



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION III
2443 WARRENVILLE RD. SUITE 210
LISLE, IL 60532-4352

July 11, 2014

Ms. Gay M. Fussell
Deputy Director
Hematite Decommissioning Project
Westinghouse Electric Company
3300 State Road P
Festus, Missouri 63028

SUBJECT: WESTINGHOUSE ELECTRIC COMPANY (HEMATITE) – NRC SECURITY
INSPECTION REPORT NO. 07000036/2014004(DNMS)

Dear Ms. Fussell:

On June 12, 2014, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection of the physical security and Material Control & Accounting (MC&A) programs for the Westinghouse Hematite facility located near Festus, Missouri. At the conclusion of the on-site inspection on June 12, 2014, the inspector discussed the inspection findings with members of your licensing and security management staff.

The inspection examined activities conducted under your license as they relate to security and compliance with the NRC's rules and regulations and with the conditions of your license. The inspector reviewed selected procedures and records, observed activities, and interviewed personnel. The enclosed inspection report documents the inspection results.

No findings were identified during this inspection.

In accordance with Title 10 of the *Code of Federal Regulations* (CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be 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's website at <http://www.nrc.gov/reading-rm/adams.html>. However, because of the security-related discussion contained in the enclosure, and in accordance with 10 CFR 2.390, a copy of this letter's enclosure will not be available for public inspection.

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Non-Safeguards Information. When
separated from enclosure, this transmittal
document is decontrolled.**

G. Fussell

-2-

We will gladly discuss any questions you may have regarding this inspection. If you have any questions, please feel free to contact me at 630-829-9834 or Eugenio A. Bonano of my staff at 630-829-9826.

Sincerely,

/RA/

Robert J. Orlikowski, Chief
Materials Control, ISFSI
and Decommissioning Branch
Division of Nuclear Materials Safety

Docket No. 070-00036
License No. SNM-00033

Enclosure:
IR 07000036/2014004(DNMS) (Non Public)

cc w/encl: B. Mattern, Security Manager
K. Pallagi, Licensing Engineer

cc w/o encl: Hematite Distribution Service List

G. Fussell

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U.S. NUCLEAR REGULATORY COMMISSION
REGION III

Docket Nos.: 070-00036

License Nos.: SNM-00033

Report Nos.: 07000036/2014004(DNMS) (Non Public)

Licensee: Westinghouse Electric Company, LLC

Facility: Former Hematite Fuel
Manufacturing Facility

Location: 3300 State Road P
Festus, Missouri

Dates: June 10 - 12, 2014

Inspector: Eugenio A. Bonano, M.S., Health Physicist

Approved by: Robert J. Orlikowski, Chief
Materials Control, ISFSI, and
Decommissioning Branch,
Division of Nuclear Materials Safety

Enclosure

SUMMARY OF FINDINGS

IR 07000036/2014004(DNMS); Westinghouse Electric Company, LLC (WEC); Former Hematite Fuel Manufacturing Facility; Physical Security Plan (PSP), Material Control & Accounting (MC&A) Inspection Procedures (IP) 85401, 85402, 85403, and 85405.

The security inspection at the Westinghouse Hematite facility was completed focused on the licensee's overall capability to detect, assess, and delay unauthorized access, communicate with response forces to protect against loss of control of the facility and communicate with Local Law Enforcement Agencies (LLEA). The security posture during the inspection was for the protection of Category II and III SNM with contingency to increase/add capabilities for the protection of Category I SNM in compliance with Appendix D of the PSP and the HDP Category I Contingency Safeguards Contingency Response Plan version dated July 28, 2011. Specifically, the inspection evaluated whether the protection of the Vault Type Room (VTR) and facility was in compliance with the NRC approved PSP, Safeguards Contingency Plan (SCP) and NRC regulations. Appendix D of the PSP contains the security Category I contingency plan that shall be implemented in the unlikely event a Category I quantity of SNM is located during remediation activities. The Appendix D requirements would remain in effect until the discovered Category I material is shipped off site or more detailed measurements establish that the amount of SNM is below a Category I quantity.

At the time of the inspection, all security systems and equipment for the VTR and facility were serviceable, in operation and functioning properly. The inspector observed physical security related activities to determine if the licensee was effectively implementing the requirements of the NRC approved PSP and SCP. The inspector also evaluated the licensee's implementation of the Training & Qualification Plan (T&QP); interviewed personnel, and examined a select number of procedures and representative records. In addition, the inspection verified that the licensee's MC&A program was consistent with NRC requirements and could adequately detect and protect against the loss, theft, or diversion of SNM. The inspector evaluated the licensee's handling and storage of safeguards information in accordance with regulatory requirements. The inspector used IP 81810, "Protection of Safeguards Information," to complete this part of the inspection.

Security – Category I, II, and III SNM

- No findings were identified during this inspection. (Section 1.0)

MC&A

- No findings were identified during this inspection. (Section 2.0)

Protection of Safeguards Information

- No findings were identified during this inspection. (Section 3.0)

REPORT DETAILS

1.0 Security – Category I, II, and III SNM

1.1 Physical Security Requirements for Hematite Decommissioning Project (Physical Security Plan (PSP), Security Contingency Plan (SCP), Training & Qualification Plan (T&QP))

a. Inspection Scope

Conduct of Security and Safeguards Activities:

The inspector evaluated this area by: reviewing program and implementing procedures and records; conducting interviews with responsible personnel; and performing walkdowns.

The inspector verified the licensee's access authorization program's compliance with applicable requirements. In addition, the inspector conducted the following specific inspection activities:

- verified that all personnel with unescorted site access were assessed and re-approved at the prescribed frequency to confirm that these personnel have a continued need for site access;
- verified that the licensee had an established and effective program to control personnel, package, and vehicle access to the protected area, owner-controlled, restricted, and security areas; and
- verified that on-site communication and alarm station activities were being effectively implemented.
- The inspector toured the site's controlled access area (CAA) perimeter fence, Vault Type Room (VTR), and on-site Security Monitoring Station (SMS) which had redundant communication capabilities to contact the Jefferson County 9-1-1 Dispatch Center located in House Springs, Missouri, and the Contractor Alarm Station CenterPoint Technologies located in Saint Louis, Missouri.

Status of Security Facilities and Equipment:

The inspector evaluated this area by: reviewing program procedures, implementing procedures, and records; conducting interviews with responsible personnel; and performing walkdowns.

The inspector verified that the status of security facilities and equipment complied with applicable requirements. The inspector conducted the following specific inspection activities:

- verified the licensee established temporary vehicle barrier systems at appropriate locations to protect the VTR, equipment and certain security components;
- verified the licensee conducted required search and control activities of vehicles and personnel and that those activities were conducted in an appropriate manner;

- verified by observation that access roads are adequately controlled and, whenever practicable, prescribed barriers have been installed on operational access roads; and
- verified that detection and assessment aids were functional and performed as designed, and when necessary, compensatory measures were properly implemented.

Security and Safeguards Procedures and Documentation:

The inspector reviewed program requirements, implementing procedures, records, security event reports, corrective action documents, and security-related event logs.

Specifically, the inspector reviewed a sample of security procedures and verified that they were consistent with security plan commitments and practices.

The inspector determined that security events were properly documented and logged.

Security and Safeguards Staff Knowledge, Performance and Training:

The inspector evaluated this area by: reviewing program procedures, implementing procedures, and records; conducting interviews with responsible personnel; and observing personnel while performing their duties.

The inspector conducted the following specific inspection activities:

- verified that the licensee maintained the prescribed minimum number of armed responders continuously at the site, and that those personnel possessed or had ready access to contingency equipment as prescribed by regulatory requirements; and
- verified that armed responders received appropriate training to conduct routine and reactive duties in an effective manner, including training for specific activities as prescribed by T&QP requirements.

Security Organization and Administration:

The inspector evaluated this area by conducting interviews with responsible personnel and performed walkdowns of security-related activities. The inspector conducted the following specific inspection activities:

- verified that the licensee has developed plans for site actions to be taken in the event of an imminent or occurring attack;
- verified that offsite communication systems exist in an alarm station to initiate a prearranged integrated response plan with the Local Law Enforcement Agencies (LLEA); and
- verified the licensee had actions in place to position armed response personnel at prescribed locations during maintenance and operational activities beyond routine activities, and ensured armed response personnel can retreat safely and survive to contact the LLEA.

Quality Assurance in Security and Safeguards Activities:

The inspector evaluated this area by: conducting interviews with responsible personnel; reviewing audit reports and corrective action documents of security-related activities.

The inspector reviewed security audit reports that were issued since the last inspection and a sample of documents the licensee used to identify problems. The inspector verified problems were appropriately identified and that adequate corrective measures were implemented in an effective and timely manner.

b. Findings

No findings were identified during this inspection.

2.0 MC&A

2.1 Management Structure (IP 85401)

a. Inspection Scope

The inspector reviewed the licensee's material control and accounting (MC&A) program to determine if the program was consistent with NRC requirements and could adequately detect and protect against the loss, theft, or diversion of special nuclear material (SNM). Specifically, the inspector reviewed, and discussed with licensee MC&A staff, the licensee's responsibilities and authority regarding the MC&A system capabilities as described in the approved Fundamental Nuclear Material Control Plan (FNMCP) and implementing procedures. Procedures were reviewed and discussed related to: (1) material control and accounting; (2) physical inventory; (3) DOE/NRC Form 741; (4) investigation of indicators of loss or theft of SNM; (5) item control; (6) collusion protection; and (7) use of tamper-indicating devices.

b. Findings

No findings were identified during this inspection.

2.2 Measurement Program (IP 85402), and Measurement Control Program (IP 85403)

a. Inspection Scope

The inspector reviewed the licensee's measurement systems and control program to determine if the systems and programs ensured that all quantities of SNM in the accounting records were based on measured values, and that the measurement systems used were controlled as specified in NRC requirements and the approved FNMCP. The inspector reviewed licensee procedures related to scale calibration and the operation of ISOCS. The inspector reviewed completed scale calibrations to ensure the weighing systems were properly calibrated and that the standards used to calibrate the scales were traceable to national standards. The inspector also verified that the in-house standards used for check weighings were traceable to national standards. The inspector toured the burial pit area and the building containing the ISOCS equipment, and discussed with staff the process for characterization of material found. The discussion included operation of ISOCS, detector characterization, quality control checks, test measurements, and validation for use at Hematite.

b. Findings

No findings were identified during this inspection.

2.3 Item Control Program (IP 85405)

a. Inspection Scope

The inspector reviewed the licensee's item control program to ensure that the program maintains current knowledge of SNM items, including identity, SNM content, and location of items, and that unauthorized removals of material from items will be detected. The inspector reviewed and discussed with MC&A staff the item control program, including procedures and processes for item movement, storage, and modification, tamper-indicating devices, and item control audits. The inspector also discussed the spreadsheet to be used for item tracking, and documents used to track item movements, including shipment offsite via DOE/NRC Form 741.

b. Findings

No findings were identified during this inspection.

3.0 **Protection of Safeguards Information (IP 81810)**

a. Inspection Scope

The inspector evaluated the licensee's handling and storage of safeguards information in accordance with regulatory requirements.

b. Findings

No findings were identified during this inspection.

4.0 **Exit Meeting**

The inspector presented the inspection results to Mr. Dennis Richardson, Licensing Manager, Mr. WM (Bill) Mattern, Security Manager, and members of the security and licensing management staff at the conclusion of the on-site inspection on June 12, 2014. The licensee did not identify any of the documents reviewed or statements referenced to specific processes as proprietary in nature.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

KEY POINTS OF CONTACT

Licensee

C. Evers, Radiation Safety Officer
G. Fussell, Deputy Director
WM. Mattern, Security Manager
D. Richardson, Licensing Manager
S. Welch, NMM&A Specialist

EnergySolutions (Contractor)

K. Pallagi, Licensing Engineer

Defender Services, Inc. (Contractor)

R. Taylor, Contract Security Manager

INSPECTION PROCEDURES USED

IP 88104 Decommissioning Inspection Procedure for Fuel Cycle Facilities
IP 81810 Protection of Safeguards Information

MC&A Program Inspection Procedures:

IP 85401 Management Structure
IP 85402 Measurement Program
IP 85403 Measurement Control Program
IP 85405 Item Control Program

**ITEMS OPENED, CLOSED, AND
DISCUSSED**

Opened, Closed, and Discussed

None

Attachment

LIST OF DOCUMENTS REVIEWED

The following is a list of documents reviewed during the inspection. Inclusion on this list does not imply that the NRC inspector reviewed the documents in their entirety but rather that selected sections or portions of the documents were evaluated as part of the overall inspection effort. Inclusion of a document on this list does not imply NRC acceptance of the document, or any part of it, unless this is stated in the body of the inspection report.

Westinghouse HDP – PSP, revision dated 09/11/2013

Westinghouse HDP – Category I Contingency Safeguards Contingency Response Plan; version dated 07/28/2011

LLEA MOU from Jefferson County Sheriff's Office; dated 03/02/2013 and 09/02/2013

Safeguards Event Log 2012 – 2014

Security Generator and Battery Backup/UPS Test Sheet; dated 04/29/2014

HDP-PR-PSP-114-2, Alarm Door Test Checklists; dated 05/25/2014 and 06/01/2014

HDP-PR-PSP-114-6, Security Lighting Checklist; 06/2014

HDP-PR-PSP-114-8, Communications Test Checklists; 06/2014

HDP-PR-PSP-118-3, Security Lock and Key Inventory; 06/2014

HDP-PR-DO-025-1, Backup Power Generator Surveillance Log, 05/2013 – 06/2014

HDP-PR-QA-005-6, Audit Report No.: A-1213-001, Period: 12/09/2013 – 01/16/2014

HDP-PR-PSP-112-6 Security Incident Report No.: 12-036, Incident: Security alarm panel error message; dated: 06/11/2012

1) Form HDP-PR-PSP-110-1 Compensatory Measure Report; dated: 06/11/2012

2) Issue Report #12-163-W002

HDP-PO-PSP-002, Protection of Safeguards Information and Security-Related Information, Rev. 2; dated 02/20/2013

HDP-PR-PSP-013, Security NRC Event Reporting, Rev. 1; dated 05/24/2012

HDP-PR-PSP-101, Badge Description, Issue & Control, Rev. 2; dated 07/09/2012

HDP-PR-PSP-103, Security Searches, Rev. 4; dated 07/29/2013

HDP-PR-PSP-104, Security Records and Records Retention, Rev. 1; dated 05/21/2012

HDP-PR-PSP-107, Security Monitoring Station Duties and Response, Rev. 1; dated 05/24/2012

HDP-PR-PSP-109, Security Patrols, Rev. 2; dated 05/24/2012

HDP-PR-PSP-110, Compensatory Measures, Rev. 1; dated 05/24/2012

HDP-PR-PSP-111, Security Responsibilities of Site Personnel, Rev. 4; dated 02/16/2012

HDP-PR-PSP-112, Security Officer Responsibilities, Rev. 1; dated 05/24/2012

HDP-PR-PSP-113, Firearms, Rev. 2; dated 05/21/2012

HDP-PR-PSP-114, Security Equipment Testing, Rev. 1; dated 05/24/2012

HDP-PR-PSP-115, Security Respirator Use, Rev. 0; dated 09/27/2011

HDP-PR-PSP-116, Vault Type Room Access, Rev. 0; dated 10/31/2011

HDP-PR-PSP-118, Control of Keys and Locks, Rev. 1; dated 05/24/2012

HDP-PR-PSP-120, HDP Staff, Subcontractor, Vendor Personnel In/Out Processing, Rev. 2; dated 02/16/2012

MC&A Program:

HDP-FNMCP, revision dated: 02/18/2011

HDP-PR-MCA-001, Material Control and Accounting, Rev. 2; dated 01/11/2012

HDP-PR-MCA-002, Scale Calibration, Rev. 3; dated 02/09/2012

HDP-PR-MCA-003, Physical Inventory, Rev. 1; dated 01/31/2012

HDP-PR-MCA-004, DOE/NRC Form 741, Rev. 3; dated 01/31/2012

HDP-PR-MCA-005, Investigating Indications of SNM Loss or Theft, Rev. 0; dated 07/19/2010

HDP-PR-MCA-006, Item Control Auditing, Rev. 0; dated 07/19/2010

HDP-PR-MCA-007, Collusion Protection, Rev. 2; dated 01/10/2012

HDP-PR-MCA-008, Tamper-Indicating Devices, Rev. 1; dated 01/03/2012

HDP-TBD-HP-403, ISOCS Radioactivity Measurement, Rev. 1; dated 02/04/2011

HDP-TBD-HP-413, ISOCS Operation and Data Verification, Rev. 7; dated 02/01/2012

HDP-PR-HP-601, Remedial Action Support Surveys, Rev. 0; dated 03/14/2012

HDP-PR-HP-605, Visual Inspections and Radiological Surveys in the Waste Evaluation Area and Material Assay Area, Rev. 0; dated 03/14/2012

HEM-13-MEMO-030, Assessment of the Recommendations from the MC&A System Audit for the period 09/09/2011 through 02/21/2013; dated 03/11/2013

HEM-14-MEMO-007, 2014 Calibration of Scales and Fairbanks Check Weight; dated 01/16/2014

HEM-14-MEMO-009, 2014 Calibration of Cardinal Platform Scale SN #E26500-0056; dated 01/20/2014

HEM-14-MEMO-013, 2014 Calibration of Check Weights; dated 01/23/2014

HEM-14-MEMO-020, Acceptance of Calibration for New Scale – Brecknell Platform 1 x 5000 lb.; dated 02/17/2014

HEM-14-MEMO-053, 2014 Annual Calibration of Weightronix Model 1310 Truck Scale; dated 05/30/2014

HEM-14-MEMO-058, 2014 Calibration of the Fairbanks Railroad Track Scale Model 2000; dated 06/05/2014

MC&A inventory periods: 03/08/2012 – 03/05/2013; 03/06/2013 – 03/05/2014

Lesson Plan – MC&A Annual Training Refresher 2014, Course Code: MCA-GEN-MCAR13, Revision 0; dated 12/09/2013