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November 14, 1996

Mr. John C. Hoyle
Secretary of the Commission
U.S. Nuclear Regulatory Commission
Attn: Chief of Docketing Service Branch
Washington, D.C. 20555-0001

RE: NRC'S STRATEGIC ASSESSMENT OF REGULATORY ACTIVITIES (SP-96-102)

Dear Mr. Hoyle

These comments are in regard to *Strategic Assessment Issue Paper DSI 6: High-Level Waste and Spent Fuel*.

We are in agreement with the Commission's preliminary view on this issue to proceed with Option 3 (Maintain NRC's existing High-Level Waste Program). Given the uncertainty in the near future regarding potential legislative changes in the program, it is reasonable and prudent that the Commission maintain its existing program, to the extent that funding permits, and be prepared to revisit the issue at such time as future legislation may require further Commission consideration.

Under current law, the Commission has two remaining statutory duties that it must perform prior to DOE's submittal of a repository license application. The first is to modify, by rule, its technical requirements and criteria for repository licensing to be consistent with EPA standards promulgated pursuant to Section 801 of the Energy Policy Act of 1992. And second, pursuant to the Nuclear Waste Policy Act of 1982, as amended, the Commission is to provide to the Secretary of Energy its preliminary comments concerning the extent to which DOE's site characterization analysis and waste form proposal seem to be sufficient for inclusion in a repository license application. These preliminary comments are to be included in the Secretary's recommendation to the President that a repository license application be submitted to the Commission.

U.S. NUCLEAR REGULATORY COMMISSION
DOCKETING & SERVICE SECTION
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Because DOE is planning to propose, in FY 97, a revision of its Guidelines for Repository Site Recommendation (10 CFR Part 960), the Commission will also have the duty to consider its concurrence in this proposed revision. Its concurrence in the original guidelines was required by the Nuclear Waste Policy Act, and the Commission has recognized the need for its concurrence on any future substantive changes to these guidelines.

The Commission's other activities relative to the high-level waste program include pre-licensing interactions, as limited by 10 CFR 60 regarding its constituting only "informal conference" between the prospective applicant and the Staff, and not binding resolution of any licensing issues. This serves to reinforce to the public, as it should, the independence and objectivity of the Commission as a regulator of the repository program.

The Commission Staff has indicated that it will provide comment, as appropriate, on the DOE's planned September, 1998, Viability Assessment for the Potential Yucca Mountain Repository site. If such comment is still believed to be appropriate, it should be prominently noted that it is presented in the nature of informal conference only, regarding technical aspects of DOE's repository and waste package design and total system performance. This is especially important since the Staff, for reasons of reduced budget, has deferred until license application review, the in-depth investigation and analysis of three core Key Technical Issues (KTIs) regarding Yucca Mountain repository licensing. These KTIs are on the topics of repository design, waste package containment, and groundwater flow and radionuclide transport - all vital to the credibility of any Yucca Mountain total system performance assessment.

DSI-6 should specify a third, major related issue to be addressed by the Commission: **What should NRC do to respond to stakeholder and public concerns about the safety and security of spent nuclear fuel and HLW shipments to a repository or interim storage facility?**

The DSI acknowledges the current public concern over spent fuel and HLW transportation safety, and suggests that "as a centralized interim storage facility and/or a repository becomes more of a real possibility, greater resistance to transportation may be expressed by local communities. ...the public's concerns about the risks of transporting large quantities of spent fuel could be a prominent aspect of the licensing process for a geologic repository or a centralized dry storage facility." [p.12]

We concur with the DSI's conclusion: "Beyond expressing concerns about radioactive materials and appealing to congressional representatives, the public can be expected to play an integral part in the adjudicatory hearing process for either a disposal license application or an application for a centralized storage facility; its concerns will require careful consideration." [p.12] However, the DSI does not examine the sources of public concern, nor does it recommend NRC actions that would address the specific safety issues raised by stakeholders and the general public.

Careful consideration of stakeholder concerns, in our opinion, means that at a minimum, NRC should reevaluate its position on three critical issues: full-scale physical testing of shipping casks, the use of probabilistic risk assessment in transportation risk analyses, and the vulnerability of spent fuel and HLW shipments to sabotage and/or terrorist attack.

Full-Scale Testing. Concerned individuals, environmental groups, and potential transportation corridor states have long advocated full-scale physical testing of shipping casks to demonstrate that casks involved in extremely severe accidents will comply with the performance standards established by the Commission. In April, 1995, three regional groups representing potential corridor states in the west, midwest, and south formally endorsed full-scale testing of shipping casks and urged DOE to incorporate full-scale testing into the process for obtaining NRC certification for spent fuel shipping casks [see attachment]. The Director of DOE's OCRWM tentatively endorsed full-scale cask testing, subject to funding availability, in December, 1995.

Probabilistic Risk Assessment. Transportation stakeholders have repeatedly questioned the use of probabilistic risk assessment (PRA) by the NRC and DOE in environmental impact analyses and in transportation program documents. The State of Nevada has published detailed guidelines for the use of PRA in spent fuel and HLW transportation risk management and risk communications [see attachment]. The State of Nevada has also published a detailed critique of the 1987 Modal Study [Shipping Container Response to Severe Highway and Railway Accident Conditions, NUREG/CR-4829] recommending additional research on transportation risks associated with the proposed Yucca Mountain repository [see attachment].

Sabotage and Terrorism. During the late 1970s and early 1980s, there was widespread public concern about the consequences of terrorist attacks on shipping casks using explosives. NRC and DOE sponsored technical studies which concluded that the human health effects of a successful attack would not be significant, and in 1984 NRC published a proposed rule (10 CFR 73) generally reducing safeguards requirements for most shipments of spent fuel. However, NRC took no further action on the proposed rule, and apparently terminated the rulemaking in 1987, without addressing the broad range of issues raised by public comments. The State of Nevada is currently preparing two reports which address questions raised by commenters on the 1984 proposed rule: 1) Did NRC underestimate potential damage to cask and spent fuel as a result of terrorist attack with explosives, particularly currently available anti-tank weapons? 2) Did NRC underestimate potential human health effects of a one-percent release of cask contents, particularly health effects of larger-than-respirable fragments of spent fuel? 3) Did NRC adequately evaluate the larger environmental impacts, including both standard and special socioeconomic impacts, of a successful terrorist attack resulting in a one-percent or greater release of cask contents?

If the Commission, as it has said, is interested in taking a more active role in resolving national high-level waste issues, it could begin to address the issue of public confidence by reviewing and responding to regulatory issues that continue to be raised by Nevada and others about the storage and transportation of high-level waste.

Sincerely,

A handwritten signature in dark ink, appearing to read "Robert R. Loux", with a stylized flourish at the end.

Robert R. Loux
Executive Director

RRL/cs
Attachments (3)

**JOINT MEETING OF THE REGIONAL
RADIOACTIVE WASTE TRANSPORTATION COMMITTEES**

RESOLUTION 95-2

**FULL-SCALE TESTING OF NEW GENERATION
SPENT-FUEL SHIPPING CASKS**

WHEREAS, the U.S. Congress, in the Nuclear Waste Policy Act of 1982, as amended, structured a major role in the development of the civilian radioactive waste management program for states, units of local government, and Indian tribes affected by the program and for the general public; and

WHEREAS, the U.S. Department of Energy has stated that "transportation of radioactive waste may do more to bring radioactive-waste disposal to widespread public attention than any other aspect of the Federal waste-management program"; and

WHEREAS, the U.S. Department of Energy has further stated that it will "emphasize demonstrating the safety of transportation to the public as well as the technical community"; and

WHEREAS, the U.S. Department of Energy has acknowledged that public trust and confidence in the waste management program is vital to its success; and

WHEREAS, full-scale cask testing may increase public confidence in the ability of the U.S. Department of Energy to predict and communicate the potential risks to the public; and

WHEREAS, the program to test TRUPACT-II containers for shipping transuranic waste to the Waste Isolation Pilot Plant in New Mexico successfully incorporated input from major stakeholders and, through full-scale testing of the shipping containers, managed to increase public confidence in the transportation of transuranic waste; and

WHEREAS, the Midwestern, Southern, and Western states will all be significantly affected by shipments of spent fuel and high-level waste to facilities for storage and disposal; and

WHEREAS, the Midwestern High-Level Radioactive Waste Committee is an independent, multi-state advisory committee that represents the interests of the 12 Midwestern states and operates under the auspices of the Midwestern Governors' Conference and the Midwestern Legislative Conference of the Council of State Governments; and

WHEREAS, the Southern States Energy Board (SSEB) Advisory Committee on Radioactive Materials Transportation is an independent, multi-state advisory committee that represents the interests of 16 Southern states and one tribe and operates under the auspices of the Southern States Energy Board, an interstate compact organization representing 16 Southern states and two territories; and

WHEREAS, the High-Level Radioactive Waste Committee of the Western Interstate Energy Board (WIEB) operates under an interstate compact ratified by participating states and Congress and represents executive branch agencies in 11 Western states likely to be traversed by NWPB shipments;

NOW THEREFORE BE IT RESOLVED that the Midwestern High-Level Radioactive Waste Committee, the SSEB Advisory Committee on Radioactive Materials Transportation, and the WIEB High-Level Radioactive Waste Committee support the development and implementation of a federal program to conduct full-scale testing of the design and integrity of spent-fuel shipping cask prototypes and shipping container systems that includes sequential tests (free drop, puncture, thermal, and immersion); and

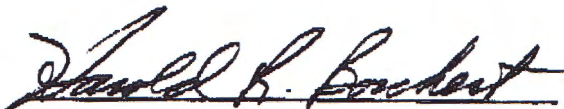
BE IT FURTHER RESOLVED that the U.S. Department of Energy should conduct full-scale testing as an integral component of the process for certifying spent-fuel shipping casks; and

BE IT FURTHER RESOLVED that the federal full-scale cask testing program should be developed in consultation with major program stakeholders, including the Midwestern High-Level Radioactive Waste Committee, the SSEB Advisory Committee on Radioactive Materials Transportation, and the WIEB High-Level Radioactive Waste Committee; and

BE IT FURTHER RESOLVED that the committee chairs will transmit this resolution to the Office of the President of the United States, the Office of the Vice President, the Secretary of Energy, the Speaker of the House, the Chairman of the Senate Energy and Natural Resources Committee, the Chairman of the House Commerce Committee, and the Director of the Office of Civilian Radioactive Waste Management.

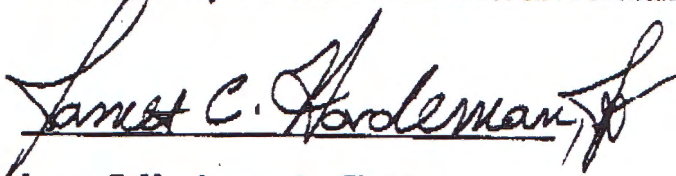
Approved on April 12, 1995, at the Joint Meeting of the Regional Radioactive Waste Transportation Committees

Midwestern High-Level Radioactive Waste Committee



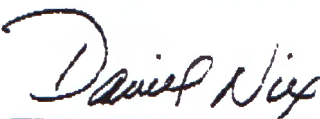
Harold R. Borchert, Chair

SSEB Advisory Committee on Radioactive Materials Transportation

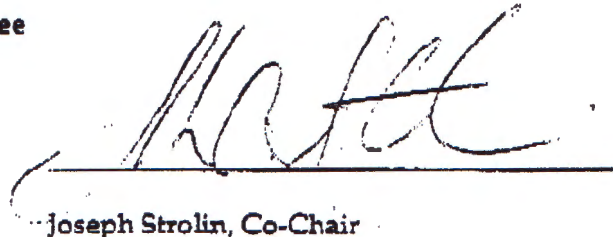


James C. Hardeman, Jr., Chair

WIEB High-Level Radioactive Waste Committee



Daniel Nix, Co-Chair



Joseph Strolin, Co-Chair