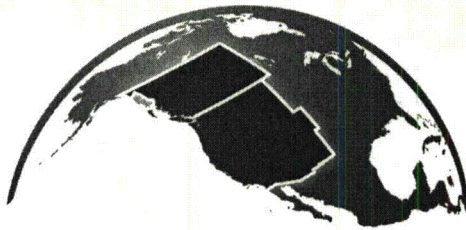


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Western Interstate Energy Board

March 18, 2013

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Mail Stop: TWB-05-BO1M
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001

**RE: Request for Comment on Retrievability, Cladding Integrity and
Safe handling of Spent Fuel at an Independent Spent Fuel Storage
Installation and During Transportation.**

Docket ID NRC-2013-0004
<http://www.regulations.gov>

Stacey Crowley
Chairman

Douglas C. Larson
Executive Director

The Western Interstate Energy Board High-Level Radioactive Waste Committee¹ is composed of nuclear waste transportation experts appointed by the WIEB Board. The Committee works with the U.S. Department of Energy, the U.S. Nuclear Regulatory Commission and other agencies to develop a safe and publicly acceptable system for transporting spent nuclear fuel and high-level radioactive waste. It has been active on this topic since the mid-1980s. The HLRW Committee's primary management directives come from a series of Western Governors' Resolutions dating back to 1985, which express the Governors' goal of "safe and uneventful transport of nuclear waste."

The WIEB HLRW Committee appreciates the opportunity to respond to NRC's

¹ The WIEB High-Level Waste Committee includes representatives of eleven western state governments, and addresses issues related to the storage, transportation and disposal of commercial spent nuclear fuel (SNF) and high-level defense waste (HLW). The Committee has been active since the mid-1980s.

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request for comments for potential rulemaking on "Retrievability, Cladding Integrity and Safe Handling of Spent Fuel at an Independent Spent Fuel Storage Installation (ISFSI) and During Transportation". We support NRC's overall objective, "to minimize future handling of spent fuel and uncertainty as to whether loaded storage casks may be transported from the storage location." (pg. 1)

Criteria for Rulemaking

The January 17 Federal Register Notice states that it is "the first in a series" to inform this NRC initiative. In future notices, we would appreciate a discussion of NRC's criteria for its policies in this area. We assume these may include *safety* (in transportation, storage or repackaging), *direct costs* (to utilities or to the federal government), *logistics* (and their indirect costs) in removal from current sites to off-site storage and/or disposal.

In addition, we would like to understand whether the NRC will develop estimates of these or other criteria as guides for rulemaking; whether the NRC will weight (qualitatively or quantitatively) the criteria or factors; and whether the NRC will assess these factors for alternative scenarios for the national nuclear waste program—e.g. a scenario that proceeds roughly according to DOE's January 2013 "Strategy" versus one in which off-site storage and/or disposal are significantly delayed.

A Standardized Dual Purpose Canister

The recent DOE study of shutdown reactor sites indicates that six different cask types are required to remove spent fuel from just nine sites. The study does not address the associated logistical complications, inefficiencies and costs. The January 2013 Blue Ribbon Commission report recommended early attention to the development of a standardized dual purpose cask, but as yet we are aware of no such initiative. NRC's January 17 notice discusses but does not describe a "damaged fuel canister" (pg. 3, top; pg. 7, bottom). The NRC should better describe the "damaged fuel canister" or can. It should also explain whether this canister would eliminate or dramatically reduce uncertainty regarding the condition of spent fuel and its cladding in extended on-site storage (e.g. after reactor operations), transport or off-site storage.

High Burn-up Fuel

Section I. of the January 17 notice discusses the current uncertainties in the storage and subsequent transport (or, multiple transport) of high burn-up fuel, and the fact that "currently loaded storage casks are not designed for in-situ monitoring" (pg. 4). The section suggests that NRC hopes to resolve the uncertainties through an "experimental program" designed to more firmly ground NRC's professional judgment regarding the need for repackaging for storage and transport at still-operating reactors.

We support the experimental program, but we observe that, in the absence of in-situ monitoring, NRC professional judgment cannot provide the level of trust and confidence needed for a successful large-scale SNF/HLW transportation campaign affecting many communities across the nation.

At this juncture, a large portion of SNF in storage is low burn-up, and a large portion of the SNF in prospect is high burn-up. Perhaps distinctive requirements for storage and transport of high burn-up fuel should be considered. And, perhaps these should include canister-based retrievability as discussed on page 5.

Response to Request for Comments

We will be interested in subsequent notices in this series, and also in NRC's response to the additional information we have requested above. In the meantime, here are our responses to the questions posed on pages 6-8:

A. Acceptance of Spent Fuel

1. Direct disposal of high-capacity canisters?

No. A standardized dual purpose canister is needed to improve the logistics of (and confidence in) storage and transport. However, as the NRC points out, direct disposal of high-capacity dual purpose canisters limits the choice of disposal media and complicates repository design and operation.

2. Repository licensee packaging of potentially damaged fuel

Yes. All packaging for disposal should occur at the repository(ies), and should take account of the repository media and design. Upstream packaging (e.g. in standardized dual purpose canisters) should provide confidence in storage and transport, but should not be predicated on an as-yet-undetermined disposal media. The inclusion of full waste handling and packaging capabilities at consolidated storage facilities (CSFs) dramatically increases their cost (compared to "generic" CSFs) and thereby may preclude options for multiple (e.g. regional) CSFs, which could dramatically reduce transportation impacts prior to disposal, and avoid the prejudicing of repository siting by CSF siting.

3. Impacts on future reprocessing.

None. Even if future reprocessing is desirable (e.g. to provide fuel for advanced reactors), it would be very costly and inefficient to reprocess the current spent fuel inventory, with its excessive mix of waste forms and types.

4. Other Factors. (See "Criteria for Rulemaking", above.)

B. Retrievalability of Individual Assemblies During Storage

For reasons consistent with those under A.2. above, ready-retrieval of individual assemblies should be maintained at still-operating reactors and at licensed repositories, but not at "generic" (desirably multiple) consolidated storage facilities where retrieval, if necessary, should be canister-based.

C. Acceptance of Spent Fuel

1. Repackaging

Particularly for high burn-up fuel, and so long as in-situ monitoring is unavailable, the initial canister should be one that provides trust and confidence (not just via NRC's professional judgment) during both storage and transport, and that will require repackaging (except in extraordinary circumstances) only for disposal.

2. Canistering Individual SNF Assemblies.

The response to #C-1 above also applies here. We will be interested in NRC's report on the additional cost, dose and effort required to place individual fuel assemblies in a damaged-fuel can.

D. Transportation Retrievalability

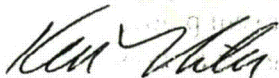
1. Extension to Transportation Packages

For systems considerations outlined in the responses to A1 and A2 above, it should not be acceptable for high burn-up fuel require repackaging after normal conditions of transport. In particular for high burn-up fuel, retrievalability should be canister-based, not assembly-based.

2. Facilities and Methods Necessary to Handle Damaged Fuel

Future canistering at reactors should provide confidence in safety for storage (on and off-site) and transport. Canistering at operating reactors should make diverse facilities and methods for handling damaged fuel at offsite storage facilities unnecessary, except perhaps in extraordinary circumstances. Repackaging for waste disposal should occur at licensed repositories, where disposal packages can take account of the repository's media and design.

Sincerely,



Ken Niles
Committee Chair
High-Level Radioactive Waste