-related expectations are clearly communicated and achieved across the Program.

National Transportation Program – OCRWM is moving ahead with development of a transportation strategic plan. A key element will be engaging stakeholders in route planning to establish national routing criteria for shipments and to start identifying a suite of routes for moving the initial waste shipments to Yucca Mountain. This stakeholder effort will begin over the next several months. In addition, we are also moving ahead with development of the Environmental Impact Statement (EIS) for the Nevada rail line. The rail line will support both repository operations and construction activities. OCRWM is evaluating potential corridors and alignments through Nevada, including the Caliente and Mina routes.

Ongoing Regulatory and Oversight Interactions – The Program is working with oversight bodies as we develop technical products to ensure our performance is in line with expectations. We have recently increased and will continue our pre-licensing interactions with NRC to discuss our technical methods and approaches to develop a comprehensive safety analysis for NRC review before we submit the license application. We are working with the Nuclear Waste Technical Review Board in recognition of their responsibilities to evaluate and report on the technical and scientific validity of our work, and also in appreciation of their technical insights and perspectives. We have provided technical comments to the U.S. Environmental Protection Agency (EPA) through public comments on their proposed public health and safety standards for Yucca Mountain and await final standards so that we can complete our safety analyses. We also await promulgation by the NRC of their conforming licensing requirements based on the EPA standards.

Independent Assessments – We are in the process of evaluating bids in response to three Requests for Proposals to perform independent assessments of the draft license application, the quality assurance program and its implementation by OCRWM and its major contractors, and the engineering processes and procedures being used by OCRWM and its management and operating contractor. These reviews are expected to be completed in the spring of 2007.

SEIS Public Meetings – The Yucca Mountain Final Environmental Impact Statement was issued at the time of the site recommendation in 2002, and we have elected to prepare a Supplemental EIS to assist the NRC. This document will update key areas of technical information and provide OCRWM with an opportunity to engage the public directly with regard to current plans for the construction and operation of the repository. The repository SEIS will be completed in parallel with the Nevada Rail Alignment EIS, and OCRWM is holding public scoping meetings on both analyses during the Fall of 2006.

Developing Corrective Action Program (CAP) Improvements – OCRWM has received recommendations from the Government Accountability Office and the Department’s Office of Inspector General which are consistent with our own self-assessment results and which emphasize the need for improvements in the design and implementation of the CAP. We have identified a need for increased line management accountability and for enhanced systems and processes, and we are taking the necessary steps to improve our performance in this area.

Significant Challenges

Focus on Quality – One of the four strategic objectives established by the Director is to design, staff, and train the OCRWM organization such that it has the skills and culture needed to design, license, and manage the construction and operation of the Yucca Mountain Project with safety, quality, and cost effectiveness. We need to instill a culture that emphasizes doing every job right the first time rather than “inspecting quality” into our products.

Annual Funding – OCRWM is awaiting its Fiscal Year 2007 appropriation from Congress. While submittal of a license application is not contingent on the passage of legislation, stable and adequate funding is necessary. Funding at the requested level will allow us to move forward with continued progress on the license application and transportation planning.

Access to the Nuclear Waste Fund – An essential aspect of the Administration’s legislative proposal and a fundamental pre-requisite to successfully building a national repository is access to the monies that the Government is collecting specifically for this purpose. With long-lead procurements and parallel construction of the repository facilities, the Nevada rail line, and the national transportation system, our financial analyses have identified the need for access to the Nuclear Waste Fund at significantly increased levels over historical funding levels.

Legislation – Enactment of the Administration’s proposed legislation is essential to meeting the 2017 date set for initial repository operations. The legislative proposal addresses permanent land withdrawal, funding reform, clarification of regulatory requirements and permitting authorities, repeal of the statutory 70,000 metric-ton capacity limit, infrastructure development, and waste confidence for the development of new reactors.