



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

August 8, 2014

Mr. Phillip D. Ollis
Facility Licensing
Global Nuclear Fuel – Americas, LLC
3901 Castle Hayne Rd.
P.O. Box 780
Wilmington, NC 28402

SUBJECT: CERTIFICATE OF COMPLIANCE NO. 9309, REVISION NO. 10, FOR THE
MODEL NO. RAJ-II TRANSPORTATION PACKAGE

Dear Mr. Ollis:

As requested by your application dated June 13, 2014, and as supplemented July 11 and 17, 2014, enclosed is Certificate of Compliance No. 9309, Revision No. 10, for the Model No. RAJ-II transportation 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 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 Title 49 of the *Code of Federal Regulations* (49 CFR) 173.471. Those on the attached list have been registered as users of the package under the general license provisions of 10 CFR 71.17 or 49 CFR 173.471.

If you have any questions regarding this certificate, please contact me or Huda Akhavannik of my staff at (301) 287-9241.

Sincerely,

/RA/

Timothy Lupold, Acting Chief
Licensing Branch
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9309
TAC No. L24931

Enclosures: 1. Certificate of Compliance
No. 9309, Rev. No. 10
2. Safety Evaluation Report
3. Registered Users

Upon removal of Enclosure 3, this
document is uncontrolled

cc w/encls 1&2: R. Boyle, Department of Transportation
J. Shuler, Department of Energy, c/o L. F. Gelder



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SAFETY EVALUATION REPORT
Docket No. 71-9309
Model No. RAJ-II
Certificate of Compliance No. 9309
Revision No. 10

SUMMARY

By letter dated June 13, 2014, as supplemented July 11 and 17, 2014, Global Nuclear Fuel – Americas, LLC (GNF-A), requested renewal of Certificate of Compliance (CoC) No. 9309, for the Model No. RAJ-II transportation package. GNF-A provided a consolidated safety analysis report (SAR) with administrative changes and did not request any changes to the package design or its authorized contents. The CoC has been renewed for a 5 year period.

EVALUATION

GNF-A requested renewal for the Model No. RAJ-II transportation package. As part of the review, GNF-A provided a consolidated SAR for staff review. The consolidated SAR contained some administrative changes for greater clarity and corrected minor errors. The July 11, 2014, supplement contains the latest consolidated application and is referenced in the CoC. The staff additionally reviewed the CoC to ensure consistency with the consolidated SAR. As part of that review, it was discovered that the nominal fuel rod pitch in Table 3, “Fuel Assembly Parameters,” was missing a “≤” sign for the 8x8 and GNF 10x10 assemblies. However, prior revisions to the CoC included the “≤” sign. Rev. 8 of the CoC was the first revision to delete the “≤” sign for those two assembly types. The “≤” sign has been added again for greater clarity to meet the criticality analyses completed for the nominal versus worst case fuel parameters for this package. These criticality analyses were previously reviewed by staff during the review for Rev. 8 of the CoC and demonstrated that reducing the fuel pitch of the fuel assemblies in the CoC is conservative.

The staff reviewed the changes in the SAR and updated the certificate. Staff finds that the changes do not affect the ability of the package to meet the requirements of 10 *Code of Federal Regulations* (CFR) Part 71. The certificate has been renewed for a 5 year period.

CONDITIONS

The following changes have been made to the CoC:

Condition No. 3.b. has been updated to reflect the date of the latest consolidated SAR.

Table 3, “Fuel Assembly Parameters,” has been edited to include a “≤” sign for the nominal fuel rod pitch for the 8x8 and GNF 10x10 fuel assembly types.

Condition No. 5.(b)(1)(iv) has been edited to specify the content as “[u]ranium oxide” as opposed to “[o]xide.”

Condition No. 5.(b)(2), “Maximum quantity of material per package,” has been updated to include the maximum payload content of uranium.

Condition No. 5.(b)(2)(ii) has been revised for greater clarity to specify Table 4, "Fuel Rod Parameters," as the location of the allowable number of fuel rods.

Condition No. 11, "Revision No. 7 of this certificate, amended to reference Drawing Nos.: 105E3738, sheets 1 and 2, Rev. 8, 105E3743, Rev. 5, and 105E3744, Rev. 6, as listed in Condition 5(a)(3), may be used until August 31, 2010," has been revised to allow use of Revision 9 of the CoC for approximately one year.

Condition No. 12 was updated to reflect the new expiration date of November 30, 2019.

The references section has been updated to include the consolidated SAR.

CONCLUSION

This change does not affect the ability of the package to meet the requirements of 10 CFR Part 71.

Issued with Certificate of Compliance No. 9309, Revision No. 10, on August 8, 2014.

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Sincerely,

/RA/

Timothy Lupold, Acting Chief
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cc w/encls 1&2: R. Boyle, Department of Transportation
J. Shuler, Department of Energy, c/o L. F. Gelder

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ADAMS P8 Package No.: ML14220A158

OFC	SFST	SFST	SFST		
NAME	HAkhavannik	MDeBose	TLupold		
DATE	7/18/14	07/18/14	08/08/14		

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