December 27, 2007

Mr. Richard W. Boyle
Radioactive Materials Branch
U.S. Department of Transportation
1200 New Jersey Ave., S.E.
Washington, DC 20590

SUBJECT: REVIEW OF THE TN-BGC1 PACKAGE, AS AUTHORIZED IN FRENCH CERTIFICATE OF APPROVAL NO. F/313/B(U)F-96, REV. Hag, FOR AIR TRANSPORT

Dear Mr. Boyle:

This is in response to your letter dated December 5, 2007, requesting our assistance in evaluating the Model No. TN-BGC1 package, authorized by French Certificate of Approval No. F/313/B(U)F-96, Rev. Hag, for import and export shipments by air. Specifically, you requested that we review the criticality assessment for air transport of Content No. 11 (solid non-irradiated uranium-bearing materials contained within a TN-90 secondary conditioning container) and Content No. 26 (non-irradiated TRIGA fuel elements). You provided the following documents for our review: (1) Commisariat A L'Energie Atomique Document No. DEN/DTAP/SPI/GET entitled "Chapter 9 – Appendix 7, Criticality Safety of the TN-BGC1 Package Design Loaded with Content 11 for Air Transport," dated July 8, 2003; and (2) Framatome ANP Document No. FF/NH/DC/0098, entitled "Criticality Safety Study of TN BGC1 Cask Transport of TRIGA Elements," Revision D. Supplemental information was provided on December 12, 20, and 21, 2007.

Based upon our review, the statements and representations in the documents described above, and for the reasons stated in the enclosed safety evaluation report, we agree that the TN-BGC1 package, as described in French Certificate of Approval No. F/313/B(U)F-96, Rev. Hag, meets the requirements of paragraph 680 of International Atomic Energy Agency "Regulations for the Safe Transport of Radioactive Material," TS-R-1, 1996 Edition (Revised), for Content No. 11 and Content No. 26, as limited in U.S. Department of Transportation Competent Authority Certificate USA/0492/B(U)F-96, Revision 9, with the following additional conditions:

1. For Content No. 11, the maximum fissile mass not to exceed 5 kilograms U-235 per package. The mass of water must not exceed 2000 grams per package in the form of moisture content of wood. No hydrogenous packaging materials are permitted within the package containment vessel.
2. For Content No. 26, the maximum number of TRIGA fuel elements per package not to exceed 5 standard elements or 23 thin elements, where standard and thin elements are defined in F/313/B(U)F-96 26ag, Appendix 26, Content No. 26. The total mass of cardboard must not exceed 1200 grams, the moisture content of the wood components must not exceed 10 percent, and the total water content (including moisture content of the wood and water equivalent in the form of cardboard) must not exceed 2900 grams per package. No other hydrogenous packaging materials are permitted within the package containment vessel.

If you have any questions regarding this matter, please contact me or Nancy Osgood of my staff at (301) 492-3326.

Sincerely,

/RA/
Robert A. Nelson, Chief
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-3034
TAC No. L24160

Enclosure: Safety Evaluation Report

If you have any questions regarding this matter, please contact me or Nancy Osgood of my staff at (301) 492-3326.

Sincerely,

/RA/
Robert A. Nelson, Chief
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-3034
TAC No. L24160

Enclosure: Safety Evaluation Report

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NAME	NLOsgood		MRDeBose		ZLi		LCampbell		RANelson	
DATE	12/26/07		12/26/07		12/26/07		12/26/07		12/27/07	

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