

August 7, 2007

MEMORANDUM TO: Robert A. Nelson, Acting Deputy Director  
Licensing and Inspection Directorate  
Division of Spent Fuel Storage and Transportation, NMSS

FROM: Jessica Glenn, Project Scientist **/RA/**  
Licensing Branch  
Division of Spent Fuel Storage and Transportation, NMSS

SUBJECT: SUMMARY OF JULY 12, 2007, PRE-APPLICATION MEETING  
WITH GE NUCLEAR ENERGY AND ALPHA OMEGA SERVICES  
REGARDING INFORMATION PRESENTED IN THE SAFETY  
ANALYSIS REPORT FOR THE MODEL NO. AOS PACKAGES

### Background

A meeting was held on July 12, 2007, in Rockville, Maryland, at the request of GE Nuclear Energy (GE) and Alpha Omega Services to present the information in the safety analysis report (SAR) prior to submission of the application in September 2007 for the Model No. AOS transportation packages. The enclosures are the agenda and the list of meeting attendees. No regulatory decisions were made nor requested at the meeting. This was a follow up meeting to earlier pre-application meetings held on January 11, and October 13, 2005; and March 2, 2006.

The Model No. AOS is a family of packages similar in design but with slightly different features, mostly in the overpack and the density of the foam of each package. The AOS packages are intended for transportation of radioisotopes and fissile material. The packages' designations are AOS-165A, AOS-165B, AOS-100A, AOS-100A-sp, AOS-100B, AOS-050A, AOS-050B, and AOS-025A. The designations "A" and "B" indicate that the shielding of the package is either tungsten or carbon steel, respectively. The packages designated AOS-165 and AOS-100 will be used for material in solid form. The packages designated AOS-50 and AOS-25 will be used for material in solid and liquid form.

### Discussion

- The purpose of the meeting was to allow GE to present the material included in the SAR for the Model No. AOS transportation packages. GE solicited comments from the staff on further information to include in the SAR.
- GE presented a discussion on each of the sections of the SAR outlined in Regulatory Guide 7.9.
- For the free drop tests for the structural evaluation, GE discussed the use of a proprietary computer code, LIBRA, for determining load-deformation properties of the impact limiters and for performing stress analyses of the casks. GE will present the LIBRA code benchmark criteria and bases, making use of the AOS packaging's prototypical test results, in an appendix to the application.

R. Nelson

- GE also agreed to generate the model data files readily adaptable to commercially available general purpose computer codes. The staff indicated that confirmatory evaluations would be conducted on an as-needed basis and the availability of data files in the initial application would not be part of the staff acceptance review.
- Per the request of the staff, GE will submit data from thermal test for the Model No. AOS-100 for the first and last ten hours of the test. An explanation of the software used for modeling the thermal test will accompany the files per ISG-21, "Use of Computational Modeling Software."
- The staff also requested a sampling of the data files for the shielding and criticality analyses under normal conditions of transport (NCT) and hypothetical accident conditions (HAC). GE plans to include the worst case scenario for NCT and HAC for the Model No. AOS-100. GE will also provide a sampling of different AOS models regarding fuel orientation and form of material shipped in the packages.
- GE anticipates submitting their application by September 2007.

Docket No. 71-9316  
TAC No. L24094

Enclosures:

1. Meeting Agenda
2. List of Meeting Attendees

- GE also agreed to generate the model data files readily adaptable to commercially available general purpose computer codes. The staff indicated that confirmatory evaluations would be conducted on an as-needed basis and the availability of data files in the initial application would not be part of the staff acceptance review.
- Per the request of the staff, GE will submit data from thermal test for the Model No. AOS-100 for the first and last ten hours of the test. An explanation of the software used for modeling the thermal test will accompany the files per ISG-21, "Use of Computational Modeling Software."
- The staff also requested a sampling of the data files for the shielding and criticality analyses under normal conditions of transport (NCT) and hypothetical accident conditions (HAC). GE plans to include the worst case scenario for NCT and HAC for the Model No. AOS-100. GE will also provide a sampling of different AOS models regarding fuel orientation and form of material shipped in the packages.
- GE anticipates submitting their application by September 2007.

Docket No. 71-9316

TAC No. L24094

Enclosures:

1. Meeting Agenda
2. List of Meeting Attendees

Distribution: SFST r/f NMSS r/f NRC Attendees BWhite

Filename: C:\FileNet\ML072200204.wpd

<b>OFC</b>	SFST	C	SFST	C	SFST			
<b>NAME</b>	JGlenny		MDeBose		RNelson			
<b>DATE</b>	8/6/07		8/7/07		8/7/07			

C=Without attachment/enclosure E=With attachment/enclosure N=No copy **OFFICIAL RECORD COPY**

## **Agenda**

- **Introductions**
- **GE's presentation on highlights of the material included in the safety analysis report for the Model No. AOS family of packages**
- **Public comments**
- **Adjourn**

**Meeting Between GE Nuclear Energy, Alpha Omega Services, Inc., and the  
Nuclear Regulatory Commission  
July 12, 2007  
Meeting Attendees**

Michel Call	NRC/SFST
Larry Campbell	NRC/SFST
Jerry Chuang	NRC/SFST
Jessica Glenney	NRC/SFST
Natreon Jordan	NRC/SFST
Robert Nelson	NRC/SFST
Mathew Panicker	NRC/SFST
Ron Parkhill	NRC/SFST
James Pearson	NRC/SFST
Jason Plotter	NRC/SFST
David Tang	NRC/SFST
Bhasker Tripathi	NRC/SFST
Zhian Li	NRC/SFST
Raul Pomares	GE Nuclear Energy
David Turner	GE Nuclear Energy
Kris Zanoth	GE Nuclear Energy
Troy Hedger	Alpha Omega Services, Inc.
John Lebisdek	ATI Firth Sterling
Harold Durlowsky	SMH
Paul Watts	Ranor, Inc.

