



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

April 11, 2019

EA-16-173  
EN 53266

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 – NUCLEAR REGULATORY  
COMMISSION INTEGRATED INSPECTION REPORT NUMBER 70-1151/2019-002**

Dear Mr. Annacone:

This letter refers to the inspection conducted from January 1 through March 31, 2019, at the Westinghouse Columbia Fuel Fabrication Facility in Hopkins, SC. The purpose of these inspection was to determine whether activities authorized under the license were conducted safely and in accordance with U.S. Nuclear Regulatory Commission (NRC) requirements. The enclosed inspection report presents the results of this inspection.

The inspection examined activities conducted under your license 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. Within these areas, the inspection consisted of a selected examination of procedures and representative records, observations of activities, and interviews with personnel.

Based on the results of this inspection, the NRC has determined that no violations of more than minor significance 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>.

If you have any questions, please contact Tom Vukovinsky of my staff at (404) 997-4622.

Sincerely,

*/RA/*

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

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

Enclosure:  
NRC Inspection Report 70-1151/2019-002  
w/Supplemental Information

cc:  
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SUBJECT: WESTINGHOUSE ELECTRIC COMPANY – NUCLEAR REGULATORY  
 COMMISSION INTEGRATED INSPECTION REPORT NUMBER 70-1151/2019-002

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 ADAMS:  Yes      ACCESSION NUMBER: ML19101A274       SUNSI REVIEW COMPLETE       FORM 665 ATTACHED

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U. S. NUCLEAR REGULATORY COMMISSION  
REGION II

Docket No.: 70-1151

License No.: SNM-1107

Report No.: 70-1151/2019-002

Licensee: Westinghouse Electric Company

Facility: Columbia Fuel Fabrication Facility

Location: Hopkins, SC 29061

Dates: January 1 through March 31, 2019

Inspectors: T. Sippel, Fuel Facility Inspector, (Paragraph A.1, C.1, C.2)  
T. Vukovinsky, Senior Fuel Facility Inspector, (Paragraph A.2, C.3)  
R. Womack, Fuel Facility Inspector (Paragraph B.1)

Approved by: E. Michel, Chief  
Projects Branch 2  
Division of Fuel Facility Inspection

Enclosure

## **EXECUTIVE SUMMARY**

Westinghouse Electric Company  
Columbia Fuel Fabrication Facility  
Nuclear Regulatory Commission Integrated Inspection Report 70-1151/2019-002  
January 1 through March 31, 2019

The inspection was conducted by Nuclear Regulatory Commission (NRC) regional inspectors during normal shifts in areas of operational safety and facility support. The inspectors performed a selective examination of license activities that were accomplished by direct observation of safety-significant activities and equipment, tours of the facility, interviews and discussions with licensee personnel, and a review of facility records. No violations of more than minor significance were identified during this inspection.

### **Operational Safety**

- In the area of Nuclear Criticality Safety, no violations of more than minor significance were identified. (Paragraph A.1)
- In the area of Operational Safety, no violations of more than minor significance were identified. (Paragraph A.2)

### **Facility Support**

- In the area of Maintenance and Surveillance, no violations of more than minor significance were identified. (Paragraph B.1)

### **Other**

- (CLOSED) VIO 70-1151/2018-002-01: Failure to Assure the Subcriticality of 55-Gallon Drums in the URRS Area (Paragraph C.1)
- (CLOSED) EN 53266, Unanalyzed Scenario Associated with Uranium Recovery and Recycle System (Paragraph C.2)
- (CLOSED) Confirmatory Order Section V, Items 3(1), 3(2) and 3(3) (partial), "Engineering evaluations of the Calciner and Blue M ovens and implementation of design changes to the Blue M ovens" (Paragraph C.3)

### **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 (UF<sub>6</sub>) 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. Criticality Safety (Inspection Procedure 88015)

###### a. Inspection Scope

###### *Criticality Analysis*

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 70.62(d), Chapter 6 of the facility's License Application, and applicable procedures.

The inspectors reviewed selected criticality safety evaluations (CSEs), and NCS calculation notes, to verify that they were consistent with the commitments in the License Application. These commitments included the commitment to the Double Contingency Principle, to assure subcriticality under normal and credible abnormal conditions with the use of subcritical margin, and to have properly reviewed and approved CSEs in place prior to conducting new or changed operations. The inspectors reviewed the selected CSEs to determine whether calculations were performed within their validated areas of applicability and consistent with the validation report. The CSEs were selected based on factors such as whether or not they were new and/or revised and the last time they were reviewed by the NRC. The CSEs reviewed are 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. This included the review of accident sequences that the licensee determined to be not credible to determine whether the bases for incredibility were consistent with the commitments, definitions, and methodologies in the license application. Additionally, the inspectors reviewed selected accident sequences designated as not credible to determine whether the bases for incredibility relied on any items which should be identified as items relied on for safety (IROFS) as required by 10 CFR Part 70.61. This review was conducted focusing on the areas of the Scrap Uranium Processing System, Ammonia Diurinate (ADU) Fuel Rod, and the ADU Bulk Blending System.

The inspectors reviewed the latest validation report (CN-CRI-18-001) to verify consistency with the technical practices and methodologies specified in the license application. The validation report allowed for the use of MCNP6, and established a new bias and bias uncertainty for calculations that use MCNP6. The inspectors reviewed the trending of bias with respect to various parameters (e.g., H/X, Enrichment) and interviewed licensee NCS staff to verify that they had appropriately considered trends in the bias to appropriately establish the bias and bias uncertainty required by

Section 6.1.5.2 of the License Application. The inspectors reviewed the validation report to verify that it was prepared, reviewed, and approved by qualified individuals; that the margin of safety was large compared to the uncertainty in the calculated value of  $k_{eff}$ ; and that the validation methodology was described and was in accordance with the requirements of ANSI/ANS-8.24-2007 as required by Section 6.1.5.3 of the License Application.

#### *Criticality Implementation*

The inspectors performed walk-downs in the areas of the Scrap Uranium Processing System, ADU Fuel Rod, and the ADU Bulk Blending System 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 in the attachment. The inspectors reviewed process and system descriptions, drawings, and calculations to verify that engineered controls established in the CSEs were included and being implemented as specified. The engineered controls reviewed included, ADUSCRP-114, -115, -117, -144, and ADUROD-106. The inspectors reviewed operating procedures and postings to verify that selected administrative controls established in the CSEs were included. The administrative controls reviewed included, FLOOR-112 and ADUBB-107. The inspectors interviewed operators to verify that administrative actions established in the CSEs were understood and implemented as specified. The inspectors reviewed the integrated safety analysis (ISA) summary and supporting ISA documentation to determine whether the controls identified in the ISA were supported by technical bases in the CSEs.

#### *Criticality Operational Oversight*

The inspectors reviewed records of NCS facility walkthrough assessments from the last quarter and interviewed NCS engineers to determine whether NCS staff routinely interviewed operators and assessed field compliance with selected NCS controls. Additionally, the inspectors interviewed NCS management and reviewed procedures to verify that the NCS function performed these audits such that all fissile material processing areas are assessed at the required frequencies by qualified NCS engineers, and that area management is given the opportunity to participate as required by Section 6.1.9 of the License Application and RA-316.

The inspectors reviewed selected cleanout activities from the CSEs listed above to verify that the licensee had established controls on long-term accumulations. Specifically, the inspectors walked down the accumulation point below the filter press in ADU Scrap to verify that the licensee's IROFS (ADUSCRP-117 and -144) will prevent or mitigate accumulations. The inspectors reviewed licensee calculations (e.g., Engineering Calc Note Form, "Filter Press Hood Passive Engineered Drain Holes," Revision (Rev.) 0), maintenance procedures (e.g., OM81239) and work orders (e.g., WO805673, WO815717) for these IROFS to verify that the licensee had established provisions to ensure that criticality accident sequences involving an accumulation of fissile material remained highly unlikely in accordance with 10 CFR 70.61.

#### *Criticality Programmatic Oversight*

The inspectors reviewed selected NCS program procedures, including those that had been recently revised, to determine whether the licensee implemented license requirements and whether the NCS program was enacted in accordance with them. The

inspectors conducted interviews and reviewed records to determine whether NCS staff reviewed new and/or revised fissile material operations and procedures, consistent with program procedures and at a level commensurate with their significance.

The inspectors reviewed the selected NCS documents listed in the attachment to verify that they were performed in accordance with NCS program procedures and received appropriate independent review and approval.

*Criticality Incident Response and Corrective Action*

The inspectors reviewed selected NCS-related corrective action program (CAP) entries to verify that anomalous conditions were promptly identified and entered into the CAP, 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 sufficiently broad, they were completed, and they were appropriate to correct the condition. Additionally, the inspectors reviewed the selected CAP entries to assess whether the licensee followed regulatory requirements and procedures with regards to reporting plant conditions to the NRC. The CAP entries reviewed included those listed in the attachment.

b. Conclusion

No violations of more than minor significance were identified.

2. Operational Safety (Inspection Procedure 88020)

a. Inspection Scope

The inspectors interviewed licensee staff, conducted plant walk-downs, and reviewed records associated with the operation of three plant process areas: (1) ADU scrap, (2) ADU Bulk Blending, and (3) Scrap Uranium Processing. The inspectors selected a sample of safety significant controls (SSCs), including IROFS, for accident sequences applicable to these processes as described in the ISA Summary to verify that the SSCs were implemented and maintained in accordance with the applicable regulatory requirements and the licensing basis of the facility. The inspectors selected a sampling of IROFS from the above areas which are listed in the attachment to this report.

The inspectors reviewed the IROFS to confirm they were present and capable of performing their intended safety function(s). The inspectors reviewed operating procedures for administrative SSCs and work instructions for those SSCs that were implemented through the preventive maintenance program. The inspectors reviewed a sampling of recent records documenting the implementation of the SSCs to verify that they were performed in accordance with the attributes described in the ISA Summary and the License Application. Additionally, the inspectors reviewed the management measures (i.e. procedures, training, and maintenance) to verify they were implemented for the selected SSCs as required by NRC regulations and Chapter 3 of the License Application.

The inspectors performed a walk-down of the selected IROFS in the ADU Bulk Blending, ADU Rods, and Scrap Uranium Processing Areas to determine if the IROFS, both passive and active, were installed and being operated as described in the ISA Summary.



The inspectors reviewed the dimensional qualities of passive IROFS to verify that IROFS were installed and being maintained in accordance with design documentation and as described in the ISA Summary and CSEs.

The inspectors reviewed training material and attendance records in the area of operations safety for the selected safety controls to verify that the licensee provided training to the staff as described in the management measures section of the License Application. The inspectors also interviewed licensee staff and reviewed documentation to verify that: (a) safety-significant changes to procedures in the area of Operations Safety, (b) changes to the Operations Safety program organization, and (c) program audits/self-assessments performed since the last NRC inspection in this area, if any, were implemented in accordance with the license requirements.

Additionally, the inspectors reviewed a sample of plant issues entered in the Westinghouse Incident Reporting (Redbook) system and the CAP to verify that safety-significant issues were documented for evaluation and resolution. The scope of corrective action documents review included the implementation of compensatory measures for unavailable safety controls (when applicable).

b. Conclusion

No violations of more than minor significance were identified.

B. Facility Support

1. Maintenance and Surveillance of Safety Controls (IP 88025)

a. Inspection Scope

The inspectors reviewed the licensee's maintenance and surveillance activities for IROFS and other SSCs to determine whether the licensee established an effective program to ensure IROFS remained available and reliable to perform their intended safety function when needed in accordance with 10 CFR Part 70.61 and Chapter 3, "Conduct of Operations," of the License Application. Specifically, the inspectors reviewed completed work packages, observed pre-job briefings, and reviewed post-maintenance testing records to verify maintenance and surveillance activities for IROFS were performed to ensure the safety controls were maintained.

The inspectors reviewed the licensee's preventative maintenance and maintenance work order handling procedures to verify provisions were in place to ensure pre-job planning and preparation of work orders were conducted in accordance with licensee procedures as required by Section 3.2.1, "Maintenance Program Structure," of the License Application. The inspectors observed maintenance shift turnover meetings and pre job briefs for maintenance activities to verify compliance with the work control program requirements.

The inspectors observed maintenance work activities on the ADU scrap, ADU Bulk Blending, and Scrap Uranium Processing systems and processes to verify work activities were conducted in accordance with licensee procedures. The inspectors reviewed procedures in use by licensee staff to verify that the latest revision of the appropriate procedure was being implemented. The inspectors also reviewed the most

recent audit conducted of the maintenance program to verify that the licensee conducted program reviews as required by Section 3.6, "Audit and Assessments," of the License Application.

The inspectors reviewed the licensee's CAP and Redbook entries to verify that performance issues relating to the maintenance and surveillance of IROFS and SSCs were identified and recorded as well as whether corrective actions had been implemented. The inspectors reviewed the corrective actions associated with safety control degradation and failures to verify that post-maintenance testing and calibrations were adequately performed prior to restoring equipment to operational status, when required. Inspectors also reviewed completed work orders to verify required approval and work order review occurred prior to returning equipment to service.

b. Conclusion

No violations of more than minor significance were identified

c. Other Topics

1. Violation Closure

Violation (VIO) 70-1151/2018-002-01: Failure to Assure the Subcriticality of 55-Gallon Drums in the URRS Area.

On March 15, 2018, NRC inspectors identified a credible accident sequence that was not properly analyzed in the licensee's CSEs and ISA. This sequence involved the collection of fissile solution in a non-favorable geometry 55-gallon drum used for processing at the URRS 706 hood. The drum is routinely replaced and relocated to another area of the facility for further processing. This was also reported to the NRC as Event Notification (EN) 53266.

The inspectors performed walk downs in URRS and reviewed the licensee's corrective action entries related to this violation (IR-2018-7348 and IR-2018-7421) as well as portions of the new revisions to CSE-99-G, CSE-13-E, and CSE-4-E. The licensee had revised these documents to include accident sequences addressing the accumulation of fissile solution in 55-gallon drums and to establish new IROFS, including URSSCRP-191, and -192, which require the drum's plastic liner to be taped shut and the lid to be sealed prior to transportation. The inspectors reviewed the new accident sequences to verify that the IROFS established were sufficient to meet the performance requirements of 10 CFR 70.61. This item is considered closed.

2. EN 53266 Closure

On March 16, 2018, the licensee reported the discovery of the improperly analyzed sequence discussed above in Paragraph C.1 as EN 53266, Unanalyzed Scenario Associated with Uranium Recovery and Recycle System. On May 15, 2018, the licensee submitted their written event report, LTR-RAC-18-32, in accordance with 10 CFR 70 Appendix A and 10 CFR 70.50. The inspectors reviewed this information as part of the closure of VIO 70-1151/2018-002-01, and this item is considered closed.

### 3. Review of Confirmatory Order Items (Inspection Procedures 92703 and 88020)

#### a. Inspection Scope

The inspectors reviewed the licensee's actions regarding Confirmatory Order (CO) Section V, Item 3(1) (ML17221A112), which required the licensee to conduct an engineering evaluation of the calciner and calciner off-gas scrubber design and operation to determine methods to reduce uranium carry-over into the S-1030 scrubber. In addition, the inspectors reviewed CO Section V, Item 3(2), which required the licensee to conduct an engineering evaluation of the Conversion Scrap Cage Blue M oven to determine methods to improve the functionality of the Blue M oven in a wet environment and improve accessibility for inspection and maintenance activities.

The inspectors reviewed the engineering evaluations associated with the calciner and the Blue M ovens and noted that these evaluations were completed on time as required by the CO.

For the Blue M ovens, the inspectors noted that the licensee had administratively separated the ovens so that one is used for wet processing and one for dry. Westinghouse determined that when processing wet material, they were using initial temperatures that were too high, which resulted in the moisture all flashing to steam at once which caused the filters to rapidly clog. The licensee made procedural changes for controlling the ramping of temperature when processing wet material which greatly reduces the rapid steam spike and clogging of the filters. Filter changes have gone from once a shift to approximately once a week with this procedure change. The second part of the modification was to install a platform over the ovens to allow the operators to easily inspect and change the filters. The inspectors noted that previously a man lift was used to provide access to the filters. While interviewing operators, it was noted that this process was very time consuming and unsafe for the workers and adjacent plant equipment. The inspectors reviewed the configuration change package, walked down the plant modifications, and reviewed the procedure changes associated with the design changes to verify they were in accordance with the engineering evaluation. The inspectors noted that according to CO Section V, Item 3(3), Westinghouse was required to implement improvements to the Blue M ovens in accordance with the engineering evaluation within three years of issuance of the Order. The due date for these modifications was August 2020.

For the calciner off-gas scrubber, the inspectors noted that the licensee had completed the evaluation and was in the process of generating the necessary configuration change packages to implement the design changes. The inspectors reviewed the evaluation and noted that the licensee plans on implementing four improvements to the calciner system:

- i. Automatic pH Control – Install online pH monitoring with display in the Conversion Control Room and means to control ammonia addition to maintain pH at the desired level.
- ii. Off-Gas Condenser Spray Nozzle Flow Indication – Install a flow meter with remote indication and low flow alarm in the Conversion Control Room. This will provide indication of reduced or loss of flow to the spray nozzle at the off-gas condenser.

- iii. Improved Scrubber Slab Tank Level Indication – Improve the ability to accurately monitor water level in the slab tank to assure appropriate level is maintained. Improve monitoring ability via means such as adding an automatic flush on the level transmitter sensing line or adding a redundant/alternate method of level indication.
- iv. Scrubber Solution Temperature Indication – Provide indication of scrubber solution temperature through a display in the Conversion Control Room and high temperature alarm. This will provide enhanced capability to maintain scrubber solution within the optimal operating range.

Implementation of the above modifications as required by CO Section V.3(3) are tentatively scheduled for early 2020.

b. Conclusion

The licensee has completed the engineering evaluations of the calciner and Blue M ovens as required by CO Section V, Item 3(1) and 3(2). In addition, the licensee has completed implementation of modifications to the Blue M ovens as required by CO Section V, Item 3(3). Based on the review of engineering evaluations and design changes, the NRC concludes that Westinghouse has met the requirements stated in CO Section V, Items 3(1) and 3(2), and partially completed Item 3(3) for the Blue M ovens only. Items 3(1) and 3(2) are considered closed, and Item 3(3) is considered partially closed.

D. Exit Meeting

The inspection scope and results were presented to members of the licensee's staff at various meetings throughout the inspection period and were summarized on March 14, 2019, to E. Wills and staff. No dissenting comments were received from the licensee. Proprietary information was discussed but not included in this report.

## SUPPLEMENTAL INFORMATION

### 1. KEY POINTS OF CONTACT

<u>Name</u>	<u>Title</u>
G. Byrd	Licensing Engineer
G. Couture	Licensing Engineer
W. Macecevic	Maintenance Manager
N. Parr	Licensing Manager
J. Vining	Sr. NCS Engineer
C. Miller	NCS Manager
D. Gehr	NCS Engineer
M. Johnson	Sr. NCS Engineer
T. Scott	Sr. NCS Engineer

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

### 2. LIST OF ITEMS OPENED, CLOSED, AND DISCUSSED

#### Closed

VIO 70-1151/2018-002-01	VIO	Failure to Assure the Subcriticality of 55-Gallon Drums in the URRS Area. (Paragraph C.1)
EN 53266	EN	Unanalyzed Scenario Associated with Uranium Recovery and Recycle System. (Paragraph C.2)
CO Section V, Items 3(1), 3(2), and 3(3) (partial)	CO	Engineering evaluations of the Calciner and Blue M ovens and implementation of design changes to the Blue M ovens. (Paragraph C.3)

### 3. INSPECTION PROCEDURES (IP) USED

IP 88015, Nuclear Criticality Safety  
IP 88020, Operational Safety  
IP 88025, Maintenance and Surveillance of Safety Controls  
IP 92703, Follow-up of Confirmatory Action Letters or Orders

### 4. DOCUMENTS REVIEWED

#### IROFS Reviewed:

ADUBB-909, ADUBB-911, ADUBB-912, ADUBB-913, PELPREP-913, ADUBB-914, ADUBB-915, ADUBB-107, ADUBB-122, PELPREP-916, ADUBB-907, ADUROD-106, ADUROD-109, ADUROD-144, ADUROD-155, ADUROD-140, ADUROD-149, ADUSCRA-130, ADUSCRP-111, ADUSCRP-115, ADUSCRP-144, ADUSCRP-170, ADUSCRA-101, ADUSCRA-148, ADUSCRA-106, ADUSCRA-115, ADUSCRA-116, URSSCRP-191, URSSCRP-192

Records:

CSE-4-E, Criticality Safety Evaluation for the URRS 706 Hood, Rev. 9  
 CSE-5-A, Criticality Safety Evaluation (CSE) for Ammonium Diuranate (ADU) Bulk Blending System, Rev. 2  
 CSE-10-A, Criticality Safety Evaluation (CSE) for the ADU Rod Area, Rev. 6  
 CSE-10-B, Criticality Safety Evaluation (CSE) for Product Assurance Rod Inspection, Rev. 6  
 CSE-11-B, Criticality Safety Evaluation (CSE) For Uranium Scrap Cage Precipitation, Rev. 7  
 CSE-11-D, Criticality Safety Evaluation (CSE) For Scrap Cage Tanks, Rev. 16  
 CSE-13-E, Criticality Safety Evaluation (CSE) for URRS Trash and Assay Operations, Rev. 2  
 CSE-99-G, Criticality Safety Evaluation for Inadvertent Containers, Rev. 3  
 CN-CRI-18-001, MCNP6.1 Benchmark Calculations and Bias Determination for Homogeneous and Heterogeneous Systems at the CFFF Containing Uranium, Rev. 0  
 CN-CRI-18-006, Reactivity Study of Systems Containing Cream Can Arrays and SNM Solution Slabs, Rev. 0  
 EHS-AUDIT-18-2, Rev. 1, Formal Compliance Audit, dated June 6, 2018  
 ISA-05, ADU Bulk Blending System, Rev. 14  
 ISA-10, ADU Fuel Rod Area, Rev. 14  
 ISA-11, Scrap Uranium Processing System, Rev. 13  
 ITR-14113, Scrap Cage Filter Press, Rev. 0, dated July 28, 2014  
 LTR-RAC-18-32, Westinghouse Reported Event # EN53266 60 Day Follow-Up Report, dated May 15, 2018  
 OM81211 Work Orders, Safety Interlocks, Bulk Blending, Annual OM  
 PM81001 Work Orders, Siletta Feeder, Annual PM  
 PM81013 Work Orders, Electric Tumble Blender Support, Inspection – 13 Week PM  
 PM81036 Work Orders, Bulk Blending Cart Lift – 13 Week PM  
 RAF-316-1, Nuclear Criticality Safety Checklist for NCS Facility Walkthrough Assessments, (various areas, various dates)  
 WO805673, dated July 31, 2018  
 WO815717, dated October 29, 2018  
 WO816165

Procedures:

OM81239, SI-Safety Scrap Cage Filter Press Hood Visual Inspection – 13 Week OM  
 MCP-108000, Preventative Maintenance, Rev. 20, dated July 26, 2018  
 MCP-108103, Preventative Maintenance Work Order Handling, Rev. 41, dated May 10, - 2018  
 MCP-108233, Limits and Requirements of Maintenance Troubleshooting, Rev. 3, dated July 20, 2017  
 RA-108, Safety Significant Controls, Rev. 39, dated July 12, 2018  
 RA-312, NCS Calc Note Generation, Format, and Content Requirements, Rev. 8  
 RA-316, NCS Facility Walkthrough Assessments, Rev. 11  
 RAF-314-3, Criticality Safety Evaluation (CSE) Editorial Implementation, Rev. 1  
 WM-001, Work Management Process, Rev. 0, dated January 9, 2014  
 WM-002, Work Request / Work Order Initiation and Prioritization, Rev. 6, dated October 30, 2018  
 WM-007, Management Scheduling, Rev. 4, dated May 10, 2018  
 WM-008, Work Order Planning, Rev. 3, dated May 10, 2018

Other Documents:

Engineering Calc Note Form, "Filter Press Hood Passive Engineered Drain Holes,"  
Rev. 0  
QCF-1064, Moisture Analysis Log Sheet, various entries  
Training video, for wet powder

Condition Report Written as a Result of the Inspection:

Redbook: 74825

Condition Reports Reviewed:

Redbook: 74805, 73607, 73838, 74035, 74351, 74402, 74738  
IR-2018-7348, IR-2018-7421, IR-2018-8044, IR-2018-9791, 2018-9913, 2018-11185,  
2018-15342, IR-2018-16922