

REMARKS TO THE  
NUCLEAR WASTE TECHNICAL REVIEW BOARD  
STATUS OF THE CIVILIAN RADIOACTIVE WASTE  
MANAGEMENT PROGRAM

BY  
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U.S. DEPARTMENT OF ENERGY  
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Thank you, Chairman Cohon. Good morning, Members of the Board. It's my pleasure to be here this morning to update you on the status and recent events in the Civilian Radioactive Waste Management Program.

There have been a number of noteworthy events since I last addressed you in September. The most significant occurred on January 10, 2002, when Secretary Abraham notified Governor Guinn and the Nevada State Legislature of his intention to recommend the Yucca Mountain site to the President for development as the nation's first geologic repository for spent nuclear fuel and high-level radioactive waste. If the President decides to recommend the site, the State of Nevada will have the opportunity to disapprove the recommendation, meaning Congress will ultimately have the responsibility for designating the site for development or determining another unknown societal course of action for the responsible management of this nation's spent nuclear fuel and high-level waste.

The Secretary's notification comes after an exhaustive process of review and consideration of the extensive body of scientific information the Program has collected and analyzed during 20 plus years of site characterization. As recognized by the Board in its letter, it is a matter of policy as to whether to proceed with a site recommendation while remaining uncertainties in estimates of repository performance are further evaluated. We agree with you that eliminating all uncertainties would never be possible at any repository site. The Secretary, after considerable review, believes that the science is sound and that the site is a technically suitable and should continue into the site designation process. The Secretary also cited compelling national interests to complete the siting process and move forward with development of a repository. Those interests include the importance of a repository to our national security, the secure disposal of nuclear waste, our energy security, and our efforts to protect the environment.

We agree with the statement of this Board that "no individual technical or scientific factor has been identified that would automatically eliminate Yucca Mountain from consideration..." We also agree that our technical work is not finished and an ongoing course of research is appropriate to ensure the safety of the citizens of Nevada and the Nation. This research, as contemplated by the Secretary and suggested by the Board, should reduce uncertainties and increase confidence in long-term projections of repository performance. If Yucca Mountain is designated as

a repository site, such research would last throughout the construction, operating and monitoring period - as much as 100-300 years after its opening.

If the repository development process moves forward, we will continue to evaluate issues that the Department and the Board identify. We specifically agree on the recommendation in the latest letter to continue a well-integrated scientific investigation to increase our fundamental understanding of the potential behavior of the repository system. Consistent with the Board's recommendations, we are continuing to investigate the performance analyses sensitivities and uncertainty impacts associated with future design and operating mode decisions. We understand your issues associated with our technical program basis. Our work plans prioritize actions to address key uncertainties based on performance risk, and we believe that these efforts will adequately address your issues.

Our goal is to develop a flexible repository design that can evolve with advancements in understanding and analytical capabilities inherent in a multi-decade program. Accordingly, we are explicitly preserving the ability to select, from a broad thermal range, a design for repository licensing and initial operations. We are continuing to develop a flexible design concept that would have a sufficient technical basis for a license application.

We recognize that maintaining this flexibility will require further testing and analytical efforts for the lower end of the thermal range. In order to prepare for licensing, we are expanding our work related to uncertainties, including:

- Continued theoretical and experimental program on waste package passive film corrosion, to better understand underlying fundamental scientific processes.
- Continued review and modification of the Performance Confirmation Plan to address performance uncertainties.
- Continued modeling activities to further incorporate multiple lines of evidence for processes that affect long term performance.
- Performance of additional uncertainty and sensitivity analyses to better understand major contributors to long term performance.
- Continued review and validation of parameter ranges and Features, Events and Processes screening to ensure additional insight into total system performance.

These analyses will be used to supplement information on a lower-temperature operating mode, and the updated results from the testing programs will be used to expand the technical basis for the lower-temperature end of the flexible design.

Our ability to perform the desired technical and scientific work continues to be constrained by funding. While the President has supported increased Program funding, we rely on Congress to fund the important research called for by the Board and the Commission. Congress appropriated \$375 million for Fiscal Year 2002, a significant shortfall of \$70 million from the President's request. Of this funding, \$297 million will be used for Yucca Mountain Project testing, evaluation, and license application development activities. Additionally, \$4.1 million is earmarked to initiate transportation planning and preparation. Next

Monday I will be able to share with you details of the President's 2003 budget request for this Program. At this moment, all I can say is that the Secretary and the Administration strongly support a continuing comprehensive scientific and technical program to assure public health and safety for the citizens of Nevada and the entire United States.

Last year, in response to repeated funding shortfalls over the past several years and in anticipation of continued funding limitations, we began the process of evaluating and identifying the scope and schedule impacts on the body of additional work to support an acceptable license application. Our M & O contractor, Bechtel-SAIC Corporation, is developing a revised baseline that will include the work supporting the submittal of a license application. The revised work plan and schedule will focus the project on the work needed to meet the goal of submitting a potential license application to the NRC in the 2004 timeframe and sustaining our potential ability to receive material at the repository in 2010. The revised baseline for developing the Yucca Mountain facility is a careful balance of the technical, legal, institutional, managerial, and fiscal considerations for a complex program like this.

We are presently awaiting the National Research Council's report on design and operational strategies associated with the concept of a staged geologic repository facility. We expect the report to be completed this spring. Thus far, stepwise development of a geologic repository facility, with design and operational flexibility and reversibility, coupled with continuous learning feedback loops, has shown promise and could be extremely important for maintaining confidence in this first of a kind program.

We are also awaiting Senate confirmation of Dr. Margaret Chu. I believe many of you know her from previous scientific interactions. It is our hope that her extensive talents and energies will be available to the Program soon.

In closing, we have reached a key decision milestone point after more than 20 years of study. I am extremely proud of the work thousands of scientists, engineers, and experts have performed in this effort to characterize this site. If this Program is allowed to continue, I am confident this team will serve the citizens of Amargosa Valley, Nye County, the State of Nevada, the United States, and the global community as a whole very well.

I also believe that the continued constructive views from this Board will make our technical program even stronger. I would also like to extend my gratitude to the Board and your staff for many years of dedicated, exceptional work. It has been a pleasure to work with you on what I believe is a significant first of a kind investigative science program that is addressing a very important world-wide societal need. I thank you for your contributions, and would like to entertain any questions may you have for me.