



Global Nuclear Fuel

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January 20, 2006

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

Subject: 10 CFR 71.95 - 60 Day Report

Reference: NRC Certificate of Compliance 9309, Docket 71-9309

Dear Sir,

Global Nuclear Fuel, Americas – LLC (GNF-A) in Wilmington, NC hereby submits a report pursuant to 10CFR 71.95(a)(3) for a condition found by one of our customers involving the RAJ-II package that we believe was not in conformance with a condition of the above referenced Certificate of Compliance (CoC). No components failed. The situation identified was the result of not following an internal procedure and an internal procedure that was less than adequate that resulted in a condition of the certificate not being met.

Our responses to the italicized requirements of 10CFR 71.95 are as follows:

(a) The licensee, after requesting the certificate holder's input, shall submit a written report to the Commission of -

GNF-A is the certificate holder.

(1) Instances in which there is a significant reduction in the effectiveness of any NRC-approved Type B or Type AF packaging during use; or

There was no indication of a reduction in effectiveness of the RAJ-II packaging.

(2) Details of any defects with safety significance in any NRC-approved Type B or fissile material packaging, after first use.

There was no indication of defects with safety significance in the RAJ-II packaging.

(3) Instances in which the conditions of approval in the Certificate of Compliance were not observed in making a shipment.

Condition 3 of CoC 9309 identifies approved drawings. Drawing 105E3739, Rev. 4, location D-13, item 16 shows the inner container clamp bolt on the hold-down bar in place. Also, Condition 6.(a) of the CoC requires the package to be prepared for shipment in accordance with the Chapter 7, "Package Operations". Chapter 7, section 7.1.2.3, item 11. states "Put on hold-down clamps and tighten bolts." During unpacking, one of the bolts was found by our customer to be sitting on the hold-down bar and apparently had not been installed or tightened. The purpose of the hold-down clamp system, as stated in the SAR, is to function as a vibro-isolating device to reduce acceleration forces on the fuel assembly during transport. Our analysis indicates no reduction in the effectiveness of the package during use, however, the testing of the package included hold-down bar clamps in place.

(b) The licensee shall submit a written report to the Commission of instances in which the conditions in the certificate of compliance were not followed during a shipment.

This is the written report.

(c) Each licensee shall submit, in accordance with § 71.1, a written report required by paragraph (a) or (b) of this section within 60 days of the event or discovery of the event. The licensee shall also provide a copy of each report submitted to the NRC to the applicable certificate holder. Written reports prepared under other regulations may be submitted to fulfill this requirement if the reports contain all the necessary information, and the appropriate distribution is made. Using an appropriate method listed in § 71.1(a), the licensee shall report to: ATTN: Document Control Desk, Director, Spent Fuel Project Office, Office of Nuclear Material Safety and Safeguards. These written reports must include the following:

This report is being submitted to the NRC, in accordance with 10CFR 71.95(a)(3), within 60 days of the event.

(1) A brief abstract describing the major occurrences during the event, including all component or system failures that contributed to the event and significant corrective action taken or planned to prevent recurrence.

On 11/30/05, a customer reported that while unpacking an RAJ-II container, they found a loose bolt on the surface of the hold-down bar. The hold-down bar is located over the inner container, and there are four such bars in the package. No component failed, the situation was a result of GNF-A personnel not following an internal procedure when preparing the shipment. All fuel assembly-packing functions were shut down upon notification of the event. Other packed shipments of RAJ-II's were opened to see if we had a similar situation. No similar situation was found. A checklist was implemented requiring an independent check of the placement of the hold-down bar bolts. Packing activities resumed after the use of the new checklist was implemented.

(2) A clear, specific, narrative description of the event that occurred so that knowledgeable readers conversant with the requirements of part 71, but not familiar with the design of the packaging, can understand the complete event. The narrative description must include the following specific information as appropriate for the particular event.

- (i) Status of components or systems that were inoperable at the start of the event and that contributed to the event;
- (ii) Dates and approximate times of occurrences;
- (iii) The cause of each component or system failure or personnel error, if known;
- (iv) The failure mode, mechanism, and effect of each failed component, if known;
- (v) A list of systems or secondary functions that were also affected for failures of components with multiple functions;
- (vi) The method of discovery of each component or system failure or procedural error;
- (vii) For each human performance-related root cause, a discussion of the cause(s) and circumstances;
- (viii) The manufacturer and model number (or other identification) of each component that failed during the event; and
- (ix) For events occurring during use of a packaging, the quantities and chemical and physical form(s) of the package contents.

(3) An assessment of the safety consequences and implications of the event. This assessment must include the availability of other systems or components that could have performed the same function as the components and systems that failed during the event.

(4) A description of any corrective actions planned as a result of the event, including the means employed to repair any defects, and actions taken to reduce the probability of similar events occurring in the future.

(5) Reference to any previous similar events involving the same packaging that are known to the licensee or certificate holder.

(6) The name and telephone number of a person within the licensee's organization who is knowledgeable about the event and can provide additional information.

(7) The extent of exposure of individuals to radiation or to radioactive materials without identification of individuals by name.

(d) Report legibility. The reports submitted by licensees and/or certificate holders under this section must be of sufficient quality to permit reproduction and micrographic processing.

The RAJ-II is a rectangular stainless steel box approximately 2.5 feet high by 2.5 feet wide by 17 feet long. It contains a stainless steel inner container that may hold up to two BWR fuel assemblies.

On 11/30/05, during a fresh fuel receipt at a reactor site, our customer reported that after opening the outer container of RAJ-II number RA-1190, they found a loose bolt on the surface of one of the hold-down bars. The four hold-down bars are located over the inner container that contained two fresh fuel assemblies. The purpose of the hold-down clamp system, as stated in the Safety Analysis

Report (SAR), is to function as a vibro-isolating device that secures the inner shipping container in place during shipment. In this case, the omission of the single bolt in the clamp mechanism did not create a reduction in the effectiveness of the package. There was no visible damage to either the inner or outer fuel shipping containers, so it was deemed safe to unpack the assemblies for use.

Upon notification of the event, we shut down all fuel assembly-packing functions. Other packed RAJ-II's were opened to see if we had a similar situation in other pending shipments. No similar situation was found.

The event was a result of operators unintentionally overlooking the proper installation of a bolt, and thereby not following the internal procedure for preparing the shipment. The procedure required all the hold down bolts to be properly tightened, but it did not specifically require a final over check of this step. A new checklist was developed that contains an independent check for the placement of the hold-down bar bolts. We conducted meetings with all the employees involved with this operation (the Assembly Teams) to make them aware of the event and emphasize the importance of following procedures. The operators involved were restricted from the packing activity until their disciplinary action, for failure to follow the procedure requiring the proper installation of bolts, was complete.

Packing activities remained shut down until 12/5/05 at which time we had completed our actions to prevent reoccurrence of this event and resumed packing operations.

The failure mode was human performance for failure to comply with the internal procedure that required the hold down bar bolts to be properly installed. There was no exposure of radiation or radioactive materials to individuals. There was no adverse affect to the RAJ-II as a result of this event.

We are not aware of any previous similar events involving this package.

I am the individual knowledgeable about this event and can provide additional information as needed.

If you wish to contact me, please call me on (910) 675-5656.

Sincerely,

Global Nuclear Fuel – Americas, LLC

Original signature of file

C. M. Vaughan, Manager
Facility Licensing

cc: CMV-06-007
Dr. W. Travers, NRC Region II, Atlanta, GA
D. Seymour, NRC Region II, Atlanta, GA
N. Baker, NRC HQ, Washington, DC
R. Montgomery, Framatome ANP