

August 30, 2012

EN 48048
EN 48099
NMED 120372 (Closed)
NMED 120398 (Closed)

Mr. Robert Copp
Director, Decommissioning Project
Westinghouse Electric Company
Nuclear Fuels
3300 State Road P
Festus, MO 63028

SUBJECT: NRC INSPECTION REPORT 07000036/12003(DNMS) – WESTINGHOUSE
ELECTRIC COMPANY (HEMATITE)

Dear Mr. Copp:

On August 3, 2012, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Westinghouse Hematite facility located near Festus, Missouri. The purpose of the inspection was to determine whether decommissioning activities were conducted safely and in accordance with NRC requirements. Specifically, the inspection focused on management organization and controls, radiation protection, effluent control and environmental protection, and waste management. The enclosed report presents the results of this inspection, which were discussed with yourself and other members of your staff during a telephonic exit meeting on August 3, 2012.

The inspection consisted of an examination of decommissioning activities at the Westinghouse Hematite facility as they relate to safety and compliance with the Commission's rules and regulations. Areas examined during the inspection are identified in the enclosed report. Within these areas, the inspection consisted of a selective examination of procedures and representative records, and interviews with personnel.

Based on the results of this inspection, the NRC has determined that one Severity Level IV violation of NRC requirements occurred. This violation is being treated as a Non-Cited Violation (NCV), consistent with Section 2.3.2 of the Enforcement Policy. The NCV is described in the subject inspection report. If you contest the violation or significance of the NCV, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001, with copies to: (1) the Regional Administrator, Region III; and (2) the Director, Office of Enforcement, United States Nuclear Regulatory Commission, Washington, DC 20555-0001.

R. Copp

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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 and its enclosure 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 Web site at <http://www.nrc.gov/reading-rm/adams.html>.

We will gladly discuss any questions you may have regarding this inspection. If you have questions, please feel free to contact Michael LaFranzo of my staff at 630-829-9865.

Sincerely,

/RA/

Christine A. Lipa, Chief
Materials Control, ISFSI
and Decommissioning Branch
Division of Nuclear Materials Safety

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

Enclosure:
Inspection Report No. 07000036/12003(DNMS)

cc w/encl: Hematite Distribution Service List

R. Copp

-2-

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DISTRIBUTION:

Jack Hayes
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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.: 07000036

License No.: SNM-00033

Report No.: 07000036/12003(DNMS)

License: Westinghouse Electric Company, LLC

Facility: Former Hematite Fuel
Manufacturing Facility

Location: 3300 State Road P
Festus, Missouri

Inspection Period: April 20, 2012 through August 2, 2012

Inspectors: Michael M. LaFranzo, Senior Health Physicist
Peter Lee, Health Physicist, Ph.D., CHP

Approved By: Christine A. Lipa, Chief
Materials Control, ISFSI, and
Decommissioning Branch
Division of Nuclear Materials Safety

Enclosure

EXECUTIVE SUMMARY

Westinghouse Electric Company, LLC Hematite Fuel Manufacturing Facility (Decommissioning) NRC Inspection Report 07000036/12003(DNMS)

This routine decommissioning inspection evaluated the Westinghouse Electric Company's (WEC) on-going decommissioning activities at its Hematite facility, Festus, Missouri. This routine decommissioning inspection focused on management organization and controls, radiation protection, effluent control and environmental protection, and waste management.

Management Organization and Control

- The management oversight program was adequate to ensure U.S. Nuclear Regulatory Commission (NRC) compliance in the areas observed by the inspectors. (Section 1.0)

Radiation Protection

- The licensee's staff worked safely and in compliance with NRC regulations and licensee procedures. (Section 2.1)
- The licensee failed to ensure an intact container with a net count rate greater than 300,000 counts per minute (cpm) (an indication that uranium (U)-235 may exceed 15 grams), was dispositioned as a Non-Nuclear Criticality Safety (NCS) Exempt item per the applicable work package which resulted in a violation of NRC requirements. Due to licensee identification and corrective actions, the NRC considers this a Non-Cited Violation (EN 48048; NMED No. 120372 [Closed]). (Section 2.2)
- The licensee failed to ensure that a Field Container (FC) possessed a maximum volumetric capacity of 20 liters (equivalent to the volume of a nominal 5-gallon container) which is a violation of NRC requirements. Due to the limited safety significance, the NRC considers this to be a violation of minor safety significance that is not subject to formal enforcement action (EN 48048; NMED No. 120372 [Closed]). (Section 2.3)

Effluent Control and Environmental Protection

- Oak Ridge Institute for Science and Education (ORISE) obtained environmental samples and performed walk-over surveys of burial pit areas as part of an independent radiological confirmation and verification activity for the NRC. Consequently, an IFI 07000036/12-03-01 was generated to track the results. (Section 3.1)
- The NRC continued to review the licensee's transport modeling, effluent calculations and offsite dose calculations to ensure compliance with NRC regulations. An unresolved item (URI) generated to track resolution remains open (URI 07000036/11-02-01). (Section 3.2)
- The licensee formalized plans to ensure proper water management and control of liquid effluents should a significant storm event occur. Consequently, Information Follow-up Item (IFI) 07000036/12-01-02 is closed. (Section 3.3)

Radioactive Waste Management

- The licensee voluntarily reduced burial pit soil excavation lift-depths to six-inches, until surface scan detection issues were resolved. IFI 07000036/12-01-01 remains open. (Section 4.0)

Report Details

1.0 Management Organization and Controls (88005)

a. Inspection Scope

The inspectors reviewed the licensee's management oversight program to determine if management meetings and management walk-arounds were effective tools to assist in the implementation of the radiological program.

b. Observations and Findings

The inspectors attended management meetings where licensed activities were discussed. The inspectors noted that the management meetings were organized and discussions were sufficiently detailed to reasonably address safety concerns on site.

The inspectors observed management walk-arounds which are designed to observe licensed activities and determine if procedures are being implemented as required. The inspectors noted that the management walk-arounds were adequate to determine compliance with procedural implementation.

During the inspection period, the licensee has experienced significant environmental challenges (heat) which has affected staff working outside. Temperatures in excess of 100 degrees Fahrenheit for several days in a row were not uncommon. These temperatures could have a direct detrimental effect on staff health and the ability for staff to focus on radiation protection activities. The inspectors observed that management had taken adequate precautions to ensure the safety of the workers and continued focus on radiation safety and compliance with NRC requirements.

No findings of significance were identified.

c. Conclusions

The inspectors noted that the management meetings and walk-arounds were effective tools to assist in the implementation of the radiological program.

2.0 Radiation Protection (83822)

2.1 Radiation Safety

a. Inspection Scope

The inspectors interviewed licensee staff and technicians involved in radiation protection activities to determine if they had adequate knowledge to ensure safety and compliance with NRC requirements.

Radiation protection program procedures were reviewed to determine if they were consistent with regulatory requirements and included appropriate limits, precautions and controls.

b. Observations and Findings

The inspectors observed soil excavation activities and interviewed staff associated with that activity. The inspectors found that staff had performed excavation activities with adequate knowledge to ensure radiological safety. Observed soil excavation activities were performed adequately and in accordance with sound radiation safety practices.

The inspectors observed licensee staff performing personal radiological surveys exiting radiologically controlled areas and found licensee staff were performing adequate surveys to ensure radiological control of radioactive material.

No findings of significance were identified.

c. Conclusions

The inspectors noted that the licensee staff worked safely and in compliance with NRC regulations and licensee procedures.

2.2 Surveys of Fissile Material

a. Inspection Scope

The inspectors reviewed an event the licensee reported to the NRC Operations Center on June 26, 2012 (EN 48048; NMED No. 120372 [Closed]).

b. Observations and Findings

On June 26, 2012, two technicians involved in excavation of the burial pits area had mistakenly placed a 5 gallon container reading approximately 325,000 cpm aside and did not disposition the container as a Non-NCS Exempt item for approximately 30 minutes.

Condition 9 of License SNM-33, Amendment 59 dated November 9, 2011, states, in part, that the authorized usage of licensed material is described in the August 12, 2009, Decommissioning Plan (DP) and associated supporting documents noted in Hematite DP Safety Evaluation Report (SER) (ML112101630).

Section 13.0 titled "Quality Assurance Program" in the August 12, 2009, DP and associated supporting documents noted in the Hematite DP SER (ML112101630) states, in part, that the Hematite facility specific Quality Assurance (QA) plan for decommissioning is detailed in the WEC document number HDP-PO-QA-001, "Project Quality Plan" or PQP. All work related to the Hematite facility decommissioning is required to comply with the PQP. The PQP and its implementing procedures establish the requirements that personnel are required to take for quality related activities.

Section 12.0 titled "Instructions, Procedures and Drawings" of the WEC Document Number HDP-PO-QA-001, "Project Quality Plan" or PQP requires, in part, that activities affecting quality are prescribed by and performed in accordance with documented policies, procedures, plan, and/or drawings of a type appropriate to the circumstance and that those documents for the associated work shall be developed/revised and implemented.

Section 8.4.7 titled "Surveys of Intact Containers with less than 5 Gallon Capacity" of Procedure HDP-PR-HP-601 Revision 4 titled "Remedial Action Support Surveys" requires, in part, that if a net count rate on an intact container is greater than 300,000 cpm (an indication that U-235 may exceed 15 grams), the container must be dispositioned as a Non-NCS Exempt item per the applicable work package. The licensee stated to the inspectors that this procedure is associated with quality related activities as the procedure relates to criticality controls.

WP-ECC-2010-505 titled "Excavation & Exhumation" Revision 1 is the applicable work package for container disposition as a Non-NCS Exempt item. Specifically, Section 6.3 titled "Non-NCS Exempt Material Exhumation" documented detailed procedures on the containerization of Non-NCS material which required additional markings and placing the material into a Collared Drum, among other requirements.

The licensee determined the root cause to be that a technician used and misread a small card which possessed various pieces of information, which included the information that special handling procedures were needed for an intact container with a count rate greater than 300,000 cpm. The small reference card was approved by licensee management as a way to quickly identify potential issues in the field and to minimize the amount of paperwork in contaminated areas. The technician apparently misread the card and thought the reading should have been at a higher level prior to implementing additional containerization procedures. A second independent technician involved in the survey identified the same radiation readings but did not identify the error the first technician had made.

Failure to ensure an intact container with a net count rate greater than 300,000 cpm (an indication that U-235 may exceed 15 grams), was dispositioned as a Non-NCS Exempt item per the applicable work package is a violation of NRC requirements.

Approximately 30 minutes after the initial evaluation, a Health Physics Supervisor was reviewing the documentation of the container and noticed that the count rate exceeded levels which required additional containerization. The licensee immediately implemented the appropriate procedures to containerize and analyze the contents of the container.

In accordance with licensee procedure HDP-PR-LI-001, the licensee submitted a 24 hour telephonic report to the NRC Operations Center on June 26, 2012. The NRC logged the report under EN 48048. On July 4, 2012, the licensee retracted the notification since the licensee had determined that the container did not possess greater than 15 grams of U-235.

The licensee's corrective actions included the immediate retraining of all technicians who perform radiological surveys in the field, the removal of all cards with abbreviated references to burial pit procedures from service and the replacement of those cards with the full procedures in the field so the technicians can reference the actual documents. All corrective actions were completed by June 28, 2012. The licensee has not identified any additional non-compliances relating to this violation.

c. Conclusions

One violation of NRC requirements was identified. As the licensee identified and corrected the violation within a reasonable amount of time, the violation was not repetitive and the violation was not willful, the NRC considered this to be a Non-Cited Violation.

2.3 Containerization of Fissile Material

a. Inspection Scope

The inspectors reviewed an event the licensee reported to the NRC Operations Center on July 12, 2012 (EN 48048; NMED No. 120372 [Closed]).

b. Observations and Findings

On July 12, 2012, a licensee technician was placing contaminated soil into a Nuclear Criticality Safety (NCS) controlled 5 gallon container (field container or FC), used as part of the burial pit remediation program, and noticed that the container was actually a 6.5 gallon field container. The technician had placed one shovel full of soil into the container prior to noticing that the container was of a different size than required.

Condition 9 of License SNM-33, Amendment 59 dated November 9, 2011, states, in part, that the authorized usage of licensed material is described in the August 12, 2009 Decommissioning Plan and associated supporting documents noted in Hematite Decommission Plan SER (ML112101630).

Section 12.0 titled "Instructions, Procedures and Drawings" of the WEC Document Number HDP-PO-QA-001, "Project Quality Plan" or PQP requires, in part, that activities affecting quality are prescribed by and performed in accordance with documented policies, procedures, plan, and/or drawings of a type appropriate to the circumstance and that those documents for the associated work shall be developed/revised and implemented.

Section 5.2.5 of procedure WP-ECC-2010-508 titled "Handling and Transport of Fissile Material" Revision 2 states, in part, that FC shall possess a maximum volumetric capacity of 20 liters (equivalent to the volume of a nominal 5 gallon container). The licensee stated to the inspectors that this procedure is associated with quality related activities as the procedure relates to criticality controls.

The licensee determined the root cause to be that another group within the licensee's organization had ordered 6.5 gallon containers as part of a waste disposal and storage program. The 5 gallon FC and the 6.5 gallon containers were both colored white and the diameter of both containers was the same but the 6.5 gallon container was approximately 3 inches taller. When the 6.5 gallon containers were purchased, the licensee did not control those containers appropriately and one was accidentally placed in the excavation area.

Failure to ensure FC possessed a maximum volumetric capacity of 20 liters (equivalent to the volume of a nominal 5 gallon container) is a violation of NRC requirements.

The licensee identified that twenty 6.5 gallon containers were purchased. However, they could only find 14 of the containers. A complete search of the facility did not locate the other six containers. The licensee believes that they were only sent fourteen 6.5 gallon containers and the other six were 5 gallon containers.

The licensee's corrective actions included the destruction of the 14 identified 6.5 gallon containers, continuing to look for the other six containers, and the development of procurement procedures which prohibits the purchase of white containers that resemble a Field Container. These corrective actions were completed the following week. The licensee has not identified any additional non-compliances relating to this violation.

The inspectors interviewed the licensee's criticality control engineers and were informed via discussion and documentation that based upon the fissile material found to date, there would be almost no possibility that a 6.5 gallon container would have any effect on criticality controls.

c. Conclusions

One violation of NRC requirements was identified. Through licensee interviews and review of documentation, the NRC determined that the use of a 6.5 gallon container would have no reasonable effect on criticality controls at the facility. In addition, the licensee identified the violation within a very short period of time and immediately implemented corrective actions. Consequently, the NRC considers this to be a violation of minor safety significance that is not subject to formal enforcement action.

3.0 Effluent Control and Environmental Protection (88045)

3.1 Oak Ridge Institute for Science and Education Environmental Sampling

a. Inspection Scope

The NRC contracted and requested ORISE to obtain a selected quantity of environmental samples from the licensee's facility as part of the NRC's Quality Control review of the licensee's program.

b. Observations and Findings

On June 12 and 13, 2012, three staff from ORISE visited the licensee's facility to obtain spilt environmental samples. The spilt environmental samples were taken from monitoring wells NB-71 and GW-W and sediment sampling points SS-17 and SS-52. Spilt soil samples were also taken from the waste handling bins, two samples, and the soil re-use area, two samples. The waste handling bins contain contaminated soil, above the unrestricted release criteria, which the licensee will ship to an authorized disposal facility. The soil re-use area contains soil which is below the unrestricted release criteria and will remain on-site. ORISE staff also perform a radiological survey walk-over of area South-5.

The NRC reviewed the ORISE and licensee sampling and survey procedures. The NRC also observed the implementation of several procedures by ORISE and licensee

personnel. The NRC did not identify any significant procedural differences between ORISE and the licensee's sampling and survey programs. The NRC had requested, through their contractor, to take the above samples and radiological surveys as part of independently comparing radiological survey results with the licensee.

As of the exit date for this inspection, ORISE had not issued their findings in a final report.

No findings of significance were identified.

c. Conclusions

The NRC determined that the licensee and ORISE implemented procedures as appropriate and required. The NRC will review the findings from the final report when issued by ORISE. Additional actions and reviews will be documented in the next inspection report. Consequently, an IFI was generated to track the results (IFI 07000036/12-03-01).

3.2 Well Effluent Release

a. Inspection Scope

The NRC inspectors and the NRC Project Manager continue to review circumstances, transport modeling and effluent calculations regarding an unanticipated and unevaluated release of technetium (Tc)-99 from Monitoring Well BD-02, which was tracked as URI 07000036/11-02-01. The purpose of the review was to determine if the licensee was in compliance with NRC regulations relating to radiological off-site release.

b. Observations and Findings

On June 27, 2011, the licensee obtained a water sample from Monitoring Well BD-02 for which the analysis noted substantially higher levels of Tc-99 (30,300 pCi/L) and total uranium (32.26 pCi/L) than in previous samples. Historically, the licensee's water samples from Monitoring Well BD-02 averaged approximately 5,723 pCi/L for Tc-99 and 1.0 pCi/L for total uranium. A re-analysis of the sample yielded equivalent results.

On December 1, 2011, the licensee provided the NRC with a document titled "Fate and Transport Modeling for Well BD-02 at the Westinghouse Hematite Site" concerning possible release mechanisms of the Tc-99 to monitoring well BD-02 and pathway of the contamination from the well through the ground water.

On December 7, 2011, the licensee developed a draft document which provided, based upon licensee modeling of water intake to a member of the public, a dose estimate of 0.035 mrem/year for Tc-99 and 0.05 mrem/year for uranium, within the aquifer, at approximately 165 feet downstream of the monitoring well BD-02.

The NRC identified several licensee assumptions concerning the transport modeling and effluent release estimates that could significantly increase the licensee's estimated dose. In response to NRC concerns, the licensee obtained the services of a consulting firm to develop models and determine potential dose consequences associated with the release

of licensed material. The consultant firm's report was planned to be finalized at the end of August 2012. The final report will be reviewed by the inspectors to determine compliance with NRC effluent release and decommissioning release criteria in accordance with Title 10 of the Code of Federal Regulations (CFR) Part 20. Consequently, this issue continues to be tracked as URI 07000036/11-02-01.

No findings of significance were identified.

c. Conclusions

The NRC is continuing to review the licensee's transport modeling, effluent calculations and potential off-site dose calculations to ensure compliance with NRC regulations (URI 07000036/11-02-01).

3.3 Excavation Area Water Monitoring

a. Inspection Scope

The inspectors reviewed the licensee's ability to control and monitor water released from the site as a result of a postulated storm event overwhelming active earthen sumps during remediation.

b. Observations and Findings

The inspectors reviewed the licensee's capability to ensure water resulting from an abnormal storm event could be managed to ensure off-site releases satisfied regulatory requirements. Specifically, Section 8.1.4, Chapter 8, of the DP states, in part, that "The potential exists for a storm event to overwhelm active earthen sumps during remediation. Weather conditions will be monitored during remediation and additional pumps and/or holding tanks will be onsite and added, if necessary, to manage water from storm events."

During the last inspection, the inspectors performed interviews and noted that the licensee staff monitored site weather conditions and had contemplated strategies to cope with large storm events. However, the licensee had not formulated plans to ensure strategies would be effectively implemented. Moreover, the licensee had not established means to ensure equipment, supplies and staffing necessary to execute water management controls were readily available. As a result, a previous inspection opened IFI 07000036/12-01-02.

In response to the inspector's findings, the licensee developed a draft procedure WP-ECC-2010-503-Rev 5 titled "Construction Stormwater Management." The inspectors reviewed the draft procedure and noted that the procedure addresses the issue raised by the inspectors. Specifically, the licensee had a sufficient quantity of guidance to adequately manage water from an abnormal storm event. The managers who developed the procedure are also the individuals who will need to implement the procedure. Therefore, the inspectors believe that, through the procedural development process, adequate training has been provided to the appropriate licensee staff.

The licensee plans to finalize the referenced procedure in late August 2012. Consequently, NRC considers IFI 07000036/12-01-02 closed.

No findings of significance were identified.

c. Conclusions

The NRC determined that the licensee had adequately addressed an issue involving the prevention of an unmonitored off-site release should a significant storm event occur.

4.0 Radioactive Waste Management (88035)

a. Inspection Scope

The inspectors reviewed the licensee's radioactive waste program to determine whether or not they were characterizing and disposing of waste in accordance with NRC requirements.

b. Observations and Findings

As part of the radioactive waste characterization program, the licensee performed radiological surveys (or scans) using a Sodium-Iodide (NaI) probe on a flat plot of potentially contaminated soil. The licensee refers to this as the in-situ radiological survey program. The in-situ radiological survey program scans 100 percent of the surface soil to ensure the removal of discrete material and then quantifies the activities of U-235. The scan cannot detect Tc-99 in the soil.

During the inspection period covered by Inspection Report No 07000036/2012-001 and this inspection period, the inspectors reviewed the licensee's in-situ radiological survey program and could not determine whether concentrations of U-235 of the discrete material could be detected as required by the DP and NRC regulations. Specifically, the licensee was performing in-situ radiological surveys and then removing the first 12 inches of soil for disposal or re-use and the NRC had additional questions on whether the licensee scans could: (1) identify contaminated soil with an average concentration exceeding 0.1 grams/liter of U-235 within 12 inches of soil; and (2) detect 15 grams of U-235 within 12 inches of soil.

The DP and associated SER and responses to requests for additional information (RAI) (ML110270200) define Nuclear Criticality Safety (NCS) Exempt Material as the following: "Unless otherwise defined and justified within a nuclear criticality safety evaluation, NCS Exempt Material is conservatively defined as material containing U-235 with an average nuclide fissile concentration not exceeding 0.1 grams U-235/liter, or material that comprises no greater than 15 grams U-235 and is enclosed within a container with a volume of at least 5 liters." In addition, the DP and associated documentation describe the purpose of the Gamma Walkover Surveys (GWS) as the following: "The objective of the in-situ radiological surveys is to identify materials that do not satisfy the NCS Exempt Materials criteria."

Figure 1 of HEM-12-MEMO-041 provides an illustration that appears to indicate that the licensee may not be able to detect 15 grams of U-235 below approximately 6 inches of soil with a radiological detection set point of 19,000 counts per minute (19 K). In

addition, the same document does not definitively state that the licensee could detect 15 grams of U-235 or exceeding 0.1 grams of U-235/liter in the first 12 inches of soil. Also, the scan set point of 19 K is based on a concentration of U-235 of 0.924 g/cc in a lump of soil (Table 2-3, NSA-TR-10-12 Rev. 2). The actual concentration of U-235 in the discrete material or lump of soil could be greater than 0.924g/cc. Due to the attenuation of low energy gamma radiation emitted from U-235, the detector response could be much less than 19 K.

The in-situ radiological scan surveys are also the primary method of determining that a shipment of licensed material meets an exemption from classification as fissile material. Specifically, the licensee is required, in part pursuant to 10 CFR 71.15(c)(1), to ensure that licensed material, as to be exempt from classification as fissile material, must contain no more than 180 grams of fissile material distributed within 360 kilograms of contiguous non-fissile material.

At this time, the licensee has not demonstrated to the NRC that the in-situ radiological surveys can detect the following quantities of U-235 in soil at a depth of 12 inches: (1) an average nuclide fissile concentration not exceeding 0.1 grams U-235/liter; (2) material that comprises no greater than 15 grams U-235 and is enclosed within a container with a volume of at least 5 liters; and (3) 180 grams of fissile material distributed within 360 kilograms of contiguous non-fissile material.

During the last inspection period, the licensee had voluntarily reduced the thickness of soil removal after each in-situ scan from 12 inches to a 6 inch depth. The licensee is continuing to perform soil removal after each in-situ scan at 6 inches of depth and has agreed to maintain the removal depth until NRC is satisfied that the licensee can meet all NRC requirements relating to detection capabilities of in-situ radiological scans.

No findings of significance were identified.

c. Conclusions

The inspectors determined that the licensee could not ensure that radiological in-situ surveys could identify NCS Exempt Materials or fissile exempt material within 12 inches of soil as defined in the DP and 10 CFR 71.15(c)(1), respectively. The NRC is continuing to review the adequacy of the licensee's radiological in-situ surveys and, therefore, IFI 07000036/12-01-01 remains open. The licensee has committed to continue using a depth of 6 inches for soil removal after each in-situ surface scan until the NRC verifies the adequacy of the radiological in-situ surveys for identifying NCS Exempt Materials and fissile exempt material within a depth of 12 inches of soil.

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Westinghouse Electric Company

J. Smetanka, Vice President, Operations Support for Westinghouse Nuclear Fuel
R. Copp, Director, Hematite Decommissioning Project
D. Richardson, Manager, Licensing
G. Rood, Radiation Safety Officer
M. Malin, Environmental, Health & Safety Manager
W. Mattern, Manager, Security Operations
D. Ridenhower, Manager, Occupational Health & Safety
K. Davis, Licensing

INSPECTION PROCEDURES

IP 88005 Management Organization and Controls
IP 83822 Radiation Protection
IP 88045 Effluent Control and Environmental Protection
IP 88035 Radioactive Waste Management

ITEMS OPENED, CLOSED, AND DISCUSSED

<u>Opened</u>	<u>Type</u>	<u>Summary</u>
IFI 070-00036/12-03-01	IFI	ORISE Environmental Sample Analysis
NCV 07000036/12-03-01	NCV	Failure to adequately control Non-NCS Exempt material
<u>Closed</u>	<u>Type</u>	<u>Summary</u>
IFI 07000036/12-01-02	IFI	Excessive Storm Event Evaluation
NCV 07000036/12-03-01	NCV	Failure to adequately control Non-NCS Exempt material
<u>Discussed</u>	<u>Type</u>	<u>Summary</u>
URI 07000036/11-02-01	URI	Adequacy of transport modeling and effluent calculations from Tc-99 release from monitoring well BD-02
IFI 07000036/12-01-01	IFI	Adequacy of Soil In-Situ Radiological Surveys

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
CFR	Code of Federal Regulations
CPM	Counts Per Minute
DNMS	Division of Nuclear Materials Safety
DP	Decommissioning Plan
EN	Event Notification
FC	Field Container
GWS	Gamma Walkover Survey
HDP	Hematite Decommissioning Project
IFI	Information Follow-Up Item
IP	Inspection Procedure
IR	Inspection Report
NCS	Nuclear Criticality Safety
NCV	Non-Cited Violation
NMED	Nuclear Materials Event Database
NRC	U.S. Nuclear Regulatory Commission
ORISE	Oak Ridge Institute for Science and Education
PQP	Project Quality Plan
QA	Quality Assurance
RAI	Request for Additional Information
SER	Safety Evaluation Report
SNM	Special Nuclear Material
URI	Unresolved Item
WEC	Westinghouse Electric Company

DOCUMENTS REVIEWED

DO-08-004, "Hematite Decommissioning Plan," Rev. 0

HDP-ECC-11-WP-001, "Site Preparation and Maintenance Activities," Rev. 1

HDP-PO-EM-001, "Effluent and Environmental Monitoring Plan," and Rev 3

HDP-PO-HP-100-2 (Form), "HDP Effluent and Site Release Limits," Rev 1 (January 10, 2012 and March 15, 2012)

HDP-PO-QA-001, "Project Quality Plan"

HDP-PR-EM-016, "Pumping of Accumulated Surface Water," Rev. 1

HDP-PR-FSS-710, "Final Status Surveys and Radiological Sampling of Re-Use Soil"

HDP-PR-HP-413, "ISOCs Operation and Data Verification," Rev. 8 and 9

HDP-PR-HP-423, "HPGe Sample Analysis," Rev. 5

HDP-PR-HP-425, "Sample Analysis Quality Control," Rev. 0

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