

December 8, 2005

MEMORANDUM TO: William H. Ruland, Deputy Director
Licensing and Inspection Directorate
Spent Fuel Project Office, NMSS

FROM: Christopher M. Regan, Senior Project Manager /RA/
Licensing Section
Licensing and Inspection Directorate
Spent Fuel Project Office, NMSS

SUBJECT: SUMMARY OF DECEMBER 7, 2005, MEETING WITH HOLTEC
INTERNATIONAL REGARDING BOILING WATER REACTOR FUEL
ENRICHMENT ISSUES (TAC NO. L23924)

On December 7, 2005, the Nuclear Regulatory Commission (NRC) staff from the Spent Fuel Project Office and the Office of Nuclear Regulatory Research met with representatives of Holtec International (Holtec) at NRC Headquarters in Rockville, Maryland. The purpose of the meeting was to provide Holtec the opportunity to discuss issues related to boiling water reactor (BWR) fuel enrichment, specifically, options for amending the 10 CFR Part 72 Certificate of Compliance (CoC) for the HI-STORM 100 dry cask storage system to increase the allowable BWR fuel enrichment for storage in the HI-STORM 100 storage system. The meeting was noticed on November 14, 2005. Attachment 1 is a list of attendees, Attachment 2 contains the Holtec presentation slides.

Holtec began the meeting by presenting an overview of three options for proposing an increase in the BWR fuel enrichment for spent fuel to be loaded into the HI-STORM 100 dry cask storage system. Holtec indicated that they were exploring all three options as viable methods for demonstrating compliance with the regulations to permit storage of BWR fuel with higher enrichment, up to 5%, in the HI-STORM 100 dry cask storage system. Holtec indicated that of the three options being considered, the most viable appeared to be the third option, the option best supported by industry practice with storage of BWR spent fuel in a fresh water environment of a typical operating reactor spent fuel pool. The staff provided comment on each of the options and highlighted particular issues that should be considered by Holtec when developing a CoC amendment submittal. The staff emphasized that the effects on other technical disciplines, i.e., thermal, when loading BWR fuel with higher enrichment must also be considered and addressed in the CoC amendment application. The staff noted the need to address calculation and computer code uncertainties, conservatisms, and margins in a quantitative way. Given the history with other licensing actions the staff is less likely to approve a licensing action based primarily on estimated margin or degree of conservatism. Some quantitative measure should be provided as part of the technical basis for the requested change. The staff recognized the questions regarding the ability of Holtec, or an end user, to rely upon vendor generated "best estimate" fuel calculations to verify compliance with CoC and regulatory requirements. Some measure of the confidence of how well a computational code is working, i.e., benchmarking, would most likely be necessary to support any amendment should Holtec choose to rely upon the code to justify the requested change.

In summary, the staff thanked Holtec for the material that was presented. The staff questioned Holtec regarding their desired schedule for developing a CoC amendment application. Holtec indicated that they would most likely request a second public meeting with the staff in 2 to 3 months time to further discuss a preferred option. Following a successful meeting with the staff Holtec stated they might be in a position to submit a formal CoC amendment request for the HI-STORM 100 dry cask storage system in the middle of 2006.

No regulatory decisions were made by the NRC during the meeting on the material presented. No members of the public were present at the meeting.

Docket No. 72-1014
TAC No. L23924

Enclosures: 1. Attendance List
2. Presentation Slides

In summary, the staff thanked Holtec for the material that was presented. The staff questioned Holtec regarding their desired schedule for developing a CoC amendment application. Holtec indicated that they would most likely request a second public meeting with the staff in 2 to 3 months time to further discuss a preferred option. Following a successful meeting with the staff Holtec stated they might be in a position to submit a formal CoC amendment request for the HI-STORM 100 dry cask storage system in the middle of 2006.

No regulatory decisions were made by the NRC during the meeting on the material presented. No members of the public were present at the meeting.

Docket No. 72-1014
TAC No. L23924

- Enclosures:
1. Attendance List
 2. Presentation Slides

DISTRIBUTION:

NMSS r/f SFPO r/f DMcIntyre, OPA
 SBaggett NJensen, OGC NRC attendees/without attachments
 E:\Filenet\ML053460139.wpd

OFC	SFPO	E	SFPO	C	SFPO	
NAME	CRegan		EZiegler		RNelson	
DATE	12/8/05		12/8/05		12/8/05	

Official Record Copy

Attachment 1

Attendee List

**Meeting with Holtec International
HI-STORM 100 Boiling Water Reactor Fuel Issues
December 7, 2005**

ATTENDANCE LIST

<u>Name</u>	<u>Affiliation</u>
Wayne Hodges	NRC/NMSS/SFPO
Christopher Regan	NRC/NMSS/SFPO
Michel Call	NRC/NMSS/SFPO
Carl Withee	NRC/NMSS/SFPO
Larry Campbell	NRC/NMSS/SFPO
Jeremy Smith	NRC/NMSS/SFPO
Ben Wilson	NRC/NMSS/SFPO
Meraj Rahimi	NRC/NMSS/SFPO
Andrew Barto	NRC/NMSS/SFPO
William Ruland	NRC/NMSS/SFPO
Bob Nelson	NRC/NMSS/SFPO
Stephan Anton	Holtec International (via telephone)
Everett Redmond	Holtec International
Kris Cummings	Holtec International

Attachment 2

Presentation Slides