

October 27, 2006

MEMORANDUM TO: William H. Ruland, Deputy Director
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

FROM: Meraj Rahimi, Senior Project Manager /RA/
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

SUBJECT: SUMMARY OF OCTOBER 24, 2006, MEETING WITH HOLTEC
INTERNATIONAL ON THE HI-STAR 180 CASK

On October 25, 2006, the Nuclear Regulatory Commission (NRC) staff and Holtec International held a pre-licensing meeting to discuss Holtec's new cask design, HI-STAR 180. This was the third pre-application meeting held to date. The meeting was focused on the design of the HI-STAR 180 closure system and Holtec's reliance on this closure system for assuming moderator exclusion under hypothetical accident conditions without performing any physical tests as recommended by the Interim Staff Guidance-19 (ISG-19), "Moderator Exclusion under Hypothetical Accident Conditions and Demonstrating Subcriticality of Spent Fuel Under the Requirements of 10 CFR.55(e)." The meeting agenda and the attendance list are included in Enclosures 1 and 2. The slides presented by Holtec are shown in Enclosure 3.

At the meeting, the staff made it clear to Holtec that the basket geometry must be maintained under hypothetical accident conditions regardless of moderator exclusion. The staff emphasized that the ISG-19 is focused on providing alternatives to maintaining the high-burnup spent fuel assembly geometries, not the basket geometry, with respect to criticality safety. Therefore, Holtec must demonstrate the structural and geometric integrity of the basket under the most adverse structural and thermal environment as the result of regulatory normal and hypothetical accident conditions. The staff also clarified that the first option in ISG-19 provides an alternative to demonstrating the structural integrity of high-burnup spent fuel assemblies by analyzing the flooded cask system reactivity assuming realistic bounding fuel reconfigurations under hypothetical accident conditions. If the applicant can demonstrate that the system is still subcritical, assuming reconfigured fuel within each fuel cell, there is no need for moderator exclusion. The double closure system that Holtec is offering instead of physical tests is not a double barrier system. It is mainly a single barrier with double closure lids.

No regulatory decisions were made at the meeting.

Docket No. 71-9325
TAC No. L23972

Enclosures: 1. Meeting Agenda
2. Attendance List
3. Meeting Materials

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NRC/Holtec International Meeting
October 24, 2006

ATTENDANCE LIST

<u>Name</u>	<u>Affiliation</u>
Meraj Rahimi	NRC/NMSS/SFST
Bob Nelson	NRC/NMSS/SFST
Gordon Bjorkman	NRC/NMSS/SFST
Bob Tripathi	NRC/NMSS/SFST
Kim Hardin	NRC/NMSS/SFST
Mike Call	NRC/NMSS/SFST
Geoff Hornseth	NRC/NMSS/SFST
Bob Einziger	NRC/NMSS/SFST
David Tang	NRC/NMSS/SFST
Carl Withee	NRC/NMSS/SFST
Jerry Chuang	NRC/NMSS/SFST
Nancy Osgood	NRC/NMSS/SFST
Harold Sott	NRC/NMSS/SFST
Wayne Hodges	H322 Consulting
Steve Petras	Transnuclear
Everett Redmond	NEI
Piere-Alexandre Ronsigng	NOK
Luis Hinojosa	Holtec
Alan Solar	Holtec
Stefan Anton	Holtec

Agenda for Meeting with Holtec International
October 24, 2006, 1:00 p.m. - 3:00 p.m.
O-11B2

- 1:00 p.m. Introduction
- 1:10 p.m. Design overview
- 1:40 p.m. Criticality criteria
 - Moderator exclusion
- 2:40 p.m. Schedule
- 2:50 p.m. Public comments and questions
- 3:00 p.m. Adjourn