

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

April 25, 2018

Mr. Brad Beard Plant 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 - NUCLEAR REGULATORY COMMISSION INTEGRATED INSPECTION REPORT 70-1113/2018-002

Dear Mr. Beard:

The Nuclear Regulatory Commission (NRC) conducted an announced inspection during the first quarter of calendar year 2018 (January 1 – March 31, 2018), at the Global Nuclear Fuel-Americas, L.L.C facility in Wilmington, NC. The purpose of the inspection was to determine whether activities authorized under the license and the implementation of programs and procedures for Environmental Protection, Radiation Protection and Waste Management were conducted safely and in accordance with Nuclear Regulatory Commission (NRC) requirements. Additionally, the inspectors reviewed the circumstances associated with the multiple instances of personnel contamination in unrestricted areas that was reported to the NRC on April 27, 2017, "GNF-A Written Report – Personnel Contamination in Unrestricted Area." The enclosed report presents the results of the inspection. At the conclusion of this inspection, the inspectors discussed the findings with you and members of your staff at an exit meeting held on March 8, 2018.

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

Based on the results of this inspection, the NRC has determined that one non-cited violation (NCV) was identified.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice and Procedures," a copy of this letter, its enclosure, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide 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 or proprietary, 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 70-1113/2018-002 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 70-1113/2018-002

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SIGNATURE	/RA/	/RA/	/RA/	/RA/			
NAME	T. Vukovinsky	N. Pitoniak	G. Goff	R. Womack			
DATE	4/ 25 /2018	4/25 /2018	4/25 /2018	4/ 25 /2018			
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

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U. S. NUCLEAR REGULATORY COMMISSION REGION II

Docket No.:	70-1113		
License No.:	SNM-1097		
Report No.:	70-1113/2018-002		
Licensee:	Global Nuclear Fuel - Americas, LLC		
Location:	Wilmington, North Carolina 28402		
Dates:	January 1, 2018 to March 31, 2018		
Inspectors:	L. Cooke, Fuel Facility Inspector-in-Training (Section A.1) G. Goff, Fuel Facility Inspector (Section A.1) N. Pitoniak, Senior Fuel Facility Inspector (Section A.2, B.1) R. Womack, Fuel Facility Inspector (Section A.3) T. Vukovinsky, Senior Fuel Facility Inspector (Section B.2)		
Approved by:	E. Michel, Chief Projects Branch 2 Division of Fuel Facility Inspection		

EXECUTIVE SUMMARY

Global Nuclear Fuel - Americas, LLC NRC Integrated Inspection Report 70-1113/2018-002 January 1 – March 31, 2018

NRC regional inspectors conducted inspections during normal shifts in the areas of Environmental Protection, Radiation Protection, and Waste Management. 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 including items relied on for safety (IROFS), interviews and discussions with licensee personnel, and a review of facility records and procedures. One non-cited violation (NCV) was identified during this inspection.

Radiological Controls

- In the area of Radiation Protection, no violations of more-than-minor significance were identified. (Section A.1)
- In the area of Environmental Protection, no violations of more-than-minor significance were identified. (Section A.2)
- In the area of Waste Management, no violations of more-than-minor significance were identified. (Section A.3)

Special Topics

- One Non-Cited Violation was identified for personnel contamination in unrestricted areas. (Section B.1)
- Confirmatory Order (CO) Section V, Item 3, "Within sixty (60) days of issuance of the CO, or within 60 days of completion of the NSC assessment referenced in Section III.3.g, whichever is later, GNF-A shall make the results of the assessment available to the NRC for review," was reviewed and closed. (Paragraph B.2)

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_2) powder, pellets, and light water reactor fuel bundles at its Wilmington, NC facility. The facility converts uranium hexafluoride (UF_6) to UO_2 using a Dry Conversion Process (DCP) and performs UO_2 , gadolinium pellet and fuel fabrication operations. During the inspection period, normal production activities at the facility were ongoing.

A. Radiological Controls

- 1. Radiation Protection (Inspection Procedure 88030 Appendix A)
 - a. Inspection Scope

The inspectors reviewed procedures, radiation work permits (RWPs), condition reports (CRs), audits, and assessments to verify the program was being documented in accordance with 10 Code of Federal Regulations (CFR) 20.1101(a) and implemented in accordance with Chapter 4.0, Radiation Safety, of the license application. The inspectors reviewed the "Wilmington Site Radiation Protection Program Review" and "CP-105-2, Radiation Protection Program," and interviewed the radiation protection (RP) manager and RP supervisor to verify the RP program functions and responsibilities were independent from operations.

The inspectors reviewed changes in the RP program organization by reviewing the most recent organizational charts. The inspectors reviewed the Environmental Health & Safety (EHS) Manager Qualification Card and section 2.2.1.10, Environment, Health & Safety (EHS) Function, of the license application to verify the new EHS General Manager satisfied the qualification requirements.

The inspectors reviewed changes to RP procedures to verify the changes did not diminish safety and complied with the procedure for revisions; CP-06-100 "Document Control Process." The inspectors also reviewed CP-06-100 and section 11.5.1, "Operating Procedures," of the license application to verify RP-related procedures were reviewed at the established frequency.

The inspectors reviewed quarterly audits and the latest annual assessment, "Wilmington Site Radiation Protection Program Review," to verify the RP program performance was being reviewed for content and implementation in accordance with 10 CFR 20.1101(c), and section 11.6.1 of the license application, "Criticality, Radiation, Chemical and Fire Safety Audits," and WI-27-105-28, "Radiation Protection Performance Assessment." The inspectors also viewed records of audit reports and assessments and interviewed the RP manager to verify the licensee maintained records for a minimum of three years following the record's creation in accordance with 10 CFR 20.2102 and section 11.8 of the license application, "Records Management."

The inspectors reviewed CRs 19738, 24469, 24470, and 25394 to determine whether the licensee was identifying RP issues at an appropriate threshold and entering them into the corrective action program (CAP) in accordance with section 11.7 of the license application, "Incident Investigations," and procedure CP-106-108, "Corrective Action Program, Attachment 5."

The inspectors reviewed employee training records and interviewed staff to verify RP staff received training as specified in section 11.4 of the license application, "Training and Qualifications," and as applicable to 10 CFR 19.12. The inspectors reviewed training documents to verify the licensee's RP training program included risk awareness for accidents involving licensed activities. The inspectors reviewed the content of initial training tests, refresher tests, and read-and-sign documents to verify the training comprehensively addressed RP subject matter and challenged the knowledge of the employee.

The inspectors reviewed selected RWPs to verify the licensee complied with section 4.2 of the license application, "Radiation Safety Procedures and Radiation Work Permits." The inspectors observed RWP work being performed under RWP 5792 to verify the requirements in the RWP were implemented in the field.

The inspectors observed calibration stickers and response checks on alpha, beta, gamma, neutron survey meters/detectors, and counts on Tennelec analyzers to verify the licensee had a system to identify instruments and equipment due for periodic calibration or functional testing in accordance with 10 CFR 20.1501(c) and WI-27-105-09, "Tennelec Calibration and Operation." The inspectors also observed technicians performing these checks to verify the licensee appropriately responded to out-of-calibration equipment and tracked individual instruments. The inspectors reviewed documentation for NIST-traceable sources used for response checks, calibrations, and counting to verify compliance with section 4.11.1 of the license application, "Calibration."

The inspectors observed contamination surveying and decontamination activities to determine whether the activities were performed in accordance with procedure WI-27-105-08, "Contamination Measurement and Control."

The inspectors observed maintenance performed on the personnel contamination monitors (PCMs) to verify there were no conditions that could impact the sensitivity of the detectors and that the PCMs were set to alarm at the set points specified in WI-27-105-14-01, "Calibration and Operation of the Argos 3/5 PCM." The inspectors also observed the employees perform doffing of personnel protective equipment (PPE) and subsequent monitoring before exiting the radiologically controlled area to verify the workers properly utilized the PCMs.

The inspectors reviewed documentation and interviewed the RP manager and RP supervisor regarding plutonium sources for leak checks to verify compliance with section 4.5.4 of the license application, "Leak Testing of Plutonium Alpha Sources." The inspectors observed postings to verify the storage of sealed sources were in accordance with 10 CFR 20.1903(c).

The inspectors observed contamination surveys and decontamination activities to verify compliance with procedure WI-27-105-08, "Contamination Measurement and Control." The inspectors also observed stationary air sampler change-outs in controlled areas to

verify the licensee performed periodic, scheduled airborne contamination surveys in accordance with WI-27-105-07, "Airborne Radioactivity Measurement and Control," and to meet the requirements of 10 CFR 20.1501(a). The inspectors reviewed the survey documentation, personnel dose records, and interviewed the RP manager to verify survey records and personnel dose records were maintained for a minimum of three years in accordance with 10 CFR 20.2103, 10 CFR 20.2106, and WI-27-105-21; "Radiation Protection Records."

The inspectors toured work and storage zones in radiologically controlled areas to verify the licensee posted these zones in accordance with 10 CFR 20.1902 and that radiological signs and postings accurately reflected the radiological conditions within the posted areas. The inspectors observed signage for radioactive material containers in these areas to verify compliance with section 1.3.12 of the license application, "Exemption to Posting Requirements."

The inspectors interviewed the RP manager to determine that the Total Effective Dose Equivalent results were less than the regulatory limit of 5 rem/yr. Through this interview the inspectors also verified the 2017 personnel dosimeter results for the Lens Dose Equivalent and Shallow Dose Equivalent were less than the regulatory limits of 15 and 50 rem/yr, respectively.

The inspectors reviewed bulletin boards at the main employee entrance to verify the licensee was posting Notices in accordance with 10 CFR 19.11, including NRC Form 3, "Notice to Employees."

b. Conclusion

No violations of more-than-minor significance were identified.

2. Effluent Control and Environmental Protection (Inspection Procedure 88045)

a. Inspection Scope

Through discussions with licensee staff, the inspectors determined changes to the environmental protection program since the last inspection were in accordance with license requirements and that management maintains a commitment to keep exposure As Low As Reasonably Achievable (ALARA). The inspectors reviewed an environmental protection audit to verify the licensee is identifying and addressing CRs and that corrective actions were implemented in accordance with license requirements.

The inspectors reviewed two environmental protection procedures updated since the last inspection to verify changes did not result in a decrease in safety significance or a reduction in the control of effluents. The inspectors conducted a walk-down of stack filtration housings and ambient air stations and observed an environmental protection technician implement procedures for sample collection of six effluent stack monitors in accordance with EPI-O-6.0, "Stack Sampling Program," Revision (Rev.) 74 to verify airborne effluent equipment and systems were operable and maintained in accordance with the requirements of section 9.2 of the license application. The inspectors reviewed the airborne effluent monitoring results for 2017 to verify the values specified in Appendix B of 10 CFR Part 20 were not exceeded.

The inspectors reviewed both semi-annual effluent reports for 2017 to verify the licensee was in compliance with 10 CFR 70.59. The inspectors reviewed records for soil sample collection results, discussed the results with licensee staff, and verified that levels were within regulatory limits. The inspectors reviewed records and observed operation of gaseous effluent sample equipment to verify gaseous effluent monitors were calibrated and functional checks were performed in accordance with 10 CFR 20.1501.

The inspectors reviewed the public dose assessment to verify the average annual effluent concentrations released in 2017 met the standards of 10 CFR 20.1301 and 20.1302 and that records were being maintained in accordance with 10 CFR 20.2107. The inspectors reviewed the airborne portion of the public dose assessment to verify results were in compliance with the ALARA constraint required by 10 CFR 20.1101(d).

The inspectors performed field walk-downs of airborne environmental monitoring stations, well water sample collection points, and process lagoon sampling locations to verify the sampling points were in compliance with license requirements. The inspectors observed two environmental technicians conduct liquid effluent sampling of the final process lagoon effluent in accordance with procedure EPI-O-2.0, "Environmental Sampling of the Final process Lagoon System, Aerating Basin and Site Dam," Rev. 44. The inspectors reviewed records and spot checked the associated radiological, dissolved oxygen, and pH equipment for calibration and maintenance requirements. The inspectors observed two other technicians collect well water samples in accordance with EPI-O-8.0, "Sample Collection from Site Wells at the GE/GNF-A Wilmington Site," Rev. 58 to verify the licensee conducted operations in accordance with approved procedures. The inspectors reviewed records associated with the chain of custody transfer of the well water samples to the approved vendor for analysis in compliance with license requirements.

b. Conclusion

No violations of more-than-minor significance were identified.

3. Waste Management (Inspection Procedure 88035)

a. Inspection Scope

The inspectors reviewed documentation to determine the organizational structure along with training and experience requirements of its members met requirements in Chapter 2.0 of the license application. The inspectors reviewed records to verify no organizational structure changes in the area of radioactive waste occurred since the last inspection.

The inspectors evaluated whether the licensee had established and maintained procedures in accordance with section 2.2 of the license application requirements. The inspectors reviewed new and revised procedures related to radioactive waste processing, surveying, and shipping to verify changes were in compliance with requirements and followed the licensee's procedure revision process. The inspectors also reviewed the training topics and material associated with new and refresher training given to shipping and traffic personnel.

The inspectors reviewed events identified in the licensee's CAP to determine whether the licensee had implemented a program that evaluated events in the area of radioactive waste. The inspectors also reviewed portions of radiation and environmental protection internal audits that related to radioactive waste management.

The inspectors performed walk-downs of selected radioactive material storage areas to verify the storage areas had required postings, to ensure the proper material was being stored in the areas, to confirm the containers were properly labeled with their contents, and that the material was safely stored in accordance with requirements.

b. Conclusion

No violations of more-than-minor significance were identified.

- B. Special Topics
 - 1. Event Follow-up

a. <u>Licensee Event Report 07001113-2017-002-00: Personnel Contamination in an</u> <u>Unrestricted Area</u>

The NRC staff completed a review of Licensee Event Report (LER) 2017-002-00, "Personnel Contamination in an Unrestricted Area," an event reported by GNF-A to the NRC on April 27, 2017.

During an NRC inspection conducted on March 5-8, 2018, one violation of NRC requirements was identified. In accordance with the NRC Enforcement Policy, the violation is described below:

GNF-A license application section 4.5.1, "Surveys," states in part, "Personnel contamination surveys for external contamination on clothing and the body are required by personnel when exiting the change rooms. If contamination is found in excess of background levels, the individual attempts self-decontamination at the facilities provided in the change rooms. If decontamination attempts are not successful, decontamination assistance will be provided by the radiation safety function. If skin or personal clothing is still found contaminated above background levels, the individual may not leave the area without prior approval of the radiation protection function."

Contrary to the above requirement, from September 1, 2016 through May 12, 2017, multiple licensee employees were found to have contamination in excess of background levels and subsequently exited the controlled areas without obtaining a clean PCM scan. As a result, the licensee identified multiple contaminated personnel and items in unrestricted areas. The NRC inspectors performed a review of the event in accordance with NRC Inspection Manual Chapter (IMC) 0616," Fuel Cycle Safety and Safeguards Inspection Reports," Appendix B and determined the violation severity was more-thanminor. Specifically, the characterization of more-than-minor is consistent with IMC 0616 Appendix B screening question 17, which establishes this characterization based on the spread of contamination beyond designated controlled areas and resulting in multiple contamination events. Based on this characterization and a review of the NRC Enforcement Policy, section 2.2.2, this is a Severity Level IV violation (Enforcement Policy section 6.2.d.1).

This violation was licensee identified, corrective actions to prevent recurrence were completed, the violation was not repetitive as a result of inadequate corrective actions, it was not willful, and the licensee took initiative in identifying the root cause. Therefore, this violation is being dispositioned as a Non-Cited Violation (NCV 2018-002-01), in accordance with section 2.3.2.b of the "NRC Enforcement Policy." The violation was entered into the licensee's corrective action program (CAP) as CR 25394. LER 2017-002-00 Personnel Contamination in Unrestricted Areas is administratively closed.

2. Confirmatory Order Item Review

a. Confirmatory Order Section V, Item 3

The NRC staff completed a review of Confirmatory Order (CO) Section V, Item 3, "Within sixty (60) days of issuance of the CO, or within 60 days of completion of the nuclear safety culture (NSC) assessment referenced in Section III.3.g, whichever is later, GNF-A shall make the results of the assessment available to the NRC for review." The inspectors noted that GNF-A completed the NSC within 60 days of issuance of the order and provided the results to the NRC for review. The inspectors noted that although the NSC survey was for the entire Wilmington site, GNF-A was able to segregate the data for their facility from the overall assessment for a focused review. The inspectors noted that the participation rate and overall results were representative of previous NSC surveys of the facility. GNF-A has entered the results into their CAP per the specific safety culture trait applicable to the issue for evaluation and gap analysis. These include: CRs 27844, 27845, 27846, 27847, 27848, 27849, and 27850. A similar survey will be conducted in approximately two years as required by CO Section V. Item 4. GNF-A will compare the results of this assessment to the results of the assessment performed under Section III.3.g of this CO in an effort to identify trends. This item is considered closed.

C. 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 March 8, 2018, with Adam Hilton and staff. No dissenting comments were received from the licensee. Proprietary information was discussed but not included in the report.

1. KEY POINTS OF CONTACT

Licensee personnel

<u>Name</u>	<u>Title</u>
J. Berger	Manager, PP&SS
A. Hammond	C&I Technician
M. Haney	Radiation Supervisor
D. Hart	Manager, Environmental, Health, and Safety (EHS)
A. Heppner	Manager, Logistics
A. Hilton	Facility Manager (Former)
S. Murray	Manager, Licensing
D. Nay	FMO Manufacturing Engineering Manager
S. O'Conner	Environmental Engineer, EHS
P. Ollis	Facility Licensing
E. Saito	RP Program Manager
K. Williams	Environmental Engineer, EHS

2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

Closed

70-1113/2018-002-01	VIO	Personnel Contamination in Unrestricted Area.
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CO Item V.3

Within 60 days of issuance of the CO, or within 60 days of completion of the nuclear safety culture (NSC) assessment referenced in Section III.3.g, whichever is later, GNF-A shall make the results of the assessment available to the NRC for review.

3. INSPECTION PROCEDURES USED

- 88030 Radiation Protection (Appendix A)
- 88045 Effluent Control and Environmental Protection
- 88035 Radioactive Waste Processing, Handling, Storage, and Transportation

4. DOCUMENTS REVIEWED

Records:

2nd Quarter Radiation Safety Audit in Rad Waste, Laundry, Chemical Area, and URU Area, dated May 20, 2016

3Q17 Nuclear Safety Audit – Maintenance, FMO Roof, Utilities, Oil Storage Warehouse, DCP/URU HVAC, dated September 28, 2017

EHS Manager Qualification Card

EHS Rad Protection Tech Evaluation and Qualification Records

GNF-A Written Report – Personnel Contamination in Unrestricted Area, dated April 27, 2017 List of Pu-239 sources at GNF-A/FOM M170210, GNF-A Semi-Annual Effluent Monitoring Report for Jan-Jun 2017

- M180031, GNF-A Semi-Annual Effluent Monitoring Report for Jul-Dec 2017
- Personnel Contamination Monitor (PCM) raw data (various dates)
- Radiation Safety Audit Records: 4th Quarter 2016, 1st Quarter 2017, 2nd Quarter 2017, 4th Quarter 2017
- Radiation Safety Committee Meetings Records & Minutes: January 2017 January 2018

Radiation Safety Committee Meeting Attendance Records: January 2017 – December 2017 Report of Analysis/Certificate of Conformance, dated February 14, 2018

WI-27-105-04-F02, Radioactive Sealed Source Inventory Form, No Date

- WI-27-105-04-F03, Radioactive Sealed Source Leak Test Record, dated January 25, 2018
- WI-27-105-04-F08, Sealed Source Storage Survey and Inspection Form, dated January 25, 2018

Wilmington Site Radiation Protection Program Review, dated December 11-15, 2017

Procedures:

- CP-06-100, Document Control Process, Rev. 20.1, dated February 15, 2018
- CP-13-103, Radioactive Material, Rev. 0.0, dated April 10, 2013
- CP-20-100-F02, Training Equivalency Evaluation
- CP-106-108, Corrective Action Program, Attachment 5
- EPI-O-2.0, Environmental Sampling of the Final process Lagoon System, Aerating Basin and Site Dam, Rev. 44
- EPI-O-6.0, Stack Sampling Program, Rev. 74
- EPI-O-7.0, Soil, Ditch, Vegetation, and State Split Sampling Programs, Rev. 44
- EPI-O-8.0, Sample Collection from Site Wells at the GE/GNF-A Wilmington Site, Rev. 58
- EPI-O-9.0, Environmental Ambient Air Sampling Stations, Rev. 38
- Nuclear Safety Release/Requirements (NSR/R) #: 13.11.04 Nuclear Safety Release Requirements – Air Control, Rev. 8
- OP 1080-69.000, waste Treatment Sampling, Rev. 0
- OP 1080.69.202, waste Treatment Sampling, Rev. 0
- OP-1900.00.100, FMO Rad Waste General General Information, Rev. 01, dated June 1, 2017
- OP-1900.00.201, FMO Rad Waste General Normal Operations, Rev. 02, dated June 1, 2017
- OP-1910.00.100, FMO Rad Waste Process General Information, Rev. 00, dated June 5, 2017
- OP-1910.00.201, FMO Rad Waste Process Normal Operations, Rev. 00, dated June 5, 2017
- OP-1910.00.100, FMO Rad Waste Process Abnormal Operations, Rev. 00, dated June 5, 2017
- Training Manual Contamination Monitoring, Rev. 0
- WI-27-105-01: Posting and Control of Radiological Areas, Rev. 1.1, dated January 15, 2018
- WI-27-105-02: Management of Occupational Radiation Exposure, Rev. 3.0, dated August 16, 2018
- WI-27-105-04: Radioactive State Licensed Sources and Standards, Rev. 3.0, dated November 21, 2017
- WI-27-105-05: Control of Radioactive Material, Rev. 5.1, dated January 12, 2018
- WI-27-105-07: Airborne Radioactivity Measurement and Control, Rev. 3.0, dated November 28, 2017
- WI-27-105-08: Contamination Measurement and Control, Rev. 5.0, dated November 16, 2017
- WI-27-105-09: Tennelec Calibration and Operation, Rev. 4.0, dated November 28, 2017

- WI-27-105-12: Personnel Decontamination and Dose Assessment, Rev. 2.1, dated December 12, 2017
- WI-27-105-12-01: Personnel Decontamination and Dose Assessment at FMO, Rev. 0.1, dated December 8, 2017
- WI-27-105-13: Radiation Work Permits at FMO, Rev. 5.0, dated September 21, 2017
- WI-27-105-14-01: Calibration and Operation of the ARGOS 3/5 PCM, Rev. 2.1, dated January 11, 2018
- WI-27-105-19: Routing Surveys, Rev. 1.1, dated January 11, 2018
- WI-27-105-20, Radioactive Shipment Surveys, Revision 5.1, dated February 22, 2018
- WI-27-105-21: Radiation Protection Records, Rev. 1.0, dated August 21, 2017
- WI-27-105-24: Radiological Incidents, Rev. 0.1, dated January 11, 2018
- WI-27-105-28: Radiation Protection Performance Assessment, Rev. 0.1, dated January 12, 2018

<u>Condition Reports Written as a Result of the Inspection:</u> None

Condition Reports Reviewed:

CR 19738 CR 24469 CR 24470 CR 25394 CR 25326 CR 27919 CR 28011 CR 28051 CR 25394 CR 26004 CR 26873 CR 27483 CR 27484 CR 27485 CR 27844 CR 27845 CR 27846 CR 27847 CR 27848 CR 27849 CR 27850

Other Documents:

Alpha Efficiency Report, dated January 25, 2018
Beta Efficiency Report, dated January 25, 2018
Count Rate Report, dated January 25, 2018
M170095, GNF-A Written Report – Personnel Contamination in Unrestricted Area
NSRR 13.11.04 Just in Time (JIT) Training, Rev. 1
Radiation Work Permits: 5747, 5755, 5759, 5760, 5779, 5792, 5798
RCA Report: Personnel Contamination Events in FMO Response to CR 25394, Rev. 1, dated July 13, 2017
Root Cause Analysis (RCA) for Personnel Contamination – CR25394
Work Order (WO593594), Critical Valve Tag (HV2BGN16), dated March 8, 2018