October 12, 2010

MEMORANDUM TO: Doug Weaver, Deputy Director
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

FROM: Huda Akhavannik, Project Manager **/RA/**
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

SUBJECT: SUMMARY OF SEPTEMBER 15, 2010, MEETING WITH GLOBAL NUCLEAR FUELS – AMERICAS, LLC AND WESTINGHOUSE ELECTRIC COMPANY LLC, REGARDING REQUESTS FOR SUPPLEMENTAL INFORMATION AND CHANGES MADE TO SAFETY ANALYSIS REPORT REGARDING AMENDMENT FOR RAJ-II TRANSPORTATION PACKAGE

Background.

On September 15, 2010, a meeting was held in Rockville, Maryland, at the request of Global Nuclear Fuels – Americas, LLC (GNF) and Westinghouse Electric Company LLC (WEC) to discuss the Requests for Supplemental Information (RSIs) submitted by the Nuclear Regulatory Commission (NRC) on September 9, 2010.

The meeting was noticed on August 30, 2010 [ML102430393]. The list of meeting attendees is provided as Enclosure 1. The meeting handouts are provided as Enclosures 2 – 6.

Discussion.

The primary purpose of the meeting was to discuss the RAJ – II transportation package amendment to transport Boiling Water Reactor fuel designs containing less than 5% U-235, and GNF's planned response to staff's RSIs. GNF submitted revision 8 of their Safety Analysis Report (SAR) for the RAJ – II package on July 13, 2010. Enclosure 2 provided an overview of the revision. In this revision, GNF added the Westinghouse fuel type and so provided a new criticality analysis based on burnable neutron absorber rod locations. Chapters 1 and 4 were rewritten to better comply with Regulatory Guide 7.9, Chapters 2 and 3 added appendices of analyses to comply with Requests for Additional Information (RAIs) from another foreign competent authority, and Chapter 8 was revised to better align with the quality program. A brief summary of the thermal and structural discussions of the responses given to a foreign

competent authority's RAIs are provided in Enclosure 3. Additionally, the licensing drawings were regenerated using Autodesk Inventor.
GNF individually addressed and discussed each RSI with staff, Enclosure 2. GNF can easily meet the requests from Chapter 1 and Chapter 2 and further discussed the RSIs from Chapter 6. GNF discussed the addition of an appendix to provide the nominal dimensions with relative tolerance for the fuel designs to be added to the Certificate of Compliance (CoC). This is done to ensure the same tolerance is used for all the fuel designs. To address the second RSI in that chapter, GNF revised text in Chapter 6 to provide text clarifications regarding the rod container model descriptions provided in Enclosure 6. Additionally, GNF described the expectation of having different Criticality Safety Indexes depending on the fuel configurations included in the CoC. This is illustrated in section 5(c) of the draft proposed CoC provided by GNF. The draft CoC is provided in Enclosure 4.

GNF spent time discussing different analysis methods used to evaluate the structural performance of the package during drop testing. GNF used an advance copy of a PATRAM 2010 paper to illustrate their approach to verify modeling, Enclosure 5. These analysis methods were consistent and provided GNF with the ability to benchmark analytical models that can be used to further improve the packaging design.

Docket No. 71-9309
TAC No. L24456

Enclosures:

1. Meeting Attendees
2. RAJ – II SAR Revision 8 09-15-2010.pdf
3. Responses to RAIs Presented to ASN and IRSN.pdf
4. RAJ – II CoC Draft 09-15-2010
5. GNF Verification of LS-DYNA Finite Element Impact Analysis
6. Text Updates to Responses to RSIs Chapter 6

competent authority's RAIs are provided in Enclosure 3. Additionally, the licensing drawings were regenerated using Autodesk Inventor.
GNF individually addressed and discussed each RSI with staff, Enclosure 2. GNF can easily meet the requests from Chapter 1 and Chapter 2 and further discussed the RSIs from Chapter 6. GNF discussed the addition of an appendix to provide the nominal dimensions with relative tolerance for the fuel designs to be added to the Certificate of Compliance (CoC). This is done to ensure the same tolerance is used for all the fuel designs. To address the second RSI in that chapter, GNF revised text in Chapter 6 to provide text clarifications regarding the rod container model descriptions provided in Enclosure 6. Additionally, GNF described the expectation of having different Criticality Safety Indexes depending on the fuel configurations included in the CoC. This is illustrated in section 5(c) of the draft proposed CoC provided by GNF. The draft CoC is provided in Enclosure 4.

GNF spent time discussing different analysis methods used to evaluate the structural performance of the package during drop testing. GNF used an advance copy of a PATRAM 2010 paper to illustrate their approach to verify modeling, Enclosure 5. These analysis methods were consistent and provided GNF with the ability to benchmark analytical models that can be used to further improve the packaging design.

Docket No. 71-9309
TAC No. L24456

Enclosures:
1. Meeting Attendees
2. RAJ – II SAR Revision 8 09-15-2010.pdf
3. Responses to RAIs Presented to ASN and IRSN.pdf
4. RAJ – II CoC Draft 09-15-2010
5. GNF Verification of LS-DYNA Finite Element Impact Analysis
6. Text Updates to Responses to RSIs Chapter 6

DISTRIBUTION: CLOSES TAC NO. L24456
SFST r/f NRC Attendees
G:\SFST\Akhavannik\RAJ-II\Meetings\09202010 Public Meeting Summary.docx
G:\SFST\Akhavannik\RAJ-II\Meetings\Enclosure 2 - RAJ – II SAR Revision 8 09-15-2010.pdf
G:\SFST\Akhavannik\RAJ-II\Meetings \Enclosure 3 - Responses to RAIs Presented to ASN and IRSN.pdf
G:\SFST\Akhavannik\RAJ-II\Meetings\ Enclosure 4 - RAJ – II CoC Draft 09-15-2010.pdf
G:\SFST\Akhavannik\RAJ-II\Meetings\ Enclosure 5 - GNF Verification of LS-DYNA Finite Element Impact Analysis.pdf
G:\SFST\Akhavannik\RAJ-II\Meetings\ Enclosure 6 - Text Updates to Responses to RSIs Chapter 6.pdf

OFC:	SFST	E	SFST		SFST			
NAME:	HAkhavannik		MSampson		WWheatley		EBenner	
DATE:	10/12/10		10/12/10		10/12/10		10/12/10	

C = COVER E = COVER & ENCLOSURE N = NO COPY OFFICIAL RECORD COPY

Meeting Attendees
Westinghouse Electric Company LLC and NRC Meeting
September 15, 2010, 9:00 a.m. – 12:00 p.m.

NAME	AFFILIATION	PHONE NUMBER
Peter Vescovi	Westinghouse Electric Co.	803-647-3167
Tanya Sloma	Westinghouse Electric Co.	803-647-1786
John Zino	GNF – Americas, LLC	910-819-6116
John Hannah	GNF – Americas, LLC	910-819-6821
Scott Murray	GNF – Americas, LLC	910-819-5950
Andy Langston	GNF – Americas, LLC	910-819-5433
Michele Sampson	NRC/NMSS/SFST	301-492-3292
Huda Akhavannik	NRC/NMSS/SFST	301-492-3273
Jennie Rankin	NRC/NMSS/SFST	301-492-3268
Ian Cozens	NRC/NMSS/SFST	301-492-3314
Drew Barto	NRC/NMSS/SFST	301-492-3336
Bob Tripathi	NRC/NMSS/SFST	301-492-3281
Jason Piotter	NRC/NMSS/SFST	301-492-3286
Kimberly Ropon	NRC/NMSS/SFST	301-492-3367