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

ACNWS-0047
PDR 8/6/93

November 12, 1992

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

Dear Chairman Selin:

SUBJECT: SUMMARY REPORT - FORTY SEVENTH MEETING OF THE ADVISORY COMMITTEE ON NUCLEAR WASTE, OCTOBER 21, 1992

During the 47th meeting of the Advisory Committee on Nuclear Waste, October 21, 1992, held at the St. Tropez Hotel in Las Vegas, Nevada, we discussed several matters and completed the activities noted below.

HIGHLIGHTS OF KEY ISSUES CONSIDERED BY THE COMMITTEE

- Work in Progress at the HLW Repository

  The Committee was briefed by Mr. Carl Gertz, DOE Project Manager, and staff of the Yucca Mountain Project Office, on the proposed Yucca Mountain High-Level Radioactive Waste (HLW) repository site characterization work accomplished in FY 1992 and the strategy for future activities (FY 1993 goals). He discussed the geophysics integration initiative, tectonic studies, model assessments, including drilling, trenching, and total systems performance assessment activities as well as future schedules and funding.

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

- Little Skull Mountain Earthquake

  The Committee was briefed by Dr. James Brune, University of Nevada, Reno, on the magnitude 5.6 earthquake that occurred on June 29, 1992, in the southeast corner of the Nevada Test Site 20 kilometers from the proposed Yucca Mountain High-Level Waste site. The Little Skull Mountain Earthquake was believed to be triggered by the Landers Earthquake, some 240 kilometers away, located on the San Andreas Fault in California. Dr. Brune stated that the effects on the repository would have been minimal. Additional analyses are underway.

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

- Working Group Report on Natural Resources

The Committee heard a report from Dr. Hinze, Chairman of the Working Group on the Potential for the Presence of Natural Resources at a Proposed High-Level Waste Repository Site, on the meeting held October 20, 1992. The Working Group discussed methodologies for the assessment of the potential for the presence of significant natural resources at the proposed high-level waste repository site at Yucca Mountain. The focus of this meeting was on the potential presence of hydrocarbons and precious metals. The relationship between future exploration for such resources and the potential for human intrusion was emphasized.

- Comments on the Proposed HLW Repository

The Committee heard from State Senator Thomas Hickey, Chairman of the State of Nevada's Legislative Commission's Committee on High-Level Radioactive Waste, Mr. Carl Johnson, State of Nevada Nuclear Waste Project Office, Mr. Calvin Meyers, Moapa Band of Paiutes, and representatives of Clark and Nye Counties, as well as a concerned local citizen, on the proposed high-level radioactive waste repository. This briefing was for information only. No action was taken by the Committee.

- Systems Analysis Approach

The Committee continued its discussions of a supplemental request from you on a systems analysis approach to reviewing the overall high-level waste program. The Committee reviewed a draft report, dated October 18, 1992, and agreed to continue further discussions during the 48th ACNW Committee meeting, at which time, the Committee hopes to issue a final report.

- Site Visits After the Full Committee Meeting

On Thursday, October 22, 1992, the Committee visited and toured the DOE Remote Sensing Laboratory, located at Nellis Air Force Base in north Las Vegas. The Committee also visited the Yucca Mountain Project Office and was briefed on the DOE Geographic Nodal Information Study and Evaluation System (GENISES) database. The GENISES database is intended to maintain a repository for technical data obtained as a result of site characterization data collection activities. Two members of the Committee were briefed on OCRWM's Information Storage, Retrieval, and Access Management System (InfoSTREAMS), and on the results of the survey of the "X"

Tunnel following the Little Skull Mountain Earthquake.

On Friday, October 23, 1992, two members and several ACNW staff toured the summit of Yucca Mountain, several study trenches, Ghost Dance Fault, prototype LM-300 drill rig, Sample Management Facility and Geoscience Laboratory, and the "X" Tunnel in Little Skull Mountain.

- ACNW Future Activities

Appendix A summarizes the proposed items endorsed by the Committee for the 48th ACNW Meeting, November 19-20, 1992, and future Working Group meetings.

Sincerely,

Dade W. Moeller

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Chairman

APPENDIX A. FUTURE SCHEDULE

48th ACNW Committee Meeting November 19-20, 1992 (Tentative Schedule)

Siting of a Low-Level Waste Facility (Open) - The Committee will be briefed by a representative of the Connecticut Department of Health Services on the role and perspectives of a State Department of Health regarding the siting of a low-level radioactive waste disposal facility.

Staff Technical Position on Fault Avoidance (Open) - The Committee will be briefed by the NRC staff on a draft Staff Technical Position on Fault Avoidance.

National Profile of Mixed Wastes (Open) - The Committee will be briefed by the NRC staff on a national profile of mixed wastes.

Residual Levels of Radionuclides (Open) - The Committee will be briefed by the NRC staff on the status of enhanced participatory rulemaking related to residual levels of radionuclides acceptable following decontamination of facilities.

Meeting with the Director General of the British Nuclear Forum (Open/Closed) - The Committee will meet with the Director General of the British Nuclear Forum to discuss items of mutual interest.

Chairman's Report on the Impact of Long-Range Climate Change in the Area of the Southern Basin and Range Working Group Meeting (Open) - The Committee will be briefed on the Working Group meeting on the Impact of Long-Range Climate Change in the Area of the Southern Basin and Range Working, held November 18, 1992,

National Energy Policy Act (Open) - The Committee will be briefed by the Director, Office of Nuclear Material Safety and Safeguards, on the recently passed National Energy Policy Act, its potential implications to the NRC, and other items of mutual interest.

Systems Analysis Approach (Open) - The Committee will complete a response to a supplemental request from Chairman Selin on a systems analysis approach to reviewing the overall high-level waste program.

Committee Activities (Open/Closed) - The Committee will discuss anticipated and proposed Committee activities, future meeting agenda, and organizational matters, as appropriate, including nomination of ACNW officers for 1993. Also, the members will discuss matters and specific issues that were not completed during previous meetings.

Working Group Meetings

The Impact of Long-Range Climate Change in the Area of the Southern Basin and Range, November 18, 1992, 7920 Norfolk Avenue, Bethesda, MD - The Working Group will discuss the significance of climate change as it may impact the performance of the proposed Yucca Mountain repository over the next 10,000 years. Specific topics include data identification, acquisition and interpretations, that can be used to predict potential changes to natural conditions at the site. Quality assurance and use of data in developing and validating computer models for predicting global and regional climate, as well as for characterizing the uncertainty in such predications will also be discussed.

Performance Assessment in High-Level Radioactive Waste, December 16, 1992, 7920 Norfolk Avenue, Bethesda, MD - The Working Group will be briefed by DOE representatives on the status of the DOE's Total System Performance Assessment. Also, this Working Group will discuss the progress of Phase 2 and planning for Phase 3 of the HLW Iterative Performance Assessment effort by NRC.

Synergistic Data Needs for Resolving Volcanic and Tectonic Concerns at Yucca Mountain, (Date to be determined), 7920 Norfolk Avenue, Bethesda, MD - The Working Group will attempt to determine what data are necessary to resolve and/or move toward closure in the subject areas. An area of focus will be how data should be integrated, including data related to heat flow, strain, geophysics, and seismic monitoring. The Working Group will attempt to determine how and by whom those data will be analyzed.