



**CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

RDM-05-020

December 9, 2005

ATTN: Document Control Desk  
Director, Spent Fuel Project Office,  
Office of Nuclear Material Safety and Safeguards,  
U.S. Nuclear Regulatory Commission,  
Washington, DC 20555-0001

Subject: **10 CFR 71.95 Report of Non-Compliance with Certificate of Compliance  
USA/9309/B(U)F-96, Revision 1, for the Model No. RAJ-II Package**

To Whom It May Concern:

On September 12, 2005, Framatome ANP (FANP), Inc., an AREVA and Siemens Company, noted that one of the as-fabricated Model No. RAJ-II packages owned by FANP had a missing fillet weld on the cover mounting boss (Item #17 of Drawing 105E3738, Sheet 1) for the outer container. Additional inspections were conducted on the entire fleet of FANP-owned RAJ-II packages identifying a total of 8 packages with missing or under-length fillet welds and missing seal welds on their respective cover mounting bosses. These inspections were completed on October 28, 2005. At the time of the inspections all RAJ-II packages were not in service. The identified packages with missing or under-length fillet welds and missing seal welds on the cover mounting boss were reworked during the week of October 31, 2005, by the original package fabricator, Columbiana Hi Tech, LLC (CHT). The packages were reworked in accordance with the Packaging Technology, Inc., (PacTec) Quality Assurance program.

The missing or under-length fillet welds and missing seal welds on the cover mounting boss (Item #17 of Drawing 105E3738, Revision 4, Sheet 1) are shown on Drawing 105E3738, Revision 4, Sheet 2, Detail C-C. The upper left weld detail represents the seal weld and the right weld detail represents the fillet weld. This first weld seals the boss to the outer shell. The seal weld is not a structural weld but is intended to prevent the ingress of debris (moisture, dirt, etc.) to the interior of the outer container. The fillet weld holds the boss in place to allow bolt insertion and tightening. When the package is assembled and in service, the boss is in compression against the support angle and the outer skin. It is also inserted into the holes in the angle and skin allowing any shear loads to be further transmitted to the angle even in the absence of the seal or fillet weld. Therefore, the missing or under-length welds are non-safety issues. Attachment I, Figure 1, identifies the locations of the missing and under-length welds. Attachment I, Table 1, lists the packages identified with missing or under-length welds and the extent of the deficiencies.

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FANP has taken immediate action to discontinue use of RAJ-II packages that were not in full compliance with the license drawings. Unfortunately, RAJ-II packagings RA-001 through RA-072 were used to ship fuel assemblies to Browns Ferry in December 2004 and January 2005. Condition 5(a)(3) of the Certificate of Compliance (CoC) [USA/9309/B(U)F-96, Revision 1], in effect at the time of the shipment, requires that the construction of the outer container must be in accordance with Global Nuclear Fuels (GNF) Drawing 105E3738, Revision 4, Sheet 2. The existing license drawing 105E3738, Revision 6, Sheet 2 as indicated in the current Certificate of Compliance (CoC) [Revision 4] does not alter the boss welding details. The package license holder, Global Nuclear Fuel-Americas, LLC (GNF-A), was initially notified of the missing or under-length fillet welds and missing seal welds on the cover mounting boss on October 4, 2005.

The fillet and seal welds are identified as non-safety related in the safety analysis report for the package. As a result, the welds did not receive sufficient QA oversight by the package fabricator, CHT to ensure satisfactory completion of these welds in conformance with the licensing drawings. Additional weld inspections performed by FANP have not shown any further discrepancies. A meeting was held with the package fabricator, CHT on October 27, 2005 to discuss the weld deficiencies. Based on discussions at the meeting and a follow-up inspection of the facility, CHT has upgraded their staffing and inspection protocols to address these issues.

Per 10 CFR 71.95 (a)(1), FANP does not consider the RAJ-II packages, with the missing or under-length boss welds, listed in this notice, to have caused a significant reduction in the effectiveness of the package. There was no impact to the safety basis of the package or increased risk to the public. This report is being made in accordance with the requirements of 10 CFR 71.95 (a)(3); Instances in which the conditions of approval in the Certificate of Compliance were not observed in making a shipment.

If you or your staff have any questions, require additional information, or wish to discuss the matter further, please contact me at 423-832-5172. Please reference the unique document identification number in any correspondence concerning this letter.

Sincerely,



Richard D. Montgomery, Advisory Engineer  
Nuclear Criticality Safety & Shipping Containers

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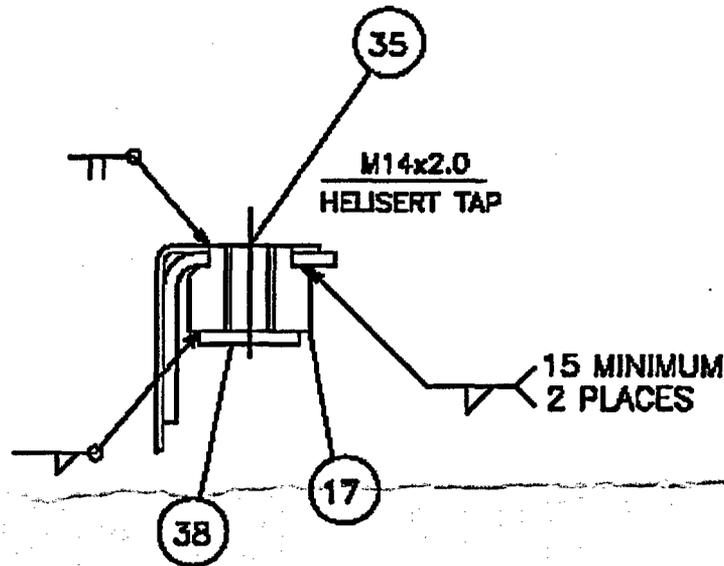
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## Attachment I

### Outer Container Boss Welding Details and Summary of FANP Inspections/Findings by RAJ-II Package Identification Number



**VIEW C-C DETAIL**  
 (S=1/2)

<b>GNF</b> Global Nuclear Fuel		DATE	DWG NO.	REV.
DRAWN	RB JAMES	03-15-04	105E3738	4
CHECKED	RP HIGGINS	03-25-04	SH NO. 2 CONT ON	3

Figure 1 – Cover Mounting Boss, Item #17, Weld Details. License Drawing Requirement in effect at time of shipment, not to size

Finding Date	Container Number	Description of Deficiency
12-Sep-2005	RA-042	Missing fillet weld on cover mounting boss
20-Sep-2005	RA-031	Missing fillet weld on cover mounting boss
21-Sep-2005	RA-010	Missing fillet weld on cover mounting boss
24-Sep-2005	RA-058	Missing seal weld on cover mounting boss
3-Oct-2005	RA-003, 041, 049, and 064	Missing or under-length fillet weld on cover mounting boss

Table 1 – Summary of Cover Mounting Boss Weld Deficiencies.