September 9, 2010

Mr. Scott P. Murray
Licensing & Liabilities
Global Nuclear Fuel – America, LLC
P.O. Box 780
Wilmington, NC 28402

SUBJECT: APPLICATION FOR RAJ–II TRANSPORTATION PACKAGE – SUPPLEMENTAL INFORMATION NEEDED

Dear Mr. Murray:

By letter dated July 13, 2010, you submitted an application for amendment of the Model No. RAJ–II transportation package, Certificate of Compliance No. 9309. You requested approval of changes made to reflect the addition of boiling water reactor (BWR) fuel designs. Staff performed an acceptance review of your application to determine if the application contains sufficient technical information in scope and depth to allow the staff to complete the detailed technical review.

This letter is to advise you that based on our acceptance review, the application does not contain sufficient technical information. The information needed to continue our review is described in the enclosure to this letter. In order to schedule our technical review, this information should be provided by September 27, 2010. If the information described is not received by this date, the application will not be accepted for review.

If you have any questions regarding this matter, please contact me at 301-492-3273.

Sincerely,

/RA/

Huda Akhavannik
Division of Spent Fuel Storage and Transportation
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-9309
TAC No. L24456

Enclosure: Request for Supplemental Information

September 9, 2010

Mr. Scott P. Murray
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Global Nuclear Fuel – America, LLC
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Distribution: ABarto, MRahimi, HLindsay, DJackson, KRopon, ICozens, BTripathi
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OFC	SFST	SFST	SFST
NAME	HAkhavannik	MDeBose	EBenner
DATE	09/09 /10	09 /09 /10	09 /09 /10

OFFICIAL RECORD COPY

GLOBAL NUCLER FUEL – AMERICAS, LLC
DOCKET NO. 71-9309
REQUEST FOR SUPPLEMENTAL INFORMATION

1.0 General Information

1-1 Table 1-4, "Engineering Drawings," contains revision numbers that are not consistent with the drawings provided in the application. For example, drawing number 105E3737, "Outer Container Assembly Licensing Drawings," is listed as revision 6 whereas the actual drawing lists revision 7. This table needs to be updated to reflect the revision numbers of the drawings provided in the application. Additionally, provide a description of the revisions made to each drawing for staff's review.

This information is required in order for the staff to ensure that the application will meet the requirements of 10 CFR 71.33.

1-2 Table 1-4, "Engineering Drawings," contains two drawings, 105E3749 and 0028B98, which are not provided in the application. The applicant should be made aware that if these drawings are not meant to be in the application, then they will no longer be authorized by the Certificate of Compliance. The applicant must make clear to NRC staff why these drawings are no longer included.

This information is required in order for the staff to ensure that the application will meet the requirements of 10 CFR 71.33.

1-3 Table 1-4, "Engineering Drawings," contains drawing number AA10901. This drawing must be revised to make sure the drawing's information box providing the drawing and revision number is no longer cut off.

This information is required in order for the staff to ensure that the application will meet the requirements of 10 CFR 71.33.

1-4 Figure 1-7 provided on page 1-18 has several translation errors and should have its translation be entirely in the English language.

This information is required in order for the staff to ensure that the application will meet the requirements of 10 CFR 71.33.

2.0 Structural Safety

2-1 Revise the application to include the input and output modeling files for LTP, Cladding, and Impact Analysis.

The application includes description of the output files, however does not include these output files for staff review. Therefore the ANSYS and LS-DYNA output files must be submitted.
This information is required in order for the staff to ensure that the package will meet the requirements of 10 CFR 71.71 and 71.73.

6.0 Criticality Safety

6-1 Revise the application to include a summary table of limiting fuel dimensions, including both assembled fuel assemblies and loose rods, for inclusion in the Certificate of Compliance.

Although the application includes nominal dimensions for some fuel assembly types (e.g., typical fuel assembly design information in Appendix 1.3.3), the limiting fuel dimensions considered in the criticality analysis in Section 6.0 are not clear. The dimensions that affect criticality safety should be summarized for each fuel assembly type and loose rod type that the applicant would like to include as allowable contents in the package Certificate of Compliance. The dimensions given should include, but are not limited to, rod pitch, cladding thickness, cladding outer diameter, pellet diameter, and active fuel length. The dimensions should be limited either by giving a maximum or minimum value (whichever is most limiting for criticality), or by giving a nominal value with a tolerance.

This information is required in order for the staff to ensure that the package will meet the requirements of 10 CFR 71.55 and 71.59, and that the package contents are adequately described per §71.33(b).

6-2 Revise the criticality analysis for loose fuel rods in Section 6.0 of the application to clarify how the rods are represented in the criticality model.

Although the application includes maximum k_{eff}s for fuel rods in a fuel rod container or in a fuel rod cluster, it is not clear how loose fuel rods were modeled. The application should include: an evaluation of fuel rod type to determine the most reactive design, an evaluation of the most reactive combination of number of rods and rod pitch within each fuel rod container, including varying moderator density, and a schematic diagram of how each rod container type was considered in the evaluation.

This information is required in order for the staff to ensure that the package will meet the requirements of 10 CFR 71.55 and 71.59.