



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

July 7, 2021

Mr. Lance Stephens
Site Manager
Framatome Inc.
2101 Horn Rapids Rd
Richland, WA 99354-0130

SUBJECT: FRAMATOME-RICHLAND – INTEGRATED INSPECTION REPORT
07001257/2021002

Dear Mr. Stephens:

On June 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at Framatome-Richland. On May 20, 2021, the NRC inspectors discussed the results of this inspection with you 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/

Noel A. Pitoniak, Chief (Acting)
Projects Branch 2
Division of Fuel Facility Inspection

Docket No. 07001257
License No. SNM-1227

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV®

SUBJECT: FRAMATOME-RICHLAND – INTEGRATED INSPECTION REPORT
07001257/2021002 dated July 07, 2021

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OFFICE	RII/DFFI	RII/DFFI	RII/DFFI	RII/DFFI	
NAME	T. Vukovinsky	G. Goff	D. Edwards	N. Pitoniak	
DATE	07/01/2021	07/01/2021	07/01/2021	07/07/2021	

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

Docket Number: 07001257

License Number: SNM-1227

Report Number: 07001257/2021002

Enterprise Identifier: I-2021-002-0115

Licensee: Framatome Inc.

Facility: Framatome-Richland

Location: Richland, WA

Inspection Dates: May 17 to May 20, 2021

Inspectors: D. Edwards, Allegations & Enforcement Specialist
G. Goff, Fuel Facilities Inspector

Approved By: Noel A. Pitoniak, Chief (Acting)
Projects Branch 2
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 Framatome-Richland, 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

The Framatome facility converts uranium hexafluoride (UF₆) into uranium dioxide (UO₂) for the fabrication of low-enriched fuel assemblies used in commercial light water reactors. During the inspection period, normal production activities 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 70.24, 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 (NCSAs), and associated assumptions and calculations, to verify compliance with 10 CFR 70 and applicable sections of the license application, including, 5.4. Specifically, the inspectors interviewed licensee staff and reviewed the following NCSAs in areas and/or systems:

- E04-NCSA-150, "Miscellaneous Uranium Recovery System (MURS)," Version 24.0;
- E04-NCSA-080, "Line 2 Uranium Recovery." Version 22.0; and
- E04-NCSA-120, "UNH Reprocessing," Version 23.0

Criticality Implementation (IP Section 02.02)

The inspectors selected 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, plant walkdowns, and operator interviews to verify compliance with 10 CFR 70 and applicable sections of the license application. Specifically, the inspectors interviewed licensee staff and reviewed the following controls, and their management measures, associated with the CSAs listed above and selected areas:

- passive engineered spacing control IROFS 6514 in the facility area;
- administrative mass control IROFS 6511, 6512, 6202 and associated NCS Postings and operating procedures; and
- administrative poison control IROFS 6224 and associated operating procedures

Criticality Operational Oversight (IP Section 02.03)

The inspectors assessed the 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. Specifically, the inspectors performed the following activities:

- reviewed and discussed with NCS staff the flow down of NCSAs to SOPs for E04-NCSA-150, "Miscellaneous Uranium Recovery System (MURS)," Version 24.0; E04-NCSA-080, "Line 2 Uranium Recovery." Version 22.0; E04-NCSA-130, "Conversion of UO₂ Pellets to U₃O₈ Powder," Version 12.0 and E04-NCSA-370, "UO₂ Pellet Pressing," Version 15.0;
- reviewed operator training for a selected number of operators for the Systems 120, 190, 260, 280, and 800; and
- accompanied Criticality Safety Specialist and trainee performing periodic assessment audits of 380 sintering furnace, 400 vaults and 390 grinding inspection and reviewed associated NCSAs.

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, 5.2 and 5.3. Specifically, the inspectors interviewed licensee NCS staff and reviewed the following documents:

- Criticality Safety Specialist qualification records;
- NCS program procedures, including E04-06-002, "Routine Nuclear Criticality Safety Audits," Version 6; and
- interviewed NCS staff concerning NCS review of changes, including changes to operating procedures that may effect NCS, and changes to the facility

Criticality Incident Response and Corrective Action (IP Section 02.05)

The inspectors reviewed the licensee's criticality accident alarm system (CAAS) and corrective action program (CAP) to verify compliance with 10 CFR 70 and applicable sections of the license application, including, 5.5. Specifically, the inspectors observed activities, reviewed documents, and interviewed licensee staff concerning the following:

- CR 2021-0489, and associated documentation for licensee's response to the 2/26/21 SCALE User Notification of a cross section error concerning the h-poly material. The inspectors interviewed NCS staff regarding their response to this error. The inspectors also reviewed the licensee's assessment of the impact of the issue on SCALE calculations that used h-poly;
- reviewed the CAAS maintenance records;
- reviewed and discuss the detector placement/minimum accident of concern calculations with NCS;
- reviewed the licensee's dose in tissue justification and reference document "Criticality Detection and Alarm System," 12/1977; and
- reviewed recent NCS-related infractions and non-reportable events

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 and shipment records and observed actual package preparations and operations to verify compliance with the regulations above. Specifically, the inspectors reviewed or observed the following:

- loading of heeled 30B cylinders into the UX-30s (overpacks) with the valve at the 12 o'clock position;
- placement and lockdown of the UX-30 lid;
- tamper indicating devices (seals) being placed onto each UX-30 in the proper locations;
- contamination surveys;
- radiation surveys;
- E11-01-004;
- MCP-3012;
- SOP-40065;
- SOP-40071;
- SOP-40074;
- SOP-40319;
- SOP-40668;
- SOP-40670;
- SOP-40932;

- SOP-41117; and
- SWI-40319 A, C, & D

Delivery of Completed Packages to Carriers (IP Section 02.02)

The inspectors examined the licensee's procedures and shipment records and observed actual preparations and operations to verify compliance with the regulations above. Specifically, the inspectors reviewed or observed the following:

- the bill of lading and shipping manifest were completed by the licensee to verify all required information (gross weight, size, shipper information, consignee information, radioactivity level, container identification, etc.) was included;
- the driver of the flat bed reviewed the shipping record and subsequently provided his signature for transfer of custody;
- SOP-40319; and
- SOP-40670

Receipt of Packages (IP Section 02.03)

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

- the removal of the UX-30 (overpack) lids;
- the removal of the 30B cylinders from the overpacks;
- the placement of the 30B cylinders onto saddles in the cylinder yard;
- orientation of the 30B so that the valve was at a 12 o'clock position;
- radiation and contamination survey records;
- shipping manifest;
- bill of lading;
- SOP-40071;
- SOP-40319; and
- SWI-40319 A, C, & D

The inspectors observed the receipt of a second incoming shipment to verify compliance with 10 CFR 20.1906 and applicable license requirements. Specifically, the inspectors reviewed or observed the following:

- radiation surveys;
- contamination surveys;
- labels and corresponding information such as: container identification, radioactive material, excepted packages, limited quantity of material, 7(E), shipper/receivers addresses, and gross weight;
- removal of the waste drums from the sealand containers;
- removal of the labels from the sealand containers;
- the reloading of the empty sealand containers;

- the fastening/locking of each sealand container;
- confirmation of accuracy of information with the driver on the return shipment of empties; and
- the procedures listed above in this section

Records and Reports (IP Section 02.04)

The inspectors examined the licensee's procedures and records for recordkeeping and reports to verify compliance with the regulations above. Specifically, the inspectors reviewed:

- Safety Analysis Reports (SARs) for DOT Specification 7A Type A packaging, which demonstrated the safety analysis/testing and any special form testing.
- SARS for the following types of packages were verified to be on file: UX-30 package; TNF-XI package; TN-B1 package; SP-1, SP-2, SP-3 shipping containers; NPC packages; MAP PWR fuel shipping package; and DN30 package.

General License Requirements (IP Section 02.05)

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

- 9196 for UX-30 packages;
- 381 for TNF-XI packages;
- 9372 for TN-B1 packages;
- 9248 for SP-1, SP-2, and SP-3 packages;
- 9294 for NPC packages;
- 0535 for MFC-1 packages;
- 9319 for MAP-12 & MAP-13 packages;
- 9362 for DN30 packages;
- 0827 for ANF-10 packages; and
- 0411 for 30B cylinders

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:

- the maintenance records for the past 12 months for the high purity geranium counters (used for determining enrichment level) for 30B cylinders;

- the maintenance records for the past 12 months for the digital scale for 30B cylinders;
- calibration of the radiation survey meters used for incoming and outgoing shipments; and
- 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 curriculum and training records for the handlers of the UX-30 overpacks and 30B cylinders to verify all required training and refresher training was satisfied

Quality Assurance Program (IP Section 02.08)

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

- SOP-40082;
- SOP-40932;
- SOP-40525;
- SWI-40525 A, C, & F;
- SWI 40083 A, B, & F;
- SWI-50254 A;
- SWI-40083 D;
- SWI-41040 A; and
- SWi-50072 E MAP

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 following:

- 2020 SH-2 Licensed Packaging Audit Report, 01/14-15/2021

Procurement and Selection of Packagings (IP Section 02.10)

The inspectors examined the licensee's packages and certificates of compliance (CofC), listed above, to verify compliance with the federal regulations above. Specifically, for packagings that are used by the licensee to transport or to deliver licensed material to a carrier for transport, the inspectors walked down the following packages:

- TN-B1
- SP1
- SP2
- SP3
- NPC
- MAP-12
- MAP-13
- MFC-1

Preparation of Packages for Shipment (IP Section 02.11)

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

- the outside of DOT-revalidation packages (sealand containers) were durably and legibly marked with the package identification marking indicated in the COC or the DOT Competent Authority Certificate; and
- no serious damage such as punctures, holes, intense corrosion, etc., on the sealand containers

Periodic Maintenance of Packagings (IP Section 02.12)

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

- SOP-40072; and
- SOP-40829

Records, Reports, and Notifications (IP Section 02.13)

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

- MAP-12-SHA1-24 Fuel Shipment (03/16/2021);
- DN30 - EMPTY - Capenhurst UF6 Shipment (03/10/2021);
- NPC - EMPTY - BWXT UF6 Shipment (02/02/2021);
- SP - 1 - QC11 - 27 Truck 7 (02/05/2021);
- TN-B1 - BRK2-25 Truck 9 (01/31/2021);
- UX-30 Heels - URENCO USA (04/09/2021);
- MAP-13 - PVE2-23 (02/17/2020);
- ANF-10 - EMPTY to ANF (04/01/2021);

- US Fuel Internal Audit Report, 07/15 - 8/19/2020; and
- E12-03-059-FRM-001, Checklist for Annual EHS Records Management Audit, 07/15 - 08/19/2020

INSPECTION RESULTS

No issues were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On May 20, 2021, the inspectors presented the integrated inspection results to Lance Stephens and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
86740	Calibration Records	C000I001-001 (Monthly)	IROFS Scale - Cyl Storage Facility, West (May 2020 - May 2021)	Version 2
		C000I001-002 (Monthly)	IROFS Scale - Cyl Storage Facility, East (May 2020 - May 2021)	Version 2
		C000I002 (Annual)	Assay UF6 Cyl (West) - for the last two years	Version 8
		C000I003 (Annual)	Assay UF6 Cyl (East) - for the last two years	Version 10
	Corrective Action Documents	CR-2021-0382	TN-B1 potential fuel assembly configuration not bounded by license	02/17/2021
		CR-2021-0921	NIAC Audit #26076 (21:23) Finding #2	04/16/2021
		CR-2021-1064	Tenex 30B Cylinder Valve Condition	04/28/2021
	Corrective Action Documents Resulting from Inspection	CR2021-1274	Observations and Follow-Up items from NRC Inspection 2021-002	05/20/2021
	Drawings		TN-B1 Drawings (Various)	
			SP1, SP2, and SP3	
			NPC Containers	
			MFC-1 Containers	
			MAP-12 and MAP-13	
			ANF-10	
	Miscellaneous		UX-30 (Overpack)	
			DOT Certification for SP-1, SP-2, and SP-3 packages	
			Safety Analysis Report For Model UX-30 Package	Revision 4
			Safety Analysis Report for TNF-XI Package	Revision 12
			Safety Analysis Report - TN-B1 Packages	Revision 9.0
			Safety Analysis Report - SP1, SP2, and SP3 Shipping Containers	Revision 15
		Safety Analysis Report for NPC Packages - Section 7	Revision 2	
		Packaging, Handling, Storage, and Shipping of PWR Fuel Assemblies in MFC-1 Containers	Revision 1.0	
	Safety Analysis Report for MAP PWR Fuel Shipping Package - USA/9319/B(U)F-96	Revision 4.0		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			IRM Change Notice - UF6 Cylinder Assay	0814/1995
			Transportation Organizational Chart	
			List of Licensed Packaging Used at HRR	
			DOT Certification for UX-30 package	
			DOT Certification for TNF-XI package	
			DOT Certification for NPC package	
			DOT Certification for MFC-1 package	
			DOT Certification for ANF-10 package	
			DOT Certification for Cylinder Model 30B	
		0023-BSH-2016-002	Safety Analysis Report DN30 Package	Revision 1
		0023-HA-2015-001	Use and Handling of the DN30 Package	Revision 5
		22125.NP1.025.00.01-13	UF6 Shipment (LES) - Shipping Package	05/17/2021
		ANFG-11.106 (03E)	Safety Analysis for the ANF-10 Fuels Assembly Shipping Container for the Transport of BWR Fuel Assemblies	Revision 12
		FRM-20198	30B Cylinder Receiving and In-Service Checklist	Version 3.1
		NRC Form 618	Certificate of Compliance (for NPC package)	Revision 9
		NRC form 618	Certificate of Compliance 9319 (for MAP-12 and MAP-13 packages)	Revision 12
		NRC Form 618	Certificate of Compliance 9362 (for DN30 package)	Revision 2
		NRC Form 618	Certificate of Compliance (for SP-1, SP-2, and SP-3 packages)	Revision 26
		NRC Form 618	Certificate of Compliance 9196 (for UX-30 Packages)	Revision 30
		NRC Form 618	Certificate of Compliance 9372 (for TN-B1 package)	Revision 2
		Organizational Chart for TN Americas - Waste and Transportation Group (Orano)		
	Procedures	AID-10755	Reference 1175 Ludlum Survey Meter with Alpha/Beta/Gamma Detectors	Version 4.0
		E07-02-410	Certification of Mass Standards	Version 5.0
	E11-01-004	Radioactive Material Shipping Standard	Version 33.0	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		MCP-30112	Current Shipping Container Information	Version 25.0
		MCP-30222	Configuration and Packing SP1/SP2/SP3 Shipping Containers	Version 4.2
		MCP-30325	Instrument Repetitive Maintenance	Version 17.0
		SOP-40065	Nuclear Materials Shipping and Receiving - General Rules	Version 23.0
		SOP-40071	Radioactive Package Marking and Labeling	Version 28.0
		SOP-40072	Shipping Container Maintenance and Rework	Version 27.0
		SOP-40074	Annual Inspection of UF6 Protective Overpacks	Version 6.2
		SOP-40082	Coplanarity Inspection of BWR Shipping Packages	Version 4.2
		SOP-40083	Shipping and Receiving of UO2 Fuel Assemblies in SP-1/SP-2/SP-3 Shipping Containers	Version 15.2
		SOP-40088	Weighing and Assaying of Scrap Uranium Shipments Received in TNF-XI Shipping Containers	Version 6.2
		SOP-40319	General Packaging, Shipping and Receiving UF6 Cylinders and Protective Overpacks	Version 11.0
		SOP-40408	Bundle Assembly General Packing Procedure	Version 14.0
		SOP-40509	Packing and Shipping UO2 Powder in TNF-XI Shipping Packages	Version 26.0
		SOP-40525	Refurbishment of TN-B1 Shipping Containers and the Shipping and Receiving of UO2 Fuel Assemblies and Fuel Rods in TN-B1 Shipping Containers	Version 13.0
		SOP-40668	Visual Inspection of Shipping Container Welds	Version 7.0
		SOP-40670	Shipment Release for Licensed Radioactive Material Packages	Version 6.0
		SOP-40829	Maintenance Weld Repairs on Licensed Shipping Containers	Version 5.1
		SOP-40903	Shipping and Receiving NPC Shipping Packages	Version 7.0
		SOP-40932	Visual Inspection of UX-30 Welds	Version 3.2
		SOP-40937	Shipping and Receiving of MAP-12/MAP-13 Shipping Containers	Version 9.0
		SOP-40993	Calibration of Weights	Version 4.0
		SOP-41024	Storage of Shipping Containers	Version 6.0
		SOP-41040	MFC-1 Shipping Containers - Receipt, Refurbishment	Version 4.0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			and Shipment	
		SOP-41117	Seal Verification and Application	Version 4.0
		SWI-40083 A	Station #1 Outer Container Inspections	Version 9.0
		SWI-40083 B	Station #1 Inner Container Inspections	Version 14.0
		SWI-40083 D	Station #2 Inner Container Inspections	Version 6.2
		SWI-40083 F	Station #3 Outer Container Inspections	Version 10.0
		SWI-40319 A	Receiving Cylinder Overpacks, Weighing and Assaying of UF6 Cylinders	Version 18.0
		SWI-40319 C	Shipping UF6 Cylinders and Protective Overpacks	Version 8.1
		SWI-40319 D	Loading UF6 Cylinders into Protective Overpacks	Version 8.2
		SWI-40408 A	MFC-1 Shipping Container Bundle Packing	Version 9.0
		SWI-40408 C	MFC-1 Container Unloading Fuel Bundle(s)	Version 2.0
		SWI-40409 A	BWR Bundle Packing SP1, SP2, SP3 Shipping Containers	Version 21.0
		SWI-40409 B	Assigning Bundles and Seals to Inner and Outer Shipping Containers	Version 6.0
		SWI-40409 C	TN-B1 Shipping Container Packing and Unpacking	Version 29.0
		SWI-40409 D	Replacing Foam in BWR Inner Shipping Containers	Version 4.1
		SWI-40409 E	Replacing Heliserts - TN-B1 Containers	Version 3.2
		SWI-40525 A	TN-B1 Outer Container Inspection - Station #1	Version 11.0
		SWI-40525 C	Station #2 Inner Container Inspections - TN-B1 Containers	Version 10.0
		SWI-40525 F	Station #3 Inner/Outlet Container Verifications - RAJ-II/TN-B1 Containers	Version 10.0
		SWI-41040 A	Container Inspection - MFC-1	Version 2.2
		SWI-41056 H	Building 9 - Removing Fuel Assembly from Shipping Container	Version 1.0
		SWI-50046 A	Opening and Closing NPC Shipping Container	Version 8.0
		SWI-50046 B	Removing Inner Containers from NPC Container	Version 2.2
		SWI-50072 B	MAP 12 and 13 Shipping Container Packing Fuel Assemblies	Version 21.0
		SWI-50072 E	MAP 12 and 13 Shipping Container - Container Cleaning, Inspection and Up-Ending	Version 9.0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		SWI-50211 A	Preparation of MAP-12/MAP-13 Containers	Version 10.0
		SWI-50211 B	MAP-12/MAP-13 Container Gasket Replacement	Version 3.0
		SWI-50211B	MAP-12/MAP-13 Container Gasket Replacement	Version 3.0
		SWI-50254 A	Packing Rods in a TN-B1 Container	Version 7.0
	Radiation Surveys	O-20210519-1	Survey of Incoming Radioactive Shipment (19 Packages)	05/19/2021
		O-20210519-2	Survey of Incoming Radioactive Shipment (46 Packages)	05/19/2021
	Shipping Records	CHSU 2015752	Shipment Summary	
		CHSU 2016002	Shipment Summary	
CHSU 2016255		Shipment Summary		
88015	Calculations	E04-09-002	Criticality Accident Alarm System Coverage Analysis for FANP Richland	Version 2.1
	Corrective Action Documents	CR 2020-2378	CS Infraction 20-021 - Two dry SBCs discovered stacked in I3A Dry Storage Array - IROFS 2107 Failed	10/21/2020
		CR-2020-1612	NCS Infraction 20-014; IROFS 1614 Failed - Water Leak in ELO Basement Led to Moderator in a Moderation Controlled Area	08/07/2020
		CR-2021-0339	NCS Infraction 21-002, IROFS 1410.10 Degraded: SBC found in I3A with an unsecured lid.	02/14/2021
		CR-2021-0489	SCALE User Notice: h1-poly incoherent elastic scattering can cause k-eff underprediction-2/26/2021	03/02/2021
		CR-2021-0489-02-REQ01	Additional time is needed to assess the impact of the h-poly error on the TN-B1 criticality analysis	03/15/2021
	Corrective Action Documents Resulting from Inspection	CR-2021-1274	Observations and Follow up items from NRC Inspection 2021-002	05/20/2021
	Miscellaneous		Richland Site Access Refresher Training - Emergency Response	08/31/2020
			General Site Access Refresher Training - Criticality Safety Awareness	08/31/2020
			Criticality Detection and Alarm System	12/1977
			Training Records for System 120, 190, 260, 280, and 800	
			On-the-Job Training (OJT) EHS&L - Criticality Safety	05/19/2021

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Specialist Records	
		E04-03-002	HRR Site NCSP Location Listing	Version 27.0
		E04-06-002	Routine Nuclear Criticality Safety Audits	Version 6.0
		E04-07-202012	NCS Audit/Inspection Report – December 2020	01/22/2021
		E04-07-202101	NCS Audit/Inspection Report – January 2021	03/03/2021
		E04-07-202102	NCS Audit/Inspection Report – February 2021	03/15/2021
		E04-09-001	HRR Criticality Accident Alarm System Coverage Demonstration	Version 6.0
		E04-09-002	Criticality Accident Alarm System Coverage Analysis for FANP Richland	Version 2.1
		E04-NCSA-000	UF6 Cylinder Receiving and Storage	Version 11.0
		E04-NCSA-005	UF6 Cylinder Recertification Operation	Version 7.0
		E04-NCSA-065	UF6 Cylinder Washing Operation	Version 12
		E04-NCSA-080	Line 2 Uranium Recovery	Version 22.0
		E04-NCSA-100	ADU Process Off-Gas System	Version 13.0
		E04-NCSA-120	UNH Reprocessing	Version 23.0
		E04-NCSA-130	Conversion of UO ₂ Pellets to U ₃ O ₈ Powder	Version 12.0
		E04-NCSA-135	BLEU Scrap Recovery	Version 17.0
		E04-NCSA-150	Miscellaneous Uranium Recovery System (MURS)	Version 24.0
		E04-NCSA-205	MOP Powder Dissolver Facility	Version 25.0
		E04-NCSA-370	UO ₂ Pellet Pressing	Version 15.0
		E04-NCSA-375	BLEU Pellet Pressing	Version 17.0
		E04-NCSA-380	Pellet Sintering Area	Version 10.0
		E04-NCSA-385	BLEU (Line-6) Pellet Sintering	Version 11.0
		E04-NCSA-390	UO ₂ Pellet Grinding & Inspection	Version 22.0
		E04-NCSA-400	UO ₂ and SF Pellet Vault Storage Areas	Version 11.0
		E04-NCSA-490	Rod and Pellet Vault Downloading	Version 14.0
		E04-NCSA-550	Bundle Disassembly	Version 8.0
		E04-NCSA-615	NAF Pellet Sintering & Storage	Version 9.0
		E04-NCSA-840	Dry Conversion Liquid Effluent & HF Recovery	Version 7.0
		E04-NCSS-G01	NCS Guide Rules & Generic Program Requirements	Version 22.0
		E04-NCSS-G02	Generic Criticality Safety Container Labeling Requirements	Version 15.0

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		E04-NCSS-G03	Glossary of Terms	Version 14.0
		E04-NCSS-G78	Generic Mass Control Containers & Workstations	Version 22.0
		E04-NCSS-G89	Uranium Slab Control	Version 13.0
		NCS Infraction 20-006	Evaluation of NCS Infraction 20-006 (CR 2020-0689)	03/25/2020
		NCS Infraction 20-014	Evaluation of Reportability of NCS Infraction 20-014 (CR 2020-1612)	08/17/2020
		NCS Infraction 20-021	Evaluation of Reportability for NCS Infraction 20-021 (CR 2020-2378)	10/23/2020
		NCS Infraction 2021-002	Evaluation of Reportability for NCS Infraction 2021-002 (CR 2021-0339)	02/23/2021
		NCSP-130-001	U3O8 Oxidation Furnaces and Hoods	Version 1.1
		NCSP-150-001	Wet Waste Uranium Recovery Station	Version 1.1
		NCSP-150-003	Ultrasonic Cleaner	Version 3.0
		NCSP-150-004	Mop Powder Furnace Hood	Version 1.1
		NCSP-G01-007	Unfavorable Geometry Containers Are Not Allowed in this Room / Area	Version 1.0
		NCSP-G78-010	Utility Hood – U3O8	Version 2.0
	NCSP-G81-003	Dry Uranium Container Single Tier Storage	Version 4.0	
	Procedures	E12-01-007	Justification for Continued Operation Under Compensatory Safety Measures	Version 7.2
		MCP-30365	Essential Material Class I: ADU Process Uranium Recovery Ion Exchange Resin	Version 6.0
		SOP-40239	U3O8 Oxidation Ovens	Version 11.1
		SOP-40240	Sweco Operations	Version 11.0
		SOP-40244	Miscellaneous Uranium Recovery	Version 16.0
		SOP-40245	MURS Furnace Operation	Version 6.3
		SOP-40248	Ultrasonic Cleaning Operations	Version 7.0
		SOP-40249	Cleaning and Repairing DCF Reactor Distributor Plates	Version 6.2
		SOP-40250	Cleaning Metal Filters for Reuse	Version 7.0
SOP-40273		Ion Exchange Operations and Regeneration - ADU Line 2	Version 8.0	
SOP-40274	Process Startup - ADU Line 2	Version 21		
SOP-40280	Changing or Downloading of Ion Exchange Resins	Version 7.0		

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		SOP-40282	UNH Powder Dissolution	Version 20.0
		SOP-40486	Richland Operations General Rules	Version 37.0
		SWI-40245 A	MURS Furnace Operation	Version 6.0
		SWI-40248 A	Operation of Ultrasonic Cleaner	Version 3.2
		SWI-40252 A	Decontamination Station	Version 3.0
		SWI-40488 A	Mop Head, Filter and Rag Neutralization Station	Version 3.0
		SWI-50321 A	ULF to MURS	Version 2.0
	Work Orders	Order: 13468043	PM005495 Criticality Howlers 6 MO EL	09/19/2020
		Order: 13481984	PM005502 CAAS 3S Probe Check 1 MO EL	12/11/2020
		Order: 13487812	PM005495 Criticality Howlrs 6 MO EL	03/27/2021