

3.0 ACCOMPLISHMENTS AND FUTURE MILESTONES

The Fiscal Year 1997 Energy and Water Development Appropriations Act directed the Secretary of Energy to complete and provide to the President and Congress a Viability Assessment of the Yucca Mountain site. The Viability Assessment was completed and submitted to Congress in December 1998.

The Viability Assessment is a compilation of over 15 years of intensive, scientific, and technical work at the Yucca Mountain site. It is a synthesis of information and data regarding the Yucca Mountain site's ability to contain spent nuclear fuel and high-level radioactive waste. The Viability Assessment describes the Yucca Mountain site, presents the repository and waste package designs and costs, and details the results of a quantitative Total System Performance Assessment that describes how the site's engineered and natural barriers work together as a system. The Viability Assessment also contains a plan and costs associated with submission of a License Application to the Nuclear Regulatory Commission, as well as costs to construct and operate a repository at the Yucca Mountain site.

The Viability Assessment provides the foundation for the Program's current and planned activities at Yucca Mountain, including determining whether the Yucca Mountain site is suitable as a repository, developing documentation needed for a Secretarial decision (as appropriate) on the Site Recommendation to the President (Fiscal Year 2001), and activities associated with the federal government's waste acceptance obligations.

The OCRWM Program is continuing the transition that began in Fiscal Year 1999. This transition involves shifting Program emphasis from the collection of basic data to activities that support the remaining key near-term objectives articulated in the NWPA (i.e., preparation of materials to support a Site Recommendation Report to the President and submission of a License Application to the Nuclear Regulatory Commission). These activities were described, in large part, in Volume 4 of the Viability Assessment [Reference 3]. The work generally includes further refinement of repository and waste package designs, continued evaluation of repository behavior through Total System Performance Assessment, refinement of the conceptual and numerical models used in evaluating repository performance, and continued scientific investigations to reduce key uncertainties about the Yucca Mountain site.

Following issuance of the draft Environmental Impact Statement for the Yucca Mountain site in Fiscal Year 1999, the OCRWM Program, through the Yucca Mountain Site Characterization Office, will focus principally on completing the final Environmental Impact Statement and on technical and scientific investigation activities and repository and waste package design activities. These activities will serve to support a decision on whether to recommend the Site to the President in Fiscal Year 2001 and continue preparing a License Application for submission to the Nuclear Regulatory Commission in Fiscal Year 2002. Activities proposed to be undertaken at the Yucca Mountain site are fully consistent with the description of the remaining work contained in the Viability Assessment.

The Office of Acceptance, Transportation, and Integration will continue to focus on the development of implementation plans for achieving the legal and physical transfer of spent

nuclear fuel from reactor sites and DOE-operated sites (e.g., Hanford, Idaho, Rocky Flats, Savannah River) once a Federal facility becomes available. DOE also will continue to develop acquisition plans for waste acceptance and transportation services utilizing private sector entities. This approach offers a market stimulus for commercial development of the equipment and management capabilities required for waste acceptance and transportation of the spent nuclear fuel and high-level radioactive waste [References 6 and 7].

Significant Program milestones and accomplishments over a 20-year period are presented in Figure 3-1.

