



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200  
ATLANTA, GEORGIA 30303-1200

July 28, 2021

Mr. Doug Nay  
Plant Manager  
GLOBAL NUCLEAR FUEL-AMERICAS, L.L.C  
Global Nuclear Fuel-Americas, L.L.C.  
P.O. Box 780, Mail Code J20  
Wilmington, NC 28402

SUBJECT: GLOBAL NUCLEAR FUEL-AMERICAS, L.L.C. (GNF-A) – INTEGRATED  
INSPECTION REPORT 07001113/2021002

Dear Mr. Nay:

On June 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Global Nuclear Fuel-Americas, L.L.C. (GNF-A) and discussed the results of this inspection with Brad Beard and other members of your staff. The results of this inspection are documented in the enclosed report.

No violations of more than minor significance were identified during this inspection.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

**/RA/**

Robert E. Williams, Jr., Chief  
Projects Branch 1  
Division of Fuel Facility Inspection

Docket No. 07001113  
License No. SNM-1097

Enclosure:  
As stated

cc w/ encl: Distribution via LISTSERV®

SUBJECT: GLOBAL NUCLEAR FUEL-AMERICAS, L.L.C. (GNF-A) – INTEGRATED INSPECTION REPORT 07001113/2021002 – DATED July 28, 2021

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DATE	7/27/2021	7/28/2021			

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Number: 07001113

License Number: SNM-1097

Report Number: 07001113/2021002

Enterprise Identifier: I-2021-002-0120

Licensee: GLOBAL NUCLEAR FUEL-AMERICAS, L.L.C

Facility: Global Nuclear Fuel-Americas, L.L.C. (GNF-A)

Location: Wilmington, NC

Inspection Dates: April 12, 2021 to April 23, 2021

Inspectors: B. Adkins, Sr. Fuel Facility Projects Inspector  
G. Goff, Fuel Facilities Inspector  
T. Sippel, Fuel Facility Inspector  
P. Startz, Fuel Facilities Inspector

Approved By: Robert E. Williams, Jr., Chief  
Projects Branch 1  
Division of Fuel Facility Inspection

Enclosure

## **SUMMARY**

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee's performance by conducting an integrated inspection at Global Nuclear Fuel–Americas, L.L.C. (GNF-A), in accordance with the fuel cycle facility inspection program. This is the NRC's program for overseeing the safe operation of licensed fuel cycle facilities. Refer to <https://www.nrc.gov/materials/fuel-cycle-fac.html> for more information.

### **List of Violations**

No violations of more than minor significance were identified.

### **Additional Tracking Items**

None.

## 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 fuel fabrication operations. During the inspection period, normal production activities at the facility were ongoing.

## INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Inspections were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2600, "Fuel Cycle Facility Operational Safety and Safeguards Inspection Program." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards.

## SAFETY OPERATIONS

### 88015 - Nuclear Criticality Safety

The inspectors evaluated selected aspects of the licensee's Nuclear Criticality Safety program to verify compliance with selected portions of 10 CFR 70, including 70.61 and 70.62, Chapter 5, "Nuclear Criticality Safety," of the facility's license application, and applicable licensee procedures.

### Criticality Analysis (IP Section 02.01)

The inspectors interviewed licensee staff and reviewed nuclear criticality safety analyses (CSA) and associated assumptions and calculations to verify compliance with 10 CFR 70 and applicable sections of the license application, including 5.4.2 and 5.4.4. Specifically, the inspectors interviewed licensee staff and reviewed the following CSAs:

- CSA 407.00.100, "Rod Processing," Rev. 3, including the review of accident sequences 4070.1 to 4070.18, which cover various scenarios that the licensee determined to be not credible, as well as sequences 4074.1 to 4074.7, for the Rod Storage Cabinets
- CSA 407.00.200, "Rod Processing Appendix," Rev. 3, which was reviewed because it contained a variety of calculations and information supporting the licensee's evaluation of criticality accident sequences in CSA 407.00.100, and the technical basis for the IROFS established for Rod Processing
- The inspectors walked down risk significant portions of the Rod Processing Area (Nodes 407 and 506), including the Rod Storage Cabinets
- The inspectors also reviewed the recently issued Validation Report (Rev. 3.1) to verify that the change to the USL did not negatively impact safety

### Criticality Implementation (IP Section 02.02)

The inspectors selected passive engineered and administrative controls from the licensee's integrated safety analysis (ISA) summary to verify proper implementation through a review of process and system descriptions, safety basis calculations, plant walkdowns, and interviews to verify compliance with 10 CFR 70 and applicable sections of the license application, including 5.4.2.1 and 5.4.2.3. Specifically, the inspectors interviewed licensee staff and reviewed the following controls, and their management measures, associated with the Rod Processing area:

- IROFS 407-07, "Process Equipment Barrier - Rod Storage Cabinet." A passive engineered control which the inspectors observed, and reviewed the related calculations, training document, and the most recent surveillance record
- IROFS 407-08, "Rod Storage Cabinet - Safe Geometry." A passive engineered control which the inspectors observed, and reviewed the related calculations, training document, the most recent surveillance record, and related procedural requirements
- IROFS 506-05, "Process Equipment Barrier - Rod Storage Cabinet." A passive engineered control for which the inspectors reviewed the related calculations, training document, and the most recent surveillance record
- IROFS 506-06, "Rod Storage Cabinet - Safe Geometry." A passive engineered control for which the inspectors reviewed the related calculations, training document, the most recent surveillance record, and related procedural requirements
- The inspectors reviewed portions of QRA 407/506, "Fabrication - UO<sub>2</sub>/Gad Rod Processing," including the description of applicable processes, IROFS, management measures applied to IROFS, and accident sequences

### Criticality Operational Oversight (IP Section 02.03)

The inspectors assessed the Nuclear Criticality Safety (NCS) staff's oversight of plant operators, procedures, and operations of systems involving special nuclear material to verify compliance with 10 CFR 70 and applicable sections of the license application, including 5.1.3, 5.1.4.1, 5.3.2.2, 5.3.2.4, and 11.6. Specifically, the inspectors performed the following activities:

- Reviewed training documents (TDs) related to IROFS in the 407 and 506 Nodes, and interviewed operators in these areas
- Accompanied a licensee NCS engineer performing a periodic observation of passive IROFS
- Interviewed licensee NCS staff concerning weekly audits (Nuclear Safety Audits) and reviewed the 2021-2022 Audit Schedule and recent audit records
- Reviewed and discussed the audit findings recorded in the audit records and condition reports written to document issues
- Interviewed NCS engineers concerning the incorporation of NCS IROFS requirements into procedures and reviewed operating procedures

### Criticality Programmatic Oversight (IP Section 02.04)

The inspectors reviewed NCS program procedures and NCS staff qualifications to verify compliance with 10 CFR 70 and applicable sections of the license application, including 5.3.2.1. Specifically, the inspectors interviewed licensee NCS staff and reviewed documents concerning the following:

- NCS engineer qualification records
- NCS Program procedures, including WI-27-104-15, "NCS Calculation Methods and Verification," Rev. 4, which had recently been revised
- Interviewed NCS staff concerning the NCS review of changes, including changes to operating procedures that may affect NCS, and changes to the facility

### Criticality Incident Response and Corrective Action (IP Section 02.05)

The inspectors reviewed entries in the licensee's corrective action program (CAP) to verify compliance with 10 CFR 70 and applicable sections of the license application, including 11.7. Specifically, the inspectors reviewed documents, and interviewed licensee staff concerning the following:

- CR 36339, and associated documentation, for the licensee's response to the 2/26/21 SCALE User Notification of a cross section error concerning the h-poly material. The inspectors interviewed the licensee NCS manager and Senior NCS staff concerning the licensee's response to this error. The licensee revised their validation report to use values calculated using the corrected h-poly material. The inspectors also reviewed the licensee's assessment of the impact of the issue on SCALE calculations that used h-poly.
- CR 35627, and associated documentation, for an issue associated with the licensee's modeling of certain geometries. The documents reviewed included revisions to CSA 900.00.100, "Homogeneous Uranium Subcritical Limits," Rev. 4 and CSA-900.01.100, "Moderation Limits," Rev. 3.

### 88020 - Operational Safety

The inspectors evaluated selected aspects of the licensee's Operational Safety program to verify compliance with selected portions of 10 CFR 70, including 70.61, 70.62, and Chapter 11, "Management Measures," of the facility's license application, and applicable licensee procedures.

### Identification of Safety Controls and Related Programs (IP Section 02.01)

The inspectors selected specific process areas for inspection based on the safety basis information of the facility, the risk/safety significance of the process areas, the description of plant changes submitted to the NRC, and past plant performance documentation. For the process areas of interest, the inspectors selected a sample of accident sequences in nuclear criticality safety, radiation safety, fire safety, and chemical safety based on

the information provided in the integrated safety analysis (ISA) summary. The inspectors conducted a general plant tour of each major plant operating area. The process areas and accident sequences selected for review are listed below:

- Dry Conversion Process, Accident Sequence 5.3.5.1, Loss of Containment Conversion Area
- Dry Conversion Process, Accident Sequence 5.3.5.2, Fire in Conversion Room
- Dry Conversion Process, Accident Sequence 5.3.5.6, Loss of Containment-UF6 Feed Line
- Dry Conversion Process, Accident Sequence 5.3.5.18, Loss of Containment in the Conversion Room due to Hydrogen Pipe Rupture from Crane Drop

#### Review of Safety Controls and Related Programs (IP Section 02.02)

The inspectors reviewed information related to administrative, engineered, and passive safety controls or items relied on for safety (IROFS) for the accident sequences selected above, including the identification of the licensee's assumptions and bounding cases as they apply to each of the selected accident sequences, safety controls, or IROFS. This review was performed to verify that the controls or IROFS were available and reliable to perform their intended safety functions and that the design basis assumptions were reflected in the actual conditions in the field. The specific safety controls selected for review are listed below:

- IROFS 201-20/UF6 Feed Piping, passive engineered, chemical safety
- IROFS 202-01/Cold Leak Check, administrative, chemical safety
- IROFS 202-02/Reactor Hi Pressure Interlock, active engineered, chemical safety
- IROFS 202-03/Conversion Room System 1 HF Detector Automatic System Shutdown, active engineered, chemical safety
- IROFS 202-04/Conversion Sense & Flee, administrative, chemical safety
- IROFS 202-05/Conversion Room System 2 HF Detector Alarms, augmented administrative, chemical safety
- IROFS 202-25, Process Equipment Barrier (Conversion), passive engineered, chemical safety
- IROFS 202-26/East Hydrogen Alarm with Hydrogen Valve Isolation, active engineered, fire safety
- IROFS 202-27/West Hydrogen Alarm with Hydrogen Valve Isolation, active engineered, fire safety
- IROFS 202-28/Conversion Room Crane Admin Control, administrative, fire/chemical safety
- IROFS 202-31/Conversion Combustible Control Program, administrative, fire/chemical/criticality safety
- IROFS 900-05, Non-Hydrogenous Fire Suppression, administrative, fire/criticality safety

#### Implementation of Safety Controls (IP Section 02.03)

For the selected safety controls listed above, the inspectors reviewed management measures to verify proper implementation in accordance with 10 CFR 70 Subpart H and



applicable sections of the license application. This review was performed to verify that selected safety controls or IROFS were present, available, and reliable to perform their safety function and that the design basis assumptions were reflected in the actual conditions in the field. The inspectors conducted the following activities to verify the implementation of selected safety controls:

- walked down the dry conversion process (DCP) including the control room, conversion room, reactor, uranium hexafluoride (UF<sub>6</sub>) piping, hydrogen monitors, and hydrogen fluoride (HF) detectors to verify implementation of IROFS listed in Section 02.02
- reviewed operations procedure OP 202.00.201 to verify proper implementation of IROFS 202-03, 202-05, 202-26, 202-27, and 202-28
- observed a surveillance of IROFS 201-24 and 201-25, DCP Line 2 cold trap weight interlocks
- walked down the DCP, conversion room, reactors, UF<sub>6</sub> vaporization, powder operations, and supporting areas to verify that process equipment barriers were maintained in accordance with IROFS 202-25
- reviewed DCP operations temporary operating procedure CR-29130 to verify maintained implementation of IROFS 202-04 during the installation of the new DCP Digital Control System, Line 1
- walked down the conversion room, reactors, UF<sub>6</sub> vaporization, and powder operations to verify that the combustible control program was maintained in accordance with IROFS 202-31
- walked down all moderation-controlled areas including the conversion room, reactors, UF<sub>6</sub> vaporization, and powder operations to verify that the non-hydrogenous Fire Suppression requirements were being maintained in accordance with IROFS 900-05

#### Safety Control Support Programs (IP Section 02.04)

The inspectors assessed additional management measures that support the availability and reliability of the selected safety controls to verify these were implemented in accordance with 10 CFR 70 Subpart H and applicable sections of the license application. Specifically, the inspectors conducted the following:

- reviewed completed functional test records for IROFS 202-01, 202-02, 202-03, 202-05, 201-24 and 201-25
- reviewed IROFS failure and degradation records (condition reports) CR-35277, 36056, 36091, 36100, 36275
- reviewed audit/self-assessments related to chemical safety and combustible material control
- reviewed training and qualification documents for two DCP control room operators
- reviewed active temporary operating procedures (TOP)-29128, "Additional Sample Storage in DCP Sample Room; and TOP-29130 Cold Trap Calibration Activity Logs LS1331.04
- interviewed DCP control room operators about the implementation of TOP-29130 Cold Trap Calibration Activity
- reviewed qualitative risk assessment QRA-202, DCP Conversion

- reviewed housekeeping issues that degrade the Combustible Control Program as required by IROFS 202-31
- reviewed completed functional test records for IROFS 202-01, 202-02, 202-25
- observed DCP shift turnover on 04/12/21 and attended plan of the day meetings on 04/13 and 04/14/21
- reviewed Training Document (TD) 202-25, Revision 1, Conversion Sense and Flee, for proper training currency
- reviewed TD 202-01, Revision 1, Cold Leak Check, for proper training currency
- reviewed TD 202-02, Revision 2, Reactor Vessel, for proper training currency

## **RADIOLOGICAL CONTROLS**

### 86740 - Inspection of Transportation Activities

The inspectors evaluated select aspects of the licensee's Transportation Activities program to determine whether the licensee has established and is maintaining an effective, management-controlled program; to ensure radiological and nuclear safety in the receipt, packaging, delivery to a carrier and, as applicable, the private carriage of licensed radioactive materials; and to determine whether transportation activities are in compliance with the applicable Nuclear Regulatory Commission 10 CFR Parts 20 and 71 regulations and Department of Transportation (DOT) (49 CFR Parts 171-178) transport regulations.

#### Preparation of Packages for Shipment (IP Section 02.01)

The inspectors examined the licensee's procedures to verify compliance with applicable federal regulations. Specifically, the inspectors reviewed the following:

- OP 2000.01
- OP 2000.10
- OP 2000.04.201
- OP 2000.05.002

#### Delivery of Completed Packages to Carriers (IP Section 02.02)

The inspectors examined the shipment record for a recent, outgoing shipment to determine that the licensee met package delivery requirements. Specifically, the inspectors reviewed or observed the following:

- shipping manifest
- control of custody forms
- radiological surveys
- bill of lading
- that the flatbed trailers used to transport completed packages to a carrier were equipped with the required placarding

#### Receipt of Packages (IP Section 02.03)

The inspectors examined the licensee's procedures and records for an incoming shipment to verify compliance with 10 CFR 20.1906 and applicable license requirements. Specifically, the inspectors observed or reviewed the following:

- OP 1339.01.202
- OP 1339.01.203
- OP 2000.04.202
- GNFV6237250
- GNFV6237291
- the licensee opening the seavan (outer shipment container) and removing all new powder containers (NPCs) inside the seavan
- the radiation safety technicians perform surveys on each NPC
- all labels and markings on the NPCs
- the opening of an empty NPC polypack
- the operator performing the removal and verification requirements of the empty polypacks inside the NPCs
- the flat bed trailer used for carrying seavans (which contain empty NPCs) to verify proper placarding was available on all four sides of the trailer was per DOT regulations

#### Records and Reports (IP Section 02.04)

The inspectors examined the licensee's procedure for recordkeeping and reports to verify compliance with applicable federal regulations. Specifically, the inspectors reviewed the following:

- shipping manifests
- bills of lading
- radiation surveys
- contamination surveys
- control of custody forms
- SARS for the various types of packages utilized by the licensee

#### General License Requirements (IP Section 02.05)

The inspectors reviewed the certificates of compliance used for shipment of radioactive material packages to verify compliance with 10 CFR 71, Subpart C. Specifically, the inspectors reviewed:

- 9196 for UX-30 packages
- 9294 for NPC packages
- 9309 for RAJ-II packages
- 9362 for DN30 packages

#### Management Controls (IP Section 02.06)

The inspectors reviewed the system of management controls for transportation activities to verify compliance with licensee instructions and procedures. Specifically, the inspectors:

- reviewed and walked down the IROFS under the jurisdiction of the transportation/logistics department
- reviewed shipment records for authorization signatures from managers

#### Indoctrination and Training Program (IP Section 02.07)

The inspectors reviewed training documentation for workers involved in transport activities to verify compliance with Chapter 11 of the licensee application. Specifically, the inspectors:

- reviewed the training records, including HAZMAT, for package handlers/preparers
- determined that the workers had received and were maintaining their training current
- noted that the licensee had a computerized system for "locking out" any employee delinquent on training

#### Quality Assurance Program (IP Section 02.08)

The inspectors reviewed the quality assurance documents to verify compliance with the licensee's quality assurance program. Specifically, the inspectors:

- reviewed NQA-2020-007
- verified by a review of procedure that dents and dings in packages less than one inch in depth are acceptable
- observed that the packages were not stacked more than five high as required by procedure

#### Audit Program (IP Section 02.09)

The inspectors reviewed the latest audit to verify compliance with 10 CFR 71.137. Specifically, the inspectors:

- reviewed the most recent internal audit report performed by the Quality Assurance staff
- confirmed that the audit contained criteria and parameters pertinent to the transportation program
- noted that concerns and recommendations for improvement were placed into the corrective actions program
- reviewed the following corrective actions: 34478, 34661, 36575

#### Procurement and Selection of Packagings (IP Section 02.10)

The inspectors examined the licensee's packages and certificates of compliance to verify compliance with applicable federal regulations. Specifically, for packaging that was used by the licensee to transport or to deliver licensed material to a carrier for transport, the inspectors walked down the following packages:

- NPC packages
- RAJ-II packages

#### Preparation of Packages for Shipment (IP Section 02.11)

The inspectors examined the licensee's package markings, documentation, and records to verify compliance with applicable parts of the federal regulations. Specifically, the inspectors reviewed:

#### Periodic Maintenance of Packagings (IP Section 02.12)

The inspectors examined the licensee's procedures and observed activities in the field to verify compliance with applicable parts of the federal regulations. Specifically, the inspectors:

- reviewed OP 2000.02
- reviewed OP 2000.03
- observed refurbishment activities to the inner and outer containers of the RAJ-II containers
- noted that the workers were fluent in the performance of their job functions
- viewed the internal arrangements of both the external box and internal box of the RAJ-II packages to verify that cushioning, linings, braces, bolts, and other stabilizing components were in the proper arrangement and were not damaged as per procedure

#### Records, Reports, and Notifications (IP Section 02.13)

The inspectors reviewed the licensee's records for recordkeeping and reports to verify that a system is in place to verify compliance with the applicable federal regulations. Specifically, the inspectors reviewed the following:

- many completed shipping packages in the records retention system over the last 24 months

### **INSPECTION RESULTS**

No issues were identified.

### **EXIT MEETINGS AND DEBRIEFS**

The inspectors verified that no proprietary information was retained or documented in this report.

- On April 15, 2021, the inspectors presented the Operational Safety inspection results to Brad Beard and other members of the licensee staff.

- On April 22, 2021, the inspectors presented the NCS and Transportation inspection results to Brad Beard and other members of the licensee staff.

## DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
86740	Corrective Action Documents	34478, 34661, 36575		
86740	Miscellaneous	CP-13-103	Shipping and Receiving of Radioactive Materials	Revision 2.1
86740	Miscellaneous	CP-20-100-F02	Equivalency Evaluation	01/02/2019
86740	Miscellaneous	CR 29256	Training Document: TD 101-08 UF6 Cylinder Handling Combustible Control Program	Revision 2
86740	Miscellaneous	DOT Document	Chapter 2.7 - Class 7 - Radioactive material (UN Numbers)	
86740	Miscellaneous	IROFS - Administrative Control	TD 101-05 Visual Inspection of UF6 Cylinders Following an Off-Normal Event	Revision 0
86740	Miscellaneous	IROFS - Passive Engineered Control	TD 101-02 UF6 Cylinder	Revision 0
86740	Miscellaneous	NEDE-33869P	RAJ-II Safety Analysis Report	Revision 10
86740	Miscellaneous	NEDE-33881P	NPC Safety Analysis Report	Revision 7
86740	Miscellaneous	NQA-2020-007	Internal Audit Report	
86740	Miscellaneous	Radiation Protection	Ludlum Model 44-9 Alpha, Beta, Gamma, Detector (Scanning RAJ-IIs)	01/01/2018
86740	Miscellaneous	Training	Ongoing training records and requirements for seven (7) workers transportation shipments	
86740	Miscellaneous	Training	Several Certificates of Completion for Training to U.S. Dept. of Transportation 49CFR, Part 172, Subpart H and/or International Transportation Regulations for Hazardous Materials/Dangerous Goods for five (5) shipping employees.	05/01/2019
86740	Miscellaneous	USA/9196/B(U)F-96	Certificate of Compliance 9196 - (UX30)	Revision 30
86740	Miscellaneous	USA/9294/AF-96	Certificate of Compliance 9294 - (NPC)	Revision 9
86740	Miscellaneous	USA/9309/B(U)F-96	Certificate of Compliance 9309 - (RAJ-II)	Revision 12
86740	Miscellaneous	USA/9362/AF-96	Certificate of Compliance 9362 - (DN30)	Revision 0
86740	Procedures	0023-HA-2015-001-Rev5	Use and Handling of the DN30 Package	Revision 5

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
86740	Procedures	0023-PA-2015-016-Rev3	Inspection Criteria for Regular and Periodical Inspections of the DN30 Package (Test Instruction)	Revision 3
86740	Procedures	OP 1080.70.300	UF6 Cylinder Dock - Process Information	Revision 6
86740	Procedures	OP 1339.01.202	NPC Powder Pack - Normal Operations	Revision 5
86740	Procedures	OP 1339.01.203	NPC Powder Pack - Cleanout	Revision 00
86740	Procedures	OP 2000.01	Shipment of NPC	Revision 25
86740	Procedures	OP 2000.02	RAJ-II Outer Container Refurbishing	Revision 36
86740	Procedures	OP 2000.03	RAJ-II Inner Container Refurbishing	Revision 30
86740	Procedures	OP 2000.04.201	Shipping & Traffic - Shipping Operations	Revision 3
86740	Procedures	OP 2000.04.202	Shipping & Traffic - Receiving Operations	02 ADMIN
86740	Procedures	OP 2000.05.002	Fuel Bundles in RAJ-II Containers - Container Loading and Securing	Revision 3
86740	Procedures	OP-2000.10	Shipment of UF6 Material & Containers	Revision 17
86740	Radiation Surveys	GNFV6237250	Incoming Shipment Survey	04/21/2021
86740	Radiation Surveys	GNFV6237291	Incoming Shipment Survey	04/20/2021
86740	Shipping Records	Record of Shipment	International Export Memo of Shipment (Invoice, Packing List, Bill of Lading)	10/13/2020
88015	Corrective Action Documents	CR 35279, CR 35627, CR 35707, CR 36339, CR 36637	Various NCS related condition reports	Various Dates
88015	Engineering Evaluations		SCALE6.1/KENO-VI Monte Carlo Code Validation Report	Rev. 3.1
88015	Engineering Evaluations	CSA 208.00.100	DPC MRA Facility and Powder Containers	Rev. 2
88015	Engineering Evaluations	CSA 701.00.200	Decon Appendices	Rev. 2
88015	Engineering Evaluations	CSA-407.00.100	Rod Processing	Rev. 3
88015	Engineering Evaluations	CSA-407.00.200	Rod Processing Appendix	Rev. 3
88015	Engineering	CSA-701.00.100	Decon	Rev. 2



Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Evaluations			
88015	Engineering Evaluations	QRA-407/506	Fabrication - UO2/Gad Rod Processing	Rev. 14
88015	Miscellaneous		Nuclear Safety Audit Schedule	
88015	Miscellaneous		FMOMAD NCS IROFS Surveillance Completion Records for IROFS 407-07, 407-08, 506-05, and 506-06	Various Dates
88015	Miscellaneous		Bundle Assembly Operator Training Records	
88015	Miscellaneous		Numerous Nuclear Safety Audit reports	Various Dates
88015	Miscellaneous		Hot Area Rod Handling Operator Training Records	
88015	Miscellaneous	TD 407-01	Rod Load Equipment - Free Draining	Rev. 0
88015	Miscellaneous	TD 407-02	Rod Load Equipment - Safe Geometry	Rev. 2
88015	Miscellaneous	TD 407-07	Process Barrier - Rod Storage Cabinet	Rev. 0
88015	Miscellaneous	TD 407-08	Rod Storage Cabinet - Safe Geometry	Rev. 3
88015	Procedures	CP-27-104	Nuclear Safety Assurance	Rev. 2
88015	Procedures	WI-18-104-02	Internal Nuclear Safety Audits	Rev. 4
88015	Procedures	WI-27-104-03	Nuclear Safety Reviews	Rev. 4
88020	Calibration Records	FTI 204-01A	Kiln Hatch N2 Purge Pressure Alarm PT #2115	2020
88020	Calibration Records	PM-F6P12100-06-AN-07, WO #2157777	Annual pressure cal for PT12100 kiln/reactor	09/06/2020
88020	Calibration Records	PM-F8S12100-CALI	Annual verification for current/pressure trip of the Moore high pressure interlock	09/03/2020
88020	Calibration Records	WO#4712618	Monthly Calibration DCP Conversion HF	03/23/2021
88020	Corrective Action Documents	35277		10/20/2020
88020	Corrective Action Documents	36056		01/24/2021
88020	Corrective Action Documents	36091		01/20/2021
88020	Corrective Action Documents	36100		01/29/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
88020	Corrective Action Documents	36275		02/20/2021
88020	Corrective Action Documents	CR 11831		08/21/2014
88020	Corrective Action Documents	CR 36100	Nonconformance Assessment Checklist	01/29/2021
88020	Corrective Action Documents	CR 36100	Safety Assessment for Condition Report 36100	01/29/2021
88020	Corrective Action Documents	CR# 36091	IROFS 202-05 activated with incomplete notifications	
88020	Corrective Action Documents Resulting from Inspection	CR 36712		04/14/2021
88020	Corrective Action Documents Resulting from Inspection	CR 36720		04/15/2021
88020	Drawings	AO 901-922, Revision B	Conversion Kiln Sub-Assembly 300 Seal Box Inlet Side	
88020	Drawings	PO4 1332	Conversion (Line 3) P&I Diagram	2020
88020	Engineering Evaluations	FTI 202-02, Revision 0	Reactor hHigh Pressure PT#2100 IROFS function shutting off steam and UF6 upon high reactor pressure	
88020	Engineering Evaluations	IROFS 202-25 and 201-20	Initiating event analysis of UF6 Containment Barrier failure, Section 5.3.5.1	
88020	Engineering Evaluations	IRS 201-24	Cold Trap Weight Interlock A	3
88020	Engineering Evaluations	IRS 201-25	Cold Trap Weight Interlock B	3
88020	Engineering Evaluations	IRS 202-02, Revision 1	Requirements Specification for IROFS 202-02 Reactor High Pressure Interlock	
88020	Engineering Evaluations	IRS 202-03	IROFS 202-03 Conversion Room System 1 HF Detector Automatic Shutdown System	1
88020	Engineering	IRS 202-26	East Hydrogen Alarm with Hydrogen Valve Isolation	0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Evaluations			
88020	Engineering Evaluations	IRS 202-27	West Hydrogen Alarm with Hydrogen Valve Isolation	0
88020	Engineering Evaluations	Kiln Inlet Seal Fabrication #102-244, List # 92084, Revision B	Kiln Seal Assembly	12/28/1995
88020	Engineering Evaluations	QRA-202	DCP - Conversion	23
88020	Engineering Evaluations	QRA-203	DCP HF-Recovery	11
88020	Engineering Evaluations	S10.1320	Piping Classification	C
88020	Engineering Evaluations	TR 202-00	Technical Report Conversion	0
88020	Miscellaneous		DCP Control Room Operator Qualification Card for D. Lewis	09/17/2017
88020	Miscellaneous		Shur-Shot X-Proof Hydrogen Fluoride Alarm Operations Manual	E
88020	Miscellaneous		DCP Control Room Operator Qualification Card for D. Lewis	06/05/2014
88020	Miscellaneous		Control Room Operator Qualification Card for B. Muncy	06/15/2014
88020	Miscellaneous		Global Nuclear Fuel Integrated Safety Analysis Summary	24
88020	Miscellaneous	TD 201-20	Training Document: Process Equipment Barrier (UF6 Feed Piping)	0
88020	Miscellaneous	TD 202-03	Training Document: Conversion Room System 1 HF Detector Automatic System Shutdown	3
88020	Miscellaneous	TD 202-05	Training Document: Conversion Room System 2 HF Detector Alarms	3
88020	Miscellaneous	TD 202-28	Training Document: Conversion Room Crane Administrative Control	2
88020	Procedures	Activity Log LS1331.04, Revision 8	Cold Trap Calibration, calibrate while cold trap is hot. DCP cold Trap	
88020	Procedures	CP-20-107	GNF-A Manufacturing Training and Qualification Program	7
88020	Procedures	CR-29130 TOP	Continuation of the temporary operating procedure 26067	2020

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			and 27058, Line 1, until MARK 4 DCS installation	
88020	Procedures	FTI 201-24	Cold Trap Weight Interlock A WIT#1440	0
88020	Procedures	FTI 201-25	Cold Trap Weight Interlock B - WTSH#1445	0
88020	Procedures	FTI 202-03	Conversion Room System 1 HF - AT#2300.10	0.1
88020	Procedures	FTI 202-05	Conversion System 2 HF Detection, AT#2301, 02	1.0
88020	Procedures	FTI 202-26	East Hydrogen Alarm ASH#2320	1
88020	Procedures	FTI 202-27	West Hydrogen Alarm ASH#2321	1
88020	Procedures	OP 1300.00.000, Revision 5	Combustible Material Control-DCP, DSR, Powder Pack/Receipt, and Fire Barriers	2020
88020	Procedures	OP 202.00.201	DCP Conversion - Pre-Startup	3
88020	Procedures	OP 202.00.201, Revision 3	DCP Conversion Pre-Start	2020
88020	Procedures	OP 202.00.208, Revision 0	DCO Conversion, Alarm response & emergency operations	2020
88020	Procedures	OP 202.00.209, Revision 6	DCP Conversion, Basic Operator Maintenance	2020
88020	Procedures	TD 2002-04, Revision 3	Conversion Sense and Flee Training	2020
88020	Procedures	TD 202-02, Revision 2	Reactor Vessel, close steam and UF6 to the reactor upon high pressure	2020
88020	Procedures	TD 202-25 Revision 1	Process Barrier (Conversion), preventing moderator intrusion/containment of uranium. Reference QRA-202, IROFS 202-02	2020
88020	Procedures	TOP 29130	Additional Storage in DCP Sample Room	07/01/2020
88020	Procedures	WI-06-100-26	CAA Temporary Operations	3
88020	Self-Assessments		GE Power Wilmington Nuclear Energy Audit FMO (Fuel Manufacturing Operations) SNM 1097	11/11/2019