January 30, 2014

MEMORANDUM TO: Stephanie Coffin, Acting Deputy Director
Division of Spent Fuel Storage and Transportation, NMSS

FROM: Pierre Saverot, Project Manager /RA/
Licensing Branch
Division of Spent Fuel Storage and Transportation, NMSS

SUBJECT: SUMMARY OF JANUARY 15, 2014, MEETING WITH HOLTEC INTERNATIONAL, INC.

Background

Holtec International Inc. (Holtec) requested the meeting to present a new package design, the Model No. HI-STAR 190 package, prior to a planned application submittal in April 2014. The meeting attendance list and the proprietary presentation slides are provided as Enclosure Nos.1 and 2, respectively.

Discussion

The Model No. HI-STAR 190 package, deemed to be a "universal" transportation package capable of accommodating all canisters and fuel packages currently used in the U.S., will have a heat load of up to 37 kW to allow shipments of high burn up fuel with a short cooling time. The initial application will feature the MPC-37 and MPC-89, from the HI-STORM FW and HI-STORM UMAX packages, with analyses, computer codes, and methodologies identical to those previously used for the HI-STAR 180 and HI-STAR 100 packages.

Staff said that the licensing basis (e.g., reliance – or not - on the canister as an additional barrier for moderator exclusion; aging management considerations for a canister after 20 years to the extent the applicant relies on the canister to perform a safety function; approach for high burn up fuel; and assurance that the package can be unloaded in a flooded condition) will be a determining factor in the review of the application.

Staff noted that it will be the first time that the MPC-37 and -89, already approved for storage, will be reviewed for transport and that the package shell had not been previously analyzed in the Model HI-STAR 180 application.

Holtec stated that the fins, similar to those found in many package designs, do make "life easier" for the materials of the package and have no influence on the peak cladding temperature. Staff mentioned that applicants need in general to propose a combination of methods, e.g., both thermal and radiation monitoring, to create a high level of confidence in the knowledge of the condition of the fuel inside the canister. Staff also said that, if temperature or radiation monitoring is utilized, appropriate base cases need to be defined and justified.

Staff addressed the requirements of 10 CFR 71.55(d)(2), i.e., the fuel remains intact in normal conditions of transport and there is no substantial change in the geometry in hypothetical accident conditions, before telling Holtec that it will look at all possible configurations in the package during the review.

Staff also said that recent tests done at ORNL indicate that there is no substantial fuel failure. Staff made no regulatory commitments during the meeting.

Docket No. 71-9373
TAC No. L24868

Enclosures: 1. Meeting Attendees
2. Holtec Presentation (proprietary)

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Distribution: NRC Attendees, M. Lombard

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ADAMS Accession No.: Memo ML14031A238, Slides ML14031A237
ADAMS P8 Package No.: ML14031A144

OFC	SFST	E	SFST	C	SFST			
NAME	PSaverot		MDeBose		MSampson			
DATE	01/27/2014		01/28/14		01/30/14			

C=Without attachment/enclosure E=With attachment/enclosure N=No copy

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Meeting Between Holtec International, Inc. (Holtec) and the Nuclear Regulatory Commission
January 15, 2014
Meeting Attendees

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