

October 23, 2012

MEMORANDUM TO: Mark Lombard, Director
Division of Spent Fuel Storage and Transportation, NMSS

FROM: Kimberly J. Hardin, Senior Project Manager **/RA/**
Licensing Branch
Division of Spent Fuel Storage and Transportation, NMSS

SUBJECT: SUMMARY OF SEPTEMBER 11, 2012, MEETING WITH NAC
INTERNATIONAL TO DISCUSS A REVISION REQUEST TO ADD HIGH
ENRICHED URANYL NITRATE AS AUTHORIZED CONTENTS IN THE
MODEL NO. NAC-LWT TRANSPORTATION PACKAGE (TAC NO.
L24678)

Background

A meeting was held on September 11, 2012, in Rockville, Maryland. NAC International (NAC or the applicant) asked for the meeting to discuss a revision request to add high enriched uranyl nitrate (HEUNL) as an authorized content in the NAC-LWT Certificate of Compliance (CoC) No. 9225. This request is a high priority for review to support the Department of Energy's Global Threat Reduction Program. Additionally, NAC discussed the need for an expedited review.

The meeting was noticed on August 21, 2012 (ML12235A353). The meeting attendance list is provided as Enclosure No. 1.

Discussion

The discussion generally followed the agenda (Enclosure No. 2). The primary reason for the meeting was to discuss a request for a revision to CoC No. 9225 to authorize the addition of HEUNL as authorized contents.

The request is to ship the HEUNL from Canada to the U.S. under the Foreign Research Reactor fuel return program. The payload is high enriched liquid target material.

NAC first provided a general overview of the revision request, followed by technical presentations and a discussion of the schedule. The basket design and the fuel description were generally described.

In the shielding evaluation discussion, NAC described the use of ORIGEN-S computer code in the depletion model to calculate the source terms. Additionally, a 3-D Monte Carlo Neutral Particles (MCNP) model was used to calculate the dose rates.

NAC intends to schedule another pre-application meeting later in the calendar year followed closely by the receipt of the application.

Copies of the presentation slides are provided as Enclosure No. 3 (proprietary) and 4 (non-proprietary).

Docket No. 71-9225

TAC No. L24678

Enclosures:

1. Meeting Attendees
2. Agenda
3. Presentation Slides (proprietary)
4. Presentation Slides (non-proprietary)

M. Lombard

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Copies of the presentation slides are provided as Enclosure No. 3 (proprietary) and 4 (non-proprietary).

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Distribution: (closes TAC No. L24678)

NRC Attendees J Vera MRahimi DPstrak MSampson

G:\SFST\Hardin\NAC-LWT\MEETING SUMMARY 9-11-12.docx; G:\SFST\Hardin\NAC-LWT\ NAC-LWT - Sept 11 2012 - Closed Meeting (HEUNL) NAC Proprietary Slides (2 per page).pdf; G:\SFST\Hardin\NAC-LWT\ NAC-LWT - Sept 11 2012 - Public Meeting (HEUNL) Slides - NAC Proprietary Info Removed (2 per page).pdf

ADAMS P8 Package No.: ML12299A042 ADAMD P8 Memo No.: ML12299A045

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"C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy
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**September 11, 2012, Partially Public Meeting
Between NAC International and
the Nuclear Regulatory Commission**

MEETING ATTENDANCE LIST

Kim Hardin	NRC/SFST
Meraj Rahimi	NRC/SFST
Bob Tripathi	NRC/SFST
Bernie White	NRC/SFST
Jeremy Smith	NRC/SFST
Sara DePaula	NRC/SFST
Mike Call	NRC/SFST
Michele Sampson	NRC/SFST
Zhian Li	NRC/SFST
Nate Jordan	NRC/SFST
JoAnn Ireland	NRC/SFST
David Tang	NRC/SFST
Bob Einziger	NRC/SFST
Joseph Borowsky	NRC/SFST
Craig Hrabal	NRC/SFST
Anthony Patko	NAC International
Holger Pfeifer	NAC International
George Carver	NAC International
Tom Danner	NAC International
Mike Yaksh	NAC International
David Schroeder	NAC International
Hitash Nigam	DOE/EM
Jim Shuler	DOE/EM (via phone)
Chuck Messick	DOE/NNSA (via phone)
Michael Conroy	DOT/PHMSA
Carlyn Greene	Ux Consulting (via phone)
Natalie Sacher	AECL (via phone)
Ken Franklin	AECL (via phone)
Dave Garrick	AECL (via phone)
Jim Walker	AECL (via phone)

Agenda for the
NRC/NAC Model No. NAC-LWT Amendment Pre-Application
Partially Closed Meeting
September 11, 2012, 2:00 – 4:00 p.m.

Purpose: Presentation of NAC's planned amendment request for the NAC-LWT Transport CoC (Docket No. 71-9225), to incorporate the High Enriched Uranyl Nitrate (HEUNL) as approved content

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| 1. | Introduction/Opening Remarks | NRC/NAC |
| 2. | Outline of the NAC-STC HEUNL Amendment Request | NAC |
| 3. | Structural/Materials Considerations | NAC |
| 4. | Thermal/Containment Considerations | NAC |
| 5. | Shielding/Criticality Considerations | NAC |
| 6. | Licensing Considerations/Schedule
(Public Portion – 3:30 – 4:00 pm) | NAC |
| 7. | Questions and Answers (Public Portion) | NRC/ NAC |
| 8. | Closing Remarks (Public Portion) | NRC/NAC |