

May 4, 2009

MEMORANDUM TO: Nader Mamish, Deputy Director
Licensing and Inspection Directorate
Division of Spent Fuel Storage and Transportation, NMSS

FROM: Pierre Saverot, Project Manager */RA/*
Licensing Branch
Division of Spent Fuel Storage and Transportation, NMSS

SUBJECT: SUMMARY OF APRIL 29, 2009, MEETING WITH AOS
REGARDING THE TRANSPORT PACKAGING SYSTEM

PURPOSE

Alpha-Omega Services, Inc. (AOS), informed in April 2008 of major technical deficiencies found in its original application, is planning to resubmit an application for the Model No. AOS Transport Packaging System by the end of May or early June 2009. This new package, designed to transport Type B quantities of normal and special form of fissile and activated material, will replace seven packages that expired in 2008, but whose use has been extended until October 1, 2010.

MEETING SUMMARY

To expedite staff's review, AOS informed staff that it will eliminate contents in liquid form and fissile material from the application. At this time, the application will consider only radioisotopes in special form and AOS will submit appropriate amendments at a later stage.

AOS presented its proposed responses to the open technical issues identified by staff in several disciplines, i.e., structural topics, thermal topics, containment and shielding topics, package operations and acceptance tests and maintenance programs.

Staff urged AOS to re-evaluate its choice of a "silicon" material for the elastomeric seal or be ready to face a number of questions on topics such as hydrogen generation, helium permeation, tests required for meeting the ANSI N14.5 leaktight criteria, applicability of manufacturer's data, etc.

AOS indicated that all isotopes are now modeled as point sources located at the center of the top edge of the cavity for axial cases and at the center of the radial edge of the cavity for the radial cases for both Normal Conditions of Transport and Hypothetical Accident Conditions. Staff responded that the applicant needs to prove that point source geometries for the various analyses are the most limiting for the package because this is not always true. Staff also stated that contents may be able to relocate into a position in the package to produce a higher external dose rate than for contents centered within the shielding of the package.

In particular, staff advised AOS to run thermal simulations to capture transients up to 15 hours and perform a detailed post-fire analysis. Staff also reminded AOS that all input files (with geometry information from the computer codes as a minimum) must be included in the application.

Staff stated that AOS should implement the guidance in ISG-18, Rev. 1. Staff said that it sees “open communications” as the best way to meet all parties’ needs and that AOS can request another pre-application meeting to obtain clear guidance and enhance the likelihood of a high quality application. Staff confirmed that the AOS application will be treated as a new request and should clearly identify new analyses in response to the open technical issues identified by staff in 2008.

The enclosures are the agenda, the list of meeting attendees, and a copy of the slides AOS presented at the meeting. The staff did not make any regulatory commitments at the meeting.

Docket No. 71-9316

TAC No. L24286

Enclosures:

1. Meeting Agenda
2. List of Meeting Attendees
3. AOS slides

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

AOS Meeting April 29, 2009doc.doc

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Agenda

Meeting between Alpha-Omega Services, Inc. and the
Nuclear Regulatory Commission
April 29, 2009

- Opening Comments
- Major Technical Issues: Materials, Thermal, Criticality
- General Information
- Structural Issues
- Thermal issues
- Break
- Containment Topics
- Shielding Topics
- Criticality
- Package Operations
- Acceptance Test and Maintenance Program
- Schedule for Submittal
- Opportunity for Public Comments

**Meeting Between Alpha-Omega Services, Inc.
And The
Nuclear Regulatory Commission
April 29, 2009
Meeting Attendees**

NRC/NMSS/SFST

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