July 1, 2008

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

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

SUBJECT: SUMMARY OF JUNE 26, 2008, MEETING WITH REVISS REGARDING THE MODEL NO. R7021 TRANSPORTATION PACKAGE

Background. On June 26, 2008, a meeting was held in Rockville, Maryland, at the request of REVISS Services, Inc., to discuss a new transportation package design, the Model No. R7021. The meeting was held to discuss the design of the package containment system. The meeting was a follow-on to a meeting held on February 13, 2008. No regulatory decisions were requested nor made at the meeting. The list of meeting attendees is Enclosure 1. There were no handouts at the meeting.

Discussion.

- Introduction. The package is a steel cask with lead shielding. The package is being designed for up to 150 kCi of cobalt-60 sources for servicing industrial irradiators. REVISS currently plans to submit package applications to the U.K. and the U.S. REVISS plans to build a fleet of from 10 to 20 packagings of this design.

- Package contents. The package is intended for use primarily with sources that meet the requirements of special form. REVISS estimates that the package would carry about 25 sources, with each source having a radioactivity in the range up to 10,000's of curies. There was a discussion regarding sources that were no longer certified as special form. In the U.K. special form certifications specify that the source is no longer certified after its recommended useful life (set at 20 years in the U.K.). NRC staff stated that the physical form of the contents, including the quantity of dispersible material should be addressed in the package application.

- Package operations. The package may be loaded and unloaded either in a hot cell or under water. The package is vacuum dried, and flushed and filled with an inert gas (typically neon) prior to transport to inhibit corrosion of the sources. The possibility of flammable gas generation due to radiolysis will be considered.

- Acceptability of O-rings materials. REVISS is considering several different elastomers for the O-rings. The permeability of silicone to helium was discussed, with respect to leakage testing. The use of a different material for the tests and for production units was discussed. Any differences between the test unit and the certified design will be addressed in the package application.

- Containment system deformation following drop tests. There was a discussion regarding the deformations that may be considered acceptable in the drop tests, as well as the structural analysis that will be used to confirm drop test results.

- Shielding issues for non-special form contents. There was a discussion regarding the possible relocation of radioactive material in less shielded regions of the package for cobalt-60 in non-special form.

- Quality assurance. NRC staff noted that all design and engineering activities must be carried out under a QA program that meets Subpart H of 10 CFR Part 71.

- Schedule. REVISS is currently fabricating the test unit, and plans to perform physical testing in October. REVISS plans to submit an application for package approval to the U.K. Department for Transport in early 2009, and certification is expected to take 6-8 months. REVISS expects to submit the application to NRC in late 2009.

Docket No. 71-9339
TAC No. L24170

Enclosure: 1. Meeting Attendees

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Filename: G:/SFST/OSGOOD/9339RevissMtgSummary.doc

OFC	SFST	E	SFST		SFST	
NAME	NLOsgood		MRDeBose		EJBenner	
DATE	6/27/08		6/30/08		7/01/08	

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

MEETING ATTENDEES
Meeting Between the Nuclear Regulatory Commission
and REVISS Services, Inc.
June 26, 2008

NAME	ORGANIZATION
Shana Helton	NRC/NMSS/SFST
Kimberly Rapon	NRC/NMSS/SFST
Neil Day	NRC/NMSS/SFST
Bob Tripathi	NRC/NMSS/SFST
Eric Benner	NRC/NMSS/SFST
Luis Cruz	NRC/NMSS/SFST
Peter Lien	NRC/NMSS/SFST
Zhian Li	NRC/NMSS/SFST
Jim Pearson	NRC/NMSS/SFST
David Tang	NRC/NMSS/SFST
Chris Bajwa	NRC/NMSS/SFST
John Schrader	REVISS Services
David Coppell	REVISS Services
David Roberts	REVISS Services

Enclosure 1