



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

ACNWS-0036

PDR 5/13/92

November 21, 1991

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

Dear Chairman Selin:

SUBJECT: SUMMARY REPORT - THIRTY-SIXTH MEETING OF THE ADVISORY
COMMITTEE ON NUCLEAR WASTE, OCTOBER 18, 1991

During our 36th meeting, October 18, 1991, we completed the
activities noted below including the letter listed.

LETTER

- Regulatory Guides Being Developed in Support of the Revised 10
CFR Part 20, "Standards for Protection Against Radiation"
(Letter to James M. Taylor, Executive Director for Operations,
dated October 23, 1991.)

This letter summarizes the Committee's general comments on the
twelve regulatory guides related to the implementation of the
revised 10 CFR Part 20.

HIGHLIGHTS OF CERTAIN MATTERS CONSIDERED BY THE COMMITTEE

1. Computer Modeling and Performance Assessment Capabilities

The Committee continued its discussions on the request from
Commissioner Rogers to evaluate whether the NRC staff has
developed a suitable computer modeling and performance
assessment program and whether the NRC staff has adequate
equipment, expertise and training to perform such an analysis
for the disposal of high- and low-level wastes. The Committee
will attempt to complete its work on a response to the request
during the 37th ACNW meeting on November 20-21, 1991.

2. Uncertainties in Implementing the EPA HLW Standards

The Committee was briefed by representatives of the HLWM staff
on their basis for establishing a probability limit for

DESIGNATED ORIGINAL

Certified By EMB

9205180271 911121
PDR ADVCM NACNUCLE
6-0036 PDR

R502 1/1

distinguishing between unlikely and very unlikely events. This relates to the alternative approach to the probabilistic section of the containment requirements in 40 CFR Part 191, e.g., the "three bucket" approach.

This briefing was for information only. No Committee action was taken.

3. Meeting with the Director of the Office of Nuclear Material Safety and Safeguards

Mr. Robert Bernero, Director, Office of Nuclear Material Safety and Safeguards (NMSS), briefed the Committee on a systems analysis approach to the transportation, interim storage, and final disposal of high-level waste. The purpose of this discussion was to gather background information to respond to the Staff Requirements Memorandum, dated August 21, 1991.

Mr. Bernero also reported on the amount of time and resources expended by the NMSS staff in support of ACNW activities, such as preparing for formal briefings and/or informal discussions. Mr. Bernero requested, where possible, that the Committee schedule its briefing requests to dovetail with ongoing NMSS staff efforts. This could significantly minimize the resource impact on the NMSS staff. To the extent practicable, the Committee will comply with this request.

4. ACNW Future Activities

The members discussed topics for the proposed meeting with the Commission that has been scheduled during the 38th ACNW meeting. Suggested items for discussion included:

- Computer modeling in performance assessment
- Development of a systems approach to the management and disposal of low-level waste
- Status of response to Chairman Selin's request on a systems analysis approach to the transportation, interim storage, and final disposal of high-level waste

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.

The Honorable Ivan Selin

3

November 21, 1991

Sincerely,

Dade W. Moeller

Dade W. Moeller
Chairman

Enclosures: As stated

APPENDIX A. FUTURE SCHEDULE

37th ACNW Committee Meeting November 20-21, 1991 (Tentative Schedule)

Systems Analysis Approach to the Transportation, Interim Storage, and Final Disposal of High-Level Waste - The Committee will continue work on a response to Chairman Selin on a system analysis approach to the transportation, interim storage, and final disposal of high-level waste.

Computer Modeling and Performance Assessment Capabilities - The Committee will complete a response to a request from Commissioner Rogers regarding whether the NRC staff has developed a suitable computer modeling and performance assessment program and whether the NRC staff has adequate equipment, expertise and training to perform such an analysis for the disposal of high- and low-level wastes.

Geologic Dating - The Working Group on Geologic Dating will report to the Committee on problems and limitations with respect to various Quaternary dating methods proposed for use in the assessment of volcanic features for site characterization of the proposed high-level waste repository at Yucca Mountain.

Low-Level Waste Disposal Issues - The Committee will hear a presentation and consider commenting on a number of issues in the field of low-level waste disposal including: steps to decrease low-level radioactive waste production, reporting mishaps in the handling and management of low-level wastes, and protection of groundwater from low-level radioactive waste disposal facilities.

Committee Activities - The Committee will discuss anticipated and proposed Committee activities, future meeting agenda (including the meeting schedule for next year), and organizational matters (changes to the bylaws and nomination of officers for next year), as appropriate. The members will also discuss matters and specific issues that were not completed during previous meetings.

Working Group Meetings

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

Seismic and Faulting Investigations for Characterization of a High-Level Waste Repository Site, December 17, 1991, 7920 Norfolk Avenue, Bethesda, MD (Abrams) - The Working Group will be briefed by representatives of DOE, State of Nevada, American Society of Civil Engineers, Association of Engineering Geologists, U.S. Geologic Survey, and Edison Electric Institute, on seismic investigations of the proposed Yucca Mountain HLW site.

The Impact of Long-Term Climate Change in the Area of the Southern Basin and Range, January 15, 1992, 7920 Norfolk Avenue, Bethesda, MD (Abrams) - The Working Group will 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.

Residual Contamination Clean-up Criteria, (Date to be determined), 7920 Norfolk Avenue, Bethesda, MD (Gnugnoli) - The Working Group will review the guidelines for radionuclide contamination limits for unrestricted use of sites and facilities 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.