



The Secretary of Energy
Washington, DC 20585

January 12, 1993

The Honorable J. Bennett Johnston
Chairman
Committee on Energy and Natural Resources
United States Senate
Washington, D.C. 20510-6150

Dear Mr. Chairman:

Your letter of December 10, 1992 requested information on the Department's plans and progress for disposal of spent nuclear fuel (SNF). You also requested information on plans to assure that receipt of SNF from reactors can begin in 1998, which I provided to you in my response of December 17, 1992.

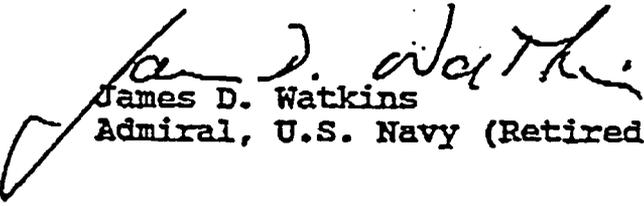
The enclosure to this letter describes for your information my recent initiatives to minimize disposal program costs and to build confidence as the program proceeds that substantive progress is being made and safe disposal can be accomplished. We are also investigating alternative strategies for interactions between the Department and the Nuclear Regulatory Commission (NRC). The potential exists that a petition for proposed rulemaking to the NRC may be a result of this investigation. As permitted by National Academy of Sciences (NAS), Environmental Protection Agency (EPA) and NRC procedures, we will participate in the proceedings of the NAS. These investigations will help assure that the EPA standards are soundly based and appropriately structured for implementation. We have also instituted management practices which will assure that program progress is as cost effective as possible.

I believe these new initiatives for the disposal program will meet the Nation's needs for safe, timely, and cost-effective disposal and will maintain our

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options for sustained use of nuclear power as established in the Energy Policy Act of 1992. I urge your continued leadership for congressional action to achieve our mutual goals.

Sincerely,


James D. Watkins
Admiral, U.S. Navy (Retired)

Enclosure

cc:
The Honorable Malcolm Wallop
Ranking Minority Member

A NEW PROGRAM STRATEGY FOR DISPOSAL OF SPENT NUCLEAR FUEL AND DEFENSE HIGH-LEVEL WASTE

BACKGROUND

Pursuant to the Nuclear Waste Policy Act, as amended, the Department has been characterizing the Yucca Mountain site in Nevada to determine if it is a suitable location for disposal of spent nuclear fuel (SNF) and high-level waste (HLW). If the site were found suitable for disposal, DOE would have submitted a license application for construction of a waste repository at the site to the Nuclear Regulatory Commission (NRC) in 2001 and to begin disposal in 2010.

Under these plans and procedures, the process from start of preliminary site investigations to start of disposal would span more than 30 years, and more than \$9 billion would be spent on site investigations, licensing, and construction before disposal begins. The only official findings concerning disposal safety occur at the end of the NRC licensing process, and these findings would be based on performance assessment models and predictions without any experimental evidence of disposal safety.

These procedures do not provide an opportunity to make disposal data available for licensing reviews or to build confidence in disposal program costs, schedules, and progress. The Department is taking the actions described below to put the disposal program on a sound track for demonstration of cost effective progress.

DISPOSAL PROGRAM STRATEGY

The Department is investigating an alternative disposal program strategy for progress through step by step DOE and NRC interactions. In contrast with the above-mentioned plans, under which the NRC makes no findings until the end of licensing proceedings, the NRC would periodically make formal findings concerning the progress toward environmentally sound and safe disposal as DOE advances the testing and data analysis program. The findings would guide the DOE program and would be based on the NRC disposal safety standards. The strategy could involve disposal test emplacement of limited quantities of waste in order to obtain experimental data as a basis for findings, and would provide for abandonment of the Yucca Mountain site and retrieval of that test waste at any time if there are findings that safe disposal at the site is not possible. This approach would avoid the possibility of expending some \$9 billion before any findings are made.

The strategy would be designed to focus DOE's program activities on those that are essential to resolve disposal safety issues. It would also be designed to assure technical linkage to the new SNF interim storage and transport programs that I described in my December 17, 1992 letter to you.

A rulemaking by the NRC ultimately is required to implement a revised disposal program strategy. The Department believes that an effective new strategy can be adopted within the flexibility offered by the NRC's existing statutory authority.

The Department expects to complete its investigations and provide a conceptual revised strategy for public review by April 1, 1993, and it is anticipated that a petition for proposed rulemaking will be submitted to the NRC if required. An improved strategy implemented through an NRC rulemaking is expected to produce a cost-effective program which provides information on progress and status to the public as the program proceeds.

DEVELOPMENT OF EPA DISPOSAL STANDARDS

As required by Section 801 of the Energy Policy Act of 1992, the National Academy of Sciences (NAS) will perform studies and make recommendations for the Environmental Protection Agency (EPA) safety standards for SNF and HLW disposal. The EPA will then develop standards and the NRC will revise its regulations to incorporate the EPA standards. As permitted by NAS, EPA, and NRC procedures, DOE will participate in these proceedings to help assure that the standards are soundly based and appropriately structured for implementation. The Department expects to perform technical analyses, prepare topical reports, and comment on proposed regulations. The Department's work will be reviewed by the Nuclear Waste Technical Review Board.

ASSURANCE OF COST CONTROL AND MANAGEMENT EFFECTIVENESS

The Department has begun implementation of a cost-controlling iterative process, which will operate under formal change procedures with the NRC, to revise and focus planned site characterization work on the basis of data already obtained. The first revision of plans established in the Yucca Mountain Site Characterization Plan will be completed in May 1993. It will be based on interpretation of site data obtained to date and the repository system safety performance assessment completed in July 1992.

The Department has also instituted practices such as self assessment and assessments by independent external parties to help assure management effectiveness. In addition, the Department is implementing actions to improve work efficiency and cost effectiveness such as optimization of drilling schedules and stringency in adherence to procurement schedules. These practices and actions will assure that program progress is as cost effective as possible.

Recent progress has been demonstrated with the successful resolution of litigation and the issuance by the State of Nevada of necessary environmental permits which have led to new surface-based testing and site preparation for underground exploration now under way at Yucca Mountain.

BUDGET ASSURANCE

To provide resources required to meet program needs and schedules, the Department recommended to the Office of Management and Budget that the Nuclear Waste Fund be taken off-budget, in a revolving fund subject to Congressional appropriation.

EVALUATE ADEQUACY OF NUCLEAR WASTE MANAGEMENT PROGRAMS

In accord with requirements of Section 803 of the Energy Policy Act of 1992, the Department is evaluating the adequacy of existing nuclear waste management plans and programs considering additional waste that might be generated by new nuclear power plants or renewal of existing plant licenses. We are also considering the potential impact of changes in the Nation's defense posture and of new waste management technologies. The draft report of this evaluation will be available for public review in May 1993.