July 31, 2006 CCN 206126

Meraj Rahimi, Project Manager
Spent Fuel Project Office
U.S. Nuclear Regulatory Commission
One White Flint North
11555 Rockville Pike
Rockville, MD, 20852-2738

SUBJECT: Meeting Summary of DOE Standardized Canister

Dear Mr. Rahimi:

I have attached a brief summary of presentation and of our understanding of the feedback received from NRC staff during our June 1, 2006, meeting. We have also completed a detailed summary of NRC staff questions and comments during the meeting for the purpose of assuring that they are appropriately addressed in the topical report.

Mark Arenaz, the DOE Manager for the National Spent Nuclear Fuel Program, will also be sending a separate letter to Bill Brach requesting a follow-up meeting to help us better understand the Commission's position with respect to 10CFR 71.55(b) and (c) as well as any security-related issues associated with transport of spent nuclear fuel. In addition, I would like to invite you and other interested NRC staff members to meet with us in Idaho where we can demonstrate the testing program that supports our conclusions regarding the robustness of the Standardized Canister. This would also provide an opportunity to discuss the applicability of the SFPO's ISG-18.

Please give me a call at (208) 526-3347, to discuss the potential dates, agendas, and attendees for these meetings.

Sincerely,

Brett W. Carlsen, Engineer
National Spent Nuclear Fuel Program

kjb

Attachment

cc: M. R. Arenaz, DOE-ID, MS 1222
J. J. Grossenbacher, INL, MS 3695
C. J. Haughney, Talisman
M. R. Knapp, Talisman
L. A. Sehlke, INL, MS 3810 (w/o Att.)
H. L. Thompson, Talisman

NMSS01

bcc: M. J. Connolly, MS 3710
T. J. Hill, MS 3710
P. D. Wheatley, MS 3710 SCD
INL Correspondence Control, MS 3108
B. W. Carlsen Letter File (BWC-01-06)
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Meeting Summary – NSNFP Perspective

Summary of DOE Presentation

- The DOE standardized canister has been designed, analyzed, and tested for use during interim storage, transportation, and disposal of DOE-EM Managed SNFs and has been demonstrated to remain leak-tight under challenges in excess of those associated with 10CFR71 transportation scenarios for both normal and hypothetical accident conditions.

- Absent moderator intrusion, the contents of a DOE Standardized Canister will be shown to be critically safe assuming worst case reconfiguration of the fuel and worst case reflection at the canister boundary (Al fuels will be addressed in initial submittal). Criticality analyses will also confirm that assuring the criticality safety of an array of canisters within a cask will not impose unreasonable requirements on the cask.

- A Topical Report will be prepared and submitted with the objective of obtaining NRC review and approval for crediting the DOE Standardized Canister as a leak-tight boundary in the criticality analyses prescribed by 10CFR71.55 for both normal transport conditions and hypothetical accident conditions. Assumptions made regarding cask performance will be documented in the report.

    - NRC Review of this topical report will confirm that the Standardized Canister's design objectives with respect to transportation have been met and will enable, if deemed necessary, modifications to the canister design and/or operations prior to canister fabrication and loading. This approach will preclude the radiological exposure and wastes associated with re-opening and/or repackaging fuels prior to transportation.
    - The approved topical report would provide information to facilitate preparation and review of applications to transport fuels in DOE-EM Standardized Canisters (e.g. with an approved Topical Report, the cask vendor's criticality safety evaluation need not assume leakage of water into or of radiological material out of the Standardized Canister).

Summary of NRC Feedback Received

- Because the proposed topical report would address only a component of the transportation package, interfaces between the proposed Topical Report and an eventual request for (or an amendment to) a Certificate of Compliance must be carefully managed.

- Although not all questions were answered during the meeting, the analyses and testing summarized in the presentations, indicate that there is a reasonable basis for demonstrating that the Standardized Canister will meet the intent of 10CFR71.55(e).

- 10CFR71.55(b) has historically been interpreted to require that criticality safety be demonstrated *assuming moderator fills the cask's fuel cavity.* Crediting a leak-tight boundary (i.e. the Standardized Canister) within the cask cavity would likely require a policy review and a decision by the Commissioners. Similarly, exercising the exception allowed by 10CFR71.55(c) would also invoke a review and decision by the Commissioners.