



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

October 21, 2020

Mr. Mike Annacone
Vice President, Columbia Fuel Operations and
Manager, Columbia Plant
Westinghouse Electric Company
5801 Bluff Road
Hopkins, SC 29061

**SUBJECT: WESTINGHOUSE ELECTRIC COMPANY – U. S. NUCLEAR REGULATORY
COMMISSION INTEGRATED INSPECTION REPORT NUMBER 70-1151/2020-003**

Dear Mr. Annacone:

This letter refers to the inspections conducted from July 1, 2020, through September 30, 2020, at the Westinghouse Columbia Fuel Fabrication Facility in Hopkins, SC. During that period, the U. S. Nuclear Regulatory Commission (NRC) implemented alternative ways to complete the core inspection program for your facility when routine onsite inspections could not be performed due to the public health emergency declared by the Secretary of Health and Human Services on January 31, 2020 (as renewed on April 21, 2020, and July 23, 2020), and the National Emergency declared by the President of the United States on March 13, 2020, concerning the novel coronavirus disease (COVID-19).

The enclosed report presents the results of the inspections, which were conducted through a combination of remote reviews and onsite observations. The inspectors reviewed activities as they relate to public health and safety, the common defense and security, and compliance with the Commission's rules and regulations, as well as the conditions of your license. The inspections covered the areas of safety operations, radiological controls, facility support, and other areas. Within these areas, the inspectors reviewed procedures and representative records remotely and conducted telephonic interviews with site personnel. In some instances, regional inspectors were able to conduct routine inspections onsite as originally planned. The findings were discussed with you and members of your staff at exit meetings held on September 4, 2020; September 17, 2020; and September 24, 2020.

Based on the results of these modified inspections, no violations of more than minor significance were identified.

Additionally, the inspectors implemented measures during the inspection period to support the determination of reasonable assurance that the public and the environment will be adequately protected from the hazards related to the operation of your facility. These compensatory measures included activities such as supplemental reviews of licensee-submitted reports (e.g. effluent reports, plant modification reports, and changes to the Integrated Safety Analysis Summary) and increased communications with your staff to discuss the status of plant operations. The compensatory measures did not constitute direct inspection and were intended to address the impact of the COVID-19 public health emergency on the agency's routine oversight program, particularly on the continuous engagement with your facility via periodic site visits and in-person interactions. These proactive actions were taken to obtain additional insights into the safe operation of the facility during the COVID-19 public health emergency.

The NRC will continue evaluating the guidelines and recommendations from federal and state authorities, along with the conditions of your facility, to determine how to best conduct inspections until normality can be achieved. In the interim, the NRC will maintain compensatory measures and frequent communications with your staff to discuss regulatory compliance matters and gather information to inform the decisions about future inspections.

In accordance with Title 10 of the *Code of Federal Regulations*, Section 2.390 of the NRC's "Rules of Practice and Procedure," a copy of this letter and enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the NRC's 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.

Should you have any questions concerning these inspections, please contact Tom Vukovinsky, Senior Project Inspector of my staff at 404-997-4622.

Sincerely,

/RA/ Thomas Vukovinsky for,

Suzanne K. Dennis, Acting Chief
Projects Branch 2
Division of Fuel Facility Inspection

Docket No. 70-1151
License No. SNM-1107

Enclosure:
NRC Inspection Report 70-1151/2020-003
w/Supplemental Information

cc: LISTSERV®

SUBJECT: WESTINGHOUSE ELECTRIC COMPANY – U. S. NUCLEAR REGULATORY
 COMMISSION INTEGRATED INSPECTION REPORT NUMBER
 70-11512020-003 dated October 21, 2020

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 ACCESSION NUMBER: **ML20295A528** SUNSI REVIEW COMPLETE FORM 665 ATTACHED

OFFICE	RII:DFFI/PB2	RII:DFFI/PB2	RII: DFFI/PB1	RII:DFFI/PB2	RII:DFFI/PB2
NAME	T. Vukovinsky	N. Peterka	M. Ruffin	T. Sippel	T. Vukovinsky for S. Dennis
DATE	10/21/2020	10/20/2020	10/21/2020	10/21/2020	10/21/2020
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO

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U.S. NUCLEAR REGULATORY COMMISSION

REGION II

INSPECTION REPORT

Docket No.: 70-1151

License No.: SNM-1107

Report No.: 70-1151/2020-003

Enterprise Identifier: I-2020-003-0045

Licensee: Westinghouse Electric Company

Facility: Columbia Fuel Fabrication Facility

Location: Hopkins, SC 29061

Dates: July 1 through September 30, 2020

Inspectors: M. Ruffin, Fuel Facility Inspector (Section A.1)
N. Peterka, Fuel Facility Inspector (Sections A.1, A.2)
T. Sippel, Fuel Facility Inspector (Sections B.1, B.2, B.3, D.1, D.2)

Approved by: S. Dennis, Acting Chief
Projects Branch 2
Division of Fuel Facility Inspection

EXECUTIVE SUMMARY

Westinghouse Electric Company
Columbia Fuel Fabrication Facility
U.S. NRC Integrated Inspection Report 70-1151/2020-003
July 1 – September 30, 2020

Regional inspectors from the U.S. Nuclear Regulatory Commission (NRC), Region II Office, conducted inspections at the Westinghouse Columbia Fuel Fabrication Facility in the areas of safety operations, radiological controls, as well as other areas. Due to the coronavirus (COVID-19) disease, the inspectors performed remote examinations of selected licensee activities in conjunction with focused observations of safety significant activities on site via walk-downs of the facility, interviews with licensee personnel, and review of facility records. No violations of more than minor significance were identified.

Safety Operations

- No violations of more than minor significance were identified in the Operational Safety area. (Section A.1)
- No violations of more than minor significance were identified in the Nuclear Criticality Safety (NCS) area. (Section A.2)

Radiological Controls

- No violations of more than minor significance were identified related to the Radiation Protection (RP) area (Section B.1)
- No violations of more than minor significance were identified in the area of radioactive waste processing, handling, storage, and transportation. (Section B.2)
- No violations of more than a minor significance were identified in the area of effluent control and environmental protection. (Section B.3)

Other Areas

- No violations of more than minor significance were identified during the review of submitted written event reports (WER) (Sections C.1, C.2)

Attachment

Supplemental Information

REPORT DETAILS

Summary of Plant Status

The Westinghouse Facility converts uranium hexafluoride (UF₆) into uranium dioxide using a wet conversion process and fabricated fuel assemblies for use in commercial nuclear power reactors. During the inspection period, normal production activities were ongoing.

A. Safety Operations

1. Operational Safety (Inspection Procedure 88020, Onsite Inspection with Remote Support)

a. Inspection Scope

The inspectors evaluated the operational safety of the facility, via a remote inspection and a subsequent onsite inspection, to verify the licensee operated the plant safely and in accordance with Title 10 Code of Federal Regulations (CFR) Part 70, the license, and the license application. The inspectors interviewed licensee staff and reviewed records associated with the ammonium diuranate (ADU) Conversion Calciner, Fitzmill enclosure, and ADU pelleting process areas to verify compliance with the License Application and the Integrated Safety Analysis (ISA). The inspectors reviewed license requirements, criticality safety evaluations, and operating procedures associated with the aforementioned process areas to verify the requirements for the areas were consistent throughout the licensee's documents. The inspectors selected a sampling of Items Relied on For Safety (IROFS) from the above areas which are listed in the attachment to this report.

The inspectors observed a plan of the day meeting to verify the licensee communicated safety issues and coordinated the resolution of problems affecting plant operations with the appropriate disciplines. The inspectors reviewed operating procedures to verify required actions for select IROFS, as identified in the ISA Summary, were correctly transcribed into written operating procedures. The inspectors also evaluated the procedure contents with respect to operating limits and operator responses for upset conditions to verify that the limits needed to assure safety are adequately described in the procedures.

The inspectors reviewed completed surveillances and functional test instructions of select IROFS from the aforementioned areas to verify the IROFS and applicable management measures were being implemented and maintained in accordance with the ISA, license application, licensing basis of the facility and applicable regulatory requirements. In addition, the inspectors reviewed IROFS failure records and planned corrective actions to verify rather negative trends and failures were being captured and addressed as required by the ISA and License Application chapter 3, "Conduct of Operations."

The inspectors reviewed operator qualification records for the calciner and pellet process areas to verify the operators were currently qualified on the systems and equipment to which they were assigned to operate and maintain.

The inspectors reviewed a sample of entries from the licensee's internal reporting system (Redbook) and the corrective action program (CAP) from the past twelve months to verify deviations from procedures and unforeseen process changes affecting nuclear criticality, chemical, radiological, or fire safety were documented and promptly reviewed. In addition, the inspectors reviewed the licensee's corrective actions to verify they adequately addressed and resolved the issues as required.

In addition, the inspectors interviewed licensee staff and reviewed the most recent operations audit to verify audits and assessments were being conducted in accordance with the license requirements.

b. Conclusion

No Violations of more than minor significance were identified.

2. Nuclear Criticality Safety (Inspection Procedure 88015, Onsite Inspection with Remote Support)

a. Inspection Scope

Criticality Analysis (Remote Inspection)

The inspectors evaluated selected aspects of the licensee's Nuclear Criticality Safety (NCS) Program to verify compliance with selected portions of 10 CFR 70, including 70.61(d), and Chapter 6 of the facility's license application, and applicable licensee procedures.

The inspectors reviewed selected criticality safety evaluations (CSEs) and associated calculations to verify that they were consistent with the commitments in the license application. These commitments included the double contingency principle, assurance of subcriticality under normal and credible abnormal conditions with the use of subcritical margin, and technical practices and methodologies outlined in Section 6.1.3 of the license application for mass, material composition, reflection and interaction between fissile material. The inspectors focused their review on CSEs that had not recently been reviewed in an NCS inspection. The CSEs reviewed included CSE-3-J, "Criticality Safety Evaluation for Fitzmill and Product Hoods," Revision (Rev.) 02; CSE-15-C, "Criticality Safety Evaluation for Waterglass Liquid Waste Effluent Treatment System," Rev. 6; CSE-13-A, "Criticality Safety Evaluation for the Incinerator System," Rev. 15, and those listed in Section 4 of the attachment.

The inspectors reviewed the licensee's generation of accident sequences to determine whether the CSEs systematically identified normal and credible abnormal conditions in accordance with the commitments and methodologies in the license application for the analysis of process upsets. The inspectors reviewed assumptions made for upset conditions to verify they were clearly described, appropriately conservative, and matched the calculation input files. The inspectors also reviewed the protection scores assigned to IROFS in the CSEs to determine whether they were consistent with the license application and resulted in the scenario being highly unlikely. This review was conducted for the Fitzmill and Product Hoods and the Waterglass Liquid Waste Effluent Treatment System.

Criticality Implementation (Onsite Inspection)

The inspectors performed walk-downs and observed operations in the Conversion Area and Uranium Recycling and Recovery Services areas to determine whether existing plant configuration and operations were covered by, and consistent with, the process description and safety basis in the selected CSEs listed above. The inspectors reviewed process and system descriptions, the CSEs, and interviewed licensee NCS engineers to verify that engineered controls established in the CSEs were included and being implemented as specified. The engineered controls reviewed included, mass controls, concentration controls, and geometry controls. The inspectors reviewed operating procedures and postings to verify that selected administrative controls established in the CSEs were included.

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

Criticality Operational Oversight (Remote/Onsite Inspection)

The inspectors reviewed NCS-related training material remotely to determine whether operator training included instruction in criticality hazards and control methods, whether the licensee's established NCS-related operator training was consistent with commitments in Section 6.1.10 of the license application, including applicable American Nuclear Society standards. Additionally, the inspectors interviewed licensee NCS staff to determine whether the NCS function was involved in the development of operator training as required. The NCS-related training records reviewed included "Criticality and Radiation Safety NSQT" PowerPoint.

The inspectors reviewed records of NCS audits remotely to determine whether NCS staff routinely assessed field compliance with established NCS controls. Additionally, the inspectors interviewed NCS management and reviewed procedures and schedules to verify that NCS audits of fissile material processing areas were audited triennially as required by Section 6.1.9 of the license application. While conducting the onsite portion of the inspection, inspectors accompanied an NCS engineer on an audit of the cylinder recertification building.

Criticality Incident Response and Corrective Action (Remote Inspection)

The inspectors reviewed selected condition report entries remotely to verify that anomalous NCS conditions were promptly identified and entered into the corrective action program, that they received the required level of investigation, and that they were closed out consistent with license commitments and procedures. The inspectors reviewed the associated corrective actions to verify they were consistent with program procedures and appropriate to correct the condition, if preventing recurrence was not required. Additionally, the inspectors reviewed the selected entries to assess whether the licensee followed regulatory requirements and procedures with regards to reporting plant conditions to the NRC. The entries reviewed included IR-2020-9312 and its associated documents. Additional condition report entries reviewed are listed in the Supplementary Information section of this inspection report.

b. Conclusion

No violations of more than minor significance were identified.

B. Radiological Controls

1. Radiation Protection Appendix A (Inspection Procedure 88030)

a. Inspection Scope

The inspectors conducted an onsite inspection of selected aspects of the licensee's Radiation Protection program to verify compliance with selected portions of 10 CFR 20, the facility's license, and applicable procedures.

Specifically, the inspectors interviewed licensee staff to verify that workers were instructed in radiological protective measures including means to minimize exposure, and in the purposes and functions of protective devices employed, instructed in the appropriate response to warnings of unusual events or indications of malfunctions that may involve exposure.

The inspectors interviewed licensee staff and observed the radiological controls imposed by the active radiological work permit (RWP) (e.g., a 'tent' to control airborne contamination, stationary airborne radioactivity samplers) to verify that the requirements in the RWP were being implemented in the field. The inspectors interviewed licensee health physics (HP) staff concerning the material that would be covered in pre-job briefing, PPE requirements, how to prepare and release temporary radiological work areas, and when the radiological controls would be increased. The inspectors also reviewed samples of recent surveys performed by HP technicians to support releasing work areas from radiological controls and to ensure work areas are not exposed to elevated radiological hazards (e.g., high contamination levels) to verify that HP technicians were appropriately surveying areas before reducing controls.

The inspectors observed calibration stickers on instruments being used, observed simulated calibrations, and discussed the licensee's calibration program to verify that the licensee had a system for identifying instruments and equipment used for quantitative radiation measurements and due dates for periodic calibration or functional testing as per 10 CFR 20.1501(c). The inspectors interviewed licensee staff to verify that the licensee re-calibrated equipment at least annually in accordance with Section 5.2.29 of the license application; and that source checks were performed as required. The inspectors observed selected personnel monitoring stations, gamma detectors, equipment used to measure airborne radioactive to verify that the equipment was within calibration and there were no conditions that could impact the functionality of the equipment.

The inspectors interviewed licensee staff and observed survey activities to verify that the licensee performed scheduled radiation and contamination surveys to meet the requirements of 10 CFR 20.1501(a); and that radiation surveys support the posting requirements in 10 CFR 20.1902. The inspectors interviewed licensee staff and walked down areas where sealed sources are stored to verify that the storage of the sealed sources were in accordance with 10 CFR 20.1902 and 20.1903, as applicable, and leak tested in accordance with license application Section 12.1.2.

The inspectors toured work and storage areas in the contamination-controlled area to verify that the licensee posted the areas in accordance with 10 CFR 20.1902 and 20.1903 and that radiological signs and postings accurately or conservatively reflected radiological conditions within the posted area. The inspectors observed radioactive material containers in these areas to verify that the containers and areas were labeled and posted in accordance with license application Section 12.2.2.

The inspectors reviewed the bulletin board where NRC Form 3, Notice to Employees, is posted to verify that the licensee posted Notices in accordance with 10 CFR 19.11.

b. Conclusion

No violations of more than minor significance were identified.

2. Radioactive Waste Processing, Handling, Storage, and Transportation (Inspection Procedure 88035)

a. Inspection Scope

The inspectors conducted an onsite inspection of the licensee's handling of radioactive waste to evaluate whether the licensee had established, maintained, and implemented procedures in accordance with license requirements and quality assurance programs in order to verify compliance with the requirements of 10 CFR Part 20 and 10 CFR Part 61 as applicable to low-level radioactive waste form, classification, and stabilization.

The inspectors performed walk-downs of selected radioactive material storage areas, including the sealand storage area and 90 Day Hazardous Waste Storage Areas. The inspectors reviewed the postings in the storage areas to verify that they had the required postings and the material was stored in accordance with the nuclear criticality safety requirements. The inspectors reviewed the containers' labeling and condition to verify that the containers were properly labeled to reflect the hazards of their contents and were in adequate physical condition or had additional controls in place (e.g., a leak pan). The inspectors reviewed the licensee records for selected radiological waste drums in order to verify that the locations and contents of the drums in the licensee's system agreed with drum's location and labeling in the field.

The inspectors also observed material being staged for loading into drums, equipment used to survey and control the contents of drum, the drums staged on scales for loading wet and dry radioactive waste, and other waste handling equipment to verify that the waste handling operations were being conducted in accordance with licensee procedural requirements (e.g., COP-836033, Combustible Trash Collection Scale System).

b. Conclusion

No violations of more than minor significance were identified.

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

a. Inspection Scope

The inspectors conducted an onsite inspection of the licensee's effluent control and environmental protection program to verify that the program complied with Chapter 10 of the license application.

The inspectors walked down the wastewater treatment facility, including the lagoons, proportional sampler, locations where grab samples are taken, and the discharge to the river, to verify that liquid waste was treated, sampled and discharge as described in Section 10.1.2 of the license application.

The inspectors interviewed licensee staff, reviewed records and walked down the location of recent spills, to verify that potential new areas of contamination that may have been identified in the surrounding environment or subsurface of the facility were being tracked in accordance with 10 CFR 20.1501(a). The inspectors reviewed corrective action records and interviewed licensee staff to verify that the licensee, to the extent practical, conducted operations that minimized the introduction of residual radioactivity into the local environment surrounding the facility, including subsurface soils and groundwater, in accordance with 10 CFR 20.1406(c).

The inspectors observed actual and simulated sampling and analysis activities of stack samples, well samples, liquid effluent composite and grab samples to evaluate compliance with the license application. The inspectors evaluated equipment used to monitor liquid and gaseous effluents to determine if the equipment was in proper condition, calibrated, and functionally checked in accordance with applicable procedures or vendor instructions. The inspectors interviewed licensee staff to verify that the samples were taken and handled in accordance with procedural requirements for labeling, preservation, chain of custody and analyzed with calibrated equipment when analyzed onsite.

The inspectors interviewed licensee staff about ongoing modification and process changes to verify compliance with the As Low As Reasonably Achievable (ALARA) as required by 10 CFR 20.1101(b).

The inspector observed two of the licensee's environmental monitoring stations which are used for measuring airborne contamination and are located near the parking lot and the old weather station to verify that the equipment was maintained, and the samples taken, in accordance with license application Section 10.1.4 and licensee maintenance procedures.

b. Conclusion

No violations of more than minor significance were identified.

C. Other Areas

1. (CLOSED) WER 70-1151/2020-001-00: Unplanned Medical Treatment (EN54801)

a. Inspection Scope

On July 25, 2020 an injured contaminated worker was transported to an offsite medical facility for treatment. The licensee reported this event to the NRC as EN54801 on July 26, 2020; and submitted their 30-day follow-up report dated August 12, 2020 (ADAMS Accession Number: ML20225A116), in accordance with 10 CFR 70.50. This event was also entered into the licensee's CAP as IR-2020-9384.

The inspectors interviewed licensee personnel and reviewed records to verify that the potential spread of contamination was minimized by wrapping contaminated areas in plastic prior to loading the worker into the ambulance, and that a licensee HP technician went with the ambulance in accordance with licensee procedures. Once at the hospital the worker's hands were surveyed and decontaminated. The inspectors reviewed survey records to verify that the ambulance and medical facility were surveyed and confirmed to not have been contaminated. This item is considered closed.

b. Conclusion

No violations of more than minor significance were identified.

2. (CLOSED) WER 70-1151/2020-002-00: 24 Hour Report – Unplanned Medical Treatment (EN54901)

a. Inspection Scope

On September 15, 2020 an injured contaminated worker was transported to an offsite medical facility for treatment. The licensee reported this event to the NRC as EN54901 on September 16, 2020; and submitted their 30-day follow-up report dated October 8, 2020 (ADAMS Accession Number: ML20282A725), in accordance with 10 CFR 70.50. This event was also entered into the licensee's CAP as IR-2020-10333.

The inspectors interviewed licensee personnel and reviewed records to verify that the potential spread of contamination was minimized by wrapping contaminated areas in plastic prior to loading the worker into the ambulance, and that a licensee HP technician went with the ambulance in accordance with licensee procedures.

The worker washed prior to leaving the contaminated controlled area, but when surveyed he was found to have contamination that could not be removed from his foot. Smear samples taken at the site and hospital confirmed that smearable contamination was below the licensee's free release limits. The inspectors reviewed licensee records to verify that the ambulance and medical facility were surveyed and confirmed to not have been contaminated. The licensee calculated a dose to the worker's foot of 37 mRad SDE. This item is considered closed.

b. Conclusion

No violations of more than minor significance were identified.

D. Exit Meetings

The inspection scope and results were presented to Mr. Mike Annacone, Vice President, Columbia Fuel Operations and members of his staff at exit meetings conducted on September 04, 2020; September 17, 2020; and September 24, 2020. Proprietary information was discussed, but not included in this report.

SUPPLEMENTAL INFORMATION

1. KEY POINTS OF CONTACT

<u>Name</u>	<u>Title</u>
A. Brown	Manufacturing Engineer
E. Cauley	Waste Management
R. Crews	Environmental Technician
P. Donnelly	Principle Licensing Engineer
E. Malek	Regulatory Affairs Manager
A. Miller	Health Physics Operations Manager
C. Miller	Nuclear Criticality Safety Engineering Manager
D. Joyner	Environmental Engineer
C. Scott	Senior Nuclear Criticality Safety Engineer
R. Stutts	Chemical Operations Manager
D. Wagoner	Health Physics Operations Engineer

2. LIST OF ITEMS OPENED, CLOSED AND DISCUSSED

Closed

WER 70-1151/2020-001-00	Unplanned Medical Treatment (EN54801) (Section C.1)
WER 70-1151/2020-002-00	24 Hour Report – Unplanned Medical Treatment (EN54901) (Section C.2)

3. INSPECTION PROCEDURES USED

88015	Nuclear Criticality Safety
88020	Operational Safety
88030	Radiation Protection (Appendix A)
88035	Radioactive Waste Processing, Handling, Storage and Transportation
88045	Effluent Control and Environmental Protection

4. DOCUMENTS REVIEWED

Records:

20-3 Form Comp Audit Report, dated April 16, 2020
20-3 Formal Compliance Audit Plan, dated March 5, 2020
CalcinerQual_8-19-2020
CF-81-015, Conversion Field Data Checklist for Conversion Line, Rev. 72, dated August 27, 2020
CF-81-037, Run Time on Filter Press and Rodout Ports Log, dated August 23, 2020
CF-81-904, Rev. 13, dated August 29, 2020
Effectiveness Audit of Periodic Criticality Safety Evaluation Technical Reviews, dated September 11, 2019
Effluent Air Report, dated February 11, 2020
IFBA FA1, NCS Facility Walkthrough Assessment, dated March 27, 2020
NCS-007, Homogeneous UO₂ Single Parameter Limits, Rev. 4, dated November 11, 2015

NCS-008, Heterogeneous UO₂ Single Parameter Limits, Rev. 3, dated November 11, 2015
OE-2019-172, IR-2019-3484, dated April 26, 2019
Outside URRS Operator, NCS Facility Walkthrough Assessment, dated June 11, 2020
PelletQual_8-19-2020
Redbook 2020-9214, dated August 14, 2020
URRS Bay Operator, NCS Facility Walkthrough Assessment, dated June 30, 2020
WO863019, dated November 11, 2019
WO866555, Inspection of Moderation Controlled Barriers – 52 Week PM, dated March 25, 2020
WO868696, ADU Line 1 – 52 Week OM, dated March 7, 2020
WO881889, Calciner Steam Separator and Trap – 26 Week PM, dated June 2, 2020
WO885655, Hydrogen Valves, Calciner – 52 Week PM, dated May 20, 2020
WO887079, SI-Safety, Conversion Wastewater Discharge Gamma Monitor Interlock – 13 Week PM, dated May 27, 2020
WO875208, SI – Safety, Conversion Wastewater Discharge PH Analyzer Interlock – 13 Week PM, dated February 12, 2020
WO892111, Front End Seal Maint – 26 Week PM, dated August 27, 2020
WO892113, Discharge End Seal Maint – 26 Week PM, dated July 8, 2020
WO892248, SI-Safety, Scrap Cage Wash System – 52 Week PM, dated September 23, 2020
WO894227, Fitzmill Enclosure Cleanout – 4 Week OM, dated August 14, 2020
WO895291, ICM Verification, dated August 30, 2020
WO895325, Pellet Lines – 52 Week OM, dated August 16, 2020

Procedures:

CA-006, Columbia Plant Training Delivery System, Rev. 33, dated July 18, 2019
CA-220, Safety Basis Qualification Training, Rev. 11, dated August 27, 2020
CF-81-101, Conversion ICM Verification Log, Rev. 3, dated August 20, 2020
COP-810806, Calciner Feed Screw, Rev. 7, dated June 15, 2017
COP-810901, Calcination, Rev. 57, dated September 4, 2018
COP-810912, Verification of ADUCAL-919, Rev. 0, dated May 1, 2013
COP-814603, Loss of Power or Water – Conversion Area, Rev. 15, dated February 4, 2016
COP-820112, Bulk Container Handling at Powder Prep, Rev. 38, dated June 22, 2017
COP-820114, Automatic Feed Preparation System, Rev. 81, dated July 9, 2020
COP-820206, Pellet Press Operation, Rev. 50, dated April 30, 2020
COP-836033, Combustible Trash Collection Scale System, Rev. 22
MCP-203312, Verification of Interlock ADUCAL-906; Calciner OT Trip, Rev. 13, dated October 1, 2015
MCP-203329, Verification of Interlock ADUCAL-902; Calciner Low Press, Rev. 21, dated January 16, 2020
MCP-203334, Verification of Interlock ADUCAL-403; Calciner Rotation, Rev. 11, dated August 24, 2015
MCP-203342, Verification of Interlock ADUCAL-913; Calciner Seal Purge Press. Low, Rev. 22, dated January 16, 2020
MCP-203379, Leak Test Calciner Hydrogen BPCS Block Valves and Hydrogen SIS Block Valves for Conversion Lines, Rev. 8, dated May 21, 2020
MCP-203681, Verification of Instrumented Safety Function ADUSCRP-406, Ammonium Nitrate Explosion Prevention, Rev. 0, dated May 16, 2019
MCP-203682, Verification of Instrumented Safety Function ADUSCRA-122, ADUSCRA-123, and ADUSCRA-124 Aire Header Backflow Prevention, Rev. 1, dated August 08, 2019
OM85110, 52 Week OM- Vacuum Break and Passive Overflow Inspection

PM91080, Ambient Air Sampler – 13 Week PM
RA-316, NCS Facility Walkthrough Assessments, Rev. 12, dated October 17, 2019
RA-121, Redbook Internal Reporting System, Rev. 21, dated December 31, 2019
ROF-07-001-10, HP Response to Nitric Acid/UN Spill, 09/20/20
ROP-06-001, NPDES Daily, Weekly, and Monthly Effluent Sample Collection, Rev. 52
ROP-06-003, Ambient Environmental Air Monitoring for Radioactivity, Rev. 14
ROP-06-007, Groundwater Well Sampling, Rev. 29
SYF-219-17, Determine Wall Thickness Measurements, 06/25/20 for Demister Wall
Thickness URRS Incinerator Room
W2-5.1-101.W03, Issue Review Committee Work Instruction, Rev. 2, dated February 28,
2020

Items Relied on For Safety (IROFS) Reviewed:

ADUCAL-101 | ADUCAL-102 | ADUCAL-105 | ADUCAL-902 | ADUCAL-901/904
ADUCAL-906 | ADUCAL-913 | ADUCAL-914 | ADUCAL-915 | ADUFZE-104
ADUFZE-107 | ADUFZE-108 | PELPREP-109 | PELPREP-115 | WCD-129

Criticality Safety Evaluations (CSE):

CSE-3-J, Fitzmill and Product Hoods, Rev. 2
CSE-13-A, Criticality Safety Evaluation for the Incinerator System, Rev. 15
CSE-13-B, Criticality Safety Evaluation for the Decontamination/Cutting Room and Filter
Cleaning Hood, Rev. 4
CSE-13-C, Criticality Safety Evaluation for the Columbia Fuel Fabrication Facility LLRW
Miscellaneous Operations, Rev. 6
CSE-15-A, Criticality Safety Evaluation for Waste Treatment Tanks T-1148, T-1149, and T-
1147, Rev. 9
CSE-15-C, Criticality Safety Evaluation for Waterglass Liquid Waste Effluent Treatment
System, Rev. 6
CSE-15-D, Criticality Safety Evaluation for Warm Caustic Waterglass Cake Dissolution
System, Rev. 4

Condition Reports Reviewed

75292 | 75475 | 75485 | 75518 | 75524 | 75543 | 75552 | 75555 | 75560 | 75563 | 75566
75574 | 75582 | 75593 | 75603

IR-2020-106, IR-2020-7135, IR-2020-9082, IR-2020-9312, IR-2020-9384

Condition Reports Written as a Result of the Inspection:

IR-2020-10396

Other Documents:

815417-4, ADU Dryer through Calciner Safety Significant Controls, Rev. 74, dated June 1,
2020
815417-5, Scrubber and Powder Discharge Systems Safety Significant Controls, Rev. 0,
dated March 12, 2020

815417-11, Quarantine Tanks Safety Significant Controls, dated July 23, 2020
829013-1, Pellet Area Safety Significant Controls, Rev. 76, dated April 15, 2020
836038-7, Safety Significant Controls – URRS Waste Treatment, dated April 02, 2020
Columbia Fuel Operations Org Chart Aug 2020
Criticality Safety and Radiation Protection NSQT
Safety Significant Controls NSQT