



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON NUCLEAR WASTE
WASHINGTON, D.C. 20555

ACNWS-0033

August 27, 1991

The Honorable Ivan Selin
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Selin:

SUBJECT: SUMMARY REPORT - THIRTY-THIRD MEETING OF THE ADVISORY
COMMITTEE ON NUCLEAR WASTE, JULY 25-26, 1991

During our 33rd meeting, July 25-26, 1991, we completed the
activities noted below including the memoranda listed.

MEMORANDA

- The Role of Formal Elicitation of Expert Judgment in the Performance of a Geologic High-Level Waste Repository (Memorandum to Robert M. Bernero, Director, Office of Nuclear Material Safety and Safeguards, dated July 31, 1991. Enclosure 1)
- Visit to the Center for Nuclear Waste Regulatory Analyses (Memorandum to Eric S. Beckjord, Director, Office of Nuclear Regulatory Research, and Robert M. Bernero, Director, Office of Nuclear Material Safety and Safeguards, dated July 31, 1991. Enclosure 2)

HIGHLIGHTS OF MATTERS CONSIDERED BY THE COMMITTEE

1. Meeting with the NRC Commissioners

The Committee met with the NRC Commissioners to discuss items of mutual interest, including:

- Uncertainties in implementing the EPA high-level waste (HLW) standards
- Response to questions accompanying working draft #3 of the EPA HLW standards
- Visit to the Center for Nuclear Waste Regulatory Analyses
- Use of expert judgment in performance assessment for a geologic repository

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A number of requests were made of the Committee during this session. Work on responses will begin during the Committee's August 27-29, 1991 meeting.

2. Expert Judgment

Based on the meetings it has held regarding use of expert judgment, the Committee approved a memorandum on the use of expert judgment in conducting performance assessments in support of licensing of a geologic high-level radioactive waste repository.

3. Visit to the Center for Nuclear Waste Regulatory Analyses

The Committee discussed its recent trip to and meeting at the Center for Nuclear Waste Regulatory Analyses. The enclosed memorandum to Mr. Beckjord and Mr. Bernero dated July 31, 1991 was issued.

4. ACNW Future Activities

- The Committee agreed to expand the 33rd meeting to include a two-hour executive session on Tuesday evening from 7:00 to 9:00 p.m. This session was scheduled to provide additional time for the members to discuss a response to your question regarding interim storage of high-level waste.
- Due to the conflict in meeting dates with the EPRI-sponsored Workshop to address issues from the EPA-HLW Disposal Regulatory Criteria (September 24-26, 1991), the Committee agreed to reschedule the 34th ACNW meeting from September 25-27th to September 27, 1991.
- The Committee tentatively agreed to schedule its' Working Group meeting on the Review of Regulatory Guides for Implementing Revisions to 10 CFR Part 20 on September 23-24, 1991. (This will be a joint meeting with the ACRS Subcommittee on Occupational and Environmental Protection Systems. All available Regulatory Guides will be reviewed.)
- The members briefly discussed the implications of a recent incident involving a waste processing stream at the General Electric Fuel Fabrication Facility near Wilmington, North Carolina. The Committee agreed not to schedule a briefing on this subject. The NRC staff's Incident Investigation Team report and the minutes of the planned ACRS discussions of this incident will be provided to the ACNW members.

The Honorable Ivan Selin

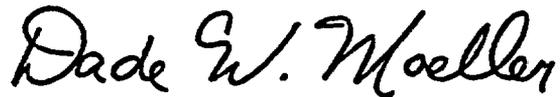
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August 27, 1991

- The Committee agreed to schedule a visit to the Waste Isolation Pilot Project, Carlsbad, New Mexico, on or about November 5, 1991.

Appendix A summarizes the proposed items for future meetings of the Committee and related Working Groups. This list includes items proposed by the Commissioners and NRC staff as well as ACNW members.

Sincerely,



Dade W. Moeller
Chairman

Enclosures: As stated

APPENDIX A. FUTURE AGENDA

34th ACNW Committee Meeting August 27-29, 1991 (Tentative Agenda)

Review of DOE's Site Characterization Plan by the State of Nevada
Representatives of the State of Nevada will brief the Committee on the State's review and comments on DOE's Site Characterization Plan and related Study Plans.

Responses to DOE's Site Characterization Plan - The Committee will be briefed by representatives of DOE on its responses to comments received from EPA, NRC, and the State of Nevada on the Yucca Mountain Site Characterization Plan.

Responses to NRC's Site Characterization Analysis - The Committee will be briefed by representatives of the Division of High Level Waste Management (HLWM) on the results of the review of DOE's responses to the NRC staff's Site Characterization Analysis.

Proactive Program for High-Level Waste Management - The Committee will be briefed by the HLWM staff on its proactive program on HLW. This involves planned rulemakings, guidelines, and technical positions in support of the HLW program.

ACNW Four-Month Plan - The Committee will prepare its next four-month plan to the Commission for the period September-December 1991.

Response to a Request from Chairman Selin - The Committee will begin to investigate the feasibility of a systems analysis approach to reviewing the over-all high-level waste program, including the short and mid-range technical milestones for handling high-level waste, and will report back to the Commission the ACNW's recommendations as to the scope and advisability of it undertaking such a review.

EPA High-Level Waste Standards - The Committee will review the current position of the NRC staff on the Working Draft #3 of the EPA HLW Disposal Standards. The Committee will also review a revised NRC staff paper on their approach for dealing with uncertainties in implementing the EPA HLW Disposal Standards.

Containment Requirements in 40 CFR Part 191 - The Committee will review the NRC staff's response to the ACNW report, dated May 30, 1991, on alternative approach to the probabilistic section of the containment requirements in 40 CFR Part 191 ("The Three-Bucket Approach").

Rule on Ethical Conduct of Employees - The Committee will discuss the proposed OGE rule on ethical conduct of employees of the Executive Branch and the impact it will have on the personal and professional (non-government) activities of Committee members as well as its impact on the functioning of the Committee. [Portions of this session will be closed as necessary to discuss information the release of which would represent a clearly unwarranted invasion of personal privacy.]

Committee Activities - The Committee will discuss anticipated and proposed Committee activities, future meeting agenda, and organizational matters, as appropriate. The members will also discuss matters and specific issues that were not completed during previous meetings as time and availability of information permit.

Working Group Meetings

Review of Regulatory Guides for Implementing Revisions to 10 CFR Part 20, September 23-24, 1991, 7920 Norfolk Avenue, Bethesda, MD (Gnugnoli) - The Working Group will review, discuss and make recommendations where appropriate on regulatory guides related to the implementation of the revised 10 CFR Part 20 rule. This review will be done jointly with the ACRS Subcommittee on Occupational and Environmental Protection Systems.

NRC Staff Computer Modeling and Performance Assessment Capabilities in HLW and LLW, (Date to be determined), 7920 Norfolk Avenue, Bethesda, MD (Gnugnoli) - The Working Group will review, discuss and make recommendations regarding the NRC staff capabilities to make independent evaluations of licensee proposals with respect to the performance of low-level and high-level radioactive disposal facilities. Emphasis will be placed on computational capabilities involving computer modeling, documentation, verification and validation.

Geologic Dating, (Date to be determined), 7920 Norfolk Avenue, Bethesda, MD (Abrams) - The Working Group will review and discuss the problems and limitations associated with the various quaternary dating methods to be used in site characterization of an HLW repository.

Residual Contamination Clean-up Criteria, October 25, 1991, 7920 Norfolk Avenue, Bethesda, MD (Gnugnoli) - The Working Group will review, discuss and make recommendations regarding the soil clean-up criteria and acceptable levels for unrestricted use of contaminated sites that have been, or were at one time, under AEC or NRC license. The NRC staff is in the process of determining acceptable radionuclide concentrations for uranium- and thorium-

contaminated soils and surface level contamination limits for structures to be released for unrestricted use.

Long-Term Climate Change in the Area of the Southern Basin and Range, November 19, 1991, 7920 Norfolk Avenue, Bethesda, MD (Abrams) - The Working Group will review and discuss the impact of potential long-term climate changes on the performance assessment for the proposed HLW repository.

Post-Closure Monitoring, November 22, 1991, 7920 Norfolk Avenue, Bethesda, MD (Larson) - The Working Group will review the potential problems and possible limitations associated with the post-closure monitoring of a proposed HLW repository. The potential utilization of non-invasive methods in providing such a capability as well as the duration of such monitoring, and the significance and impact of the results will also be considered.

Presence of Natural Resources at the Proposed HLW Site, December 17, 1991, 7920 Norfolk Avenue, Bethesda, MD (Abrams) - The Working Group will discuss methodologies for the assessment of the potential for natural resources at the proposed HLW disposal site.