



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

ACNWS-0021

July 23, 1990

The Honorable Kenneth M. Carr
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Chairman Carr:

SUBJECT: SUMMARY REPORT - TWENTY-FIRST MEETING OF THE ADVISORY
COMMITTEE ON NUCLEAR WASTE, JUNE 28-29, 1990

During its 21st meeting, June 28-29, 1990, the Committee completed the activities noted below and prepared the indicated reports.

LETTERS AND MEMORANDA

• Joint ACNW/ACRS Letter on Decommissioning Responsibilities

The Committee discussed the latest revisions to a proposed joint ACNW/ACRS letter to the Commission on decommissioning responsibilities. The purpose of this letter is to delineate the responsibilities of the two Committees consistent with guidance received from the Commission. The Committee approved the joint letter. (Joint ACNW/ACRS letter sent to Chairman Carr on July 11, 1990.)

• Memorandum of Understanding

The Committee proposed several revisions to the draft Memorandum of Understanding between the ACNW and the NRC staff. Revisions were made to delineate the Committee's role in decommissioning, certain relicensing activities associated with the high-level waste repository, and health effects associated with low-level waste streams. The MOU has been returned to the staff for a second round of comments.

OTHER ACTIONS, AGREEMENTS, ASSIGNMENTS, AND REQUESTS

• ACNW Past Accomplishments and Future Direction

The Committee agreed to issue a compilation of ACNW reports that were prepared during the first two years of Committee activity. The compilation will contain a foreword that summarizes selected Committee activities during this period. The members also identified specific topics in the areas of high-level waste disposal, low-level waste disposal, rulemaking, and programmatic reviews, that the Committee may want to examine in depth in the future.

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• National Academy of Sciences Symposium on Licensing of the Radioactive Waste Repository

The Committee discussed with Dr. Peter Myers, Executive Director of the Board on Radioactive Waste Management, the upcoming National Academy of Sciences symposium on Radioactive Waste Repository Licensing to be held in Washington, D.C. on September 17-18, 1990. The Committee noted its intention to participate in the symposium by summarizing advice previously given to the Commission on the EPA high-level waste standards.

• Excavation Techniques

The Committee was briefed by Mr. Roger Ilsley, Engineering Geologist, on uses, advantages and disadvantages of two types of excavation methods, drill and blast and tunnel boring machine excavation, that are under consideration for the Exploratory Shaft Facility and the HLW repository. The NRC staff answered questions on this technique. This briefing was for information only. No Committee action was taken.

• Transportation and Storage of Spent Nuclear Fuel

The Committee was briefed by Mr. Eugene Voiland, ACNW consultant, on the operational considerations and actual equipment, including rail and truck casks, used at an off-site spent fuel storage facility. This briefing was for information only. No Committee action was taken.

Iodine-129 Source Term

The Committee was briefed by representatives of EPRI and NUMARC on a methodology for predicting the iodine-129 source term for low-level radioactive waste sites. This briefing was for information only. No Committee action was taken.

• BEIR V Report

The Committee was briefed by Dr. Arthur Upton, Chairman of the Committee on the Biological Effects of Ionizing Radiations (BEIR), National Research Council, on the BEIR V Report, "Health Effects of Exposure to Low-Levels of Ionizing Radiation". This briefing was for information only.

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• ACNW Future Activities

a. Human Intrusion and Carbon-14 Migration Issues

The Committee discussed the feasibility of having working group meetings on human intrusion and on EPA's release limits for carbon-14 at the proposed high-level waste repository.

b. Meetings with the Commissioners

Dr. Moelle requested a meeting, following the July ACNW Committee meeting, with Commissioners Carr, Remick and/or Rogers to discuss items of mutual interest and concern. [Meetings with Chairman Carr and Commissioner Rogers are scheduled for August 1, 1990 at 8:30 a.m. and 9:15 a.m., respectively.]

c. Radioactive Waste Research Program

Based on further guidance from Chairman Carr, the Committee agreed to review selected portions of the NRC research program related to nuclear waste management and disposal.

d. NESHAP EPA Proposal

The Committee will continue plans to review EPA's proposal for National Emission Standards for Hazardous Air Pollutants (NESHAP) with respect to their possible impacts on nuclear waste management and disposal.

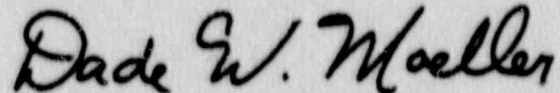
e. September Meeting Date

The Committee agreed to reschedule the 24th ACNW Committee meeting to September 19-20, 1990, so that the Committee meeting will immediately follow the previously mentioned National Academy of Sciences' Symposium on EPA's High-Level Waste Standards and Radioactive Waste Repository Licensing.

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Appendix A summarizes the tentative agenda items that were proposed for future meetings of the Committee. This list includes items proposed by the Commissioners and NRC staff as well as the ACNW members.

Sincerely,

A handwritten signature in cursive script that reads "Dade W. Moeller". The signature is written in dark ink and is positioned above the typed name and title.

Dade W. Moeller
Chairman

APPENDIX A. FUTURE AGENDA

July 30-31, 1990 (Tentative Agenda)

Pathfinder Atomic Power Plant Dismantlement (Open) - The Committee will be briefed on the NRC staff's findings in their Safety Evaluation Report. This review will provide preliminary data on the impact of such activities on the volumes and types of low-level radioactive waste being generated. ACNW comments are requested.

Status of Proactive Work (Open) - The Committee will be briefed by the NRC staff on the status of proactive work (technical positions and rules) in the Division of HLWM and on NRC programmatic response to changes in the DOE program. (SECY 90-207 is now available.) In addition, the Committee will be briefed on the recent progress on QA activities associated with the HLW repository.

Trip Report (Open) - Dr. Linda Lehman, Lehman and Associates, will brief the Committee on her recent visits to the Soviet Union to review radioactive waste management activities.

Uncertainties in EPA Standards Implementation (Open) - The Committee will be briefed by the NRC staff on their approach for dealing with uncertainties in implementing the EPA HLW standards. This review will include discussion of system and subsystem standards (EPA) and regulations (NRC). ACNW comments are requested.

Below Regulatory Concern (BRC) Policy (Open) - The Committee will be briefed on the final BRC Commission policy statement (issued on June 27, 1990)

Committee Activities (Open/Closed) - The Committee will discuss anticipated and proposed Committee activities, future meeting agenda, and organizational matters, as appropriate.

August 29-31, 1990 (Tentative Agenda)

EPA Standards (Open) - The Committee will continue discussion on the EPA standards for high-level radioactive waste disposal in a geologic repository (per memorandum from Galpin, EPA, to Moeller, ACNW). Working draft #3 of the standard is expected to be issued prior to this meeting.

Technical Position on Waste Forms (Revision 1) (Open) - The Committee will be briefed by the NRC staff on modifications to the

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Technical Position on LLW Stabilization/Waste Forms.

Committee Activities (Open) - The Committee will continue discussions on mixed waste, impact of NESHAP, subsystem requirements, and related items. The Committee will discuss anticipated and proposed Committee activities, future meeting agenda, and organizational matters, as appropriate.

Tentative Working Group Meetings (Dates to be determined)

Migration of Carbon-14 (Open) - An ACNW Working Group will be briefed on the potential problems that could arise at a high-level repository as a result of carbon-14 release and migration. This will include a discussion of EPA release limits for this radionuclide.

Human Intrusion (Open) - An ACNW Working Group will examine how human intrusion at a high-level waste repository will be dealt with under 10 CFR Part 60 considerations and guidance from 40 CFR 191 Appendix B. This will include discussion of the WIPP experience and will be designed to explore the range of current thinking from various groups.

DOE/USGS White Paper (Open) - An ACNW Working Group will have discussions with the NRC staff on the review of and comments on the DOE/USGS white paper on integration of the geophysical aspects of the repository SCP.

HLW Repository Systems and Subsystem Evaluation (Open) - An ACNW Working Group will explore the compatibility of subsystem standards and regulations with the overall repository goals.