

NRC FORM 699 (9-2003)		U.S. NUCLEAR REGULATORY COMMISSION		DATE 05/31/2007
CONVERSATION RECORD				TIME 11:00am
NAME OF PERSON(S) CONTACTED OR IN CONTACT WITH YOU Stefan Anton, Indresh Rampall, Debu Mitra-Majumdar		TELEPHONE NO. 856-797-0900		TYPE OF CONVERSATION <input type="checkbox"/> VISIT <input type="checkbox"/> CONFERENCE <input checked="" type="checkbox"/> TELEPHONE <input type="checkbox"/> INCOMING <input checked="" type="checkbox"/> OUTGOING
ORGANIZATION Holtec International				
SUBJECT License Amendment Request - HI-STORM 100 Amendment Request Thermal items				
SUMMARY (Continue on Page 2)				
NRC Attendees: Christopher Regan, Michael Waters, Jorge Solis				
NRC called Holtec International to continue dialogue with respect to outstanding issues in the thermal analyses for Amendment 4. The goal was for both parties to determine if viable options exist to resolve the issues and the degree of effort needed to perform any calculations necessary and make respective changes to the application materials.				
The first issue involved the HI-TRAC Transfer Cask Model The staff provided feedback after additional review of RAI 4-7 from the first RAI issued by the staff. The staff concluded that the same concerns exist with respect to the analytical approach taken by Holtec. These concerns centered on a belief that the Holtec correlation was not correct and that the staffs own analyses indicated a peak temperature 200degf higher than what Holtec had calculated using the corollary. The staff reiterated that the use of a correlation is too imprecise given the geometry and introduces up to a 30% uncertainty in the result.				
As a result Holtec proposed the following solution: Holtec will continue to rely upon the heat transfer methods used in the FSAR which considers only conduction in the water and steel for the water jacket area. Convection would not be considered. As such the correlation would be removed from the bases as it is no longer necessary to support the design requirements. This would eliminate staff concerns regarding corollary uncertainties. Holtec would perform one calculation for the highest heat load, without the Supplemental Cooling System (SCS). Also, one calculation will be performed to determine the heat load that requires use of the SCS when considering high burnup fuels. Heat loads above this heat load would require a SCS be engaged and will be designed to ensure heat removal capacity is sufficient to maintain cladding temperature below limits. These analyses and approach will be documented in a revised FSAR and associated calculation packages. The staff considered this a reasonable approach and would address the staffs concerns. However, a final determination would hinge on the specific changes and analyses provided to the staff. Holtec questioned the staff about heat transfer in the air gap. The staff indicated that there were no principal concerns in this area. Both agreed that the proposed solution appeared feasible.				
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ACTION REQUIRED None				
NAME OF PERSON DOCUMENTING CONVERSATION C. Regan		SIGNATURE 		DATE 05/31/2007
ACTION TAKEN None				
TITLE OF PERSON TAKING ACTION		SIGNATURE OF PERSON TAKING ACTION		DATE

CONVERSATION RECORD (Continued)

SUMMARY (Continue on Page 3)

The second issue involved the Vacuum Drying Case:

Holtec conceded that resolution to the staffs concerns regarding the vacuum drying analyses would be difficult and proposed that

the heat load limit requiring use of the Forced Helium Dehydration (FHD) system for moderate burnup fuels (in the MPC-68 and MPC-32) simply be reduced to no more than 23 kW. Holtec indicated that the heat load limit for the MPC-24/24E would remain at 29 kW. This was based on the fact that there already existed a margin of approximately 150degrees F. The staff and Holtec agreed that there will remain a heat imbalance. However, this was considered acceptable given the additional thermal margin resulting from the reduced decay heat load limit. Holtec committed to add a discussion in the FSAR that would address the uncertainties in the radiation model (a discussion of the heat balance delta) and which would preclude subsequent changes per 72.48. NRC indicated that this approach would likely resolve the staffs concerns with the vacuum drying analyses. Holtec stated they plan to provide results of the revised calculations, and the corresponding proposed FSAR changes prior to the meeting on June 11.

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