



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

January 11, 2017

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

FROM: Bernard White, Senior Project Manager */RA/*
Spent Fuel Licensing Branch
Division of Spent Fuel Management, NMSS

SUBJECT: SUMMARY OF OCTOBER 25, 2016, MEETING WITH THE NORDION
INTERNATIONAL

Background

A meeting was held on October 25, 2016, in Rockville, Maryland, between the U.S. Nuclear Regulatory Commission (NRC) and Nordion International to discuss certification of a new waste package.

The meeting was noticed on October 6, 2016 (see Agencywide Documents Access and Management System (ADAMS) Accession No. ML16280A642). The meeting attendance list is provided as Enclosure No. 1, the non-proprietary presentation slides are provided in Enclosure No. 2, the proprietary presentation slides are provided in Enclosure No. 3.

Discussion

Nordion provided a brief update on the project for production of Molybdenum-99. The focus of the meeting was on the determination of radioactive contents, package structural and thermal performance, and the leak testing after the tests for hypothetical accident conditions. Nordion discussed the current design of the F-339 package, which is approved in Canada by the Canadian Nuclear Safety Commission, and Nordion's proposed changes to the package design for approval in the U.S. To differentiate it from the Canadian-approved package, Nordion will designate the package submitted to the NRC for approval as the F-339X.

Based on expected output from the production of the proposed Molybdenum-99 process, Nordion discussed the proposed waste package's contents and how Nordion has characterized the contents for the application. Nordion discussed decay of the waste in terms of accumulation of material over time and how to determine the contents at the time of shipment to ensure that the as-shipped package meets the certificate of compliance.

Nordion discussed the testing performed on the F-339 for approval by the Canadian Nuclear Safety Commission and the results of the tests for hypothetical accident conditions affected the package. Given the proposed changes to the F-339, Nordion discussed how those changes would affect the hypothetical accident condition tests already performed on the package.

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Nordion discussed the thermal evaluation performed on the proposed package design for both normal conditions of transport and hypothetical accident conditions. Nordion provided temperatures for important components of the package and discussed those temperatures in relation to their temperature limits.

Finally, Nordion discussed the leak tests performed on the package after the tests for hypothetical accident conditions. Nordion explained how the tests showed that the package will meet the leak rate requirements in Title 10 of the *Code of Federal Regulations* 71.51(a).

Docket No.: 71-9376

CAC No.: L25125

Enclosures:

1. Meeting Attendees
2. Non-Proprietary Presentation Slides
3. Proprietary Presentation Slides

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Distribution: NRC Attendees

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ADAMS Package No.: ML17012A063 ADAMS Memo No.: ML17012A070

Encl 2: ML17012A073 Encl 3: ML17012A077

OFC	DSFM	DSFM	DSFM
NAME	BWhite	WWheatley via email	JMcKirgan
DATE	12/6/16	12/14/16	1/11/17

MEETING ATTENDEES

Meeting Title: Pre-application meeting with Nordion International

Participants: Nordion International and the NRC

Date: October 25, 2016, 1:00 – 3:00 p.m.

Name	Affiliation
Bernie White	NRC/NMSS/DSFM
Antonio Rigato	NRC/NMSS/DSFM
Travis Tate	NRC/NMSS/DSFM
Joe Borowsky	NRC/NMSS/DSFM
Shadi Ghrayeb	NRC/NMSS/DSFM
Marlone Davis	NRC/NMSS/DSFM
Greg Fulford	Nordion International
Mike Krzaniak	Nordion International