

May 10, 2002

The Honorable Richard A. Meserve
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: SUMMARY REPORT — 134TH MEETING OF THE ADVISORY COMMITTEE ON
NUCLEAR WASTE, APRIL 16–18, 2002, AND OTHER RELATED COMMITTEE
ACTIVITIES

Dear Chairman Meserve:

The Advisory Committee on Nuclear Waste (ACNW or the Committee) held its 134th meeting on April 16–18, 2002, at Two White Flint North, 11545 Rockville Pike, Rockville, Maryland. During that meeting, the Committee discussed several matters and approved the following report and letter:

REPORT

Proposed Amendment to 10 CFR Part 63, Specification of a Probability for Unlikely Features, Events, and Processes (a letter to the Honorable Richard A. Meserve, Chairman, NRC, from George M. Hornberger, Chairman, ACNW, dated May 6, 2002)

LETTER

Letter dated April 29, 2002, from George M. Hornberger, Chairman, ACNW, to Dr. William D. Travers, Executive Director for Operations (EDO), NRC, in response to a letter dated March 6, 2002, from Dr. William D. Travers, EDO, NRC, to George M. Hornberger, Chairman, ACNW, concerning Risk-Informed Activities in the Office of Nuclear Material Safety and Safeguards

HIGHLIGHTS OF KEY ISSUES CONSIDERED BY THE COMMITTEE

1. ACNW Planning and Procedures

There was no ACNW meeting scheduled for May 2002. Consequently, the Committee approved the following topics for discussion during its 135th meeting, scheduled for June 18–20, 2002:

- Presentation by consultants to the Nuclear Waste Technical Review Board on the NRC's conservatisms regarding igneous activity models.
- NRC staff update on the Integrated Issue Resolution Status Report.

- NRC staff presentation on the long-term behavior of waste packages.
- NRC staff presentation on resolving public comments concerning the proposed rule on entombment options for decommissioning power reactors.
- Presentation by the NRC staff on the status of the ongoing status of the performance of spent fuel transport packages and related test protocols.

The Committee will discuss proposed reports on the following topics:

- High-Level Waste Risk Insights Initiative
- Final Radionuclide Transport Research Plan
- High-Level Waste Performance Assessment Sensitivity Studies
- Entombment Option for Decommissioning Power Reactors
- Integrated Issue Resolution Status Report
- Long-Term Behavior of Waste Packages

2. High-Level Waste Risk Insights Initiative

Members of the NRC's Division of Waste Management briefed the ACNW on the risks insights initiative conducted under the auspices of the High-Level Waste (HLW) program. The project, conceived 1 year ago, was conducted as a joint effort with the Center for Nuclear Waste Regulatory Analyses. Despite being referred to as a risk insights initiative, the project was actually an exercise in communication and integration, rather than a risk-ranking exercise. The presenters gave an overview of the initiative, discussed project results and their implications, and discussed how the results are being (and should be) implemented into the HLW program. The exercise involved asking key technical issue (KTI) and performance assessment (PA) staff to rate the KTI subissues in importance, and explain the rationale for their assigned ratings. The ACNW commended the staff for the project. The ACNW also expressed concern that the insights gained were neither quantitative nor necessarily tied to risk because the participants did not use either the same criteria or the same evidence to rank the subissues.

Conclusions/Committee Action

The ACNW will prepare a letter to the Commission on the risk insights initiative.

3. Amendment to 10 CFR Part 63

The Committee heard an NRC staff presentation about a proposed amendment to Title 10, Part 63, of the *Code of Federal Regulations* (10 CFR Part 63), which is designed to define the probability of unlikely events. Based on that definition, unlikely events would be excluded from consideration in the stylized calculations for human intrusion and ground-water protection in the Commission's Yucca Mountain-specific HLW standard.

Conclusions/Committee Action

The Committee issued a report on the staff's position.

4. Final Radionuclide Transport Research Plan

The Office of Nuclear Regulatory Research (RES) has been developing its research program plan for work related to radionuclide transport in the environment (RTE). An earlier draft version of the plan was provided to the ACNW during the summer of 2001 and was used in the Committee's preparation of its report, dated March 22, 2002, to the Commission on NRC-sponsored research. Later, the Committee members received copies of the most recent version of the plan in early March 2002. The final plan, reflecting stakeholder comments, was presented to the Committee. The final plan contained 28 research tasks. An RES staff team performed a specific project-level prioritization of these 28 tasks in response to ACNW recommendations. The prioritization resulted in funding being assigned to the top 16 tasks. The specific basis for the prioritization of a number of projects was discussed in some detail.

Conclusions/Committee Action

The ACNW will discuss this matter again during its June 2002 meeting and, as appropriate, issue a report to the Commission.

5. Site Recommendation — License Application: Path Forward

U.S. Department of Energy (DOE) staff provided an information briefing on the status of project activities in anticipation of DOE's submittal of a potential NRC license application to construct a geologic repository for the disposal of spent nuclear fuel and other high-level radioactive waste at Yucca Mountain, Nevada.

The DOE presentations covered the following areas:

- background and chronology of DOE's site recommendation to the President
- status of KTI resolution, including the schedule for near-term meetings with the NRC staff
- DOE's strategic planning efforts, including identification of the general activities and management structure being considered for development of a potential NRC license application.

As background, DOE noted that on February 15, 2002, President Bush recommended to Congress that Yucca Mountain be developed as a geologic repository. DOE also noted that on April 8, 2002, the Governor of Nevada filed a notice of disapproval of the proposed Yucca Mountain project. Because Congressional action on the President's recommendation is still pending, DOE advised the Committee that it should consider the information in its aforementioned presentations as preliminary.

Conclusions/Committee Action

The ACNW will consider this information in preparing future reports to the Commission on staff efforts to monitor DOE's progress in this area. Should Congress pass a joint resolution approving the repository siting and should the President sign it into law, DOE indicated that it would be in a position to update the Committee on the status of project activities and, when doing so, to include more specificity.

6. Yucca Mountain Review Plan, Revision 2

The Committee discussed the nature of the comments it will prepare on Revision 2 of the Yucca Mountain Review Plan (YMRP).

Conclusions/Committee Action

Committee members will prepare individual comments on the YMRP. These comments will include individual observations and findings which are to be considered by the Committee in its report on Revision 2 of the YMRP.

7. Reconciliation of ACNW Comments and Recommendations

The Committee considered the response from the Executive Director of Operations (EDO), dated March 6, 2002, to comments and recommendations included in the report, prepared by the Joint ACNW and Advisory Committee on Reactor Safeguards (ACRS), dated January 14, 2002, concerning risk-informed activities in NMSS.

The Committee replied to the EDO's response indicating that the ACNW and ACRS continue to view the Integrated Safety Analysis process as a stop-gap measure, and encouraged the NMSS staff to move toward adopting probabilistic risk assessment (PRA) methods consistent with the agency's PRA policy statement.

Sincerely,

/RA/

George M. Hornberger
Chairman