10 CFR 71.95 REPORT EVALUATION FORM

Docket No.:	71-9309
Package Model No.:	RAJ-II
Report Submitted By:	Scott P. Murray, Global Nuclear Fuel - Americas
Report Date:	December 22, 2011

Review the incoming report to determine if additional Commission or staff action is warranted. The review should consider whether the report identifies a generic defect or problem with the package design and the safety significance of the issue. Note that a high safety significance represents a potential for significant radiation exposure, medium safety significance represents a potential for some moderate radiation exposure, and low safety significance represents little or no potential for radiation exposure.

1. The report identifies:

__ Significant reduction in the effectiveness of a package during use;
__ Defect with a safety significance;
✓ Shipment in which conditions of the approval were not observed.

2. What is the safety significance? ___ High __ Medium ✓ Low

3. Summary of the report:

On October 25, 2011, Global Nuclear Fuel – Americas (GNF-A) discovered that shipments made in March and April of 2010 may have failed to meet the RAJ-II SAR requirements for burnable absorber (gadolinia) and lattice average enrichment as stated in the conditions of approval for the Certificate of Compliance (CoC). The fuel assembly is required to have a minimum number of gadolinia rods for a given bundle lattice average enrichment. However, the RAJ-II SAR bounding analysis does not include manufacturing tolerances for lattice average fuel enrichment. While performing a review of lattice average enrichment of shipped bundles for the last two years, three lattices did not meet the minimum gadolinia requirements when the manufacturing tolerance was included as there was an increase in enrichment. After performing an analysis including the minor increase in enrichment and the inadequate number of burnable absorber rods, it was determined that the increase in k-effective is negligible. The packages remained subcritical during the shipments and on-site storage.

The safety significance of this event is considered low. All other CoC requirements were met, the package integrity was not compromised, and there was no exposure of radiation to individuals as a result of this event.

4. Corrective actions taken by the licensee:

- The fuel assembly design process will be revised to incorporate the enrichment tolerance as part of the existing lattice average design verification. This change is scheduled to be completed by January 31, 2012.

5. Staff comments:

A conference call was held with the applicant on February 1, 2012, to obtain more detail on the criticality analysis. Staff determined that the analysis accurately considered the worst case scenario.

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6. Staff conclusion:

_✓_ The report does NOT identify generic design or license/certificate issues that warrant additional Commission or staff action. This report is considered closed.

__ There is a need to take additional action. Provide a summary of the bases and recommended actions:

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