



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

April 29, 2015

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

**SUBJECT: WESTINGHOUSE ELECTRIC COMPANY – NUCLEAR REGULATORY
COMMISSION INSPECTION REPORT 70-1151/2015-002**

Dear Mr. Precht:

The Nuclear Regulatory Commission (NRC) conducted announced inspections during the first quarter in calendar year 2015 (January 1 - March 31, 2015) at the Westinghouse Columbia Fuel Fabrication Facility in Hopkins, SC. The purpose of the inspection was to review implementation of programs and procedures for operational safety, nuclear criticality safety, emergency preparedness, and fire protection. The reviews were conducted to determine whether licensed activities were conducted safely and in accordance with NRC requirements. The enclosed report presents the results of this inspection. At the conclusion of the inspection, the results were discussed with you and members of your staff at exit meeting on March 26, 2015.

During the inspection, the staff examined activities conducted under your license as they relate to safety and compliance with the Commission's rules and regulations and with the conditions of your license. The inspection consisted of facility walk-downs; selective examinations of relevant procedures and records; interviews with plant personnel; and plant observations. Throughout the inspection, observations were discussed with your managers and staff. Based on the results of the inspection, no violations of NRC requirements were identified.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 2.390 of 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), which is accessible from the NRC Website at <http://www.nrc.gov/reading-rm/adams.html>.

D. Precht

2

If you have any questions, please call me at (404) 997-4629.

Sincerely,

/RA/

Marvin D. Sykes, Chief
Projects Branch 2
Division of Fuel Facility Inspection

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

Enclosure:
NRC Inspection Report 70-1151/2015-002
w/Supplemental Information

cc:
John Howell
Manager
Environment, Health and Safety
Electronic Mail Distribution

Nancy Parr
Manager
Licensing
Electronic Mail Distribution

Christine Kneece
Manager
Industrial Safety
Electronic Mail Distribution

Susan E. Jenkins
Assistant Director, Division of Waste Management
Bureau of Land and Waste Management
Department of Health and Environmental Control
Electronic Mail Distribution

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M. Baker, NMSS
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PUBLICLY AVAILABLE NON-PUBLICLY AVAILABLE SENSITIVE NON-SENSITIVE
ADAMS: Yes ACCESSION NUMBER: ML15119A002 SUNSI REVIEW COMPLETE FORM 665 ATTACHED

OFFICE	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI	RII:DFFI		
SIGNATURE	/RA/	/RA/	/RA/	/RA/	/RA/		
NAME	MCrespo	RGibson	NPeterka	CRivera-Crespo	PStartz		
DATE	4/22/2015	4/16/2015	4/22/2015	4/17/2015	4/22/2015		
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

U. S. NUCLEAR REGULATORY COMMISSION
REGION II

Docket No.: 70-1151

License No.: SNM-1107

Report No.: 70-1151/2015-002

Licensee: Westinghouse Electric Company

Facility: Columbia Fuel Fabrication Facility

Location: Hopkins, SC 29061

Dates: January 1 through March 31, 2015

Inspector: R. Gibson, Senior Fuel Facility Inspector (Section A.1)
N. Peterka, Fuel Facility Inspector (Section A.2)
C. Rivera, Fuel Facility Inspector (Section B.1)
P. Startz, Fuel Facility Inspector (Section A.3)

Accompanying
Personal: A. Blamey, Chief, Safety Branch, Division of Fuel Facility Inspection

Approved by: M. Sykes, Chief
Projects Branch 2
Division of Fuel Facility Inspection

Enclosure

EXECUTIVE SUMMARY

Westinghouse Electric Company
Columbia Fuel Fabrication Facility
NRC Integrated Inspection Report 70-1151/2015-002
January 1 through March 31, 2015

Inspections were conducted by Nuclear Regulatory Commission (NRC) regional inspectors during normal shifts in the areas of operational safety, nuclear criticality safety (NCS), emergency preparedness, and fire protection. During the inspection period, normal production activities were ongoing. The announced inspection consisted of a selective examination of procedures and representative records, observations of activities, walk-downs of items relied on for safety (IROFS), and interviews with licensee personnel. No safety significant findings were identified.

Operational Safety

- The licensee adequately maintained the operational safety program in accordance with the license application and regulatory requirements. (Paragraph A.1)

Nuclear Criticality Safety

- The licensee adequately implemented the NCS program, conducted audits and investigations, reviewed event and maintained and implemented appropriate NCS controls. (Paragraph A.2)

Fire Protection

- The fire protection systems were adequately maintained in accordance with site procedures. (Paragraph A.3)

Emergency Preparedness

- The Emergency Preparedness program was implemented in accordance with the Emergency Plan and regulatory requirements. (Paragraph B.1)

Attachment:

Key Points of Contact
List of Items Opened, Closed, and Discussed
Inspection Procedures Used
Documents Reviewed

REPORT DETAILS

Summary of Plant Status

The Westinghouse Facility converts uranium hexafluoride (UF₆) into uranium dioxide using a wet conversion process and fabricates 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 (IP) 88020)

a. Inspection Scope and Observations

The inspectors interviewed staff and reviewed records associated with the operational aspects of the Ammonium Di-Urinate (ADU) Bulk Blending Container Room, Integral Fuel Burnable Absorber (IFBA) area, and the Erbium (ERBIA) area. The inspectors toured the process areas and observed operators, the general plant conditions, equipment conditions, and operational status. Operators were attentive to their duties and general work areas were maintained free of miscellaneous debris and clutter. Samples of selected passive and active items relied on for safety (IROFS) were noted to be available to perform their intended safety function. Housekeeping in the areas and in the vicinity of operating equipment was orderly and maintained in accordance with licensee housekeeping standards.

The inspectors interviewed licensee personnel responsible for the scheduling of surveillance and functional testing for the management measures program. The inspectors verified that the licensee's work control program had provisions to ensure adequate pre-job planning, scheduling, and preparation of work orders (WOs) to support preventive maintenance (PM) and surveillance activities. The inspectors reviewed selected PMs and WOs for completeness and accuracy and to ensure that test packages challenged and verified operability of IROFS and other significant safety components.

The inspectors reviewed PMs, Redbook entries, WOs, and Chemical Operating Procedures (COPs) for the structural integrity inspections of bulk containers and the roofs. The inspectors walk-down IROFS of the bulk containers located in the Bulk Container Room and the external and the internal roofs. The inspectors noticed that the original bulk containers had a metal plate welded to the frame on the back side. The inspectors also noticed that the new bulk containers purchased by the licensee had the same design, except that the weld was inaccessible due to the metal plate. The WO and the procedure required the licensee to perform structural integrity inspections on the weld areas of the bulk containers. The licensee captured this observation in their corrective action, prevention and learning (CAPAL) program. The licensee plans to revise their procedures regarding the inspection to reflect the current design of the bulk containers.

The inspectors walked down IROFS in both the IFBA and ERBIA areas and determined that samples of active and passive engineered controls were present and capable of performing the intended safety functions. The inspectors did not identify any significant safety issues.

The inspectors reviewed various procedures and work orders and determined that required actions as identified in the Integrated Safety Analysis (ISA) Summary have been correctly transcribed into written operating procedures. The inspectors evaluated the procedures' contents with respect to operating limits and operator responses for upset conditions and verified that limits needed to assure safety were adequately described in the procedures. The inspectors reviewed operators training and determined that the operators were adequately trained and knowledgeable of their work assignment.

b. Conclusion

No findings of significance were identified.

2.1 Nuclear Criticality Safety Program (IPs 88015 and 88016)

a. Observations and Findings

The inspectors evaluated the adequacy of the licensee's Nuclear Criticality Safety (NCS) program and analyses to assure the safety of fissile material operations. The inspectors reviewed selected NCS documentation to determine that criticality safety of risk-significant operations was assured through engineered and administrative controls, with adequate safety margin, preparation and review by qualified staff. The NCS evaluations and supporting documents reviewed (e.g.: CSE-12-B, Criticality Safety Evaluation (CSE) for the IFBA Drying Oven #3, Revision (Rev.) 6; CSE-5-A, CSE for ADU Bulk Blending System, Rev. 2; CSE-12-C, CSE for Fuel Rod Manufacturing on Rod Line 7, Rev. 5; CSE-8-C, CSE for the ADU and ERBIA Pellet Sintering Lines, Rev. 9) demonstrated adequate identification and control of NCS hazards to assure operations within subcritical limits through appropriate limits on controlled parameters. The inspectors interviewed licensee criticality engineers, managers, and operators regarding operations, equipment and controls. The inspectors reviewed selected NCS-related IROFS, including ADUBB-901, ADUBB-102, IFBA-142, ADUDEC-103, and OVEN-102 to determine that the performance requirements have been met for selected accident sequences.

b. Conclusion

No findings of significance were identified.

2.2 Nuclear Criticality Safety Inspections, Audits, and Investigations (IP 88015)

a. Observations and Findings

The inspectors reviewed the commitments for audits and walkdowns, and ensured that the licensee was meeting the commitments. The inspectors also reviewed the results of the most recent NCS audits and walkdowns to assure that appropriate issues were identified and resolved. The inspectors reviewed the recorded walkdowns that were completed since the last NCS inspection (Facility Walkthrough Assessments for 4th Quarter 2014). The inspectors verified that the licensee's NCS audits were conducted in accordance with written procedures. The inspectors noted that the walkdowns were performed by NCS engineers who reviewed the adequacy of control implementation; reviewed plant operations for compliance with license requirements, procedures and postings; and interacted with operators during their walkdowns.

b. Conclusion

No findings of significance were identified.

2.3 Nuclear Criticality Safety Event Review and Follow-up (IPs 88015 and 88016)

a. Observations and Findings

The inspectors reviewed the licensee response to a recent internally-reported event, ID# 100078329. The inspectors determined that the licensee adequately evaluated whether this event was reportable to the NRC. The inspectors reviewed the progress of the investigation and interviewed licensee staff and observed that the event was investigated in accordance with procedures and appropriate corrective actions were assigned and tracked.

b. Conclusion

No findings of significance were identified.

2.4 Plant Activities (IP 88015)

a. Observations and Findings

The inspectors performed plant walkdowns of the Chemical Area, with specific focus on the ADU Conversion Process, ADU Bulk Blending, and the IFBA area to determine whether risk-significant fissile material operations were being conducted safely and in accordance with regulatory requirements. The inspectors interviewed operations staff and NCS engineers both before and during walkdowns. The inspectors verified that controls identified in NCS analyses were installed or implemented and were adequate to ensure safety. The inspectors also verified that safety was maintained for observed facility operations. The cognizant NCS engineers were knowledgeable and interacted regularly with operators on the process floors. The inspector verified the adequacy of management measures for assuring the continued availability, reliability, and capability of safety-significant controls relied upon by the licensee for controlling criticality risks.

b. Conclusion

No findings of significance were identified.

2.5 Nuclear Criticality Safety Training and Qualifications (IP 88015)

a. Observations and Findings

The inspectors reviewed the qualification procedure for NCS engineers. The licensee currently does not have any individuals going through the qualification process to become a NCS engineer. The licensee has a combination of internal, external, and on-the-job training as part of their qualification process. The inspectors interviewed the most recently hired NCS engineer and determined they have the requisite education and experience. In addition, the individual has previous NCS experience from being a NCS engineer at a highly enriched uranium fuel facility. No concerns were identified by the inspectors with the individual or the licensee's qualification process for NCS

engineers.

b. Conclusion

No findings of significance were identified.

2.6 Criticality Alarm Systems (IP 88017)

a. Observations and Findings

The NRC inspectors interviewed licensee managers and staff responsible for the maintenance and operation of the site's Criticality Accident Alarm System (CAAS). The licensee discussed their plans for a replacement system in the future and an expansion of the current system to provide additional detector coverage for a cylinder pad expansion. The detector coverage calculation for the new pad is currently under review by NRC headquarters. The inspectors also discussed with the licensee the current status of the systems reliability and false alarms, testing, and calibration of the system. No concerns were identified during the inspectors review of the licensee's CAAS.

b. Conclusion

No findings of significance were identified.

3. Fire Protection Annual (IP 88055)

a. Inspection Scope and Observations

The inspectors reviewed licensee procedures and performed direct observations of plant production areas to assess the material condition of fire protection systems and equipment, fire safety controls, and select instrumentation on related fire protection equipment. Focused assessments were completed on samples of IROFS associated with the hot-oil system and the uranium recovery incinerator. The inspectors verified that flammable materials were stored in marked cabinets as specified in approved procedures and that housekeeping and the control of combustible materials were adequate and consistent with the approved procedures. The inspectors verified that the cutting, welding, and hot work program was being implemented in accordance with approved procedures.

The inspectors reviewed records and interviewed licensee personnel to verify that the observed fire protection systems were maintained in an adequate state of readiness and had been properly tested to verify their ability to perform their safety function. The inspectors determined that fire dampers, doors, and penetration seals were being maintained in a condition that would ensure they were available and reliable to perform their safety function. Also, the inspectors determined that fire hoses and portable extinguishers were provided at their designated locations and access was unobstructed.

The inspectors reviewed the operational status and out-of-service records for the fire detection systems and fire protection systems. It was determined that adequate compensatory measures or repair plans were in place for out-of-service, degraded or inoperable fire protection equipment, systems or features.

The inspectors reviewed the licensee corrective action program (CAP) entries for the past 12 months. With the exception of several minor findings listed in condition reports 100076268 and 100171312, it was determined that the licensee is identifying safety controls and IROFS fire protection operability problems at an appropriate threshold and entering them into the CAP.

The inspectors reviewed Emergency Response Organization drills for the past year and verified the Emergency Response Team (ERT) members received training and participated in drills at least once a year. The inspectors verified that the offsite fire support organizations were offered an opportunity for site orientation. The inspectors did not note any issues with the communication equipment and verified that the members of the ERT had access to their own portable radio communications while they were on duty.

b. Conclusion

No violations of significance were identified.

B. Facility Support

1. Emergency Preparedness (IP 88050)

a. Inspection Scope and Observations

The inspectors interviewed staff and reviewed records and determined that any changes made to the Emergency Plan or within the facility had been properly coordinated within the Emergency Preparedness program. The inspectors reviewed procedures with significant revisions since the last emergency preparedness inspection and determined that the changes were in compliance with the Emergency Plan. The inspectors discussed the licensee emergency call list and verified that the list was current.

The inspectors reviewed training records and interviewed licensee staff regarding emergency preparedness training in the past year. The inspectors determined that the Emergency Preparedness requirements were in compliance with the Emergency Plan. The inspectors verified that the licensee provided training for their personnel and emergency equipment as required by the Emergency Plan and that the individuals responsible for utilizing the equipment were qualified. The inspectors verified that the licensee provided training to hypothetical emergency situations which were effective and consistent with the frequency and performance objectives required in the Emergency Plan.

The inspectors reviewed the written agreements with the off-site agencies and verified that the organizations required by the Emergency Plan had up-to-date agreements. The inspectors interviewed the South Carolina Emergency Management Division, the Palmetto Health Hospital and the Richland County Emergency Services Department and determined that they maintained an adequate understanding of the written agreements. The inspectors interviewed off-site personnel, reviewed records and verified that the licensee invited the organizations for training as required by the Emergency Plan and determined that the training given was appropriate. The inspectors interviewed off-site organizations and verified that the licensee performed a communication check with the off-site organizations.

The inspectors observed the storage of emergency equipment in the Emergency Brigade Building, the Emergency Operations Center (EOC) and at the Gate 1 Guard Station and verified that the inventory levels were maintained as required by the Emergency Plan. The inspectors toured the EOC and backup EOC and verified that the areas were readily assessable and maintained the appropriate amount of communication equipment. The inspectors reviewed the accountability procedure and verified that accountability meeting points were assessable.

The inspectors reviewed the self-assessments generated since the last inspection and verified that a system was in place for adequately tracking and resolving self-assessment findings.

b. Conclusion

No findings of significance were identified.

c. Exit Meeting

The inspection scope and results were presented at an exit meeting held on March 26, 2015, with Dave Precht and staff. No dissenting comments were received from the licensee. Proprietary information was discussed but not included in the report.

SUPPLEMENTAL INFORMATION

1. KEY POINTS OF CONTACT

<u>Name</u>	<u>Title</u>
R. Bates	Maintenance and Equipment Improvement
E. Byrd	Licensing Engineer, Environmental Safety & Health (EH&S)
S. Carver	Emergency Preparedness Manager
D. Cauley	URRS Engineering Technician
J. Howell	Conversion Area Manager
C. Kneece	Industrial Safety Manager
T. Northcutt	Corrective Actions Manager
N. Parr	EH&S Licensing Manager
B. Phillips	Conversion Operations Manager
D. Precht	Plant Manager
C. Snyder	Criticality Safety Manager

Other licensee employees contacted included engineers, technicians, production staff, and office personnel.

2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

None

3. INSPECTION PROCEDURE USED

IP 88015	Nuclear Criticality Safety Program
IP 88016	Nuclear Criticality Safety Evaluations and Analyses
IP 88017	Criticality Alarm Systems
IP 88020	Operational Safety
IP 88050	Emergency Preparedness
IP 88055	Fire Protection

4. DOCUMENTS REVIEWED

Procedures:

COP-814710, Rev. 4, Inspecting Bulk Handling Equipment
COP-814700, Rev. 30, Bulk Handling/Moderation Control
COP-814746, Rev. 30, Re-Milling Powder from a Bulk Container into another Bulk Container
COP-814747, Rev. 32, Transferring Material from Bulk Container to Polypaks
COP-814748, Rev. 35, Installation and Removal of Feeder Valve Assembly
COP-814750, Rev. 32, Bulk Blending Equipment Cleanout
COP-814752, Rev. 8, Handling of Bulk Container for Transfer to and from Pellet Area
COP-814753, Rev. 10, Blending a Bulk Container of Powder
COP-814755, Rev. 21, Gathering a Blend & Transferring Materials from Polypaks to Bulk Container
COP-814757, Rev. 11, Bulk Blending Vacuum System
COP-814759, Rev. 2, Handling of Bulk Containers for Transfer to and from ERBIA Area
MCP-108151, Rev. 2, ADU Bulk Blending Container Inspection and Repair Criteria

COP-814760, Rev. 3, Functional Verification of Safety Significant Controls – ADU Dump Hood
 MCP-202170, Rev 1, Verification of IFBA Interlock
 COCL-P04, Determination of Water by Coulometric Karl Fisher Titration, Rev. 27, dated March 19, 2015
 MCP-202037, GA-6M Criticality Alarm and SSC Verification, Rev. 29, dated October 30, 2014
 NCS-017, Categorizing Potential Criticality Scenarios and Criticality Safety Significant Controls, Rev. 4, dated March 18, 2015
 RA-125, Indoctrination, Training, and Qualification of EH&S Personnel, Rev. 19, dated March 21, 2013
 RA-303, Control of Moderating Materials for Nuclear Criticality Safety, Rev. 18, dated November 14, 2013
 RA-304, Criticality Accident Alarm System, Rev. 16, dated January 19, 2012
 RA-316, NCS Facility Walkthrough Assessments, Rev. 8, dated February 26, 2015
 SYP-306, Fire Alarm, Criticality System Impairment, and Fire Pump Use Reporting, Rev. 14, dated December 6, 2013
 SEP-001, Emergency Response Organization, Rev. 7, dated May 17, 2013
 SEPF-001-4, Civil Disturbance, Rev. 1, dated August 27, 2009
 SEPF-001-8, Hazardous Materials Release, Rev. 2, dated March 19, 2015
 SEPF-001-7, Entry Medical Evaluation Form, Rev. 1, dated October 29, 2009
 SEP-002, Classification, Rev. 6, dated March 13, 2014
 SEP-003, Emergency Response Team, dated May 16, 2013
 SEP-004, Emergency Equipment and Supplies, Rev. 11, dated September 20, 2013
 SEP-005, Evacuation, Accountability and General Response, Rev. 6, dated March 19, 2015
 SEP-006, Notification Guidelines for NRC and other Agencies, Rev. 36, dated March 19, 2015
 SEPF-009-23, Command Check Sheets (UO₂/HF), Rev. 1, dated December 13, 2012
 SEP-018, Emergency Operations Center Operations, Rev. 2, dated May 16, 2013
 SEPS-002-01, Classification Logic Flow Chart, Rev. 0, dated September 9, 2004
 SEPF-013-1, Post Incident Analysis (PIA), Rev. 3, dated March 27, 2015

Redbook Entries:

68081 – Roof leaking 12 feet outside the Bulk Room roll up door
 67487 – Crack in welds on Bulk Container
 67580 – Multiple cracks were found during inspection
 67415 – Cracks found in weld on frame
 68051 – Found cracks in welds on lower support plate corners

Preventative Maintenance:

PM 81070 – Bulk Container Inspection
 PM 20320 – Inspection of Moderation Controlled Barriers
 PM 81036 – Bulk Blending Cart Lift Inspection
 PM 81217 – Interlocks, ADU Dump Hood in Blending Area
 PM 20133 – Fork Lift Truck Inspection

Work Orders:

WO 674710 – 26-week Bulk Container Inspection
 WO 684936 – Siletta Feeder Assembly Inspection
 WO 670400 – Moderation Controlled Barrier Inspection
 WO 687081 – Fork Lift Truck 4-week Inspection

WO 688771 – ERBIA Press Lower Punch and Tool Holder Inspection
 WO 649518 – Annual Verification of Active Engineered Controls for Vacuum Furnace
 WO 658824 – Annual Inspection of ERBIA Area Roof
 WO 658825 – Annual Inspection of BWR and Forest Roof
 WO 658833 – Annual Inspection of Product Engineering Development LAB Roof
 WO 688867

Records:

CN-CRI-06-16, ADU Bulk Blending Study, Rev. 0
 COP-814760, Functional Verification of Safety Significant Controls- ADU Dump Hood,
 Rev. 3
 CSE-01-AA, Criticality Safety Evaluation for the Line 6 ADU Pellet Grinder Ventilation
 System, Rev. 4
 CSE-03-E, The Conversion Line Decanter System and Associated Valves, Rev. 6
 CSE-03-E, The Conversion Line Decanter System and Associated Valves, Rev. 7
 CSE-5-A, Criticality Safety Evaluation for Ammonium Diuranate (ADU), Rev. 2, dated
 July 2012
 CSE-08-C, Criticality Safety Evaluation for the ADU and Erbia Pellet Sintering Lines,
 Rev. 9
 CSE-12-B, Criticality Safety Evaluation for the IFBA Drying Oven #3, Rev. 6, dated
 February 2010
 CSE-12-C, Criticality Safety Evaluation for the Fuel Rod Manufacturing on Rod Line 7,
 Rev. 5
 EHS-Audit-12-7, Nuclear Criticality Safety Program Audit, dated July 2012
 Facility Walkthrough Assessments for 4th Quarter 2014
 MCP-202037 for STA-6A conducted on March 16, 2015
 MCP-202037 for STA-6B conducted on March 16, 2015
 OM81217, SI-Safety Interlocks- ADU Dump Hood in Blending Area, dated February 2,
 2015
 Training-111, Inadvertent Containers Handout
 HP Emergency Cabinets (Monthly Checks)
 Emergency Communications Devices (Monthly Checks)
 SCBA Units (Monthly Checks)
 Emergency Response Vehicles (Weekly Checks)
 Emergency Response Consultants, Emergency Response Team Audit, dated March 18,
 2015
 Emergency Preparedness Audit Report, prepared by All Clear Fire Training and
 Consulting, dated March 20, 2014
 Form No. SEPF-004-10, Monthly Inspection of Emergency Radio and Telephones,
 Rev. 9, dated January 15, 2015
 TRN-095, Emergency Operations Center Refresher Training
 Agreement between Westinghouse Electric Corporation Commercial Nuclear Fuel
 Division Columbia, SC Plant, the South Carolina Department of Health and
 Environmental Control and the South Carolina Emergency Management Division,
 dated March 2014
 Agreement between Palmetto Health and Westinghouse Electric Company Commercial
 Nuclear Fuel Division, Columbia Plant, dated March 18, 2015
 Agreement with the Richland County emergency Services Department, dated
 February 24, 2015
 Form No. CAF-300-01, Training for Scanner Refresher, Rev. 0, dated October 30, 2008

Condition Reports Written as a Result of the Inspection:

ID #100171312, First portion: NRC inspectors identified that isolation valves on automatic refill systems were closed that prevented the systems from functioning on fire water storage tanks #1 and #2. Maintenance personnel performing weekly surveillance activities were not indicating that the systems were purposely being maintained in a non-functional state, in preparation for planned modifications.

ID#100171312, Second portion: NRC inspectors identified that: (1) a water sprinkler header in the U recovery area had fallen from the pipe supports and was resting on ceiling bar joists, (2) the large mezzanines in U recovery may be blocking off some areas from sprinkler coverage, (3) tubing from the incinerator chamber was not being inspected to ensure buildup is not accumulating within the tubing and may block the pressure signal to the safety related pressure transmitter.

ID#100076268: NRC inspectors followed up on a corrective action issue involving an unexpected reset malfunction while personnel were performing an annual test on the hot oil system isolation valves, PM81088, Hot Oil Backflow Prevention Interlock SSC ADUHOS-912. The interlock did not reset after the safety function was successfully actuated. Also, the PM instructions did not state that the oil heaters and pumps would shut off in addition to closing SSC valves XV-S-1395-1 and XVS-1395-2. The issue was documented in Redbook #67790. NRC inspectors discovered that this corrective action activity had been closed without any corrective actions being implemented. The licensee subsequently reopened this issue allowing corrective actions to be properly implemented.

ID #100170563

ID#100171253

ID #100171250

Condition Reports Reviewed:

ID #100078329,

ID#100076268

ID#100171312

Issue Report #13-143-C003

Greenbook #67792