



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

January 19, 2018

Mr. Adam Hilton  
Facility Manager  
Global Nuclear Fuel-Americas, L.L.C.  
P.O. Box 708, Mail Code J20  
Wilmington, NC 28402

SUBJECT: GLOBAL NUCLEAR FUEL– AMERICAS,L.L.C – NRC INTEGRATED INSPECTION  
REPORT 70-1113/2017-005

Dear Mr. Hilton:

This letter refers to the inspections conducted during the fourth quarter of calendar year 2017 (October 1-December 31, 2017) at the Global Nuclear Fuel Americas (GNF-A), L.L.C. and Global Laser Enrichment (GLE) facilities in Wilmington, NC. The purpose of the inspections was to determine whether activities authorized under the license and the implementation of programs and procedures for plant operations, nuclear criticality safety, plant modifications, and emergency preparedness exercises and drills at the GNF-A facility and plant operations at the GLE facility were conducted safely and in accordance with Nuclear Regulatory Commission (NRC) requirements. The enclosed report presents the results of these inspections. At the conclusion of these inspections, the inspectors discussed the findings concerning GNF-A with you and members of your staff at exit meetings held on October 4 and October 19, 2017, and discussed the findings concerning GLE with R. Crate and members of his staff at an exit meeting held on November 8, 2017.

These inspections examined activities conducted under your license as they relate to public health and safety, and compliance with the Commission's rules and regulations, and the conditions of your license. Within these areas, the inspection consisted of an examination of selected procedures and representative records, observations of activities, facility walk-downs, and interviews with personnel. Throughout the inspections, observations were discussed with your managers and staff.

Based on the results of this inspection, the NRC has determined that no violations of more than minor significance were identified

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice and Procedures," a copy of this letter and enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agency-wide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

If you have any questions, please contact Tom Vukovinsky of my staff at 404-997-4622.

Sincerely,

*/RA/*

Eric C. Michel, Chief  
Projects Branch 2  
Division of Fuel Facility Inspection

Docket No. 70-1113  
License No. SNM-1097

Enclosure:  
NRC Inspection Report 70-1113/2017-005  
w/ Supplementary Information

cc:  
Scott Murray, Manager  
Facility Licensing  
Global Nuclear Fuels – Americas, L.L.C.  
Electronic Mail Distribution

W. Lee Cox, III, Chief  
North Carolina Department of Health and Human Services  
Division of Health Service Regulation  
Radiation Protection Section  
Electronic Mail Distribution

SUBJECT: GLOBAL NUCLEAR FUEL – AMERICAS, L.L.C – NUCLEAR REGULATORY  
COMMISSION INTEGRATED INSPECTION REPORT 70-1113/2017-005

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U. S. NUCLEAR REGULATORY COMMISSION  
REGION II

Docket No.: 70-1113

License No.: SNM-1097

Report No.: 70-1113/2017-005

Licensee: Global Nuclear Fuel - Americas, LLC

Location: Wilmington, North Carolina 28402

Dates: October 1, 2017 to December 31, 2017

Inspectors: M. Crespo, Senior Fuel Facility Inspector (Paragraph B.1)  
G. Goff, Fuel Facility Inspector (Paragraph B.1)  
K. Kirchbaum, Fuel Facility Inspector (Paragraph C.3)  
N. Peterka, Fuel Facility Inspector (Paragraph A.2)  
N. Pitoniak, Senior Fuel Facility Inspector (Paragraph A.1)  
L. Pitts, Senior Fuel Facility Inspector (Paragraph B.1, C.3)  
M. Ruffin, Fuel Facility Inspector (Paragraph C.1)  
P. Starz, Fuel Facility Inspector (Paragraph B.2)  
T. Vukovsky, Fuel Facility Inspector (Paragraph C.2)  
R. Womack, Fuel Facility Inspector (Paragraph C.3)

Approved by: E. Michel, Chief  
Projects Branch 2  
Division of Fuel Facility Inspection

Enclosure

## **EXECUTIVE SUMMARY**

Global Nuclear Fuel - Americas, LLC  
NRC Integrated Inspection Report 70-1113/2017-005  
October 1 – December 31, 2017

NRC regional inspectors conducted inspections during normal shifts in the areas of Safety Operations and Facility Support. During the inspection period, normal production activities were ongoing. These announced, routine inspections consisted of a selective examination of licensee activities accomplished by direct observation of safety-significant activities and equipment, walk-downs of the facility, interviews and discussions with licensee personnel, and a review of facility records and procedures. There were no safety significant findings identified during this inspection.

### **Safety Operations**

- In the area of Plant Operations, no violations of more than minor significance were identified. (Paragraph A.1)
- In the area of Nuclear Criticality Safety, no violations of more than minor significance were identified. (Paragraph A.2)

### **Facility Support**

- In the area of Emergency Preparedness, no violations of more than minor significance were identified. (B.1)
- In the area of Permanent Plant Modifications, no violations of more than minor significance were identified. (B.2)

### **Special Topics**

- Five apparent violations (AVs) identified from a transportation event where radioactive scrap metal containing licensed material was shipped from GNF-A to a local recycling facility were closed out to the Confirmatory Order (CO) dated December 14, 2017 (ML17348A130).
  1. AV for failure to make or cause to be made surveys, as required by Title 10 of the Code of Federal Regulations (10 CFR) 20.1501(a). (Paragraph C.1.a)
  2. AV for failure to comply with applicable Department of Transportation (DOT) requirements for transporting licensed material outside the site usage on public highways, as required by 10 CFR 71.5(a). (Paragraph C.1.b)
  3. AV for failure to notify the NRC Operations Center when removable radioactive surface contamination exceeds the limits, as required by 10 CFR 20.1906(d)(1). (Paragraph C.1.c)
  4. An AV for failure to perform monitoring as practical after receipt of package, but not later than three hours, as required by 10 CFR 20.1906(c). (Paragraph C.1.d)
  5. An AV for failure to maintain records of surveys, as required by 10 CFR 20.2103(a). (Paragraph C.1.e)
- Confirmatory Order (CO) Section V, Item 1, 10 CFR 20.1906(d)(1) report has been submitted and this item is considered closed. (Paragraph C.2)

- Plant Operations inspection was conducted at the Global Laser Enrichment site, also in Wilmington, NC. In the areas of Plant Operations, no violations of more than minor significance were identified. (Paragraphs C.3)

**Attachment**

Key Points of Contact

List of Items Opened, Closed, and Discussed

Inspection Procedures Used

Documents Reviewed

## **REPORT DETAILS**

### **Summary of Plant Status**

Global Nuclear Fuel- Americas (GNF-A), LLC manufactures uranium dioxide (UO<sub>2</sub>) powder, pellets, and light water reactor fuel bundles at its Wilmington, NC facility. The facility converts uranium hexafluoride (UF<sub>6</sub>) to UO<sub>2</sub> using a Dry Conversion Process (DCP) and performs UO<sub>2</sub>, gadolinium pellet, and fuel fabrication operations. During the inspection period, normal production activities at the facility were ongoing.

Global Laser Enrichment tests, develops, and utilizes laser isotope separation process technology at its test loop facility in Wilmington, NC to enrich uranium by increasing the uranium 235 (<sup>235</sup>U) concentration higher than it exists in natural uranium ore <sup>238</sup>U. During the inspection period, normal activities at the facility were ongoing.

#### **A. Safety Operations**

##### **1. Plant Operations (Inspection Procedure 88020)**

###### **a. Inspection Scope**

The inspectors reviewed site requirements contained in SNM-1097, GNF-A License Application, Chapter 3. The inspectors interviewed staff, toured areas, and reviewed records associated with UO<sub>2</sub> rod processing, GAD rod processing, bundle assembly, and laboratory operations. The inspectors reviewed select items relied on for safety (IROFS) associated with these areas to verify the IROFS reviewed were being implemented in accordance with the requirements in the integrated safety analysis (ISA).

The inspectors conducted observations of bundle assembly operations and activities associated with IROFS 900-11 and 900-13 to verify the licensee's administrative controls were properly implemented and communicated to licensee personnel. The inspectors performed walk-downs of rod trays to verify the trays remained unobstructed and were able to drain freely per the requirements of IROFS 900-14. The inspectors interviewed operators to verify they were knowledgeable of both the administrative limits for rod storage and the necessary actions associated with rod tray spills as required per section 5.13.5.1 of the ISA summary.

The inspectors observed rod loading activities performed in accordance with OP 1040.32.202, Revision (Rev. 03), "UO<sub>2</sub> Automated Rod Loader – Normal Operations," to verify the operators were conducting the required fuel business system (FBS) transactions in compliance with IROFS 900-01 requirements.

The inspectors observed activities associated with rod scanning equipment to verify the passive requirements of IROFS 601-03 and 601-05 were maintained to prevent moderator accumulation.

The inspectors performed walk-downs and interviewed two laboratory technicians to verify the mass limits of IROFS 805-05, 805-06, and 805-07 were being maintained as required and in accordance with the requirements established in area postings and Nuclear Safety Release/Requirements (NSR/R) 06.12.01 and NSR/R 06.15.01.

b. Conclusion

No violations of more than minor significance were identified.

2. Nuclear Criticality Safety (Inspection Procedure 88015)

a. Inspection Scope

The inspectors reviewed selected Criticality Safety Analyses (CSAs) to determine whether properly reviewed and approved CSAs were in place and of sufficient detail and clarity to permit an independent review. The inspectors reviewed selected CSAs to determine whether calculations were performed within the validated area of applicability and were consistent with the validation report. The inspectors reviewed the selected CSAs and associated assumptions and calculations to verify consistency with the commitments in the License Application, including the consideration of the Double Contingency Principle, assurance of subcriticality under normal and credible abnormal conditions with the use of subcritical margin, technical practices and methodologies, and treatment of nuclear criticality safety (NCS) parameters. The CSAs were selected based on their risk-significance, if they were new or revised, the use of unusual control methods, and operating history. The CSAs reviewed included CSA-407.00.100, CSA-203.00.100, and CSA-407.00.100. In addition, the CSAs listed in Section 4 of the Attachment were also reviewed.

The inspectors reviewed the licensee's generation of accident sequences to verify whether the CSAs systematically identified normal and credible abnormal conditions for the analysis of process upsets in accordance with the commitments and methodologies in the License Application. This effort included the review of accident sequences the licensee determined to be not credible in order to assess whether the bases for incredibility were consistent with the commitments, definitions, and methodologies in the License Application, and were documented in sufficient detail to permit an independent assessment of credibility. This review was conducted for the following CSAs: CSA-407.00.100, CSA-203.00.100, and CSA-407.00.100.

The inspectors performed walk-downs of the DCP, hydrofluoric acid (HF) recovery building, rod processing, rod assembly, and the Chemet laboratory to determine whether existing plant configuration and operations were covered by, and consistent with, the process description and safety basis in the CSA. The inspectors reviewed process and system descriptions, and setpoint analyses to verify engineered controls established in the CSAs were included. The inspectors reviewed operating procedures and postings, and noted that selected administrative controls established in the CSAs were included. The inspectors interviewed operators and engineers to verify administrative actions established in the CSAs were understood and implemented properly in the field.

The inspectors reviewed the ISA Summary and supporting ISA documentation to determine whether the controls identified in the ISA were supported by technical basis in the CSAs.

The inspectors reviewed NCS-related training records, including annual refresher training, to determine whether operator training included instruction in criticality hazards and control methods, if the licensee's established NCS-related operator



training was consistent with commitments in the License Application, and whether NCS staff was involved in the development of operator training. The inspectors interviewed operations staff to determine whether they were cognizant of NCS hazards and control methods related to their specific job function.

The inspectors accompanied licensee NCS engineers on general walk-downs of the facility to determine whether NCS staff routinely inspected fissile material operations and confirmed criticality requirements were being satisfied. Additionally, the inspectors interviewed two NCS engineers and reviewed audit records that were documented since the previous NCS inspection.

The inspectors reviewed the selected CSAs to verify they were performed in accordance with NCS program procedures and received appropriate independent review and approval. The inspectors conducted interviews and reviewed corrective action program (CAP) entries to verify audit findings were being identified, entered, and tracked until resolution of the issue.

The inspectors reviewed selected NCS-related CAP entries to verify anomalous conditions were identified and entered into the CAP, proposed corrective actions were sufficiently broad, they were prioritized on a schedule commensurate with their significance, and they were completed as scheduled and addressed the problem identified.

The inspectors reviewed documentation to determine whether the Criticality Accident System (CAAS) was properly tested and maintained according to license and regulatory requirements.

b. Conclusion

No violations of more than minor significance were identified.

B. Facility Support

1. Evaluation of Exercises and Drills (Inspection Procedure 88051)

a. Inspection Scope

The inspectors observed and evaluated the licensee's biennial exercise conducted on October 4, 2017, to verify the licensee has an effective emergency response program. The exercise scenario consisted of a credible HF release from a tanker truck that was struck and punctured by a forklift. The subsequent release of the liquid HF covered the hypothetical forklift driver and exposed the hypothetical truck driver's hands and feet to HF during his attempt to assist the forklift driver. The release also resulted in a large plume of toxic HF across the northwest portion of the facility which threatened to go beyond the site boundary. The Emergency Response Organization (ERO) was notified of the incident when a nearby employee smelled the hypothetical release and pulled the nearest alarm station.

The inspectors reviewed the emergency drill scenario package and discussed the exercise objectives with licensee personnel prior to the exercise. The inspectors walked down the plant to assess the effectiveness of visual aids used in the drill and verified that the licensee had not pre-staged equipment in anticipation of the exercise.

The inspectors observed the activation of the Emergency Control Center (ECC) and the Emergency Organization (EO) to verify all required positions were fully staffed and necessary personnel were dispatched to scenes in accordance with the Emergency Plan. The inspectors observed the EO assess the plant conditions and classify the event as an Alert to verify compliance with the Emergency Plan's classification requirements. Following the Alert classification, the inspectors observed ECC activities to verify the initial offsite notifications were made within the time period specified in the Emergency Plan and contained the required information. The inspectors observed the Emergency Director (ED) lead activities in the ECC to verify command and control of the EO was maintained as required in the emergency plan.

The inspectors reviewed the onsite communications generated by the ECC and observed the subsequent onsite plant personnel actions to verify consistent and effective implementation of protective action recommendations. The inspectors observed licensee staff initiate shelter-in-place protective actions and accountability musters in accordance with approved procedures.

The inspectors observed the press release process to verify they were reviewed by the ED prior to issuance and were in accordance with the Emergency Plan.

The inspectors reviewed the environmental assessments conducted by the licensee using the applicable software to verify the ED utilized the environmental monitoring results during the assessment of the accident scenario.

The inspectors observed members of the licensee's emergency response team (ERT) assemble at the designated assembly area and the arrival of the off-site emergency responders including fire, Hazardous Material (HAZMAT), and emergency medical teams. The inspectors observed the ERTs perform search and rescue operations and conduct an assessment of the affected area. The inspectors observed the Incident Commander's actions to verify that command and control of the emergency response teams and off-site emergency responders were maintained and coordinated.

The inspectors observed the staff critiques following the emergency exercise to verify the critiques were effective at identifying areas needing improvement and lessons learned. The licensee's critiques were captured in CAP item 27371 for evaluation and resolution.

b. Conclusion

No violations of more than minor significance were identified.

## 2. Plant Modifications (Inspection Procedure 88070)

### a. Inspection Scope

The inspectors interviewed licensee personnel regarding configuration management policies and procedures to determine if the licensee established an effective configuration management program in accordance with requirements listed in paragraphs 3.5 "ISA Management" and 11.2 "Configuration Management" of the GNF-A License Application capable of evaluating, implementing, and tracking modifications to facility processes that could affect safety as required by 10 CFR 70.72(a).

The inspectors reviewed the licensee's work control program to verify it contained pre-job planning and preparation of permanent plant modification (PPM) design packages in accordance with Chapter 11 of the GNF-A License Application. The inspectors evaluated the configuration management program to determine whether the program ensured PPM not degrade the capabilities of IROFS or other safety controls part of the safety design basis.

The inspectors reviewed a selection of change request packages completed since the last plant modifications inspection in 2016. The inspectors reviewed the packages and interviewed licensee staff to determine whether the change packages were prepared, reviewed, and completed by the licensee in accordance with WI-16-106-02, "Configuration Management Program – Nuclear Manufacturing Operations," Rev. 1.1. Selected change packages (CR 23613, 23552, 20713, 23555, 25145, 23573, and 23756) were reviewed to assess if applicable post-maintenance installation and testing requirements were identified and performed prior to implementation of change packages. The inspectors reviewed design information to determine if instrument setpoints accurately reflected the protection of safety limits taking into account instrument and calibration uncertainties. The inspectors also reviewed the licensee's process for making changes to their functional test instructions used to perform post maintenance testing, and conformance with WI-06-100-26, "CAA Temporary Operations."

The inspectors evaluated whether the licensee addressed the impacts of both facility changes and document modifications for the ISA, ISA Summary, and other safety program documentation developed in accordance with 10 CFR 70.62. The qualification records of three licensee ISA Reviewers were reviewed to assess whether they met the requirements of the license application. The inspectors reviewed samples of 10 CFR 70.72 evaluations to determine whether the licensee adequately addressed NRC approval requirements.

The inspectors performed walk-downs of selected modifications to determine whether they were installed in accordance with approved design documents, including drawings and technical reports. The inspectors reviewed calibration records to determine whether measuring and test equipment used to perform functional testing of IROFS were properly calibrated at the time of use. The inspectors reviewed training records to determine whether operators received training on modifications to IROFS prior to turnover and resuming operations.

The inspectors reviewed the licensee's CAP to verify issues related to the preparation of change requests and facility modifications were entered into the CAP and the licensee

assigned appropriate corrective actions to resolve the issues in accordance with paragraph 11.7, "Incident Investigations" of the GNF-A License Application.

b. Conclusion

No violations of more than minor significance were identified.

C. Special Topics

1. Follow-up on Previously Identified Issues

- a. AV 70-1113/2017-003-01: Failure to make or cause to be made surveys.

An Apparent Violation (AV) of 10 CFR 20.1501(a) was identified through an event for failure to make appropriate surveys to evaluate the potential radiological hazards of work performed on scrap metal piping at their waste treatment facility and documented in Global Nuclear Fuel – Americas, L.L.C – Nuclear Regulatory Commission Integrated Inspection Report 70-1113/2017-003. The successful outcome of alternate dispute resolution (ADR) resulted in closure of this AV to actions detailed in the Confirmatory Order dated (CO) dated December 14, 2017 (ML17348A130). This item is closed.

- b. AV 70-1113/2017-003-02: Failure to comply with applicable DOT requirements for transporting licensed material outside the site usage on public highways.

An AV of 10 CFR 71.5(a) was identified by the NRC for failure to comply with DOT requirements when contaminated metal piping was transported to the scrap metal facility and returned to the GNF-A site and documented in Global Nuclear Fuel – Americas, L.L.C – Nuclear Regulatory Commission Integrated Inspection Report 70-1113/2017-003. The successful outcome of ADR resulted in closure of this AV to actions detailed in the CO. This item is closed.

- c. AV 70-1113/2017-003-03: Failure to notify the NRC Operation Center when removable radioactive surface contamination exceeds the limits.

An AV of 10 CFR 20.1906(d)(1) was identified by the NRC for failure to immediately notify the final delivery carrier and the NRC Operations Center by telephone when removable radioactive surface contamination exceeded the limits of 10 CFR 71.87(i) and documented in Global Nuclear Fuel – Americas, L.L.C – Nuclear Regulatory Commission Integrated Inspection Report 70-1113/2017-003. The successful outcome of ADR resulted in closure of this AV to actions detailed in the CO. This item is closed.

- d. AV 70-1113/2017-003-04: Failure to perform monitoring as practical after receipt of package, but not later than three hours.

An AV of 10 CFR 20.1906(c) was identified by the NRC for failure to monitor a package within three hours of receipt at their facility and documented in Global Nuclear Fuel – Americas, L.L.C – Nuclear Regulatory Commission Integrated Inspection Report 70-1113/2017-003. The successful outcome of ADR resulted in closure of this AV to actions detailed in the CO. This item is closed.

- e. AV 70-1113/2017-003-05: Failure to maintain record of surveys.

An AV of 10 CFR 20.2103(a) was identified by the NRC for a failure to provide survey records from the results of surveys of the scrap metal piping and dumpster and documented in Global Nuclear Fuel – Americas, L.L.C – Nuclear Regulatory Commission Integrated Inspection Report 70-1113/2017-003. The successful outcome of ADR resulted in closure of this AV to actions detailed in the CO. This item is closed.

- f. (Closed) Licensee Event Report (LER) 2017-001 “Contaminated Material in Unrestricted Area”

On March 20, 2017 the licensee notified the NRC that contaminated material was present in an unrestricted area greater than ten times the limit of their license requirement via a written report as required by 10 CFR 20.2203(a)(3)(ii), with the following details. On September 29, 2016, a shipment of contaminated stainless steel scrap metal piping containing low enriched uranium from the fuel manufacturing operation (FMO) waste treatment facility was inadvertently transported to Southern Metal (a local metal recycle center) as a result of an improper release survey. The shipment alarmed the radiation portal monitor at the recycling facility and was then returned to back to the GNF-A site.

Initial assessments of the shipment, after returning to the GNF-A site, were only compared with the guidelines contained in Section 1.3.2, “Authorized Guidelines for Contamination-Free Articles” of the SNM-1097 license application. Therefore the licensee failed to recognize the limits of SNM-1097 Section 1.3.6.1 were exceeded.

On March 13, 2017, the licensee conducted additional surveys and volumetric determinations and determined the uranium concentration in the material exceeded ten times the volumetric license release limit of 30 pCi per gram. A follow-up inspection on this transportation and contamination event was conducted April 24-28, 2017, and resulted in the identification of five AVs, which were documented in Global Nuclear Fuel – Americas, L.L.C – Nuclear Regulatory Commission Integrated Inspection Report 70-1113/2017003. This item is considered closed.

## 2. Review of Confirmatory Order Section V Item 1 (Inspection Procedure 88015/88020)

Consistent with paragraphs III.1 and V.1 of the NRC CO of December 14, 2017, in EA-17-090, GNF-A made a following report to the NRC Operations Center, pursuant to 10 CFR 20.1906(d)(1) to state that the NRC has concluded GNF-A received a package on September 29, 2016, which had removable radioactive surface contamination on its external surfaces that exceeded the applicable limits set forth in 10 CFR 71.87(i). Item V.1 of the CO is considered closed.

## 3. Plant Operations Inspection specific to GLE (Inspection Procedure 88020)

### a. Inspection Scope

The inspectors interviewed staff and reviewed records associated with IROFS for the General Laboratory, Measurement and Development Laboratory, Raman Cell, and Gas Handling Cart. The inspectors reviewed the specific safety controls for all of the IROFS

associated with these areas to verify these controls were being maintained and implemented as described in the ISA.

The inspectors observed the physical presence of passive and active engineered safety controls, evaluated the safety controls to determine their capability and operability, observed licensee staff conduct the functional testing for each IROFS and determined that potential accident scenarios were covered to verify the engineering controls associated with all of the IROFS reviewed were present and capable of performing their intended safety functions.

Through interviews, document reviews, and observations of licensee staff performing functional testing the inspectors verified the licensee conducted preventive maintenance, calibration, and periodic surveillance as required by the ISA Summary.

b. Conclusion

No violations of more than minor significance were identified.

D. Exit Meeting

The inspection scope and results were presented to members of the licensee's staff at various meetings throughout the inspection period and were summarized on October 4 and October 19, 2017, to A. Hilton and staff and on November 8, 2017, to R. Crate and staff. No dissenting comments were received from the licensee. Proprietary information was discussed but not included in the report.

## **SUPPLEMENTARY INFORMATION**

### **1. KEY POINTS OF CONTACT**

#### Licensee personnel

<u>Name</u>	<u>Title</u>
R. Crate	President and CEO (GLE)
J. Berger	Powder P&SS/FMO Building Manager (GNF-A)
C. Buddin	Chemet Lab Manager (GNF-A)
M. Dodds	Senior NCS Engineer (GNF-A)
R. Hart	Fire Safety Contractor (GNF-A)
A. Hilton	FMO Facility Manager (GNF-A)
A. Humphreys	Configuration Management Manager (GNF-A)
P. Jenny	Security Manager (GLE)
P. Lachance	Maintenance Manager (GNF-A)
A. Lang	ISA Engineer (GNF-A)
K. McGowen	FMO Training Lead (GNF-A)
M. Monks	Security Specialist (GLE)
S. Murray	Facility Licensing Manager (GNF-A)
D. Nay	FMO Manufacturing Engineering Manager (GNF-A)
P. Ollis	Facility Licensing (GNF-A)
T. Orr	Nuclear Oversight Manager (GNF-A)
T. Owens	Engineering Manager (GLE)
L. Paulson	Senior NCS Engineer (GNF-A)
J. Reeves	Integrated Safety Analysis Manager (GNF-A)
J. Rohner	NCS Program Manager (GNF-A)
P. Rose	Manufacturing Engineer (GNF-A)
E. Saito	Radiation Protection Program Inspection (GNF-A)
M. Venters	Emergency Preparedness and Fire Protection Manager (GNF-A)
D. Wegert	Classification Representative (GLE)

### **2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED**

#### Opened

None

#### Opened & Closed

None

#### Closed

70-1113/2017-001	LER	Contaminated Material in Unrestricted Area
70-1113/2017-003-01	AV	Failure to make or cause to be made surveys. (Paragraph C.
70-1113/2017-003-02	AV	Failure to comply with applicable DOT requirements for transporting licensed material outside the site usage on public highways.

70-1113/2017-0003-03	AV	Failure to notify the NRC Operation Center when removable radioactive surface contamination exceeds the limits.
70-1113/2017-003-04	AV	Failure to perform monitoring as practical after receipt of package, but no later than three hours.
70-1113/2017-003-05	AV	Failure to maintain records of surveys.
CO-NRC IR 07001113/2017003 Section V, Item 1	CO	Consistent with paragraphs III.1 and V.1 of the NRC Confirmatory Order (CO) of December 14, 2017 in EA-17-090, GNF-A made a following report to the NRC Operations Center, pursuant to 10 CFR 20.1906(d)(1) to state that the NRC has concluded GNF-A received a package on September 29, 2016, which had removable radioactive surface contamination on its external surfaces that exceeded the applicable limits set forth in 10 CFR 71.87(i).

Discussed

None

### 3. INSPECTION PROCEDURES USED

88015	Nuclear Criticality Safety
88020	Operational Safety
88051	Evaluations of Emergency Exercise
88070	Plant Modifications

### 4. DOCUMENTS REVIEWED

Records:

Global Laser Enrichment Integrated Safety Analysis Summary, Rev. 10.0, dated January 27, 2017

Emergency Organization Evaluated Exercise Participant Brief Presentation, 2017

2017 Biennial Evaluated Exercise Scenario Package, dated October 4, 2017

CSA-203.00.100, DCP HF Recovery, Rev. 1, May 2017

CSA-407.00.100, Rod Processing, Rev. 1

CSA-407.00.100, Rod Processing Appendices, Rev. 0

CSA-601.01.100, Bundle Forest, Rev. 6, dated June 21, 2016

CSA-601.02.100, Criticality Safety Analysis Bundle Accumulation Machine, Rev. 00

CSA-805.151208, Chemet Lab-General, Rev. 13

NSR/R #:06.06.01, Nuclear Safety Release for Chemet Lab-General, dated November 14, 2016

CSA 702.00.100, CSA Radwaste System, November 2016, Rev. 2, (CR 23339)

Change Management Training Records, 2016, 2017

FBS Station 119 transaction, dated April 6, 2017

Contamination Monitoring Qualification Card, Rev. 0

NSR/R #13.11.04, Nuclear Safety Release/Release; Self-Survey



WO131462, Work Order - Unit 1 Reactor Safety Filter Replacement

Procedures:

Radiological Contingency and Emergency Plan, dated July 13, 2016  
 WI-27-104-03, Nuclear Safety Reviews, Rev. 2, dated July 11, 2017  
 WI-27-105-25, HVAC Surveys to Detect Uranium Accumulation, Rev. 6, dated May 31, 2017  
 CP-06-100, Procedure Control Process, Rev. 15  
 CP-06-216, Functional Test Instructions, Rev. 1.0  
 CP-17-103, Nuclear Safety Records, Rev. 1  
 CP-18-104, EH&S Regulatory Compliance Audit, Rev. 3.0  
 CP-20-103, Nuclear Safety Training, Rev. 2  
 CP-27-104, Nuclear Safety Assurance, Rev. 1.1  
 TOP 20661, CAA Temporary Operating Procedure, Rev. 0  
 TOP 21075, CAA Temporary Operating Procedure, Rev. 1  
 WI-06-100-26, CAA Temporary Operations, Rev. 1.  
 WI-16-106-01, GNF Change Management Process (CMP), Rev. 1.0  
 WI-16-106-02, GNF Change Management Process (CMP), Nuclear Mfg Ops, Rev. 4  
 WI-16-106-02-F01, IROFS Modification Assessment Form  
 WI-18-104-02, Internal Nuclear Safety Audits, Rev. 2  
 WI-27-104-03, Nuclear Safety Reviews, Rev. 0  
 WI-27-104-04, Nuclear Safety Design Criteria, Rev. 2  
 WI-27-106-14, EHS Management of Change  
 WI-27-106-14-F01, EHS Screening Checklist  
 OP 1040.32.202, UO2 Automated Rod Loader – Normal Operations, Rev. 03  
 OP 1050.30.000, Fuel Bundle Assembly – General Information, Rev. 03  
 OP 1050.30.201, Fuel Bundle Assembly – Set-up, Rev. 01  
 OP 1050.30.202, Fuel Bundle Assembly – Normal Operations, Rev. 05  
 OP 1050.30.203, Fuel Bundle Assembly – Bundle Disassembly/Rework, Rev. 03  
 OP 1050.30.204, Fuel Bundle Assembly – Basic Operator Maintenance, Rev. 01  
 OP 1050.30.300, Fuel Bundle Assembly – Process Information, Rev. 02  
 OP 1050.40.100, Bundle Assembly Active Scanner – General Information, Rev. 01  
 OP 1050.40.201, Bundle Assembly Active Scanner – Startup, Rev. 00  
 OP 1050.40.202, Bundle Assembly Active Scanner – Normal Operations, Rev. 00  
 OP 1050.40.203, Bundle Assembly Active Scanner – Abnormal Operations, rev. 00  
 OP 1050.40.204, Bundle Assembly Active Scanner – Emergency Operations, Rev. 00  
 OP 1050.40.300, Bundle Assembly Active Scanner – Process Information, Rev. 00  
 OP 1081.01.100, Incinerator – General Information, Rev. 01  
 OP 1081.01.201, Incinerator – Startup, Rev. 01  
 OP 1081.01.202, Incinerator – Normal Operations, Rev. 02  
 OP 1081.01.203, Incinerator – Shutdown, Rev. 01  
 OP 1081.01.204, Incinerator – Abnormal Operations, Rev. 01  
 OP 1081.01.205, Incinerator – Emergency Operations, Rev. 01  
 OP 1081.01.206, Incinerator – Basic Operator Maintenance, Rev. 01  
 OP 1081.01.300, Incinerator – Process Operations, Rev. 01  
 WI-27-105-12, Personnel Decontamination and Dose Assessment, Rev. 2.0

Condition Reports Reviewed:

CR-25523  
 CR-26152  
 CR-26345  
 CR-26674

CR-26840  
CR-26867  
CR-26931  
CR 23613  
CR 23552  
CR 23555  
CR 25145  
CR 23852  
CR 23573  
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CR 23698

Other Documents:

GE Wilmington Site Map for Field Trams East Side, Rev. 3, dated January 13, 2012  
(Drawing #8000C12)  
HF002-5-2002, HF Awareness Training, Rev.3, dated October 31, 2012  
Radiation Worker Training, Criticality Safety, October 2017  
QRA-805, Rev. 5