



Global Nuclear Fuel

A Joint Venture of GE, Toshiba, & Hitachi

Global Nuclear Fuel

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SPM 13-001

January 3, 2013

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

Subject: 30-day Report of Event – IROFS Dependency

References: 1) NRC License SNM-1097, Docket 70-1113
2) GNF-A Event Report 48554, 12/4/2012

Dear Sir or Madam:

In accordance with 10 CFR 70.50(c)(2), Global Nuclear Fuel–Americas, LLC (GNF-A) hereby submits its 30-day report for Event Notification 48554 that was provided on December 4, 2012 (Reference 2). As discussed in the initial event report, GNF-A discovered that Items Relied On For Safety (IROFS) for a recycle furnace operation used in the Fuel Manufacturing Operations (FMO) building were improperly analyzed in the Integrated Safety Analysis (ISA). Consistent with 10 CFR 70.50(c)(1), a facsimile was submitted on December 4, 2012 providing additional information and is included as an attachment to this letter.

Additional information is provided as follows:

Event Details and Safety Significance

During a GNF-A review of the Fuel Manufacturing Operation (FMO) Integrated Safety Analysis (ISA), it was determined at 1:30 PM on December 3, 2012 that Items Relied on for Safety (IROFS) associated with the Dry Scrap Recycle furnace operation were improperly analyzed in the ISA. Although criticality controls associated with preventing moderation intrusion existed and these controls remained in place, they were not sufficiently independent to meet performance requirements.

Production operations in the affected area were suspended pending an investigation to identify corrective actions and extent of condition. There were multiple other controls in place, so at no time did an unsafe condition exist.

Immediate Corrective Actions Taken

On December 5, 2012 an extent of condition review determined there were three additional areas with IROFS that were not sufficiently independent. These areas were vaporization/conversion of the Dry Conversion Process, a hood that is used to transition to a moderation restricted area in the gadolinia shop, and an area used to pack material for recovery. The affected equipment in these areas was also shut down and an investigation was initiated to identify additional corrective actions.

Probable Cause of Event

An investigation determined that the affected controls had been in place for several years and were installed prior to current IROFS independence requirements. There were also no formal engineering guidelines to require and verify independence when current requirements were implemented. Additionally, training and transfer of knowledge to area engineers to assure adequate IROFS control system design independence was inconsistent.

Short Term Corrective Actions

Production operations in the affected areas were suspended until their IROFS control architecture could be reconfigured to assure independence.

Complete: December 9, 2012 (except for recovery pack area which remains shut down pending required IROFS reconfiguration)

Longer Term Corrective Actions

- 1) Provide training to affected area managers, area engineers, and safety staff regarding awareness and understanding of required IROFS control independence.

Scheduled Complete: March 29, 2013

- 2) Revise integrated safety analysis procedure to emphasize IROFS independence requirements.

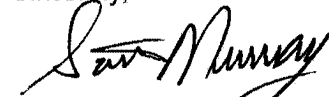
Scheduled Complete: April 30, 2013

- 3) Develop procedure to provide internal guidance for the independence of design criteria of controls used for IROFS.

Scheduled Complete: July 31, 2013

If you have any questions regarding this matter, please contact me at (910) 819-5950.

Sincerely,



Scott Murray, Manager
Facility Licensing

Attachment: Event Description

Commitments: As shown above

cc: NRC Region II Administrator, Atlanta, GA
M. Sykes, NRC RII Atlanta. GA
M. L. Thomas, NRC RII Atlanta. GA
M.N (Nick) Baker, NRC NMSS, Washington, DC

Attachment 1

Event Notification Description

During a GNF-A review of the Fuel Manufacturing Operation (FMO) Integrated Safety Analysis (ISA), it was determined at 1:30 PM yesterday (12/3/12) that Items Relied on for Safety (IROFS) associated with the Dry Scrap Recycle furnace operation were improperly analyzed in the ISA. Although criticality controls associated with preventing moderation intrusion exist and these controls remained in place, they were not sufficiently independent to meet performance requirements.

At no time was an unsafe condition present. The affected equipment has been shut down. An investigation is continuing which will provide additional corrective actions and extent of condition.

While this did not result in an unsafe condition, this event is being reported pursuant with the reporting requirements of 10CFR70 Appendix A (b)(1) within 24 hours of discovery.

Scott Murray
Manager, Facility Licensing
1:00PM 12/4/12

Update 12/5/12

An extent of condition review determined there are three more areas with IROFS that are not sufficiently independent. These areas are vaporization/conversion of the Dry Conversion Process, an area used to pack material for recovery and a hood that is used to transition to a moderation restricted area in the gadolinia shop. The affected equipment in these areas has also been shut down and the investigation continues to identify additional corrective actions.

Scott Murray
Manager, Facility Licensing
4:00PM 12/5/12