



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

February 6, 2018

MEMORANDUM TO: Anthony H. Hsia, Deputy Director  
Division of Spent Fuel Management, NMSS

FROM: Pierre Saverot, Project Manager **/RA/**  
Spent Fuel Licensing Branch  
Division of Spent Fuel Management, NMSS

SUBJECT: SUMMARY OF JANUARY 30, 2018, MEETING WITH  
INDUSTRIAL NUCLEAR COMPANY, INC.

Background

Industrial Nuclear Company, Inc. (INC) requested this meeting to discuss the additional payload of the Model No. OP-100 package, present an approach to respond to the request for additional information (RAI) letter dated October 25, 2017, and obtain NRC staff input on the planned RAI responses.

The meeting was noticed on December 12, 2017 (ADAMS ML17346A098). The meeting attendance list and presentation are provided as Enclosure Nos. 1 and 2, respectively.

Discussion

The currently authorized payloads of the Model No. OP-100 package are the IR-100 exposure device and the IR-50 source changer. The additional payload is a modified IR-100, designated as IR-100ST, fitted with a tracking device. The currently authorized limit of 120 Ci for Ir-192 or Se-75 is increasing to 145 Ci.

To provide some clarification to RAI 2-1 on material properties, INC said there are two drum versions of the overpack, one with an obsolete ASTM A366 standard which still applies to older existing drums currently in use, and one with the ASTM A1008 standard which replaces A366 and applies to the new drums. The drum is design-qualification tested, periodically lot tested by the manufacturer to 49 CFR §178.601, and meets the DOT/UN 1A2/X120/S rating. INC believes this information provides reasonable assurance of drum consistency for its use. Staff said that a certified mill test report (CMTR), not a mill specification, is usually required for the drum, and requested the applicant to provide additional information for the drum, as well as specific data for the foam.

INC confirmed it did not have any analytical basis to demonstrate that the foam support structure is bounded by the plywood structure and that the only option available to respond to RAI 2-2 was to perform additional drop testing with selected drop orientations based on impact damages from the original testing performed 19 years ago. INC proposed two drop orientations for the package with the IR-50 source changer: (i) a bottom down free drop and (ii) a top down, CG-over-corner, free drop, with the test unit at 100°F (hot conditions for NCT -normal conditions of transport) to maximize deformation.

After discussing possible options and orientations, staff requested the applicant to test two units, i.e., one drum for hot NCT conditions (100°F) as a CG-over-bottom corner free drop with the lid and the closure ring on the top side of the unit, and the second drum for cold (-20°F) conditions in a CG-over-top corner free drop. Staff believes that this new configuration, by rotating the unit 180 degrees, is more penalizing because the lid may ovalize and pop out from the drum body.

Staff stated that the applicant can justify, in the application, that puncture or fire testing is not necessary if, after the 2 additional drop tests, it can be demonstrated that the package is in a “less damaged” condition with the foam structure than with the plywood structure that was previously approved for this configuration: in such a case, other required regulatory testing would not be necessary because a “less damaged” package would be more resistant to the puncture or fire test.

Staff made no regulatory commitment during the meeting.

Docket No. 71-9185  
EPID L-2017-LLA-0117

Enclosures

1. Meeting Attendees
2. Presentation

SUBJECT: SUMMARY OF JANUARY 30, 2018, MEETING WITH INDUSTRIAL NUCLEAR COMPANY, INC., DOCUMENT DATE: February 6, 2018

DISTRIBUTION: SFST r/f, RPowell, RI SWalker, RII, MKunowski, RIII JWhitten, RIV

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January302018.doc;\January302018presentation

**ADAMS Package No.: ML18038B397      Presentation: ML18038B399**

<b>OFC</b>	SFM	E	SFM	C	SFM	
<b>NAME</b>	PSaverot		SFIGUEROA		MRahimi	
<b>DATE</b>	01/31/2018		02/01/2018		02/06/2018	

**OFFICIAL RECORD COPY**

**Meeting Between INC and the  
Nuclear Regulatory Commission  
January 30, 2018  
Meeting Attendees**

**NRC/NMSS/SFM**

Pierre Saverot  
Yong Kim  
Antonio Rigato

**INC**

Ronald Monteforte

**AREVA Federal Services**

Gary Clark