



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

ACNWS-0086

PDR 2/26/97

February 19, 1997

The Honorable Shirley Ann Jackson  
Chairman  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555

Dear Chairman Jackson:

SUBJECT: SUMMARY REPORT - 89TH MEETING OF THE ADVISORY COMMITTEE ON  
NUCLEAR WASTE, JANUARY 28-30, 1997, AND OTHER RELATED ACTIVITIES  
OF THE COMMITTEE

During its 89th meeting, January 28-30, 1997, held at Two White Flint North, 11545 Rockville Pike, Rockville, Maryland, the Advisory Committee on Nuclear Waste (ACNW) discussed several matters and completed the following reports.

REPORTS

1. Comments on Selected Direction-Setting Issues Identified in NRC's Strategic Assessment of Regulatory Activities (Report to Shirley Ann Jackson, Chairman, NRC, from Paul W. Pomeroy, Chairman, ACNW, dated January 30, 1997)
2. Time of Compliance for Low-Level Nuclear Waste Disposal Facilities (Report to Shirley Ann Jackson, Chairman, NRC, from Paul W. Pomeroy, Chairman, ACNW, dated February 11, 1997)
3. Comments on Flow and Radionuclide Transport at Yucca Mountain (Report to Shirley Ann Jackson, Chairman, NRC, from Paul W. Pomeroy, Chairman, ACNW, dated February 13, 1997)

HIGHLIGHTS OF KEY ISSUES CONSIDERED BY THE COMMITTEE

1. Key Technical Issues Status

The ACNW was briefed by representatives from the Division of Waste Management, Office of Nuclear Material Safety and Safeguards (NMSS) on the first Key Technical Issues (KTI) Annual Progress Report, "NRC High-Level Radioactive Waste (HLW) Program Annual Report Fiscal Year 1996," NUREG/CR-6513, draft November 1996. The briefing reflects the Committee's ongoing interest in the NRC's KTIs and Vertical Slice Approach for review of the Department of Energy's (DOE's) HLW repository program. The discussions concerned the HLW repository precicensing program structure, NRC staff activities, and progress in developing KTIs for FY 1996. The staff also discussed the status and recommendations of the Integration Task Force (ITF) Report on KTI activities. The ITF placed special emphasis on reviewing the support for total system performance

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assessment within the NRC HLW program. The NRC staff noted some key observations and conclusions concerning improving integration within the NRC HLW program, particularly as it relates to performance assessment. This briefing follows up on the Committee's letter to Chairman Shirley Ann Jackson, dated February 16, 1996, titled "Comments on the High-Level Waste Prelicensing Program Strategy and Key Technical Issues."

**Conclusions/Actions:**

The ACNW will continue to follow the NRC's HLW prelicensing program activities and provide the Commission with comments when appropriate.

2. **Discussion with the Director, Division of Waste Management, Office of Nuclear Material Safety and Safeguards**

The Director, Division of Waste Management, NMSS, provided information to the Committee on the status of current waste management issues, including the following: the status of the HLW KTIs; NRC preparations for responding to DOE's Viability Assessment after it is issued; progress in site characterization at Yucca Mountain; current legislation affecting waste management; NRC development of a revised HLW regulation (10 CFR Part 60); DOE's revised HLW Repository Siting Guidelines; the situation concerning allegations at Envirocare of Utah; and NRC's possible external regulation of DOE's nuclear safety.

**Conclusion/Actions:**

This portion of the meeting was part of a regularly scheduled information exchange between the Committee and the Director.

3. **Defense-in-Depth**

The Committee held a roundtable discussion on options for addressing the subsystem requirements in 10 CFR Part 60. The members discussed briefly the concept of defense-in-depth and the multiple barrier approach embodied in 10 CFR Part 60, as well as the historical basis for the subsystem requirements. The members supported the defense-in-depth philosophy applied to waste disposal, but expressed several concerns, including whether the requirements are risk based, whether they are overly prescriptive and inflexible, and whether they do, in fact, provide an independent measure of confidence to overall repository performance.

**Conclusions/Actions:**

The Committee requested a briefing from the NRC staff during its March 1996 meeting. The Committee took note that, because the NRC staff may be moving quickly to modify 10 CFR Part 60, it may also have to act quickly on this topic.

3. Proposed Schedule for the 90th ACNW Meeting

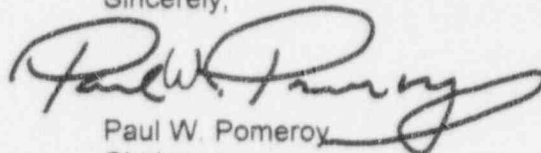
The Committee agreed to consider the following during the 90th ACNW meeting, March 20-21, 1997:

- Meeting with the Directors of the Division of Waste Management and the Spent Fuel Projects Office - The Directors will discuss priorities for their respective divisions and highlight issues they may wish the Committee to consider during the next year.
- Defense-In-Depth Philosophy - The NRC staff will discuss this philosophy and how it applies to nuclear waste. This discussion will revisit the history of the defense-in-depth philosophy and the rationale behind the subsystem requirements in 10 CFR Part 60.
- Planning for Commission Meeting - The Committee will prepare for their next meeting with the Commission.
- BIOMOVS II - The Committee will be briefed by the NRC staff on the current status of the Biosphere Model Validation Study, Phase II. Central to this work is defining the reference biosphere and critical group.
- Preparation of ACNW Reports - The Committee will discuss proposed reports, including the specification of a critical group and reference biosphere to be used in the performance assessment for a nuclear waste disposal facility, and possibly other topics discussed during the meeting.

OTHER RELATED ACTIVITIES OF THE COMMITTEE

The Committee postponed its 90th ACNW meeting from February 25-27, 1997 until March 20-21, 1997.

Sincerely,



Paul W. Pomeroy  
Chairman