

A Joint Venture of GE, Toshiba, & Hitachi

SPM 11-067

November 29, 2011

U.S. Nuclear Regulatory Commission

Attn: Document Control Desk Washington, D.C. 20555-0001

Attn: Document Control Desk

Subject: 30-day Report of Event – Dry Scrap Recycle Can Elevator ISA Different than Analyzed

References: 1) NRC License SNM-1097, Docket 70-1113

GNF-A Event Report 47325, 10/6/11
 GNF-A 30 Day Report of Event, 11/4/11

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 47325 that was provided on October 6, 2011 (Reference 2). As discussed in the initial event report, GNF-A discovered that the Item Relied On For Safety (IROFS) for a 3-gallon can elevator used in the Dry Scrap Recycle (DSR) area was incorrectly described in the Integrated Safety Analysis (ISA). This IROFS is used to control movement of Special Nuclear Material (SNM). Consistent with 10 CFR 70.50(c)(1), a facsimile was submitted on October 6, 2011 providing additional information and is included as an attachment to this letter.

Below is an amendment to the report provided on November 4, 2011 (Reference 3)

Event Details and Safety Significance

During a review of the Integrated Safety Analysis (ISA) for a 3-gallon can elevator used in the Dry Scrap Recycle (DSR) area, it was determined that the ISA incorrectly described the IROFS used to control movement of SNM. The system is composed of two sequential can elevators that are used to move SNM to different floors. A Fuel Business System (FBS) automated control and associated gate interlock are designated as one of the Items Relied On For Safety (IROFS). In the ISA, this IROFS inappropriately accounts for safety features associated with the first can elevator. The first can elevator is located outside the analysis boundaries relevant to the IROFS; the ISA incorrectly attributed the safety features of the first can elevator to the second can elevator. Based on a review of this condition, determined at approximately 2PM on October 5, 2011, it was determined that the system was different than analyzed in the ISA and resulted in a failure to meet performance requirements. Prior to transferring a can to the DSR furnace feed hood, there is an FBS transaction required which verifies material type and prevents high moderated material from entering the furnace. This control was in place during the time the IROFS was incorrectly described. No high moderated material was in the moderation restricted area and no unsafe condition existed.

Global Nuclear Fuel

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Probable Cause of Event

The ISA Quantitative Risk Assessment (QRA) documentation incorrectly attributed the controls to the wrong can elevator. The description was not physically verified until this review. A root cause investigation determined the causes of the documentation error were:

- 1. The majority of the analysis was performed remotely during the 2007 to 2008 time frame without the cognizant engineer involvement and instead relied upon prints and drawings that were not clear
- 2. Reviews failed to identify incorrectly described IROFS

Immediate Corrective Actions Taken

Operation of affected equipment was immediately suspended.

Complete: October 5, 2011

Short Term Preventive Actions

Update DSR IROFS training material and complete retraining of affected operators.

Complete: October 7, 2011

Update the ISA and associated documents to ensure they accurately describe the equipment configuration and necessary controls prior to restarting operations in the affected area. Designate the FBS transaction performed prior to transferring a can to the DSR furnace feed hood as an IROFS.

Complete: October 12, 2011

Longer Term Preventive Actions

Revise internal procedures to include a cognizant engineer review of fuel manufacturing facility drawings and physical verification of IROFS configuration prior to ISA report approval.

Scheduled complete: February 17, 2012

Investigate other QRA's created remotely during the 2007 to 2008 time period to determine if plant configurations are properly described.

Scheduled complete: December 31, 2012

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

Sincerely

Scott Murray, Ma Licensing & Liab/litig

Attachment: Event Description

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 DESCRIPTION

During a review of the Integrated Safety Analysis (ISA) for a 3-gallon can elevator used in the Dry Scrap Recycle (DSR) area, it was determined that the ISA incorrectly describes the IROFS used to control movement of SNM. The system is composed of two sequential can elevators that are used to move SNM to different floors. A Fuel Business System (FBS) automated control and associated gate control are designated as one of the Items Relied On For Safety (IROFS). In the ISA, this IROFS is incorrectly attributed to the 2nd can elevator instead of the 1st can elevator. Based on a review of this condition, determined at approximately 1400 on October 5, 2011, it was determined that the system was different than analyzed in the ISA and resulted in a failure to meet performance requirements.

The FBS and associated gate control were in place at all times on the 1st can elevator, was operating correctly, and supported by management measures. No unsafe condition existed. The ISA and associated documentation are being updated to designate the correct can elevator and associated controls.

Operation of the equipment has been suspended pending additional review and implementation of corrective actions. Additional corrective actions and extent of condition are being evaluated.

This event is being reported pursuant to the reporting requirements of 10CFR70 Appendix A (b)(1) within 24 hours of discovery.

Phillip D. Ollis Licensing and Liabilities 13:15 10/6/11