



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON NUCLEAR WASTE
WASHINGTON, D.C. 20555-0001

ACNWS-0108

PDR

October 20, 1999

The Honorable Greta Joy Dicus
Chairman
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555-0001

SUBJECT: SUMMARY REPORT—112TH MEETING OF THE ADVISORY COMMITTEE ON NUCLEAR WASTE, SEPTEMBER 14–15, 1999, AND OTHER RELATED COMMITTEE ACTIVITIES

Dear Chairman Dicus:

During its 112th meeting on September 14–15, 1999, at Two White Flint North, Room T-2B3, 11545 Rockville Pike, Rockville, Maryland, the Advisory Committee on Nuclear Waste (ACNW or the Committee) discussed four issues.

HIGHLIGHTS OF KEY ISSUES CONSIDERED BY THE COMMITTEE

1. Decommissioning Standard Review Plan Dose Modeling

Mr. Dominick Orlando, Division of Waste Management (DWM), Office of Nuclear Material Safety and Safeguards (NMSS), after giving an overview of the decommissioning related topics that were to be presented to the ACNW over the next 2 days, addressed NRC activities related to the development of a standard review plan (SRP) for decommissioning. He noted that 15 of the intended 16 modules had been completed in draft form and were available on the NRC Web page.

After presenting the milestones associated with the development of guidance associated with the license termination rule, Mr. Orlando discussed the status of each of the items prescribed by the Commission in its July 8, 1998, staff requirements memorandum (SRM). He then introduced Dr. Rateb Abu-Eid, DWM, NMSS, whose presentation focused on the SRP dose modeling module.

Dr. Abu-Eid discussed the intended application and status of the development of the three basic codes intended for use with the SRP, for example, DandD, RESRAD, and Sandia Environmental Decision Support System (SEDSS). He also discussed some of the valuable interactions the staff has had with attendees at the five public workshops held to date on the SRP, with emphasis on those relevant to dose modeling.

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Dr. Norman Eisenberg presented technical/policy issues relevant to the SRP and discussed how they would (or would not) be resolved. Resolution of some issues will be deferred because of resource limitations. It was also noted that it was the staff's intent to issue the complete SRP for use next summer, have licensees use it for several years, and then hold public workshops to receive further input (based on actual in-field experience) on whether further changes were needed to improve its viability and value.

Conclusions/Actions

The Committee accepted the staff's offer for a briefing on specific modules. The Committee plans to identify those modules in the near future.

2. Division of Waste Management's Fiscal Year 2000 Operating Plan Overview for High-Level Waste Programs

Over the course of the next year, DWM will seek help from the ACNW in the following topical areas:

- NRC staff's comments on the proposed Environmental Protection Agency's Yucca Mountain Standard,
- Analysis of public comments on the proposed 10 CFR Part 63,
- NRC staff's Yucca Mountain review plan and its treatment of defense in depth,
- Results of sensitivity analysis on the NRC staff's Yucca Mountain total performance assessment (TPA) code,
- External review of Version 4.0 of the TPA code,
- NRC staff's comments on the Department of Energy's (DOE's) Draft Environmental Impact Statement,
- NRC staff's comments on the site sufficiency impact to the Yucca Mountain site recommendation, and
- NRC staff's comments on DOE's 10 CFR Part 963 repository siting guidelines.

Conclusions/Actions

This information will be factored into the ACNW's FY 2000 Action Plan.

3. **Division of Waste Management's Fiscal Year 2000 Operating Plan Overview for Decommissioning Programs**

Mr. Larry W. Camper, Chief of the Decommissioning Branch, DWM, NMSS, presented an overview of the objectives, resources, responsibilities, and fiscal year (FY) 2000 activities of the agency in the decommissioning arena. Of particular interest was his list of agency challenges in this area.

The activities of his branch were many and varied. In addition to the activities related to the SRP and associated guidance documents, other activities were support for potential clearance rulemaking activities, completion of the decommissioning pilot program, continuing activities in support of the DOE West Valley Demonstration project, and the reexamination/rebaselining of complex sites (either Site Decommissioning Management Plan or others).

He concluded his remarks by indicating that during FY 2000, ACNW assistance would be solicited in the following areas: the resolution of the clearance rule, considerations associated with the entombment concept for facility decommissioning, and the acceptability of a proposal to "rubblelize" with the objective being to abandon onsite very-low-activity materials associated with the decommissioning process.

Mr. Stuart Richards, Project Director, Office of Nuclear Reactor Regulation (NRR), discussed the NRR decommissioning program, resources, and principal activities. The FY 2000 activities on the calendar for his group were likewise quite extensive, involving, for example, completion of approximately 30-45 licensing actions at 16 reactor sites, the project management of three reactor license termination reviews, 4 public hearings, 4 partial site releases, and several issues concerning independent spent fuel storage installation (fuel loadings as well as other reviews).

Conclusions/Actions

The Committee expressed its appreciation for the integrated presentation by NMSS and NRR senior staff, which responded to a number of ACNW questions. The staff agreed to the Committee's request to return in the near future with a "lessons learned" presentation based upon the actual experience gained thus far in facility decommissioning.

4. **Decommissioning Standard Review Plan**

Mr. Dominick Orlando discussed the five stakeholder input meetings held to date and noted that the last scheduled workshop has been postponed until February 2000. Although the exact format for that workshop has not been finalized, it is expected that the sessions will receive input from industry, fuel cycle companies, states, and other interested parties.

Mr. Orlando discussed (a) the staff's approach to a risk-informed, iterative approach in the development of the SRP and the review of the licensee's decommissioning plan; (b) the reasoning behind the current draft SRP on the principle of "as low as is reasonably achievable"; and (c) the plans to maintain the SRP. He identified several areas in which ACNW assistance would be solicited. Insofar as future plans, Mr. Orlando stated that the SRP is to be published in July 2000; that related issues and implementation problems would be tracked as revealed; and that after a 2-year period, the SRP workshop process would be reconvened with the objective of discussing improvements and possible lessons learned as a result of the practical application of the SRP to real license termination casework.

Mr. William Ott, Assistant Branch Chief, Office of Nuclear Regulatory Research (RES), discussed the activities included in the \$2.3 million RES decommissioning activity budget. He focused his presentation on the current status and future developmental versions of DandD, RESRAD, and SEDSS. In response to several questions, Mr. Ott discussed the possible use of each of the codes from the joint perspectives of source term complexity and site complexity.

Conclusions/Actions

The Committee accepted the staff's proposal to brief it in more detail on several of the SRP modules, recognizing that comments are due by February 2000. The Committee also asked to be briefed on the "lessons learned" from the current "pilot program" as well as the application of the process (including codes) to the license termination of a relatively complex site (as noted in the July 8, 1998, SRM).

PROPOSED SCHEDULE FOR THE 113th ACNW MEETING

The Committee agreed to consider the following issues at its 113th meeting on October 12-13, 1999:

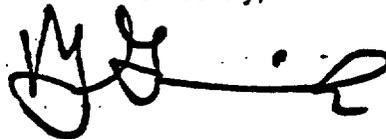
- **The Role of Safety Assessment in the Yucca Mountain Regulatory Process** — The Committee will hold a facilitated working group to explore the role of risk assessment in the licensing of a high-level waste (HLW) repository. Participation is expected from representatives of the NRC, the Environmental Protection Agency (EPA), and DOE, as well as representatives from the State of Nevada, affected units of local government, the nuclear industry, and the public.
- **Comments by Nye County, Nevada** — Representatives of Nye County will discuss the status of its scientific investigations at the Yucca Mountain site.
- **Comments by Clark County, Nevada** — Representatives from Clark County will discuss spent fuel and HLW transportation and other issues relevant to the proposed HLW repository at Yucca Mountain.

- **Comments by the State of Nevada** — Representatives of the State of Nevada will present their views on technical issues relevant to the proposed HLW repository at Yucca Mountain for consideration by the Committee.
- **Department of Energy Process Model Reports** — Representatives from DOE will discuss the process model reports process and how the information presented in these nine reports will be used as input to the total systems performance assessment and ultimately the site recommendation decision.
- **Department of Energy's Work Reprioritization** — Representatives from DOE will discuss recent repository design developments, including the design process that will lead to a complete license application design.
- **Department of Energy's Yucca Mountain Project Status** — Representatives of DOE and U.S. Geological Survey will present a project status report on the current work and recent results obtained from site characterization being performed at the Yucca Mountain site and work performed at other related test facilities.
- **ACNW Planning and Procedures** — The Committee will hear a briefing from its staff on issues to be covered during future full Committee and working group sessions. The Committee will discuss ACNW-related activities of individual members.
- **Discussion and Comment** — The ACNW members will listen to any comments and concerns from the public regarding the Yucca Mountain project.
- **Preparation of ACNW Reports** — The Committee will discuss planned reports, including reports on a white paper on near-field chemistry issues, a joint ACRS/ACNW letter report on an NMSS approach to risk-informed, performance-based regulation in NMSS, and other topics discussed during this and previous meetings.

OTHER RELATED ACTIVITIES OF THE COMMITTEE

The 114th ACNW meeting is scheduled for November 17–19, 1999, in Rockville, Maryland.

Sincerely,

A handwritten signature in black ink, appearing to read "B. John Garrick". The signature is stylized and cursive, with a long horizontal stroke extending to the right.

B. John Garrick
Chairman