



UNITED STATES
NUCLEAR REGULATORY COMMISSION
ADVISORY COMMITTEE ON NUCLEAR WASTE
WASHINGTON, DC 20555 - 0001

ACNWS-0155

July 15, 2005

The Honorable Nils J. Diaz
Chairman
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

SUBJECT: SUMMARY REPORT—160TH MEETING OF THE ADVISORY COMMITTEE
ON NUCLEAR WASTE, JUNE 15–17, 2005, AND OTHER RELATED
COMMITTEE ACTIVITIES

Dear Chairman Diaz:

During its 160th meeting on June 15–17, 2005, at the NRC's headquarters in Rockville, MD, the Advisory Committee on Nuclear Waste (ACNW) discussed the following matters, subsequently the following reports were issued.

REPORTS

- C Report to Nils J. Diaz, Chairman, NRC, from Michael T. Ryan, Chairman, ACNW,
Subject: Proposed Rule on National Source Tracking of Sealed Sources, dated June 21,
2005
- C Report to Nils J. Diaz, Chairman, NRC, from Michael T. Ryan, Chairman, ACNW,
Subject: Department of Energy Plans for Transporting Spent Nuclear Fuel and High-
Level Radioactive Waste, dated June 28, 2005
- C Report to Nils J. Diaz, Chairman, NRC, from Michael T. Ryan, Chairman, ACNW,
Subject: Definition of a Timespan of Regulatory Compliance for a Geological Repository
at Yucca Mountain, dated June 28, 2005
- C Report to Nils J. Diaz, Chairman, NRC, from Michael T. Ryan, Chairman, ACNW,
Subject: Comments on ICRP Foundation Documents — A Followup to the ACNW's
November 3, 2004 Comments, dated July 1, 2005

HIGHLIGHTS OF KEY ISSUES CONSIDERED BY THE COMMITTEE

1. Working Group Meeting on the License Termination Rule (LTR)

ACNW members with the assistance of five invited experts reviewed developing decommissioning guidance to implement the license termination rule (LTR). Decommissioning guidance under consideration included the following topics:

- C restricted use/institutional controls

- C engineered barriers
- C onsite disposal
- C realistic dose scenarios
- C intentional mixing of soils

ACNW also discussed decommissioning guidance and “lessons learned” reports at an early stage of development: identifying sites with a high potential for subsurface contamination, groundwater monitoring, and capturing lessons learned from past decommissioning projects.

Conclusions/Action Items

ACNW will prepare a report on developing decommissioning guidance that will implement the LTR.

2. Discussion of International Commission on Radiological Protection (ICRP) Foundation Documents

Chairman Ryan discussed ACNW’s review of five foundation documents that were recently released by the ICRP. In these foundation documents, ICRP provides the technical basis for their 2004 recommendations on radiation protection. Dr. Don Cool, NRC, actively participated in the discussion of the ICRP reports, which included the following:

- Assessing Dose of the Representative Individual for the Purpose of Radiation Protection of the Public
- Biological and Epidemiological Information on Health Risks Attributable to Ionizing Radiation: A Summary of Judgments for the Purposes of Radiological Protection of Humans
- Basis for Dosimetric Quantities Used in Radiological Protection
- The Optimization of Radiological Protection—Broadening the Process
- The Concept and Use of Reference Animals and Plants for the Purposes of Environmental Protection

Conclusions/Action Items

ACNW developed the contemporaneous notes from this discussion on the foundation documents into a draft letter and read it into the public record. ACNW then finalized the letter to formally transmit comments to the Commission. The Commission should consider deferring action on any of the Draft ICRP recommendations until the latest

Biological Effects of Ionizing Radiation report (BEIR VII) is published and available for review, then consider implementing changes in tissue weighting factors, radiation weighting factors, and more recent methods and models for assessing internal dose. As there is no urgent need for these changes, they can be made when regulations are revised for other reasons. ACNW plans to create a followup working group in FY 2006 after the release of the BEIR VII report.

3. Risk-Informing Office of Nuclear Material Safety and Safeguards Activities

Dennis Damon from NRC's Spent Fuel Project Office (SFPO) described ongoing activities to risk-inform regulatory reviews and decisionmaking in NMSS. Mr. Damon stated that: (1) NMSS has an overall approach for risk informing activities that could be adapted and applied by different NMSS divisions and programs; (2) Some approaches use qualitative risk information; (3) Resources for guidance and methods development are very limited; and from the NMSS perspective, risk-informing means optimizing the use of limited resources.

ACNW members commented that the fundamentals of risk informing the regulatory activities and reviews in different programs do not change despite any program differences; that the draft staff guidance needs simplification; and that the emphasis in the staff guidance should be on the level of risk assessment and not on whether risk assessment is needed.

Conclusions/Action Items

At the ACNW 161st meeting in July 2005, ACNW staff will brief the Committee on approaches and practices to risk inform the regulatory activities by the Office of Nuclear Reactor Regulation (NRR).

ACNW will decide on the need to write a letter with recommendations to the Commission on the application of risk insights to NMSS activities, after the Committee receives a briefing from the ACNW staff on risk-informing NRR activities at the 161st ACNW meeting in July 2005.

4. ACNW Draft White Paper on Low-Level Radioactive Waste (LLW) Management Issues

ACNW staff engineer provided the first draft of the white paper on LLW to ACNW. ACNW indicated the areas of the outline that were completed, (i.e. the scope, background, regulatory history and interfaces).

Conclusions/Action Items

ACNW agreed to provide comments on the current draft. The revised draft will be discussed at the 161st ACNW meeting.

5. Proposed Agenda for the 161st ACNW Meeting

ACNW agreed to consider the following topics at its 161st meeting on July 19–21, 2005:

- C Development of Risk-Informed Regulation Within the NRC and Its Application to the Nonreactor Arena
- C Occupational Safety and Health Administration's (OSHA) Request for Additional Information on Ionizing Radiation
- C ACNW Low-Level Radioactive Waste Management Paper: Draft No. 2
- C Staff Briefing on International Atomic Energy Agency (IAEA) Requirements Document DS-154: Design and Operation of Facilities for Geological Disposal of Radioactive Waste
- C Review of Generic Waste-Related Research in the Office of Nuclear Regulatory Research (RES)
- C RES White Paper on Collective Dose

Sincerely,

/RA/

Michael T. Ryan
Chairman