



Department of Energy
Washington, DC 20585

MAY 16 1990

Robert M. Bernero, Director
Office of Nuclear Material
Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, D. ^{Bab} 20555

Dear Mr. Bernero:

In your letter dated February 26, 1990, to Leo Duffy, Director, Office of Environmental Restoration and Waste Management, several issues were identified as requiring early interactions with the Department of Energy (Department). The enclosed response addresses each of the topics addressed in that letter. As you are aware, on March 20, 1990, a technical meeting was conducted between the Nuclear Regulatory Commission (NRC) and the Department regarding the schedule of interactions between our staffs for the next 6 months. Topics identified in your letter were discussed during that meeting and are reflected in the scheduled interactions.

In addition, we have received a copy of SECY-90-082 that provides the NRC staff's analysis of the issues and suggestions discussed at the Department's briefing to the Commission on December 20, 1989, regarding the Civilian Radioactive Waste Management Program. We are presently reviewing the document and have concerns regarding some of the conclusions expressed in the SECY paper. We will provide to you, by separate letter, necessary clarifications to explain our position.

The Department looks forward to discussing with you some of the topics identified in the above mentioned letter and SECY paper during the regulatory strategy meeting scheduled for May 30, 1990. The Department wishes to continue these pre-licensing interactions with the objective of facilitating progress of the Civilian Radioactive Waste Management Program.

Please feel free to contact Ralph Stein of my staff on 586-6046 with any questions regarding this correspondence.

Sincerely,

John W. Bartlett, Director
Office of Civilian Radioactive
Waste Management

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Enclosures:

see jacket

- 1) Department of Energy's Response to the NRC Identified Topics that Require Additional Information and Interaction
- 2) Performance Assessment Management Plan for the Geologic Repository Program, DOE/RW-0265P, January 1990
- 3) Performance Assessment Strategy Plan for the Geologic Repository Program, DOE/RW-0266P, January 1990
- 4) Performance Assessment Implementation Plan for the Geologic Repository Program, DOE/RW-0267P, January 1990

cc:

R. Browning, NRC
J. Linehan, NRC
R. Loux, State of Nevada
D. Bechtel, Clark County, NV
M. Baughman, Lincoln County, NV
S. Bradhurst, Nye County, NV

Department of Energy's Response to the NRC Identified Topics
that Require Additional Information and Interaction

1. QUALITY ASSURANCE

The Department agrees that only the actions necessary to qualify the QA program prior to initiation of new site characterization activities have been identified. Agreement has not been reached on the actions and interfaces required to demonstrate effective QA program implementation. Such actions and interfaces will be identified during monthly meetings between the Department's and the NRC's QA staffs. The next monthly meeting on QA is currently scheduled for May 23, 1990.

2. REGULATORY REQUIREMENTS AND GUIDANCE

Our discussions on regulatory requirements and regulatory strategy have been fruitful. However, there are still some issues that need further discussion. We are confident that we can clarify the meaning of our comments concerning SECY-88-285 and come to an understanding on issues such as enhanced interactions, mechanisms for closure of technical issues, and potential rulemakings. A management meeting to discuss regulatory strategy has been scheduled for May 30, 1990.

3. SURFACE-BASED TESTING AND ONGOING TESTING

We appreciate your concern regarding our ongoing effort to prioritize study plans. We do plan to involve the NRC with interactions and reviews as discussed during the meeting of March 20, 1990. Completion of study plans for ongoing field activities has been given high priority. From the numerous study plans contemplated, we have currently identified 17 that address ongoing activities, some of which may involve new ground disturbing work once the State of Nevada grants the needed environmental permits. We will periodically provide the status of and proposed schedule for these study plans to the NRC as preparation progresses.

At the technical exchange scheduled for September 11, 1990, we plan to provide updated information on the surface-based testing prioritization effort and to discuss any issues which have arisen.

4. EXPLORATORY SHAFT FACILITY CONSTRUCTION

We wish to reiterate that we are not preparing designs for the Exploratory Shaft Facility (ESF) at this time. However, we are currently evaluating alternative configurations for the ESF, taking into consideration comments made by the NRC

staff, the Nuclear Waste Technical Review Board, the NRC's Advisory Committee on Nuclear Waste, and the State of Nevada. This evaluation is scheduled to be completed in December 1990, with resumption of ESF Title II design activities in March 1991. The Department briefed the Nuclear Waste Technical Review Board on the ESF alternatives study on April 7, 1990, with the NRC present. Following this meeting, the Department and the NRC conducted a technical exchange to answer questions and to promote further discussion.

5. REPOSITORY AND WASTE PACKAGE DESIGN

Due to the recent changes in the program schedule, major activities related to the design of a repository have been deferred.

However, the following activities will be conducted during the next 2 to 3 years:

- Preparation of the Repository Program Plan (by December 1990);
- Establishment of site-specific design requirements documents for the repository (by March 1991); and
- Starting of repository Advanced Conceptual Design (October 1992);

The following waste package design and testing activities will be conducted during the next 2 to 3 years:

- Preparation of the report detailing various waste package design concepts will be prepared by March 1991;
- Development of criteria for the selection of container and Engineered Barrier System material for the advanced conceptual design by August 1991; and
- Selecting candidate barrier materials by June 1992 and initiating peer review of the materials selection by August 1992.

6. PERFORMANCE ASSESSMENT

You expressed interest in performance assessment plans and the schedules for performance assessment. The Department's plans and schedules for performance assessment activities are detailed in the enclosed Performance Assessment Management Plan, the Performance Assessment Strategy Plan, and the Performance Assessment Implementation Plan. A technical exchange is currently scheduled for July 18-19, 1990, to discuss the integration of scientific investigation of activities with performance assessments. We look forward

to providing details to you and to discussing performance assessment during this exchange.

7. ALTERNATIVE LICENSING STRATEGIES

As the repository licensee, the Department is responsible for developing the strategy for demonstrating compliance with the regulations in the license application. The Department is currently identifying alternative licensing strategies (i.e., scenarios) that could improve the current repository schedule. The scenarios will be evaluated and ranked according to their benefits and implementation risks. When this effort nears completion, the Department will discuss possible interactions with the NRC.

8. GLASS-MAKING ACTIVITIES

A site visit to the Defense Waste Production Facility (i.e., Savannah River) for the NRC was scheduled for May 16 and 17, 1990. On May 10, 1990, the NRC cancelled the site visit and plans to reschedule with the Department in December 1990 or January 1991.

9. PERFORMANCE CONFIRMATION

The Department has not changed the general approach to performance confirmation that is presented in the Site Characterization Plan. The program schedules provided in the Secretary's 60 Day Report were intended to represent higher level program milestones. More detailed schedules are currently under development and will be made available.

10. REVIEW PERIOD FOR LICENSE TO RECEIVE AND POSSESS WASTE

The 1987 Mission Plan Amendment allocated 30 months for NRC review and decision on the Department's updated license application for receipt and possession of high-level waste at the repository, with submittal of the updated application when repository construction and testing was 50 percent complete. The schedule presented in the Secretary's 60-day report assumes a 21-month review period with submittal of the updated license application when repository construction and testing is approximately 70 percent complete.