



## **Global Nuclear Fuel**

A Joint Venture of GE, Toshiba, & Hitachi

## **Global Nuclear Fuel**

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SPM 13-018

March 8, 2013

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, D.C. 20555-0001

Subject: Revision to Reply to Notice of Violation, No. 2010-002-01

References: (1) License SNM-1097, Docket 70-1113  
(2) NRC Inspection Report, 70-1113/2010-002 and Notice of Violation, 3/26/10  
(3) GNF-A Reply to NOV, S. Murray to NRC Document Control Desk, 4/23/10  
(4) GNF-A Report of Event – Gad Slugger IROFS Degradation, S. Murray to NRC Document Control Desk, 8/18/10  
(5) GNF-A ISA Fabrication Implementation and IROFS List, S. Murray to NRC Document Control Desk, 2/2/12

On April 23, 2010, GNF-A replied to Notice of Violation, No. 2010-002-01 (Reference 3). GNF-A, has completed all of the immediate and short term corrective actions to prevent recurrence for the Notice of Violation. On August 30, 2011 as part of an Integrated Safety Analysis (ISA) action plan, GNF-A completed reviews of the ISA for the fabrication areas, including the gadolinia slugger operation. As a result of these reviews, additional items relied on for safety (IROFS) were designated and implemented (Reference 5).

One of the longer term corrective steps was to incorporate into internal procedures the operator response to shut down the slugger as a part of the IROFS protecting against the accident sequence. Based upon further evaluation and knowledge gained during the ISA reviews, this action was modified since our April 23, 2010 reply to the NOV.

Attached is a revised reply to the notice of violation with modified wording for this action as follows:

3) The slugger and granulator process equipment (e.g. slugger, granulator, hood, sealed process piping and sealed process equipment) provides a barrier to external moderator leaking into the uranium material and has been designated as an item relied on for safety (IROFS 502-09) in the ISA. Operators have been trained to inspect these barriers prior to use and report degradations.  
*Completion date – January 31, 2012*

U.S. Nuclear Regulatory Commission  
Document Control Desk  
March 8, 2013

Please contact me on (910) 819-5950 if you have any questions or would like to discuss this matter further.

Sincerely,

A handwritten signature in black ink, appearing to read 'S. P. Murray', is written over the printed name.

S. P. Murray, Manager  
Facility Licensing

Attachment: Revised GNF-A Reply to Notice of Violation

Commitments: None

cc: Victor McCree, NRC Regional Administrator, Region II Atlanta  
M. Sykes, NRC Region II, Atlanta  
M. L. Thomas, NRC Region II, Atlanta, GA  
M. N. (Nick) Baker, NRC NMSS, Washington, D.C.

Attachment

The information provided below summarizes the Notice of Violation dated March 26, 2010 associated with NRC Inspection Report 70-1113/2010-002.

**VIOLATION NO. 2010-002-01**

**A. 10 CFR 70, Appendix A section (b)(2) states, in part, that a report must be made to the NRC Operations Center within 24 hours of discovery, of the loss or degradation of items relied on for safety that results in failure to meet the performance requirement of 10 CFR 70.61.**

**10 CFR 70.61(b) states, in part, that engineered controls, administrative controls, or both shall be applied to the extent needed to reduce the likelihood of occurrence of the event so that, the event is highly unlikely or its consequences are less severe than those in paragraphs (b)(1)(4) of this section. Paragraph (b)(1) describes a high consequence event that result in an acute dose of 1 Sv (100 rem) or greater total effective dose equivalent.**

**Contrary to the above, on January 26, 2010, the licensee failed to report within 24 hours of discovery, a loss or degradation of an item relied on for safety that resulted in the failure to meet the performance requirement of 10 CFR 70.61(b). Specifically, a safe geometry gad slugger hood feed tube (IROFS 30206) failed to perform its intended safety function. This increased the likelihood of a high consequence accident scenario, "Loss of moderation and geometry control," from highly unlikely to unlikely, and therefore a report to the NRC Operations Center within 24 hours of discovery was required.**

**This is a Severity Level IV violation (Supplement VI).**

**GNF-A's Response to Violation:**

1) The reason for the violation

Based on a review of the ISA and supporting documentation it was determined on January 25, 2010 that the event was not reportable. This was based on the fact that function of IROFS #30206 was to prevent a large accumulation (i.e., greater than a safe mass) of powder inside the hood. Since the amount of powder that spilled was less than a safe mass and IROFS 30207 remained available and reliable to perform its intended function, the event was initially determined to be non-reportable and the event was documented internally.

The event was re-assessed for reportability with consideration given to the NRC's assessment of the event provided in Inspection Report 2010-002 and provided to NRC in Reference 2. GNF-A understands NRC's position that the operator action taken to shutdown the process was not described as part of an IROFS and as a result may not be credited for compliance with the performance requirements. Had the operator not taken action after the degradation of the feed tube (IROFS 30206), a greater mass could have accumulated in the hood, although IROFS 30207 did remain available and reliable to perform its intended function.

This violation occurred due to the fact that credit was inappropriately taken for the operator's actions in assessing reportability when such actions had not specifically been declared either as part of IROFS #30206, or as an independent IROFS. In addition, internal reportability procedures do not clearly indicate whether operator actions, which are not specifically declared as IROFS, may be credited in assessing compliance with the performance requirements for reporting purposes. The corrective and preventive

actions described below have been identified to prevent recurrence of this type of event, which resulted in failure to report per 10 CFR 70, Appendix A, Section (b)(2).

2) Short term corrective steps taken

Internal event reporting procedure (P/P-40-32) has been revised to provide additional guidance on 10 CFR 70, Appendix A reporting determinations when an IROFS is discovered in a failed or degraded state. The revision clarifies specific instructions on safety documentation to be reviewed, control or actions for which credit may be taken, and the actions necessary to assess compliance with Part 70 performance requirements.

3) Corrective steps taken to avoid future violations (*Revised*)

The slugger and granulator process equipment (e.g. slugger, granulator, hood, sealed process piping and sealed process equipment) provides a barrier to external moderator leaking into the uranium material and has been designated as an item relied on for safety (IROFS 502-09) in the ISA. Operators have been trained to inspect these barriers prior to use and report degradations. *Completion date – January 31, 2012*

4) The date when full compliance will be achieved

Full compliance has been achieved.