

September 28, 2006

Mr. A. P. Cochran
U.S. Department of Energy
Division of Naval Reactors
Washington, DC 20585

SUBJECT: CERTIFICATE OF COMPLIANCE NO. 9221 FOR THE MODEL NO. NRBK-41
PACKAGE

Dear Mr. Cochran:

As requested by your application dated May 31, 2006, as supplemented September 7, 2006, enclosed is Certificate of Compliance No. 9221, Revision No. 5, for the Model No. NRBK-41 package. Changes made to the enclosed certificate are indicated by vertical lines in the margin. The staff's Safety Evaluation Report is also enclosed.

The U.S. Department of Energy has been registered as a user of the package under the general license provisions of 10 CFR 71.17. The approval constitutes authority to use the package for shipment of radioactive material and for the package to be shipped in accordance with the provisions of 49 CFR 173.471.

If you have any questions regarding this certificate, please contact me or José R. Cuadrado of my staff at (301) 415-8500.

Sincerely,

/RA/

Robert A. Nelson, Chief
Licensing Section
Spent Fuel Project Office
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9221
TAC Nos. L23983 and L23989

Enclosures: 1. Certificate of Compliance No. 9221, Rev. No. 5
2. Safety Evaluation Report
3. Registered Users List

cc w/encls 1 & 2: R. Boyle, Department of Transportation
J. Shuler, Department of Energy
RAMCERTS

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SAFETY EVALUATION REPORT

Docket No. 71-9221
Model No. NRBK-41 Package
Certificate of Compliance No. 9221
Revision No. 5

SUMMARY

By application dated May 31, 2006, as supplemented September 7, 2006, the U.S. Department of Energy (DOE or the applicant) requested renewal of Certificate of Compliance (CoC) No. 9221 for the Model No. NRBK-41 package. In addition to the renewal request, DOE requested an additional restriction to the authorized contents of the package. The staff has evaluated the request and the certificate has been renewed up to October 1, 2008, with additional conditions.

EVALUATION

On May 31, 2006, DOE submitted a renewal request for the NRBK-41 package. In its application, the applicant requested that the CoC be renewed up to October 1, 2008, the stated expiration date for Type B() and B()F packages, in accordance with 10 CFR 71.19(a)(3). The applicant did not request any design changes to the package. The staff reviewed the documents referenced in the certificate and determined that the required documentation was available and it accurately described the package. The staff also reviewed the operating and maintenance procedures for the package and found them to be adequate. Accordingly, the staff has renewed this certificate up to its expiration date of October 1, 2008.

In addition to the renewal request, the applicant stated in its application that it had identified an operational issue involving the sealant material used for the MIN-41 and HIP-41 product containers. The applicant has determined that the PERMATEX sealant used on the MIN-41 and HIP-41 degrades at high temperatures like those encountered during the hypothetical accident conditions thermal test. The degradation of the inner container sealant prevents the package from meeting the "leaktight" criterion (as defined in ANSI N14.5) under hypothetical accident conditions, a condition for which it was previously evaluated and approved. The staff has evaluated the information provided by the applicant and has determined that additional restrictions to the package contents are necessary to ensure that the package meets the provisions of 10 CFR Part 71. Specifically, these conditions will ensure that the package will meet the package release standards specified in 10 CFR 71.51. These conditions are discussed in the "Conditions" section of this Safety Evaluation Report (SER).

CONDITIONS

The following conditions in CoC No. 9221, Revision No. 5, have been revised as follows:

Condition 5(b)(1), "Type and form of material," was revised to specify that for any contents exceeding a Type A quantity, the radioactive material must be contained within a specimen with intact, undamaged cladding.

Condition 5(b)(2), "Maximum quantity of material per package," was revised to specify that the total quantity of radioactive material in the form of loose surface contamination within the package must not exceed a Type A quantity.

Condition 5(c) was revised to replace the wording "Transport Index for Criticality Control" with "Criticality Safety Index," as defined in 10 CFR 71.4.

Condition 9 was revised to include the new expiration date as October 1, 2008.

CONCLUSION

As requested by the application, CoC No. 9221 for the NRBK-41 package has been renewed up to October 1, 2008, with additional conditions limiting the authorized contents of the package.

Based on the staff's review, the statements and representations in the application, as supplemented, and for the reasons stated in this SER, and with the conditions listed above, we conclude that these changes will not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9221, Revision No. 5,
on September 28, 2006.