



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

July 7, 2017

MEMORANDUM TO: Anthony Hsia, Deputy Director  
Division of Spent Fuel Management  
Office of Nuclear Material Safety  
and Safeguards

FROM: Yen-Ju Chen, Sr. Project Manager */RA/*  
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SUBJECT: SUMMARY OF JUNE 7, 2017, PARTIALLY CLOSED LICENSING  
MEETING WITH HOLTEC INTERNATIONAL TO DISCUSS TECHNICAL  
TOPICS RELATED TO THREE AMENDMENT APPLICATIONS

On June 7, 2017, staff from the Division of Spent Fuel Management held a partially closed licensing meeting with representatives from Holtec International (Holtec) at the U.S. Nuclear Regulatory Commission (NRC) Headquarters in Rockville, MD. The meeting was noticed<sup>1</sup> on May 25, 2017. The purpose of the meeting was to discuss technical topics related to three amendment applications. Specially, NRC staff (the staff) and Holtec representatives discussed thermal analysis for Certificate of Compliance (CoC) No. 1008, HI-STAR 100, Amendment No. 3; thermal and shielding analyses for CoC No. 1014, HI-STORM 100, Amendment No. 11; and thermal and criticality analyses for CoC No. 1040, HI-STORM UMAX, Amendment No. 3. A portion of the meeting was closed to discuss proprietary information. No regulatory decisions were made nor requested at this meeting. The attendance list is included as Enclosure 1.

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<sup>1</sup> Agencywide Document Access and Management System (ADAMS) Accession No. ML17145A283.

HI-STAR 100, Amendment No. 3 (CoC No. 1008)

By letter dated September 25, 2015, Holtec submitted a request<sup>2</sup> to amend CoC No. 1008 for the HI-STAR 100 Dry Storage Cask System. The NRC accepted the application for technical review<sup>3</sup>. On March 23, 2016, NRC staff issued a request for additional information (RAI)<sup>4</sup>, and Holtec responded<sup>5</sup> on April 29, 2016. The staff has reviewed Holtec's responses to the staff's RAI and identified several issues that require supplementation by Holtec. The issues are summarized in the meeting handout (Enclosure 2)<sup>6</sup>. The staff intends to issue a second RAI discussing the specific issues that Holtec needs to address for staff to continue its review.

HI-STORM 100, Amendment No. 11 (CoC No. 1014)

By letter dated January 29, 2016, Holtec submitted a request<sup>7</sup> to amend CoC No. 1014 for the HI-STORM 100 Dry Storage Cask System, and supplemented<sup>8</sup> it in a letter dated February 16, 2016. The staff issued a request for supplemental information (RSI)<sup>9</sup> on May 11, 2016, and Holtec responded<sup>10</sup> on June 6, 2016. On November 17, 2016, NRC staff issued a RAI<sup>11</sup>, and Holtec responded<sup>12</sup> partially in a letter dated December 22, 2016. The staff discussed issues in Holtec's thermal and shielding analyses as summarized in the meeting handout (Enclosure 3)<sup>13</sup>.

HI-STORM UMAX, Amendment No. 3 (CoC No. 1040)

By letter dated August 30, 2016, Holtec submitted a request<sup>14</sup> to amend CoC No. 1040, the HI-STORM UMAX system. Holtec supplemented the amendment request by letter dated September 9, 2016,<sup>15</sup> and November 4, 2016<sup>16</sup>. The staff, as part of the acceptance review process, issued a RSI<sup>17</sup> on January 23, 2017. Holtec responded to the RSI<sup>18</sup> in a letter dated March 3, 2017. The HI-STORM UMAX amendment request is in a non-acceptance status. At the meeting, NRC staff discussed both criticality and thermal issues as outlined in the meeting handout (Enclosure 4)<sup>19</sup>.

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<sup>2</sup> ADAMS Accession No. ML15280A178.

<sup>3</sup> ADAMS Accession No. ML15342A382.

<sup>4</sup> ADAMS Accession No. ML16083A509.

<sup>5</sup> ADAMS Accession No. ML16133A518.

<sup>6</sup> ADAMS Accession No. ML17157B402.

<sup>7</sup> ADAMS Accession No. ML16029A528.

<sup>8</sup> ADAMS Accession No. ML16069A246.

<sup>9</sup> ADAMS Accession No. ML16137A157.

<sup>10</sup> ADAMS Accession No. ML16159A344.

<sup>11</sup> ADAMS Accession No. ML16323A118.

<sup>12</sup> ADAMS Accession No. ML17005A236.

<sup>13</sup> ADAMS Accession No. ML17157B403.

<sup>14</sup> ADAMS Accession No. ML16250A393.

<sup>15</sup> ADAMS Accession No. ML16258A213.

<sup>16</sup> ADAMS Accession No. ML16313A170.

<sup>17</sup> ADAMS Accession No. ML17023A058.

<sup>18</sup> ADAMS Accession No. ML17067A060.

<sup>19</sup> ADAMS Accession No. ML17157B401.

Conclusions

At the conclusion of the meeting, Holtec representatives understood the staff's positions and concerns on all three amendment applications. The staff will issue a second RAI for both HI-STAR 100, Amendment No. 3, and for HI-STORM 100, Amendment No. 11. The HI-STORM UMAX amendment request remains in a non-acceptance status. Both thermal and criticality issues require additional information to proceed with the acceptance review. No path forward has been decided, as Holtec needs additional time to process NRC's concerns.

Docket Nos.: 72-1008, 72-1014, 72-1040

CAC Nos.: L25060, L25087, L25146

Enclosures:

1. Attendance List
2. Handout for HI-STAR 100
3. Handout for HI-STORM 100
4. Handout for HI-STORM UMAX

A. Hsia

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SUBJECT: SUMMARY OF JUNE 7, 2017, PARTIALLY CLOSED MEETING WITH HOLTEC INTERNATIONAL TO DISCUSS TECHNICAL TOPICS RELATED TO THREE AMENDMENT APPLICATIONS, DOCUMENT DATE: JULY 7, 2017

DISTRIBUTION:  
NRC attendees

G:\SFST\Public Meetings\Holtec 2017-0607\Meeting Summary Holtec 20170607.docx

**ADAMS Package No. ML17191B034 Memo: ML17188A274 Slides: ML17157B404  
(package)**

<b>OFC:</b>	DSFM	DSFM	DSFM	DSFM	DSFM
<b>NAME:</b>	YChen	JCuadrado	PLongmire	WWheatley	JMcKirgan
<b>DATE:</b>	7/3/2017	7/5/2017	7/3/2017	7/5/2017	7/7/17

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ATTENDANCE LIST  
June 7, 2017

<u>Name</u>	<u>Affiliation</u>
Yen-Ju Chen	NRC/DSFM
Meraj Rahimi	NRC/DSFM
John McKirgan	NRC/DSFM
Mike Call	NRC/DSFM
Jeremy Smith	NRC/DSFM
Jason Piotter	NRC/DSFM
Caylee Kenny	NRC/DSFM
Tae Ahn	NRC/DSFM
Jeremy Tapp	NRC/DSFM
Durrell Dunn	NRC/DSFM
Yong Kim	NRC/DSFM
Jose Cuadrado	NRC/DSFM
Alexis Sotomayor-Rivera	NRC/DSFM
Ghani Zigh	NRC/DSFM
Jorge Solis	NRC/DSFM
Bob Tripathi	NRC/DSFM
Travis Tate	NRC/DSFM
Yoira Diaz	NRC/DSFM
JoAnn Ireland	NRC/DSFM
Kimberly Manzione	Holtec International
Stefan Anton	Holtec International
Debu Mitra-Majumdar	Holtec International
Abrar Mohammad	Holtec International
Peter Stefanovic	Holtec International
Davy Qi	TN Americas LLC
Tom Silko	Vermont Yankee
(Participating by phone)	
Pamela Longmire	NRC/DSFM
Carlyn Greene	Backend Publication
Diane D'Arrigo	Nuclear Information & Resource Service
Janet Greenwald	Citizens for Alternatives to Radioactive Dumping
Donna Gilmore	SanOnofreSafety.org
Cody Slama	The Nuclear Issues Study Group
Wren Fowler	NAC International Inc.
Marvin Lewis	
Ruth Thomas	
Coley Chappell	Vermont Yankee
Ray Lutz	SanOnofreSafety.org