

January 24, 2002

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

Dear Chairman Meserve:

SUBJECT: SUMMARY REPORT — 131ST MEETING OF THE ADVISORY COMMITTEE ON
NUCLEAR WASTE, JANUARY 8–9, 2002, AND OTHER RELATED COMMITTEE
ACTIVITIES

The Advisory Committee on Nuclear Waste (ACNW or the Committee) held its 131st meeting on January 8–9, 2002, at Two White Flint North, 11545 Rockville Pike, Rockville, Maryland. During this meeting, the Committee discussed several matters and approved the following reports:

REPORTS

- Total System Performance Assessment and Conservatism (report to the Honorable Richard A. Meserve, Chairman, NRC, from George M. Hornberger, Chairman, ACNW, January 17, 2002).
- Risk-Informed Activities in the Office of Nuclear Material Safety and Safeguards (report to the Honorable Richard A. Meserve, Chairman, NRC, from George M. Hornberger, Chairman, ACNW, January 14, 2002).

HIGHLIGHTS OF KEY ISSUES CONSIDERED BY THE COMMITTEE

1. ACNW Planning and Procedures

The Committee approved the following topics for discussion during its 132nd meeting, scheduled for February 7–8, 2002:

- **ACNW Planning and Procedures**—The Committee will review items under consideration at this meeting and consider topics proposed for future ACNW meetings.

- **Meeting With the Executive Director for Operations and the Office Directors of Nuclear Reactor Regulation, Nuclear Material Safety and Safeguards, and Nuclear Regulatory Research**—The Committee will discuss items of mutual interest with the NRC Executive Director for Operations (EDO) and the Directors of the Office of Nuclear Reactor Regulation (NRR), Office of Nuclear Regulatory Research (RES), and Office of Nuclear Material Safety and Safeguards (NMSS). Members of the Advisory Committee on Reactor Safeguards will also participate in this discussion.
- **Update on Igneous Activity, Including Performance Assessment Analysis**—The staff will provide an update on the igneous activity key technical issue (KTI), with emphasis on the related performance assessment (PA) analysis.
- **Preparation for Meeting With the NRC Commissioners**—The next meeting with the NRC Commissioners is scheduled to be held in the Commissioners' Conference Room, One White Flint North, on March 20, 2002. The Committee will review its proposed presentations.
- **Annual Research Report to the Commission**—The Committee will discuss its annual report to the Commission on waste-related research.
- **Preparation of ACNW Reports** —The Committee will discuss proposed reports on the following topics:
 - Proposed amendment to 10 CFR Part 63 on Unlikely Features, Events, and Processes
 - Update on Igneous Activity, including PA analysis
 - Annual Research Report to the Commission
 - Key Technical Issue status (tentative)

2. Proposed Amendments to 10 CFR Part 63

The staff described a proposed amendment to 10 CFR Part 63 to define a range for unlikely features, events, and processes (FEPs). Unlikely FEPs need not be considered in either the human intrusion or the groundwater standards for Yucca Mountain, but must be considered in the all-pathway standard. The range for unlikely FEPs was defined as an annual probability greater than or equal to 10^{-8} and less than 10^{-5} .

Committee Action

The ACNW may submit written comments on the proposed amendment. The Committee expects to decide whether to submit comments by mid-February. The staff would consider the Committee's advice during the 75-day public comment period.

3. Discussion of Key Technical Issue Status

Representatives from the NRC and the Center for Nuclear Waste Regulatory Analyses (CNWRA) staffs provided an update on the status of the KTIs associated with the proposed high-level waste repository at Yucca Mountain, Nevada.

C. William Reamer, Chief, High-Level Waste Branch, Division of Waste Management (DWM), NMSS, introduced this part of the meeting and provided an overview of the presentations and the NRC staff approach to issue resolution. Mr. Reamer noted that the staff's basic approach was to identify gaps in the Department of Energy's (DOE's) supporting information, and then obtain DOE's agreement to fill in these gaps and periodically document the technical bases. He said that the staff recognized that public involvement was necessary, and that 18 public technical exchanges had been held.

Following Mr. Reamer's presentation, Brett Leslie, DWM, NMSS, discussed the risk insights obtained to date from the Total System Performance Assessment efforts and the staff's related initiatives. This discussion was followed by presentations on each of the nine KTIs. The presentations included the current status of resolution of each issue; the information and analyses expected from DOE, the staff, and the CNWRA before a possible license application; the FY 2001 accomplishments; and FY 2002 planned accomplishments.

The final technical presentation discussed the status of preclosure efforts for the proposed repository, although it is not a KTI, the Committee considers it a significant issue. It was noted that the first technical exchange and management meeting on preclosure safety issues was held July 24–25, 2001.

James Andersen, DWM, NMSS, summarized the technical presentations by stating that (1) the issue resolution process is progressing, (2) the NRC staff is actively monitoring the agreements, (3) DOE is scheduled shortly to present its FY 2002 license application plan, (4) the NRC staff will continue to refine the use of risk-insights, and (5) the next round of technical exchanges will further fill in any perceived information gaps.

Dennis Williams, DOE, asked to address the Committee from the floor, particularly with regard to the nature and type of the NRC/DOE agreements. In his categorization of the 293 current agreements, less than 20% require DOE to "perform testing and associated analyses." The majority (64%) require DOE to "provide additional technical bases or documentation." He summarized by stating that most of the agreements are associated with requests for additional information, rather than with the need to perform testing and obtain hitherto unavailable information.

The Committee thanked all presenters for their willingness to assemble their presentations in a relatively short period of time, recognizing that much of the effort was performed over the holiday season. ACNW members noted that the information was sincerely appreciated since it provided an update to the Committee for its currently scheduled March 20, 2002, presentation to the Commission.

Committee Action

The Honorable Richard A. Meserve

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The Committee is evaluating the information received from the presentations and will incorporate it into the KTI discussions during the March 20, 2002, Committee meeting with the Commission.

Sincerely,

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George M. Hornberger
Chairman