

From the Director

The “daylighting” of the tunnel boring machine, on April 25, 1997, completed the 31-month-long excavation of the 8-kilometer (5-mile) loop that houses the Exploratory Studies Facility—the underground laboratory we are constructing inside Yucca Mountain. Our scientific investigations of the site are centered in this laboratory, which gives scientists direct access to the potential repository horizon. This enables them to analyze actual geologic and hydrologic conditions and, by using heaters to simulate heat emitted by radioactive waste, to determine thermal, mechanical, hydrologic, and chemical effects on what would be the repository environment. What they are learning shapes our designs for a repository tailored to this setting.

Fiscal Year 1997 was the most productive year yet for the Yucca Mountain Site Characterization Project, keeping us firmly on track. As directed by Congress, we continued to focus site characterization on work essential to determining whether Yucca Mountain is suitable for a repository. The results of years of scientific investigations, design, and performance assessments are converging as we work to assemble the viability assessment, an initiative that Congress endorsed in its 1997 appropriation. The assessment will present timely information that decision-makers can use to assess the prospects for, and probable costs of, licensing, constructing, operating, and closing a repository at the Yucca Mountain site. It will also serve as a common frame of reference for deliberations over the program’s future direction and funding levels.

The viability assessment will not constitute the basis for a decision about the suitability of the site; that formal determination requires the development of more data and analyses than are now at hand. But work we are doing to prepare the assessment is further focusing what remains to be done to make the determination of site suitability.

While scientists, engineers, cost estimators and schedule planners, regulatory compliance specialists, and other experts were working hard on site characterization tasks in Nevada, legislative debate and litigation over interim storage issues continued in Washington, D.C. As Congress considered bills proposing interim storage solutions, the Administration remained steadfast in holding that any potential decision on the siting of an interim storage facility should be informed by the results of the Yucca Mountain viability assessment and grounded in objective, science-based criteria. As utilities

pressed their case in court, the Secretary of Energy and I met with representatives of utilities and State utility rate commissions to explore administrative remedies under the Department’s *Standard Contract* with utilities.

Meanwhile, we pursued non-site-specific contingency planning for an interim storage facility, to maintain capability if such a facility is authorized and sited. We also held a presolicitation conference to convey to commercial vendors information about our large-scale, long-term procurement of waste acceptance and transportation services. And continuing coordination with other offices in the Department moved us closer to integrating Government-managed nuclear materials, principally defense wastes, including surplus weapons-grade plutonium, into our waste management system.

In recent years, as budget pressures have focused our work more narrowly and challenged us to do more with less, awareness of the importance of our Nation’s commitment to geologic disposal has grown within the policy community. That commitment *matters*—to utilities with mounting inventories of spent nuclear fuel; to public utility commissions responsible for representing ratepayers’ interests; to the Department’s ability to clean up its nuclear sites and exercise responsible stewardship of its radioactive wastes; to our Nation’s strategic interests in nuclear nonproliferation; and to other nations looking to us for leadership on this issue.

The Introduction to this Annual Report sums up the importance of OCRWM’s mission and the substantial benefits yielded to date by the policies established in the Nuclear Waste Policy Act of 1982 and its amendments. The Nation’s investment in this program is paying off—in the steady scientific progress, achieved in an open forum, that alone can earn public acceptance.



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