



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

April 26, 2023

Annette Pope
Plant Manager
Westinghouse Electric Company
5801 Bluff Road
Hopkins, SC 29061

SUBJECT: WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY – INTEGRATED
INSPECTION REPORT 07001151/2023001

Dear Annette Pope:

This letter refers to the Nuclear Regulatory Commission inspection activities conducted between January 1 and March 31, 2023, for the Westinghouse Columbia Fuel Fabrication Facility. On February 9 and March 16, 2023, the NRC inspectors discussed the results of this inspection with you. 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,

A handwritten signature in blue ink, appearing to read "Eric C. Michel".

Signed by Michel, Eric
on 04/26/23

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

Docket No. 07001151
License No. SNM-1107

Enclosure:
As stated

cc w/ encl: Distribution via LISTSERV

SUBJECT: WESTINGHOUSE COLUMBIA FUEL FABRICATION FACILITY – INTEGRATED INSPECTION REPORT 07001151/2023001 DATED APRIL 26, 2023

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DATE	4/25/2023	4/26/2023			

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

Docket Number: 07001151

License Number: SNM-1107

Report Number: 07001151/2023001

Enterprise Identifier: I-2023-001-0054

Licensee: Westinghouse Electric Company

Facility: Westinghouse Columbia Fuel Fabrication Facility

Location: Hopkins, SC

Inspection Dates: February 06, 2023, to March 17, 2023

Inspectors: J. Grice, Fuel Facility Inspector
N. Peterka, Fuel Facility Inspector
L. Pitts, Sr. Fuel Facility Projects Inspector
J. Rivera Ortiz, Sr. Fuel Facility Project Inspector

Approved By: Eric C. Michel, Chief
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 Westinghouse Columbia Fuel Fabrication Facility 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.

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 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 (NCS) program to verify compliance with selected portions of Title 10 of the *Code of Federal Regulations* (10 CFR) 70, "Domestic Licensing of Special Nuclear Material," including 70.24, 70.61, 70.62; chapter 6, "Nuclear Criticality Safety Program," 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 evaluations (CSEs) and associated assumptions and calculations to verify compliance with 10 CFR 70 and applicable sections of the license application. Specifically, the inspectors interviewed licensee staff and reviewed the following CSEs:

- CSE-4-I, "Criticality Safety Evaluation for Processing Ash from 55-gallon Drums," Revision (Rev.) 1, including review of what-if analysis, normal, credible abnormal, and non-credible accident sequences
- CSE-1-E, "Criticality Safety Evaluation for the S-1030 Scrubber System," Rev. 21, including the review of selected accident sequences involving accumulation of material in the scrubber and ducts; the inspectors conducted walkdowns to verify that the inputs to the scrubber, and selected controls on those inputs, were consistent with the CSE
- CSE-17-E, "Criticality Safety Evaluation for The Columbia Fuel Fabrication Facility Fuel Assembly Storage Area and Boiling Water Reactor Fuel Bundle Inspection Area," Rev. 2, including the review of what-if analysis, normal, credible abnormal, and non-credible accident sequences, and the IROFS that were established to prevent criticality for accident scenarios 4.1.1 and 4.1.2

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 staff 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 CSEs listed above and other selected areas:

- FA-105, a passive engineered control to store and maintain the spacing of fuel assemblies, and walked down the storage racks and reviewed the as-built and field verification records
- ASH-100, an administrative control to prevent the accumulation of material in the receiving dock, and associated procedure
- ASH-101, an administrative control to detect overweight bags of material and moderator, and associated procedure
- VENT-S1030-124, an administrative control to prevent excessive liquid from accumulating in the scrubber bottom, and associated procedure
- VENT-S1030-127, an administrative control to inspect and mitigate the buildup of uranium in the scrubber, and associated procedure and inspection records
- VENT-S1030-130, an administrative control to limit the amount of uranium particulate from entering the ventilation and scrubber systems, and associated inspection records

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:

- interviewed NCS and process engineering staff concerning criticality hazards and control methods including monitoring for and cleaning out long-term accumulations in the S-1030 scrubber and ducts; reviewed NCS oversight of accumulation cleanouts
- reviewed the documentation of selected NCS weekly facility walkthrough assessments performed by the licensee over the last year
- interviewed conversion room operators on response to alarms for the S-1030 scrubber and the associated operating procedure

Criticality Programmatic Oversight (IP Section 02.04)

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

- discussed qualification and training status of the NCS staff with NCS management
- interviewed NCS staff concerning the NCS review of changes including changes to operating procedures that may affect NCS and changes to the facility
- the most recent revision to licensee procedure RA-302, "Criticality Postings"

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 section 6.1.8. Specifically, the inspectors observed activities, reviewed documents, and interviewed licensee staff concerning the following:

- reviewed selected issues entered in the CAP pertaining to items relied on for safety (IROFS) and audit findings
- reviewed selected 2022 surveillance and maintenance records for the CAAS
- the annual NCS evacuation drill records for 2022

88055 - Fire Protection

The inspectors evaluated selected aspects of the licensee's fire protection program to determine whether the operational status, material condition, and design of fire protection systems met the applicable requirements of 10 CFR 70, chapter 8, "Fire Protection Program," of the facility's license application, and applicable licensee procedures.

Selection of Inspection Samples (IP Section 02.01)

The inspectors reviewed licensing documents to select a sample of fire protection features in risk-significant areas/processes including IROFS and their respective management measures (where applicable). The inspectors also selected licensee activities that support the implementation of the fire protection program based on the program description included in the license application. Specifically, the inspectors selected the following fire protection features and licensee activities for review as discussed in more detail sections 02.02 through 02.07:

- combustible controls and fire protection features in fire area CHEM-02 housing the ammonium diuranate (ADU) conversion system
- combustible controls and fire protection features in hot oil room
- combustible controls in mechanical areas where combustible metals are used
- controls of ignition sources and inert atmospheres in fire area CHEM-02
- pre-fire plans and fire hazard analyses for fire area CHEM-02
- management measures for selected administrative, passive, and active engineered IROFS
- training and qualification of emergency response personnel
- compensatory measures for fire-related impairments
- general operation of the fire water suppression system
- audits and self-assessments of the fire protection program

Preventative Controls (IP Section 02.02)

The inspectors interviewed licensee staff, reviewed documentation, and conducted plant walkdowns to verify the licensee's controls for combustibles, ignition sources, and inert atmospheres met the license requirements and applicable requirements in 10 CFR 70. Specifically, the inspectors conducted the inspection activities listed below:

- interviewed licensee staff and management, reviewed program documents and maintenance records, and walked down various areas of the plant to verify compliance with paragraph 8.1.1.6 of the license application for storage of flammable liquids
- interviewed licensee staff and management, reviewed program documents and maintenance records, and walked down various areas of the plant to verify the licensee's combustible control program was being implemented as required by and to verify compliance with paragraph 8.1.1.13 of the license application for housekeeping practices
- interviewed licensee staff and management, performed system walkdowns, reviewed procedures, and completed maintenance records to verify the following IROFS were being maintained as required to ensure they remained available and reliable to perform their safety function:
 - ADUSC-904, nitrogen purge
 - CHEM-407-NG, excess flow shutoff valves (natural gas)
 - FIRE-901, combustible controls
 - SOLX-906, valve alignment to prevent solvent spill
- reviewed procedures to verify compliance with paragraph 8.1.1.5 of the license application regarding cutting, welding, and hot work permit procedures
- reviewed procedures to verify compliance with paragraph 8.1.4.5 of the license application regarding machining operations on combustible metals
- reviewed samples of hot work permits issued in calendar years 2021 and 2022
- conducted a walkdown of the grid mechanical area to observe combustible controls for combustible metals
- reviewed procedures for inert atmosphere controls applicable to the sintering furnaces in the pelleting process area
- conducted a walkdown of pelleting furnace 4A with a process engineer to observe ongoing operations and discuss the process safety controls listed below to verify compliance with paragraph 8.1.4.2(c) of the license application regarding process fire safety for flammable gases:
 - PELSINT-901, "Flame Sensor on Exhaust Flare Pilot Interlock"
 - PELSINT-904, "Zone 2 Low-Temperature Interlock"
 - PELSINT-909, "Furnace Superpurge"
 - PELSINT-919, "Furnace Natural Gas Pressure Loss"
 - PELSINT-920, "Furnace Draft Flow Interlock"
 - PELSINT-922, "Furnace Hydrogen Supply Low Flow Interlock"
 - PELSINT-924, "Furnace Pressurization Gas Interlock"
 - PELSINT-925, "Furnace Purge Confirmation"
 - PELSINT-927, "Super Purge Flow Regulation"
 - PELSINT-928, "Furnace Doors Provide Blast Relief"
- reviewed records of recent functional verification of safety controls for pelleting furnaces in pelleting line 4

Fire and Gas Detection and Alarm Systems (IP Section 02.03)

The inspectors reviewed selected fire or gas detection devices to verify that detection and alarm systems were able to detect the minimal fire within the required time and initiate the

safety function credited in the license application and fire hazard analysis. Specifically, the inspectors conducted the inspection activities listed below:

- conducted walkdowns of the ADU conversion area to verify compliance with paragraph 8.1.1.3 of the license application regarding fire alarm pull stations and fire detection
- conducted walkdowns of the hot oil room, ADU conversion, and chemical area 02 to verify compliance with section 8.1.5 of the license application regarding fire detection and alarm systems
- reviewed records of fire detection and alarm system testing in the ADU conversion system
- observed pre-job briefing and testing of heat detectors in hot oil room (HD-7 detectors) on March 15, 2023
- reviewed fire protection drawings to verify the location of heat detectors in the hot oil room was consistent with the actual plant configuration

Suppression Systems and Activities (IP Section 02.04)

The inspectors interviewed license staff, reviewed fire protection program documents, and conducted plant walkdowns to verify that suppression systems were capable of performing the safety function credited in the license application and fire hazard analysis. Specifically, the inspectors performed the following activities:

- interviewed licensee emergency response staff and management and walked down the restoration of emergency response equipment after performance of a fire drill to verify the licensee carried out its responsibility to maintain emergency response equipment, firefighting equipment, and fire suppression systems
- interviewed licensee emergency response staff and management, walked down the fire water system, and observed use of fire water during fire brigade response to a simulated fire to verify that fire suppression activities would not damage would not damage safety controls
- interviewed licensee emergency response staff and management, walked down the fire water system, and observed use of fire water during fire brigade response to a simulated fire to verify adequate drainage and environmental protection was provided in areas protected by water suppression systems to preclude or limit release of effluents
- reviewed inspection and test records and walked down fire suppression equipment (fire water tanks and pumps, hydrants, standpipes, automatic sprinkler systems, and portable fire extinguishers) to verify compliance with paragraphs 8.1.6.1 and 8.1.6.2 of the license application
- interviewed licensee staff and management, performed system walkdowns, reviewed procedures, and completed maintenance records to verify IROFS FIRE-902, "Fire Fighting Methods," was being maintained as required to ensure they remained available and reliable to perform its safety function

Passive Fire Protection Features (IP Section 02.05)

The inspectors reviewed selected passive fire protection features to verify these were in a proper material condition to perform the safety function credited in the license application,

fire hazard analysis (FHA), and the ISA summary. Specifically, the inspectors performed the following activities:

- interviewed licensee staff, reviewed program documents and management measures, and conducted walkdowns to verify the passive IROFS listed below associated with the ADU conversion system were maintained, as necessary, to ensure they were available and reliable to perform their function
 - ADUHOS-405 – fire door to hot oil room
 - ADUHOS-906 – hot oil room fire barriers (fire walls, wall penetration seals, doors, and ceiling)
 - ADUHOS-910 – hot oil room dike
 - ADUSCR-901 – calciner seals

Fire Protection Program Elements (IP Section 02.06)

The inspectors reviewed selected fire protection program elements to verify compliance with the license requirements. Specifically, the inspectors completed the following activities:

- reviewed examples of compensatory measures put in place for out-of-service, impaired, degraded, or inoperable fire protection equipment, systems, or features
- interviewed two fire brigade members and two incident commanders, walked down fire brigade equipment, and reviewed drill records to verify implementation of management measures for IROFS-902
- reviewed emergency response personnel training and general fire protection training to verify compliance with paragraphs 8.1.1.11 and 8.1.7 of the license application
- interviewed the emergency preparedness manager and reviewed training records and evacuation drill completion records to verify compliance with paragraph 8.1.1.7 of the license application
- observed performance of fire brigade response for an emergency drill conducted on March 14, 2023, that included the simulation of a fire, hazardous material spill and multiple injured personnel
- interviewed licensee staff in charge of the fire protection function regarding changes in the organization and deviations from National Fire Protection Association (NFPA) code provisions, if any, to verify compliance with paragraph 8.1.1.1 of the license application regarding the authority having jurisdiction at the site
- observed emergency communications during the emergency response exercise of March 14, 2023, to verify compliance with paragraphs 8.1.1.4 and 8.1.1.14 of the license application
- interviewed licensee staff, reviewed emergency lighting preventive maintenance activities (PM20512, PM20513, and PM20511), and walked down the mechanical side emergency lights to verify compliance with paragraph 1.1.2.1 of the license application and section 7.9 of NFPA 101, "Life Safety Code"
- reviewed the process safety analysis for the ADU conversion system area to verify compliance with sections 8.1.4 and 8.1.9 of the license application
- reviewed the pre-fire plan for the ADU conversion system area to verify compliance with section 8.1.8 of the license application

- conducted a walkdown of the ADU conversion area to verify consistency between the FHA and the current plant configuration

Identification and Resolution of Problems (IP Section 02.07)

The inspectors reviewed the licensee's identification and resolution of fire protection issues to verify compliance with the license requirements. Specifically, the inspectors reviewed the following CAP entries, audits, and self-assessments:

- reviewed the licensee's fire protection audit, EHS-20-8, "Regulatory Component Audit for the Fire Protection Program," dated February 11, 2022, to verify compliance with sections 3.6 and 8.1.10 of the license application
- reviewed a sample of CAP entries related to fire issues to verify compliance with sections 3.7 and 3.8 of the license application (see "Documents Reviewed" section of this report)

INSPECTION RESULTS

No issues were identified.

EXIT MEETINGS AND DEBRIEFS

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

- On February 9, 2023, the inspectors presented the NCS inspection results to Annette Pope and other members of the licensee staff.
- On March 16, 2023, the inspectors presented the fire protection results to Annette Pope and other members of the licensee staff.

DOCUMENTS REVIEWED

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
88015	Corrective Action Documents	IR-2023-506	NCS-related CAP entries	
		IR-2022-6973		
		IR-2022-7014		
		IR-2022-8297		
		IR-2022-10374		
	Drawings	436F03EQ02	144-Inch Rack Assembly Fuel Storage Racks	Rev. 1
		703F16EQ06	Scrubber S-1030 Assembly	Rev. 2
	Engineering Evaluations	CSE-1-E	Criticality Safety Evaluation for the S-1030 Scrubber System	Rev. 21
		CSE-17-E	Criticality Safety Evaluation for The Columbia Fuel Fabrication Facility Fuel Assembly Storage Area and Boiling Water Reactor Fuel Bundle Inspection Area	Rev. 2
		CSE-17-G	Criticality Safety Evaluation for The Columbia Fuel Fabrication Facility Packing Area	Rev. 2
		CSE-4-I	Criticality Safety Evaluation for Processing Ash from 55-Gallon Drums	Rev. 1
		PSEDoc-0008313	S-1030 Elbow Sprays	Rev. 0
		PSEDoc-0009284	Evaluation of Proposed Changes to CSE-1-E Revision 21	Rev. 0
	Miscellaneous		Hematite Suspect Ash Excel Sheet	
		AAR-10012 QAP	Boral Data Package Record Checklist	04/29/2005
		CF-81-247	Scrap Cage Blu-M Oven Filter Log	Various
		CF-81-248	S-1030 Inspection Data Sheet	04/26/2022
		CF-81-250	S1030 Conversion Scrubber Mass Quantification	04/27/2022
		RAF-314-I	CSE Implementation Checklist for CSE-21-A	05/22/2006
		SEPF-013-1	Post Incident Analysis for 2022 Criticality Safety Evacuation Drills	Various
	Procedures	CN-SB-18-001	Baseline Integrated Safety Analysis (ISA) and ISA Summary Handbook	Rev. 1
		COP-815010	Conversion BLU-M Oxidation	Rev. 34
		COP-815020	Scrap Recovery Scrubber S-1030	Rev. 32
COP-815021		S-1030 Inspection and Cleanout	Rev. 25	
	COP-836082	Processing of Hematite Ash	Rev. 4	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date	
		MCP-202037	Criticality Alarm Calibration and SSC Verification (AC-Plant-1-01)	Rev. 32	
		MCP-203445	GA-7M Criticality Accident Alarm System and SSC Verification (AC-Plant-1-01)	Rev. 3	
		MCP-203528	CAAS GA-7M-GD-6 Setup and Lab Calibration	Rev. 2	
		RA-302	Criticality Postings	Rev. 18	
	Self-Assessments	RAF-316-1	Nuclear Criticality Safety Checklist for NCS Facility Walkthrough Assessments, Conversion – Roof Maintenance Operator	09/21/2022	
		RAF-316-1	Nuclear Criticality Safety Checklist for NCS Facility Walkthrough Assessments, Conversion – IFBA FA3	12/21/2022	
		RAF-316-1	Nuclear Criticality Safety Checklist for NCS Facility Walkthrough Assessments, Final Assembly (Ops, UCON, Rod Storage and Handling)	12/21/2022	
		RAF-316-1	Nuclear Criticality Safety Checklist for NCS Facility Walkthrough Assessments, Final Assembly (Wash Pit, Assembly Storage and BWR Fuel Bundle Inspection Area, Packing)	12/21/2022	
	Work Orders	107786	26 Weeks OM81037 SI-Safety, S1030 Packing Baskets, Body, Inlet Trans., and Baffle Insp. and Cleaning	04/29/2022	
		127101	26 Weeks PM20852a SI-Safety, Instrument Calibration, Alarm Sta-18A	08/11/2022	
		127427	26 Weeks PM20852a SI-Safety, Instrument Calibration, Alarm Sta-1A	08/23/2022	
		154194	52 Weeks PM20563 SI-Safety, Crit Horn Sound Check	01/19/2023	
		155500	13 Weeks OM81804 SI-Safety, Blue-M Filter Housing Inspection	01/05/2023	
	88055	Calculations	CALC-194-8169-01	Columbia Fuel Fabrication Facility Combustible Loading	Rev. 0
		Corrective Action Documents	IR-2021-4365 IR-2021-4860 IR-2021-5777 IR-2021-6909 IR-2021-9948	CAP entries reviewed under IP 88055, section 02.07	Various

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		IR-2021-10004 IR-2021-10048 IR-2021-13508 IR-2022-5039		
	Corrective Action Documents Resulting from Inspection	IR-2023-2734	NRC inspectors discovered a potential issue with emergency light emergi-lite G12SV24M-2LJ-NEXRF	03/16/2023
		IR-2023-2920	NRC fire protection inspection exit meeting 03/16/2023	03/22/2023
		IR-2023-2921	NRC observations following the fire protection inspection exit meeting on 03/16/2023	03/22/2023
	Drawings	510F01EL03	Fire Protection Chemical Area & Outside	Rev. 49
		324F11PI01	ADU Pellet Line 4 / Facilities, Sheet 4	Rev. C2
		324F11PI03	Furnace 4C Natural Gas Supply, Sheet 7	Rev. 01 & C1
		324F11PI03	Sintering Furnace 4C Mechanical/Heating, Sheet 5	Rev. 01
		324F11PI03	Sintering Furnace 4C Piping & Instrumentation Drawing, Sheet 4	Rev. 01
		510F05EL03	Plant Utilities / Lighting - Battery Powered Emergency Lighting Mechanical Side & Office Areas - First Floor	Rev. 9
		510F05EL03	Plant Utilities / Lighting - Battery Powered Emergency Lighting Light Schedule	Rev. 18
	Engineering Evaluations	FHA-13-001	Fire Hazard Analysis Columbia Fuel Fabrication Facility	Rev. 3
		FHA-13-001	Fire Hazard Analysis Columbia Fuel Fabrication Facility, Appendix CHEM-02, ADU Process Area	Rev. 0
	Fire Plans	Fire Pre-Plan 3	ADU Conversion & Scrap Recovery Area (CHEM-02)	10/10/2022
		Fire Pre-Plan 70	UF6 Bay (CHEM-04) and Hot Oil Room Area (CHEM-05)	10/14/2022
	Miscellaneous	CF-82-097	Pellet Area: Safety Significant Control Verification Form for Pellet Line 4, Furnace 4A	Completed 03/21/22
		CF-82-097	Pellet Area: Safety Significant Control Verification Form for Pellet Line 4, Furnace 4B	Completed 01/28/22
		CF-82-097	Pellet Area: Safety Significant Control Verification Form for Pellet Line 4, Furnace 4C	Completed 04/28/22
		HWP-2022-0983	Hot Work Permit – Spiking Station	03/21/2022
		HWP-2022-0993	Hot Work Permit – Spiking Station	03/31/2022
		HWP-2022-1168	Hot Work Permit – Incinerator Room	11/10/2022

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		S4098-0014-10	Simplex Vendor Manual	04/2015
		SYF-306-5	Fire Protection Impairment Form, Node 5	09/28/2021
		SYF-306-5	Fire Protection Impairment Form, PM81905	04/22/2022
	Procedures	CF-81-932	Conversion Line 1: Safety Significant Interlocks, Alarms, & Passive Engineered Controls Functionality Verification Form	Rev. 74
		CF-81-933	Conversion Line 2: Safety Significant Interlocks, Alarms, & Passive Engineered Controls Functionality Verification Form	Rev. 70
		CF-81-934	Conversion Line 3: Safety Significant Interlocks, Alarms, & Passive Engineered Controls Functionality Verification Form	Rev. 64
		CF-81-940	Conversion Line 4: Safety Significant Interlocks, Alarms, & Passive Engineered Controls Functionality Verification Form	Rev. 70
		CF-81-941	Conversion Line 5: Safety Significant Interlocks, Alarms, & Passive Engineered Controls Functionality Verification Form	Rev. 62
		CF-83-700	LOTO URRS Incinerator Scrubber System	Rev. 3
		COP-815417	Functional Verification of Safety Significant Controls Conversion Area	Rev. 24
		COP-820301	Sintering Furnace Operation	Rev. 84
		COP-820303	Sintering Furnace Operating with Enhanced Safety Systems	Rev. 36
		COP-829040	Functional Verification of Safety Significant Controls Pellet Sintering Furnaces with Enhanced Safety Systems	Rev. 9
		COP-830110	SOLX & Product Concentrator System 1 - Startup & Operation	Rev. 45
		COP-830111	SOLX & Product Concentrator System 2 - Startup & Operation	Rev. 34
		COP-830128	Adjusting and Making-up Solvent for Solvent Extraction Systems 1 & 2	Rev. 15
		COP-830210	Incinerator Operation	Rev. 57
		MCP-108232	Maintaining Integrity of Fire Barriers	Rev. 3
		SEPF-009-6	Command Check Sheet - Fire Response Westinghouse Nuclear Fuel Columbia, SC	Rev. 11
		SYP-122	Hydrogen & Natural Gas Safety	Rev. 1
		SYP-207	Cutting, Welding, and Hot Work	Rev. 42
SYP-300	Combustible and Ignition Control	Rev. 31		
SYP-301	Handling and Storage of Zirconium and its Alloys	Rev. 18		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		SYP-303	Portable Fire Extinguisher Inspection and Maintenance	Rev. 12
		SYP-305	Fire Watch Safety	Rev. 10
		SYP-306	CFFF Fire/Criticality System Impairment	Rev. 23
		SYP-311	Pre-Fire Plans	Rev. 1
		SYP-313	Site Fire Prevention Plan	Rev. 0
	Self-Assessments	EHS-AUDIT-20-8	Regulatory Component Audit for the Fire Protection Program	02/11/2021
	Work Orders	OM11060	Lab Area Housekeeping Inspection	Completed 03/03/2023
		OM75012	Flammable Cabinet Inspection - ADU Rods	Completed 02/17/2023
		OM75017	Housekeeping Inspection - ADU Rods	Completed 02/17/2023
		OM81086	52 wk SI-Safety, Hot Oil Room Dike Inspection (IROFS ADUHOS-910)	Completed 04/30/2022
		OM81117	Housekeeping and Flammable Storage Cabinet Inspection - Conversion	Completed 03/06/2023
		OM86016	Area Housekeeping and Flammable Storage Cabinet Inspection-ERBI	Completed 02/06/2023
		PM20149	52 wk Door Closer-Holder w/smoke detector inspection, FCLT	Completed 02/03/2023
		PM20195	52 wk Fire Alarm System, Chemical Area	Completed 03/04/2022
		PM20196	52 wk Fire Alarm System, ERBIA Area	Completed 08/31/2022
		PM20208	Chem-407, Natural Gas Bypass Inspection	Completed 12/15/2022
PM20313		52 wk Fire Alarm System, Chemical Area Linear Heat Detection	Completed 09/30/2022	
PM20511	Emergency Units and Lights Chemical Side	Completed 02/28/2023		
PM20512	Emergency Units and Lights Mechanical Side	Completed 03/06/2023		
PM20513	Emergency Units and Lights Outside Areas	Completed 02/21/2023		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		PM20915	52 wk Fire Doors without holders, FCLT-Structures and Spaces, Chem and Mech	Completed 09/21/2022
		PM20917	26 wk Fire Alarm System Open-Area-Smoke Imaging Detection, FCLT	Completed 11/03/2022
		PM20918	52 wk Fire Alarm System, Open Area Some Imaging Detection, Chemical Area	Completed 11/07/2022
		PM81018	52 wk Hot Oil System External Mechanical Integrity Inspection,	Completed 05/25/2022
		PM81085	52 wk Hot Oil Room Integrity Inspection (IROFS ADUHOS-405 and -906)	Completed 07/19/2022
		PM81803	26 wk SI-Safety-Front End Seal Maintenance (IROFS ADUSCR-901)	Completed 02/24/2023
		PM81804	26 wk SI-Safety-Discharge End Seal Maintenance (IROFS ADUSCR-901)	Completed 03/06/2023