

May 18, 2012

MEMORANDUM TO: Douglas Weaver, Deputy Director  
Division of Spent Fuel Storage and Transportation  
NMSS

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

SUBJECT: SUMMARY OF MEETING WITH ENERGYSOLUTIONS PROPOSED  
COMPENSATORY MEASURES FOR PLACING THE MODEL NOS.  
10-160B AND CNS 8-120B PACKAGES BACK INTO SERVICE

A meeting was held on May 10, 2012, in Rockville, Maryland, to discuss the operating status of the Model Nos. 10-160B and CNS 8-120B packages, EnergySolutions' (ES) proposed modification, and its justification for placing the packages back into service.

The meeting was noticed on May 3, 2012 (ADAMS Accession No. ML12123A173). The meeting attendance list is provided as Enclosure No. 1.

## **BACKGROUND**

During the course of responding to a request for additional information for an amendment to the certificate of compliance for the CNS 8-120B, ES discovered that an accident sequence not previously evaluated as part of the design-basis may be more damaging than those previously considered. ES previously informed NRC that it had voluntarily removed all of the 10-160B and CNS 8-120B packages from service on April 27, 2012.

## **PRESENTATION**

ES' presentation showed that there is a possibility that the seals on the secondary lid could be compromised for a top drop onto the puncture pin followed by the fire test, as required by the hypothetical accident conditions in Title 10 Code of Federal Regulations (10 CFR) 71.73. ES stated that they believe that modeling the package with a 6-inch diameter penetration in the sheet metal covering the impact limiter central cavity or removing the sheet metal does not make a difference in whether the temperature of the seals in the hypothetical fire test are above their maximum operating temperature.

ES briefly discussed their proposed package modification to alleviate the issue and show that the package will comply with Part 71. ES proposed adding a thermal shield made out of stainless above the secondary lid, to lower the temperatures of the seals. ES estimated the weight of the thermal shield to be less than 200 lbs, which it stated is lightweight, compared to the total package weight. Note that NRC and ES had a public meeting scheduled for May 16, 2012 (see ADAMS Accession No. ML12123A173 for the meeting notice) to discuss the proposed package modification in detail.

There was discussion about utilizing higher temperature rated seals in the package, but ES stated that there are issues associated with this, such as being able to find an elastomeric seal with a higher maximum service temperature from a company that is rated to sell nuclear grade components. Also, ES stated that if it were to use a metallic o-ring, the o-ring grooves would need to be machined in order for the o-ring to seat properly.

ES discussed their proposed schedule for both the short-term request for placing the packages back into service and the certificate of compliance amendment for the proposed thermal shield. ES requested an accelerated review from NRC on their requests.

ES discussed the package historical transportation record as well as overall transportation record for radioactive material. ES stated that the risk for a transportation accident is very low, and the risk of an accident of the type needed for the seals to exceed their maximum temperature is extremely low.

ES proposed a risk-informed approach with limited duration. ES' proposed compensatory measures, in addition to requirements already imposed by Title 49 CFR 397, include:

- Lower speed limit (65 mph to 55 mph)
- Escort vehicle
  - Provide enhanced emergency response notification
  - Provide separation between cask vehicle and other HAZMAT trucks
- RAM QC treatment of shipments
  - Increased equipment inspections to prevent mechanical issues
  - Increased communications requirements
    - Mandatory installation of Qualcomm GPS Hardware Equipment
    - Automatic Ping/Email to Logistics Staff after Accident Conditions
  - Additional route

ES and NRC discussed the regulatory options available to NRC, if it determines that the shipments should be authorized while awaiting a revised package design and an evaluation that shows that the package, as modified, meets the requirements of 10 CFR Part 71.

ES briefly discussed the impact on the industry if use of the packages is restricted until after the certificate revision for the permanent package modification. Some examples include:

- EXELON removed some liners from storage that are sitting in their transport bay that they expected to ship this past Monday. Dose is 40R/hr on contact. EXELON has erected temporary shielding around them.
- The 10-160B is the primary package used by Naval Reactors to ship spent resins. ES also indicated that many of the four packages owned by Naval Reactors are full and awaiting shipment.

Public comments after main portion of the meeting:

Waste control Specialists echoed ES request for expediency. They have hired 60 people with the expectation of receiving shipments now and that has been put on hold.

EXELON asked about the NRC process for resolving an issue like this.

A copy of the presentation slides is provided as Enclosure No. 3.

Docket Nos. 71-9168 and 71-9204  
TAC No. L24549

Enclosures:

1. Meeting Attendees
2. Agenda
3. Presentation Slides

Public comments after main portion of the meeting:

Waste control Specialists echoed ES request for expediency. They have hired 60 people with the expectation of receiving shipments now and that has been put on hold.

EXELON asked about the NRC process for resolving an issue like this.

A copy of the presentation slides is provided as Enclosure No. 3.

Docket Nos. 71-9168 and 71-9204  
TAC No. L24549

Enclosures:

1. Meeting Attendees
2. Agenda
3. Presentation Slides

Distribution:

NRC Attendees      RTemp      HAKhavannik      JRankin      DPstrak  
 BBenney      MWaters      MSampson      MRahimi      CARaguas      DWeaver      BPoole  
 G:\SFST\Saverot\10-160B\Summary of Meeting with EnergySolutions 10May2012.docx  
**ADAMS P8 Package No.: ML12142A224    ADAMD P8 Memo No.: ML12142A234**

OFC	SFST		SFST		SFST	
NAME	BWhite		MDeBose		MWaters	
DATE	5/17/12		5/17/12		5/18/12	

"C" = Copy without attachment/enclosure "E" = Copy with attachment/enclosure "N" = No copy  
 OFFICIAL RECORD COPY

## MEETING ATTENDEES

Meeting Title: Meeting to discuss EnergySolutions proposed compensatory measures for placing the Model Nos. 10-160B and 8-120B packages back into service

Participants: EnergySolutions and the NRC

Date: May 10, 2012, 1:00 – 2:30 p.m.

Location: U.S. NRC Headquarters, EBB 3B-183

NAME	AFFILIATION	PHONE NUMBER
Bernie White	NRC/SFST	(301) 492-3303
Chris Bajwa	NRC/SFST	(301) 492-3333
Jim Lieberman	Talisman	(301) 526-4790
Thomas Magette	EnergySolutions	(240) 565-6148
Marco Colalancia	EnergySolutions	(720) 375-5322
Mark Whittaker	EnergySolutions	(803) 758-1898
Troy Eshleman	EnergySolutions	(865) 719-8179
Neil Day	NRC/SFST	(301) 492-3350
Jesse Robles	NRC/NRR	(301) 415-2940
Jimmy Chang	NRC/SFST	(301) 492-3272
David Pstrak	NRC/SFST	(301) 492-3299
Jon Woodfield	NRC/SFST	(301) 492-3314
Kurt Colborn	WCS	(724) 544-5815
Vikki Cooper	WCS	(202) 758-2321
George Jobson	Robatel	(540) 230-6208
Rob Temps	NRC/SFST	(301) 492-3320
Haile Lindsay	NRC/SFST	(301) 492-3280
Kim Hardin	NRC/SFST	(301) 492-3339
Meraj Rahimi	NRC/SFST	(301) 492-3338
Earl Easton	NRC/SFST	(301) 492-3307
Brooke Poole	NRC/SFST	(301) 492-3300

Enclosure 1

Via telephone bridge line

<b>NAME</b>	<b>AFFILIATION</b>
Charlie Haughney	Talisman
Andy Campbell	NRC/OE
Graham Johnson	Duke Energy
Steve Furguson	Excelon
Miguel Azar	Excelon
Lilith Michegan	Excelon
Mark Carver	Entergy
Dave McIntyre	NRC/OPA

## **AGENDA**

### **Meeting between EnergySolutions and the Nuclear Regulatory Commission**

**May 10, 2012**

**1:00 p.m. - 2:30 p.m.**

1. Introduction
2. Discussion of Compensatory Measures
3. Discussion
4. Closing Remarks