

Janaury 28, 2003

MEMORANDUM TO: Charles L. Miller, Deputy Director  
Spent Fuel Project Office, NMSS

FROM: Stephen C. O'Connor, Senior Project Manager /RA/  
Spent Fuel Project Office, NMSS

SUBJECT: SUMMARY OF JANUARY 9, 2003, MEETING WITH HOLTEC  
INTERNATIONAL CORPORATION

On January 9, 2003, the Nuclear Regulatory Commission (NRC) staff met with representatives of Holtec International Corporation (Holtec) at NRC Headquarters in Rockville, Maryland. The purpose of the meeting, as stated in the meeting notice, was as follows:

- (1) Discuss the basis for Holtec's 10 CFR 72.48 evaluation to revise Final Safety Analysis Report statements on galvanic reactions;
- (2) Discuss the root cause of weldability problems with HI-STORM Multi-purpose Canister (MPC) lids; and
- (3) Discuss the root cause of missed Ultrasonic Tests (UT) on MPC closure rings during fabrication.

The attendance list is included as Attachment 1, and Holtec's meeting handout is included as Attachment 2. This meeting was noticed on December 16, 2002.

This meeting was held at the request of the NRC staff to provide Holtec the opportunity to explain the issues, root cause analysis results, and corrective actions taken. The staff generally agreed with Holtec's explanation of the weldability and missed UT issues. The root cause analysis results appeared reasonable and the corrective actions appeared adequate.

With regards to the galvanic reactions issue, the staff asked many questions which Holtec was not prepared to fully answer. The main staff concern was that Holtec's hydrogen generation analysis presented in their 72.48 evaluation was not complete and did not predict the actual test data taken by a HI-STORM user, Columbia Generating Station (CGS), during dry run activities. In particular, Holtec calculated that it would take 24 days to reach the lower explosive limit (LEL) for hydrogen in the region between the bottom of the MPC lid and the top of the water remaining in the cask during welding operations. However, measurements at CGS showed much higher localized concentrations of hydrogen in certain areas of this region of the cask.

The first hydrogen gas reading taken on the MPC at CGS, after placing the lid on the cask, was found to be at 80% of the LEL around the lid vent opening. The region was purged for 2 hours, the hydrogen was measured to be at 27% LEL, and within 15 minutes the combustible gas monitor alarmed at 50% LEL. Holtec representatives defended the 72.48 analysis by stating that they assumed a homogeneous mixture in the region under the MPC lid.

Staff is evaluating the information discussed in the meeting and the need for any additional action. No regulatory actions or decisions were made or requested during this meeting.

Docket No. 72-1014

Attachments: 1. Attendance List  
2. Holtec Meeting Handout

January 28, 2003

The first hydrogen gas reading taken on the MPC at CGS, after placing the lid on the cask, was found to be at 80% of the LEL around the lid vent opening. The region was purged for 2 hours, the hydrogen was measured to be at 27% LEL, and within 15 minutes the combustible gas monitor alarmed at 50% LEL. Holtec representatives defended the 72.48 analysis by stating that they assumed a homogeneous mixture in the region under the MPC lid.

Staff is evaluating the information discussed in the meeting and the need for any additional action. No regulatory actions or decisions were made or requested during this meeting.

Docket No. 72-1014

- Attachments: 1. Attendance List  
2. Holtec Meeting Handout

Distribution: (closes TAC No. L23572)

Dockets	NRC File Center	PUBLIC	NMSS R/F	SFPO R/F	CMiller, R-III
RBellamy, R-I	WGloersen, R-II	DAYres, R-II	SGagner	MMoore	NRC Attendees

C:\ORPCheckout\FileNET\ML030280680.wpd

ML030280700

<b>OFC</b>	SFPO	E	SFPO	E	SFPO	E		
<b>NAME</b>	SO'Connor *		EZiegler *		JMonninger			
<b>DATE</b>	01/17/03		01/17/03		01/28/03			

\* - see previous concurrence

**C = COVER      E = COVER & ENCLOSURE      N = NO COPY**  
**OFFICIAL RECORD COPY**

Meeting with Holtec International Corporation  
January 9, 2003

ATTENDANCE LIST

<u>Name</u>	<u>Affiliation</u>
E. William Brach	NRC/SFPO
Wayne Hodges	NRC/SFPO
Charlie Miller	NRC/SFPO
John Monninger	NRC/SFPO
Stephen O'Connor	NRC/SFPO
Adelaide Giantelli	NRC/SFPO
Elaine Keegan	NRC/SFPO
Antonio Dias	NRC/SFPO
Andrew Barto	NRC/SFPO
Christopher Regan	NRC/SFPO
Beth Schlapper	NRC/SFPO
Meraj Rahimi	NRC/SFPO
Jose Cuadrado	NRC/SFPO
Gordon Bjorkman	NRC/SFPO
Kirke Lathrop	NRC/SFPO
Geoff Hornseth	NRC/SFPO
Chris Brown	NRC/SFPO
David Tang	NRC/SFPO
Paul Narbut	NRC/SFPO
Ray Wharton	NRC/SFPO
Blair Spitzberg	NRC/R-IV
Vincent Everett	NRC/R-IV
Dennis Boal	NRC/R-IV
Brian Gutherman	Holtec
Bernard Gilligan	Holtec
Mark Soler	Holtec
Everett Redmond	Holtec
John Griffiths	Holtec
Tom McCallum	Southern Nuclear Company
Richard Hill	Southern Nuclear Company
Terry Sides	Southern Nuclear Company
Charles Franklin	Entergy Nuclear Operations, Inc.
Charlene Faison	Entergy Nuclear Operations, Inc.
Gary Zimmerman (by phone)	Portland General Electric
Lanny Dusek (by phone)	Portland General Electric
Steve Nichols (by phone)	Portland General Electric
Philip Lang	Pacific Gas and Electric
Martin Edwards	U.S. Tool & Die, Inc.
Christopher Srock	U.S. Tool & Die, Inc.
Bob Quinn	BNFL Fuel Solutions Corporation
Chris Johns	Transnuclear, Inc.
Jacques Besnainou	Cogema
Steve Schulin	The IBEX Group