Global Nuclear Fuel

A Joint Venture of GE, Toshiba, & Hitachi

Global Nuclear Fuel

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SPM 11-013

April 7, 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 – Loss of Double Contingency-Improper Can Storage

References: 1) NRC License SNM-1097, Docket 70-1113
2) GNF-A Event Report 46663, 3/8/11

Dear Sir or Madam:

In accordance with 10CFR70.50(c)(2), the Global Nuclear Fuel – Americas L.L.C. (GNF-A) facility in Wilmington, North Carolina hereby submits the required written report for the March 7, 2011, discovery of loss of double contingency control due to improper can storage of UO_2 powder. This condition was reported within 24 hours by telephone to the NRC Operations Center in accordance with internal procedural reporting requirements.

The applicable information required by 10CFR70.50(c)(1) was submitted by facsimile on March 8, 2011 and is included as Attachment 1.

Additional information is provided as follows:

Event Details and Safety Significance

At approximately 7:00 am on Monday, March 7, an operator discovered that a can of powder was present on a conveyor in the UO_2 press feed area without the required material control transaction. At approximately 10:10 am on March 7 it was determined that the can contained unauthorized material: two vacuum bags of powder and one plastic bag also containing powder. The material control transaction is one criticality control for the conveyor to ensure only authorized dry materials are stored.

Failure to maintain the moderation control resulted in a loss of double contingency for the conveyor storage. The double contingency controls required include (1) moderation control and (2) mass control. Mass control, the second control for double contingency remained in place, was effective, and was not challenged since the total amount of UO_2 powder in the improperly stored can was approximately 13.6 kg. The material control transactions were properly performed and the can was transferred to an approved storage location.

The discovery was reported within 24 hours to the NRC pursuant to internal procedural reporting requirements that are in addition to 10CFR70, Appendix A.

Probable Cause of Event

An investigation team conducted a review to determine the actions and associated conditions that led to the discovery of the can of powder on the conveyor in the UO_2 press feed area without the required material control transaction. The investigation team determined that the possible causes of the event were as follows:

- The operating procedure was not clear on how to scrap vacuum bags from the press feed areas.
- A material control card was placed on the can on the UO_2 press feed area conveyor but the operator likely became distracted and failed to perform the required material control transaction.

Immediate Corrective Actions Taken

SNM movements were ceased pending investigation and implementation of additional corrective actions.
Completed March 8, 2011

A stand down was held for all fuel manufacturing operators on requirements for the proper material control transaction prior to any container move.
Completed March 8, 2011

Station audits were performed to verify that the material control transactions for cans and other powder contiiners in the FMO facility were correct and in the proper locations.
Completed March 9, 2011

Near-term Corrective Actions Taken

Re-train all scrap press operators and press setup operators on requirements for operating the scrap press and obtain re-acknowledgement of the procedure.
Scheduled complete April 15, 2011

Add specific instructions to operating procedure on how to scrap UO_2 vacuum bags from the press feed area.
Scheduled complete April 29, 2011

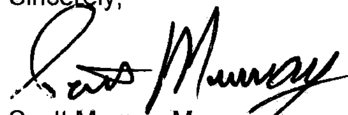
Train applicable operators on waste/scrap material types and and associated material control transactions.
Scheduled complete April 29, 2011

Longer-term Preventive Actions

Review all operating procedures to verify clear, detailed instructions for vacuum cleaner bag replacement and associated material control scrap transactions.
Scheduled complete May 30, 2011

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

Sincerely,



Scott Murray, Manager
Licensing & Liabilities

Commitments: None

Attachment 1: Event Description

cc: Rafael Rodriguez, NRC NMSS, Washington, DC
Nick Baker, NRC NMSS, Washington, DC
Mary Thomas, NRC RII Atlanta

Attachment 1

At approximately 7:00 am on Monday, March 7th, it was reported that a can of powder was present on a conveyor in the UO2 press feed area without the required material control transaction. At approximately 10:10 am it was discovered that the can contained three vacuum bags of powder. The transaction is one criticality control for the conveyor to ensure only authorized dry materials are stored.

The second controlled parameter (mass of uranium in each can) was maintained at all times. As a result, no unsafe condition existed. The total amount of UO2 powder in the improperly stored can was approximately 13.6 kg. The material control transactions have been properly performed and the can has been transferred to an approved storage location.

As a result, SNM movements have been ceased pending investigation and implementation of additional corrective actions.

Scott Murray, Manager,
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10:10 AM, 3/8/11