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**Statement for
Nuclear Waste Technical Review Board
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Introduction

Good morning Mr. Chairman and Members of the Board.

Secretary O'Leary asked me to thank you for the invitation to meet with you today, and she regrets that she is unable to attend. I am pleased to represent her and the Administration on behalf of the Civilian Radioactive Waste Management Program. This is my first opportunity to appear before the Board, and the agenda is particularly appropriate for the occasion.

The Alternative Program Strategy Report and the Secretary of Energy Advisory Board Task Force Report, which you are reviewing today, provide a good background to consider some fundamental policy issues confronting the program.

I will discuss what the Department has done or is doing to respond to these reports and, at your invitation, I will also give you my general views on the program and its future.

To begin, I believe it is appropriate that I tell you something of my personal philosophy concerning this waste management program and how the two reports fit into a more comprehensive picture.

The United States and many other countries are awash in long-lived, radioactive materials that have already been produced. At present, we have no comprehensive approach to managing all of these materials over the generations that they will exist. We have accepted, and continue to accept, the benefits these materials provide: civilian electric power; national defense missions, from the conclusion of World War II through the Cold War nuclear standoff; nuclear medicine; and innumerable, less pervasive applications.

As a society, we have the responsibility to manage the presence of these materials on a day-to-day basis so that their threat to health, safety, and the environment is minimized. In my view, we also have an obligation to embark upon a national strategy that will reduce the burden future generations will inherit as the result of our management approach. This obligation should become clearer as we consider the price we are paying today to remediate waste-management decisions made in the early days of the nuclear era.

Some of those historical decisions were made in ignorance of the potential consequences. We should not be afforded that same excuse if we abdicate our responsibilities to address the shortcomings of the current waste management situation and to provide stewardship for the longer term. We will create another immense burden for future generations if we lack the will to make hard choices now.

The Civilian Radioactive Waste Management Program is the prototype activity with the mission of implementing a national policy for the fully regulated, long-term custody and ultimate isolation of radioactive waste. The program is simultaneously developing the policy and technology for that purpose. In both areas, we should learn from experience and modify our strategies as we go forward.

The Office of Civilian Radioactive Waste Management is one agent of society's policy. It is not, cannot, and should not be the architect of that policy. But implementing policy is also an exercise of responsible government. The Office also has an obligation to evaluate and describe the situation as we go forward, whether the facts of the situation involve geology, the regulatory process, economic cost, or scientific uncertainty.

If our society becomes dissatisfied with the results of the policy, then it must change it in a legitimate venue.

The two reports we are discussing here today are, in a way, the result of societal displeasure with the situation. They were commissioned by former Energy Secretary James Watkins to address perceived difficulties or inadequacies associated with the policy or its implementation. External parties had criticized the Department's approach to a variety of technical, social, regulatory, and economic issues. These task forces were created to review the situation and to develop recommendations to help the Department address the criticisms. Secretary O'Leary has continued to address the criticisms. She provided guidance to the Office of Civilian Radioactive Waste Management early last year redirecting the program in several areas:

- o creating a Chief Scientist position to oversee scientific investigations at Yucca Mountain,
- o proposing a special funding mechanism to provide the program the resources it needs, and
- o initiating consultations with stakeholders to enhance their participation in the program.

These initiatives are being implemented.

In addition, as part of her program review, the Secretary has commissioned an independent compilation of comments made by external reviewers over the past five years to provide a comprehensive understanding of concerns that have been raised. That compilation covers some 120 reports and comments, including the two we are considering today. The

draft report was recently released by the author for review by the program's stakeholders to ensure that comments were accurately captured. The Secretary intends to consider all of this material in developing further proposals for program redirection.

Alternative Program Strategy Task Force Report

The Task Force for an Alternative Strategy for the OCRWM program was established to determine if there are better ways to accomplish the repository mission. The Task Force was particularly concerned with the twin problems of schedule slips and escalating cost estimates, as well as with the stakeholder criticism and doubts engendered by these problems.

Specifically, the Task Force noted that "the planned start date for the first repository has slipped from 1998 to 2003 to 2010, and may slip further." At the same time, the Task Force reports, the 1982 estimated costs of studying a site to determine its suitability for a repository and prepare a license application were \$100 million. "Current plans call for spending at least \$6.3 billion and waiting until the year 2001 before deciding on suitability and a license application," according to the report. As a result, in the words of the Task Force, "Congress, utilities and ratepayers see high and escalating costs with no clear assurances of a favorable result in hand or in sight."

The report presents three conclusions that are of particular interest:

- o **Simplifying and prioritizing repository site characterization activities.** The report recommends that we should "focus on those site features that are most demonstrable and important to safety," and "focus site study and repository development efforts on those tests needed to confirm or refute the safety concept."

- o **Releasing suitability findings periodically.** The report also says we should make "periodic suitability findings during site study to lower investment risk and, if favorable, to increase confidence in the safety of the site."
- o **Phased repository development.** Finally, the report recommends "phased development of the repository after licensing so that confirmatory testing with actual waste does not have to wait until full-scale construction and operations, and so that the full-scale system implementation can take advantage of the latest technology improvements and the results of earlier, small-scale operating experience."

Secretary of Energy Advisory Board Task Force Report on Public Trust and Confidence

The "Trust and Confidence" report concludes that there is a widespread lack of trust in the Department of Energy, to some extent in the Government in general, and specifically in the waste-management office's activities. It includes factors that the Task Force believes have contributed to this situation and offers recommendations for remediation.

The report presents an extremely bleak outlook for the success of the program. In fact, the report states that, even if the Department were to implement all of its recommendations, "The Task Force is not prepared to say that its suggestions are sufficient for increasing institutional trustworthiness." The report states specifically that "some segments of the public will never accord [the Department] much trust and confidence." As I read the report, it observes that the program confronts three factors that undermine its ability to gain the trust and confidence of the public:

The first is a stigma which is a heritage of the historical behavior of the Department and its antecedents, notably the Atomic Energy Commission.

The second is the nature of the mission of the Office itself which carries out inherently authoritative governmental power.

And the third is the observed behavior of the Office itself as it goes about its task.

The Task Force acknowledges that the Civilian Radioactive Waste Management Program is up against a "legacy of distrust created by the Department's history and culture" and that a general lack of public confidence in government institutions, which had evolved cumulatively over several decades, also hinders the program's mission.

I certainly do not intend to defend the history of nuclear policy and I am well aware of the potency of the stigma. I agree with the Task Force "that only a sustained commitment by successive Secretaries of Energy can overcome" this part of the problem.

The Task Force recognized, as I do, that the policy we administer can have the consequence of distributing benefits and burdens unevenly. To quote from the report, "The Task Force understands that adopting many of these measures runs the risk of increasing the trust and confidence of one segment of the public at the price of decreasing the trust and confidence of another." In a particularly cogent commentary, the report states that the Department was given a mission which was based on four bargains:

- o An ethical bargain that committed the nation to the aggressive pursuit of geologic disposal so that the generation that benefitted from nuclear power would be responsible for disposing of the waste;

- o An economic bargain that gave the nuclear industry a fixed schedule for repository development and waste acceptance by the government in return for a fee to cover the costs;
- o A technical bargain that provided for investigation of multiple sites in differing geologic environments, while limiting the number of locations to be studied for the first repository; and
- o A political bargain that called for a second repository in a different region from the first and provided host states and affected Indian Tribes oversight authority and participation rights.

The report suggests that these bargains were not well understood and subsequently became unraveled leading to the dissatisfaction of many stakeholders. This construct, I think, aptly captures the essential policy issues we must address.

Both reports, in my view, recognize that our current policy framework needs an overhaul. It is time for the Office to evaluate the situation, to inform the policy process of its own intentions to reform and perhaps to suggest needs for reconsideration of the policies governing the program. We intend to do so.

Our Response to the Alternative Strategy and SEAB Reports

The concepts and conclusions presented in the Alternative Strategy Task Force Report are being considered in the program assessment currently underway.

Although many of the report's recommendations appear promising as concepts, it is more difficult to apply them to the complex realities of the program. For example, simplifying site characterization studies is clearly an appealing goal. But it is not clear what tasks can be eliminated. For the most part, the specific advice we receive from external reviewers tends rather to suggest new tasks. We are currently compiling a range of options to simplify and prioritize the approach to site characterization so that we can focus discussion among our collaborators. We will be seeking advice from this Board and others to turn these general concepts into programmatic action.

With regard to the SEAB Task Force's report, there are 74 specific recommendations to improve public trust and confidence. We are already addressing many of the recommendations that go to the issue of the program's own culture and behavior. For instance, the report recommends that we "emphasize the conduct of periodic informal consultations and interactions, and when formal processes are used, devise agendas and formats jointly with stakeholders." In the past year we have improved both our formal and informal outreach to stakeholders. We have put into place an open meeting policy that sets the foundation for involving stakeholders routinely. We also have worked with stakeholders in developing agendas and setting dates for meetings such as the Transportation Coordination Group meetings, the August 10 Stakeholders meeting, and the affected units of government meetings. Increased stakeholder involvement in schedules and agendas will continue.

I should note that some of the recommendations are difficult to address within the constraints imposed by regulations. For example, one recommendation is to "obligate vendors to manufacture hardware as near as possible to any site eventually chosen for a

repository." Federal procurement regulations do not give us the ability to approach such provisions with a free hand.

We have responded in writing to the recommendation, and our response is a part of the formal report.

The SEAB report also underscores the fact that previous program efforts to build stakeholder involvement often have been sporadic and lacked follow-up, and that the program's overall approach has led to public dissatisfaction. We will try to institutionalize stakeholder interaction and make it part of the culture.

Conclusion

I have read both of these reports more than once. As I contemplate my own role in the future of this undertaking, I am giving all of the recommendations, as well as those from other sources, serious thought. I admit that I did not enjoy rereading the SEAB report over the holidays, because I felt it portrayed hopelessness that is daunting. Considering my age and the actuarial outlook for my remaining years of productive activity, if I accepted the tone of the report the rational course of action for me would be to refuse the assignment and do something else. But we can not walk away from the radioactive waste situation. The policy has to be addressed; certainly by government, and probably with the leadership of the currently responsible agencies.

So where does this leave us, and where should we be going with the program? Our current policy framework has problems. I believe it is time to reconsider it in the light of a decade of experience with the technical, social, and political evolution of the program.

We need a decision about the annual funding profile that will be available to carry out the program and we need to plan the program activities accordingly.

Second, we need to admit to the realities of at-reactor storage and establish the social, technical, regulatory, and economic infrastructure to manage it.

Third, we need to articulate correctly the decisions that need to be made on repository site characterization. There are three aspects to the activities at Yucca Mountain:

- o Site characterization - the scientific investigation of the technical characteristics of the site essential to support a repository.
- o Preparation for licensing - the compilation of the information, including site specific repository design, which is expected to be required to support an application for license to construct and operate a repository.
- o Environmental (NEPA) studies - the description of the environmental consequences of a decision to proceed with a license application.

The three aspects are related and involve many of the same investigations, but they are not coincident. For example, the site may be geologically suitable, but the proposed repository design may not satisfy a specific NRC regulatory standard. Similarly, a particular environmental impact of a repository may be unrelated to nuclear licensing considerations.

Administratively and technically, the site characterization process and licensing considerations have become intertwined. A recurrent theme in external review comment is that a preoccupation with schedules and requirements for licensing is distorting objective site characterization. To some stakeholders, this focus appears to be a predetermination to find the site suitable in any eventuality.

I believe there is merit in the criticism.

The target dates for licensing have come to be seen as the measure of program progress. Ironically, delays in these dates are sometimes cited as evidence of failure even by the critics who decry the program's preoccupation with licensing.

The key to restructuring the repository program will be returning the emphasis to science and site characterization. As the Alternate Strategy report suggests, our priority should be early exploration of major qualifying and disqualifying site conditions. There should be an appropriate scorecard with frequent public reports related to progress in exploring these conditions. These reports should be the occasions for peer review, comment and debate. The early identification of a significant disqualifying factor, if there is one, would be a critical input to the policy, because it would signal the need for a whole new sitting decision.

To help focus the site characterization activities, it would be particularly helpful to have this Board's expert advice on the specific features and information that could potentially disqualify the Yucca Mountain site and your recommended strategies for early evaluation.

License application preparation should be a secondary measure of progress, although addressing issues of licensability, maintaining standards of evidence and continuing interaction with the Nuclear Regulatory Commission must remain high priorities.

Once the future budget profile for the program can be appraised, program activities will be recast to use those resources efficiently. We are considering alternative approaches consistent with two budget assumptions-either continued constraint or reasonable access to future waste fund collections. We will be inviting comment on the options.

We also are encouraging discussion concerning the issues of near term management of spent fuel. The Department cannot unilaterally dictate the policy. But it must decide upon its own obligations and proposed role and we must participate in the policy process.

To restate my initial thesis, my Office is one participant in a collective effort to evolve and implement a national policy for the management of radioactive materials. I expect to share that effort with the other participants, including this Board. The reports we are discussing today make it clear that there will be sufficient challenge for us all.

Thank you for inviting me here today. I will be glad to respond to your questions.