

July 16, 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
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SUBJECT: SUMMARY OF JULY 15, 2008, CLOSED VIDEO CONFERENCE WITH
DEPARTMENT OF ENERGY REGARDING AMENDMENT TO
CERTIFICATE OF COMPLIANCE NO. 0361 FOR THE MODEL NO.
PAT-1 TRANSPORTATION PACKAGE

Background.

On July 15, 2008, a video conference was held at the request of Department of Energy, National Nuclear Security Administration (NNSA), to discuss a proposed amendment to Certificate of Compliance No. 0361 for the Model No. PAT-1 package. The video conference was a follow-on to a meeting held on June 13, 2007. No regulatory decisions were requested nor made at the meeting. The video conference was closed to the public due to the discussion of sensitive (security-related) information regarding the proposed payloads. The list of meeting attendees is Enclosure 1. A non-sensitive version of the NNSA meeting presentation is Enclosure 2. Sensitive information from the NNSA meeting presentation is Enclosure 3.

Discussion

The video conference followed the NNSA meeting presentation. The following points were discussed.

- Package Overview and Certification Strategy. NNSA provided a description of the PAT-1 package with the new internal container (the T-ampoule). The containment vessel of the PAT-1 package (the TB-1) is not changed.
- Package Contents. NNSA provided a description of the proposed contents, consisting of plutonium in the form of hollow cylinders, miscellaneous samples in two types of titanium sample containers (the SC-1 and SC-2). The physical integrity of the samples and their possible reconfiguration was discussed, and will be addressed in the application.
- T-Ampoule. The T-ampoule is designed to prevent eutectic formation between the plutonium metal and the iron in the stainless steel TB-1 containment vessel. The T-ampoule is made of titanium alloy machined from solid pieces (no welding performed).

- Structural Analysis. NNSA described the structural analysis and testing performed to demonstrate the structural integrity of the TB-1 and T-ampoule with the proposed content configurations.
- Criticality and Shielding. NNSA stated that the criticality analysis will not take credit for geometry control of the fissile material by the sample containers. The structural integrity of the composite plutonium-beryllium samples was discussed, and will be addressed in the application, if the criticality analysis relies on their structural integrity.
- Containment. The TB-1 continues to provide containment for the package. The leakage rate testing is unchanged from the original application. NNSA will address any deviations in the testing regime from recommendations in ANSI N14.5-1997.
- Schedule. NNSA plans to submit an application for amendment of Certificate of Compliance No. 0361 in January 2009 or earlier.

Docket No. 71-0361

TAC No. L24082

- Enclosures:
1. Meeting Attendees
 2. Meeting Handout – Nonsensitive
 3. Meeting Handout – Sensitive Information

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Filename: G:/SFST/OSGOOD/0361DOEVideoConfSummary.doc 0361PresentationSensitive and 0361PresentationNonSensitive

OFC	SFST	E	SFST			
NAME	NLOsgood		MRDeBose		EJBenner	
DATE	7/16/08		7/16/08		7/16/08	

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

PARTICIPANTS
Video Conference Between DOE/NNSA and NRC
Regarding the PAT-1 Package
Docket No. 71-0361
July 15, 2008

At NRC Headquarters in Rockville, MD

Eric Benner (part time)	NRC/SFST
Larry Campbell	NRC/SFST
Neil Day (part time)	NRC/SFST
Elijah Dickson	NRC/SFST
Robert Einziger (part time)	NRC/SFST
Matthew Gordon	NRC/SFST
JoAnn Ireland	NRC/SFST
Ata Istar	NRC/SFST
Haile Lindsay (part time)	NRC/SFST
Nancy Osgood	NRC/SFST
Ron Parkhill	NRC/SFST
Kimberly Ropon (part time)	NRC/SFST
David Tang	NRC/SFST

At DOE Office in Albuquerque, NM

Maximo (Max) Barela	NNSA/Packaging Certification
Ahmad Al-Daouk	NNSA/Packaging Certification
Paul Mann	NNSA/DP Packaging Manager
Richard Yoshimura	Sandia National Laboratories
Mike Caviness	Los Alamos National Laboratory
Jim Tollison	SAIC
Jeff Danneels	Sandia National Laboratories
Bob Kalan	Sandia National Laboratories

By Telephone

David Miller	Sandia National Laboratories
Doug Ammerman	Sandia National Laboratories