

January 23, 2006

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

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

SUBJECT: SUMMARY OF JANUARY 19, 2006, MEETING WITH HOLTEC  
INTERNATIONAL REGARDING PROPOSED AMENDMENT 3 TO THE  
HI-STORM 100 CERTIFICATE OF COMPLIANCE 1014 (TAC NO.  
L23850)

On January 19, 2006, 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 present proposed responses to the NRC Request for Additional Information (RAI) dated November 30, 2005, regarding the Holtec 10 CFR Part 72 Certificate of Compliance (CoC) amendment request 3 for the HI-STORM 100 dry cask storage system. The meeting was noticed on January 5, 2006. Enclosure 1 is a list of attendees, Enclosure 2 contains the Holtec presentation slides.

Holtec began the meeting by presenting an overview and background of the HI-STORM 100 CoC amendment request 3 submittal and NRC review. Holtec stated that it was not necessary to present proposed responses to each RAI and indicated that RAIs 1-4, 2-1, 2-2, 3-5, 4-7, 4-8, 4-9, 6-1, 8-1, 12-5, and the RAIs of Section 5 be the focus of the meeting's discussion. In response to RAI 1-4 Holtec proposed a slightly modified definition of damaged fuel to provide better clarity with respect to the term "impaired." Holtec also presented a new definition of damaged fuel, that although not part of the proposed RAI response, may be submitted to the NRC in the future. The future definition would rely on design criteria for determining what fuel is considered damaged. For RAIs 2-1 and 2-2, the staff questioned Holtec on their proposed response and the means for precluding water infiltration in the concrete structure. There was discussion of the various methods for protection against water infiltration. The staff indicated that details of the proposed RAI response should be included in the Final Safety Analysis Report (FSAR). The response to RAI 3-5, regarding corrosion protection, was presented. Holtec indicated they would include in the Technical Specifications (TS) details of the operating requirements of the system and include Limiting Conditions of Operation. The staff noted that due to the extensive revision of the material pertaining to corrosion protection the staff would need to review the proposed changes to the FSAR and TS before making a final determination regarding this new approach. There was a brief discussion of RAIs 4-7, 4-8, and 4-9. Holtec indicated that a suitable device for measuring air flow in the annular region had been found and would be used to obtain data to validate calculated results. The staff considers that one

data set from a single specified heat load, to be defined in the CoC, would be sufficient and that the staff may reconsider the necessity for the current thermal testing requirements defined in the CoC. The staff had no other concerns at this time with respect to the proposed responses to these RAIs. The staff had no questions regarding the proposed responses to the RAIs in Section 5. Holtec clarified their response to RAI 6-1. The staff had no questions pertaining to RAI response 6-1. Holtec presented a response to RAI 8-1 clarifying loading procedures. The staff stressed the importance of precluding exposure of the spent fuel to air. The reason for asking the RAI, given final Interim Staff Guidance (ISG) has not been issued establishing an NRC position, was due to the safety significance of the issue. The staff indicated that the ISG would most likely be issued in advance of completion of the technical review of the Amendment 3 application. The proposed response to RAI 12-5 was discussed. Holtec will clarify the TS in question but asked if the staff would consider removal of a portion of the TS because a sealed cask, with welded lid, once loaded, has no physical means for verification of helium backfill pressure. The staff agreed to consider the proposal for significant revision or removal of the TS in its entirety.

The staff then took the opportunity to request clarification of proposed RAI responses 1-3 and 3-2. The staff had requested a Bill of Materials (BOM) be included in the FSAR for the components in question. Holtec argued the need to place information with that level of detail in the FSAR. Compromise was reached in that the staff may not need the BOM information in the FSAR but would need to see the information as part of the technical review to verify materials and specifications used in construction. Holtec agreed to provide the BOM information. The staff noted that the proposed response to RAI 3-2 may not be sufficient. The staff considers the location of the holes through which the concrete is to be poured are critical to precluding air pockets or voids, which may affect the shielding capability of the lid component. As such, a level of detail that would clearly explain the fabrication process is necessary and that this level of detail should be included in the FSAR. Holtec agreed to provide additional discussion of fabrication techniques in the FSAR and add hole locations for the concrete pour to the licensing drawings.

In summary, the staff thanked Holtec for the material that was presented. Holtec intends to satisfy the February 28, 2006, scheduled RAI response submittal date. No regulatory decisions were made by the NRC during the meeting on the material presented. There were no questions from the members of the public.

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Enclosures: 1. Attendance List  
2. Presentation Slides

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<b>OFC</b>	SFPO	E	SFPO	C	SFPO	
<b>NAME</b>	CRegan		EZiegler		RNelson	
<b>DATE</b>	01/23/06		01/23/06		01/23/06	

**Official Record Copy**

## **Attachment 1**

## **Attendee List**

**Meeting with Holtec International  
HI-STORM 100 Amendment 3 Proposed RAI Response  
January 19, 2006**

ATTENDANCE LIST

<u>Name</u>	<u>Affiliation</u>
Wayne Hodges	NRC/NMSS/SFPO
Christopher Regan	NRC/NMSS/SFPO
Jorge Solis	NRC/NMSS/SFPO
Bob Tripathi	NRC/NMSS/SFPO
Ben Wilson	NRC/NMSS/SFPO
Geoff Hornseth	NRC/NMSS/SFPO
Bob Shewmaker	NRC/NMSS/SFPO
Bob Nelson	NRC/NMSS/SFPO
Larry Campbell	NRC/NMSS/SFPO
Gordon Bjorkman	NRC/NMSS/SFPO
Dan Forsyth	NRC/NMSS/SFPO
Ghani Zigh	NRC/RES
Kris Singh	Holtec International
Stephan Anton	Holtec International
Everett Redmond II	Holtec International
Debu Mitra-Majumdar	Holtec International
Lius Hinojosa	Holtec International
Alan Soler	Holtec International (via video conference)
Indresh Rampall	Holtec International (via video conference)
John Griffith	Holtec International (via video conference)
Carlyn Greene	Spent Fuel
Maureen Conley	Platts/McGraw-Hill

## **Attachment 2**

### **Presentation Slides**