

QUARTERLY PROGRESS REPORT TO CONGRESS
U.S. DEPARTMENT OF ENERGY
OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT
April 1 – June 30, 2007

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. This is the fourth quarterly report to Congress. The purpose of this report is to:

- Review major accomplishments of the last quarter
- Identify key ongoing activities
- Highlight significant challenges

OCRWM continued efforts to support favorable action on our budget request for FY 2008 of \$494.5 million. We appreciate the House's support of our full budget request and hope that the conference between the House and the Senate will also result in full funding which is vital to achieving Program objectives, including submittal of our license application to the Nuclear Regulatory Commission (NRC) no later than June 30, 2008.

OCRWM took a major step toward license application completion by releasing final specifications for the Transportation, Aging and Disposal (TAD) canisters, which are an important element of repository design. We also continued our efforts to support the proposed legislation submitted by the Secretary of Energy, the "Nuclear Waste Management and Disposal Act" which is important for meeting future capital and operating funding requirements and mitigating the increasing costs to taxpayers from delay in repository operations.

Major Accomplishments

TAD Canister Performance Specification – On June 19, DOE released the final performance requirements for the TAD canister for disposal of spent nuclear fuel at the repository. This canister approach will minimize the need for repetitive handling of spent nuclear fuel at the repository by using the same canister from the time spent nuclear fuel leaves a nuclear power plant to its placement in a waste disposal package at Yucca Mountain.

On July 11, DOE initiated a procurement for the development of final TAD canister and cask designs. DOE also has entered into discussions with nuclear utilities to amend their disposal contracts with DOE to facilitate the use of TAD canisters. DOE anticipates that TAD canisters will be available for commercial use potentially as early as 2011 and expects that up to 90 percent of commercial spent nuclear fuel could be placed in TAD canisters by the nuclear utilities, with the remainder of the commercial spent nuclear fuel being loaded into the TAD canister at the repository. The TAD-based approach, announced in October 2005, eliminates the

need for construction of several large, complex, and expensive facilities for handling spent fuel at the Yucca Mountain repository.

Integrated Program Baseline – OCRWM completed the development of an Integrated Program Baseline. The baseline integrates the scope, cost, and schedule requirements for the three OCRWM projects: Repository, Transportation, and Nevada Rail. The baseline will ensure that the three projects are managed in an integrated manner and provides the basis for long-term financial planning for the Program. The baseline clearly shows that continued funding in the historic annual range of \$300-500 million will not be adequate to construct the repository and its needed transportation infrastructure.

Key Ongoing Activities

License Application – DOE remains on schedule to submit a high-quality license application to the NRC not later than June 30, 2008. This date may be adversely affected if the FY 2008 appropriations are less than the President's FY 2008 budget request.

Licensing Support Network – NRC regulations require that all parties to the Yucca Mountain licensing proceedings make their relevant documentary material publicly available on the NRC Licensing Support Network (LSN) and certify their collections. DOE plans to certify its LSN collection not later than December 2007. In July 2007, DOE informed NRC that it could certify its LSN collection as early as September 2007. In April 2007, DOE released an additional 2.1 million relevant documentary materials on the LSN in advance of its certification. This early release is to assist NRC staff, the State of Nevada, and potential parties to the Yucca Mountain license proceeding in their review of DOE documentary materials. Currently, DOE has made over 3.4 million documents publicly available on the LSN. DOE is continuing to add relevant documentary materials to the LSN on an ongoing basis as these documents are completed.

Quality Assurance Program – A Quality Improvement Plan is being finalized. It is the first phase of a program to strengthen the quality culture required for repository licensing. The plan is being developed by an OCRWM team using Nuclear Industry Evaluation Program guidelines. OCRWM quality assurance and line organizations have reviewed past reports on conditions affecting quality to identify specific program elements that may need to be enhanced. This program is part of a broader effort to improve the Program's nuclear culture in preparation for being a licensee before NRC.

Independent Assessments – Selected contractors are in the process of conducting independent assessments of the adequacy of OCRWM's engineering processes, quality assurance plans and their implementation, and the adequacy of the license application against the acceptance criteria contained in relevant NRC requirements. The majority of work for these three assessments is expected to be completed before the end of the calendar year. The assessments are an important part of ensuring that we submit a high-quality license application that meets NRC requirements.

Project Decision Schedule – The Nuclear Waste Policy Act of 1982 requires DOE to prepare and update, in cooperation with all affected Federal agencies, a Project Decision Schedule (PDS) that identifies the optimum way to attain operation of the repository. The PDS identifies the specific actions that affected Federal agencies, including DOE, must take in order to achieve the schedule

presented in the PDS. A draft PDS reflecting the current program milestones has been developed and is undergoing interagency review. We expect to issue the report by the end of 2007.

Supplemental Environmental Impact Statements (SEIS) – Summaries of the scoping comments received on the two draft SEISs currently being prepared were made available to the public on the OCRWM website. The Yucca Mountain repository SEIS will support the license application and will be submitted to the NRC, and the Nevada Rail SEIS will provide the basis for route selection for the construction of a rail line in Nevada to the repository. Drafts of both SEISs are expected to be released for public review and comment in October 2007, and public comment hearings will be held shortly thereafter.

National Transportation Program – OCRWM continues to make progress in developing a national transportation plan. OCRWM briefed key stakeholders including state groups, Native American tribes, and industry organizations on a preliminary draft of the plan and solicited their comments. Over 50 representatives participated in an April workshop for Native American tribes potentially affected by transportation activities. On July 23, 2007, OCRWM published a *Federal Register* notice presenting the Department's revised proposed policy for implementing Section 180(c) of the Nuclear Waste Policy Act to provide support to States and tribes for transportation preparedness and emergency response training. Stakeholders were engaged in the development of this draft policy.

Significant Challenges

Core Drilling Program – In June, the Nevada State Engineer ordered DOE to cease and desist using water for geotechnical studies that DOE has been conducting in support of its statutorily required license application to the Nuclear Regulatory Commission. Water is required for a drilling program which DOE is conducting to obtain borehole samples necessary for seismic analyses to support the license application. The State Engineer had agreed to certain water use but maintained that it is only for safety and sanitary purposes, such as drinking water, showers, rest rooms, and emergencies, and not for work to support preparation of the license application. This dispute is part of ongoing litigation between DOE and the State Engineer regarding access to water for the project. DOE has submitted a motion for a preliminary injunction in the U.S. District Court in Nevada, and the court has scheduled a hearing for August 15, 2007.

Funding Requirements and Access to the Nuclear Waste Fund – Budget Authority projections for FY 2009 through repository operations show that annual appropriations of over \$1 billion will be required. Unless legislation is enacted to allow Yucca Mountain costs to be appropriated without being “scored” against discretionary funding caps for the Department, the Yucca Mountain appropriations will compete with spending on other DOE programs, a situation which Congress anticipated and potentially avoided when it established the Nuclear Waste Fund. The legislation submitted to Congress by the Administration would partially resolve this problem by reclassifying Nuclear Waste Fund receipts to offset appropriations. Funding for the Program would still have to be requested annually by the President and appropriated by the Congress.

If access to the Nuclear Waste Fund remains constrained by current scoring methods and annual appropriations continue to be limited to current funding levels, the repository and the requisite transportations systems cannot be built. Due to the delay in opening the repository, the projected

taxpayer liabilities are currently expected to be approximately \$7 billion under the best achievable schedule that assumes operations begin in 2017. For each additional year of delay in commencing operations beyond 2017, potential taxpayer liability is expected to increase by approximately \$500 million per year.