



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

ACNWS-0034

September 19, 1991

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

Dear Chairman Selin:

SUBJECT: SUMMARY REPORT - THIRTY-FOURTH MEETING OF THE ADVISORY  
COMMITTEE ON NUCLEAR WASTE, AUGUST 27-29, 1991

During our 34th meeting, August 27-29, 1991, we completed the  
activities noted below including the report and memorandum listed.

MEMORANDUM AND REPORT

- Program Plan for the Advisory Committee on Nuclear Waste  
(Report to Chairman Selin, dated September 3, 1991).
- Response to Six EPA Questions on the High-Level Waste  
Standards, Working Draft No. 3 (Memorandum to B. Joe  
Youngblood, Director, Division of High-Level Waste Management,  
dated August 30, 1991).

HIGHLIGHTS OF MATTERS CONSIDERED BY THE COMMITTEE

1. Interim Spent Fuel Storage

As requested by the Commission, the Committee began its  
deliberations on the feasibility and benefits of applying a  
systems analysis approach to reviewing the overall high-level  
waste program, including the short and mid-range technical  
milestones for handling high-level waste.

The Committee will continue deliberations on this matter  
during the 35th (September 27, 1991) and 36th (October 18,  
1991) ACNW meetings.

2. Proactive Program of the Division of High-Level Waste  
Management

The Committee was briefed by the Division of High-Level Waste  
Management (HLWM) staff on the development and implementation  
of the proactive component of its overall High-Level Waste

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Repository Program. The HLWM staff discussed the integration of the proactive program with the research program. This discussion included a detailed description of the following three parts of this program:

- NWPA Program Regulatory Requirements and Technical Guidance
- Technical Assessment Capability for Repository Licensing Review
- Systematic Regulatory Analysis (SRA) and Center for Nuclear Waste Regulatory Analyses (CNWRA) Operations

The briefing provided an overview of the organization of the high-level waste program and staff initiatives. The briefing also addressed issues such as identification, integration and establishment of work priorities. This briefing was for information only. No Committee action was taken.

3. DOE's Responses to the NRC Staff's Site Characterization Analysis

The Committee was briefed by representatives of HLWM on the results of their review of the responses from the U.S. Department of Energy (DOE) to the Site Characterization Analysis, NUREG-1347. This briefing was for information only. No Committee action was taken.

4. Comments on DOE's Site Characterization Plan

The Committee was briefed by representatives of DOE on their responses to comments received from EPA, NRC, and the State of Nevada on the Yucca Mountain Site Characterization Plan. This briefing was for information only. No Committee action was taken.

5. Review of DOE's Site Characterization Plan by the State of Nevada

The Committee was briefed by a representative of the State of Nevada on the State's review and comments on the DOE Site Characterization Plan and related Study Plans. Due to the large number of comments submitted (in September 1989) by the State to the DOE, the discussion was limited to the three "fundamental flaws" cited by the State of Nevada. This briefing was for information only. No Committee action was taken.

6. Containment Requirements in 40 CFR Part 191

The Committee held a brief discussion with representatives of the NRC staff on their responses to the ACNW report, dated May 30, 1991, on alternative approaches to the probabilistic section of the containment requirements in 40 CFR Part 191 ("The Three-Bucket Approach"). This briefing provided an opportunity for the NRC staff to better understand the Committee's concerns on this topic. The NRC staff will be invited back for more in-depth discussions during the 36th ACNW meeting on October 18, 1991.

7. EPA High-Level Waste Standards

The Committee reviewed the proposed combined NRC staff-ACNW responses to six questions accompanying Working Draft No. 3 of the EPA HLW Disposal Standards. The Committee came to a consensus with the NRC staff and approved forwarding a memorandum to Mr. B. J. Youngblood to bring this matter to closure.

The Committee also discussed a revised NRC staff paper on the staff's approach for dealing with uncertainties in implementing the EPA HLW Disposal Standards. No Committee action was taken.

8. ACNW Four-Month Plan

The Committee prepared and issued its next four-month plan to the Commission for the period September-December 1991. During preparation of the four-month plan, the Committee made several schedule changes from previous plans.

9. Visit to the Waste Isolation Pilot Plant (WIPP)

The Committee discussed its planned visit to the Waste Isolation Pilot Plant near Carlsbad, New Mexico, on November 5, 1991. Discussions at the site and a tour of the facility are planned.

10. ACNW Future Activities

- The Committee agreed to shift the date for the 36th ACNW meeting from October 23-24, 1991, to October 18, 1991, so that selected members can attend the Geological Society of America symposium that will be held during the week of October 21, 1991.
- The Committee requested that the meeting with the Commissioners be rescheduled from its 37th (November 20-

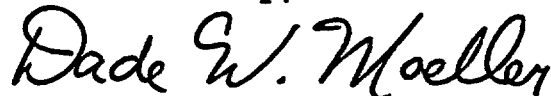
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21, 1991, meeting) to its 38th (December 18-19, 1991 meeting).

- The Committee agreed to postpone the briefing on Rulemaking to revise 10 CFR Part 61, "Licensing Requirements for Land Disposal of Radioactive Waste," until the 37th meeting, November 20-21, 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,

A handwritten signature in cursive script that reads "Dade W. Moeller".

Dade W. Moeller  
Chairman

## APPENDIX A. FUTURE SCHEDULE

35th ACNW Committee Meeting September 27, 1991 (Tentative Schedule)

Interim Spent Fuel Storage - The Committee will continue deliberations to investigate the feasibility and benefits of applying 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 with the goal of reporting back to the Commission the ACNW's recommendations as to the scope of such a review and the advisability of the ACNW undertaking it.

Low-Level Waste Planning - The Committee will discuss the overall subject of the management and disposal of low-level radioactive waste.

Review of Regulatory Guides for Implementing Revisions to 10 CFR Part 20 - The Committee will review and comment on selected draft regulatory guides that implement the revised 10 CFR Part 20, Standards for Protection Against Radiation.

Meeting with Director, Office of Nuclear Materials Safety and Safeguards - The Committee will meet with Mr. Bernero to discuss items of mutual interest.

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 nine regulatory guides related to the implementation of the revised 10 CFR Part 20 rule. This review will be conducted in conjunction with the ACRS Subcommittee on Occupational and Environmental Protection Systems.

NRC Staff Computer Modeling and Performance Assessment Program in High-Level and Low-Level Waste, October 16-17, 1991, 7920 Norfolk Avenue, Bethesda, MD (Gnugnoli) - The Working Group will begin its review of a request from Commissioner Rogers regarding whether

the NRC staff has developed a suitable performance assessment program and whether the NRC staff has adequate equipment, expertise and training to conduct high- and low-level waste computer modeling.

Geologic Dating, November 19, 1991, 7920 Norfolk Avenue, Bethesda, MD (Abrams) - The Working Group will review and discuss problems and limitations of various Quaternary dating methods that are proposed for use in the assessment of volcanic features for site characterization of a high-level waste repository at Yucca Mountain.

The Impact of Long-Term Climate Change in the Area of the Southern Basin and Range, December 17, 1991, 7920 Norfolk Avenue, Bethesda, MD (Abrams) - The Working Group will review and discuss the historical evidence and the potential for climate changes in the Southern Basin and Range and their associated impact on performance assessment for the proposed high-level radioactive waste repository at Yucca Mountain.

Post-Closure Monitoring, (Date to be determined), 7920 Norfolk Avenue, Bethesda, MD (Larson) - The Working Group will discuss post-closure monitoring of an HLW repository and other related issues. Representatives from EPA and NRC will be invited to brief the Committee on various aspects of post-closure monitoring.

Residual Contamination Clean-up Criteria, (Date to be determined), 7920 Norfolk Avenue, Bethesda, MD (Gnugnoli) - The Working Group will review, discuss and make recommendations on guidelines for radionuclide contamination limits for unrestricted use of sites that are or have been under NRC license, or were at one time, under AEC license. This effort will be coordinated with a proposed effort by the ACRS to incorporate a land contamination limit into the nuclear power plant safety goals.

Methods for Assessing the Presence of Natural Resources at the Proposed HLW Repository Site, (Date to be determined), 7920 Norfolk Avenue, Bethesda, MD (Abrams) - The Working Group will discuss methodologies for the assessment of the potential for natural resources at the proposed high-level waste repository site at Yucca Mountain. The relationship between resources and the potential for human intrusion will be emphasized.