February 3, 2010

EA-09-084

Mr. E. Kurt Hackmann, Director
Hematite Decommissioning Project
Westinghouse Electric Company
Nuclear Fuels
3300 State Road P
Festus, MO 63028

SUBJECT: NRC INSPECTION REPORT 070-00036/10-01(DNMS) - WESTINGHOUSE ELECTRIC COMPANY (HEMATITE)

Dear Mr. Hackmann:

On January 12-14, 2010, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at the Westinghouse Hematite decommissioning facility (Inspection Report No. 070-00036/10-01(DNMS), enclosed). 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 the Hematite training program and corrective actions to address previously identified violations. Within these areas, the inspection consisted of selected examination of procedures and representative records, and interviews with personnel. The enclosed report presents the results of this inspection, which were discussed with you during an exit meeting on January 14, 2010.

Based on the results of the inspection, no violations were identified.

In accordance with 10 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 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 William Snell of my staff at (630) 829-9871.

Sincerely,

/RA/By George M. McCann Acting For/

Christine A. Lipa, Chief
Materials Control, ISFSI
and Decommissioning Branch

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

Enclosure:
Inspection Report 070-00036/10-01(DNMS)

cc w/encl:
E. Gilstrap
K. Waltz
J. McHugh
Wm. Earl Cook, Sr
R. Huckstep
G. Miller
D. Diehl
D. Schuette
A. Schmidt
G. Couture
M. Michelsen
P. Lamping
C. Banks
E. Kemp
M. Templeton
D. Buntin
T. Draper

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U.S. NUCLEAR REGULATORY COMMISSION

REGION III

Docket No.:	070-00036
License No.:	SNM-00033
Report No.:	070-00036/10-01(DNMS)
Licensee:	Westinghouse Electric Company, LLC
Facility:	Former Hematite Fuel Manufacturing Facility
Location:	3300 State Road P Festus, Missouri
Dates:	January 12-14, 2010
Inspectors:	William Snell, Senior Health Physicist, Region III Jeremy Tapp, Health Physicist, Region III
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
NRC Inspection Report 070-00036/10-01(DNMS)

This inspection evaluated the Westinghouse Electric Company's (WEC) performance related to decommissioning of the Hematite facility, including the training program and corrective actions to address previously identified violations.

Radiation Protection Program

The inspectors review of the licensee's training program determined that it was adequate to ensure personnel were trained and qualified to perform their assigned duties at the Hematite site. (Section 1.0)

Report Details

1.0 Radiation Protection Program (83822)

a. Inspection Scope

The inspectors reviewed the licensee's training program to assess it's adequacy to ensure personnel were trained and qualified to perform their assigned duties at the Hematite site. Documents reviewed included: HDP-PO-GM-002, *Training Plan*, Revision 2; HDP-PR-HP-102, *Health Physics Technician Training*, Revision 3; HDP-PR-GM-020, *Training Material Development and Documentation of Training*, Revision 3; HDP-PR-GM-021, *General Employee and Radiation Worker Training*, Revision 1; and, HDP-PR-GM-023, *Industrial Worker Training*, Revision 0.

b. Observations and Findings

The licensee's training program was significantly modified since previously reviewed during inspection activities in November 2008 through January 2009. Early in 2009, the licensee hired an individual with extensive previous experience in training programs to address program weaknesses and ensure all license commitments related to training were met. A major change in the program was the development of a training needs assessment in which each Department Manager was required to identify the training courses and qualifications necessary for each activity under their supervision. These needs were based on the tasks performed within a department, with qualifications and training developed to address various job/task skill areas. The training courses required for each position were dependent upon the tasks or duties assigned to that position. The position an individual was assigned to would determine which training modules were required. The program had Mandatory and Programmatic requirements, where Mandatory means the training was required before work could be performed in an assigned position while Programmatic means additional training should be completed within three months of initial assignment to a position. In addition, Appendix A of HDP-PR-HP-102 contained a matrix that compared the required training described in the License Application with the content of the health physics training modules to ensure that all the license required health physics subject manner was included in the training. Other changes included revising the Training Plan described in Policy Document HDP-PO-GM-002 to make the lesson plans the controlling documents instead of the training procedures, which enables the lesson plans to be updated without a procedure revision.

Depending on an individual's education and prior work experience, training could be waived or exempted. Specific criteria was provided as to what level of education or degree, and what professional, governmental, or industry specific certifications, would equate to a specific training module. Individuals waived from a course would still be required to take the written exam and complete any practical factor training. If an individual was exempted from a course, they would not need to complete the written test or practical evaluation, but it would require a written justification by the cognizant Department Manager and approval from the Training Program Supervisor.

Written exams for the training modules were required to cover a minimum of 80 percent of the lesson plan objectives, and required a score of 80 percent to pass. The practical evaluations training required performance objectives and established criteria to

demonstrate skill level. The inspectors reviewed the content of the nine training modules established for Radiation Worker Training in conjunction with the requirements for Junior and Senior Health Physics Technicians and found the content adequate.

The licensee had also developed Job Training Matrices (JTM) in a Microsoft Access database that listed all the training courses and qualifications for each position. The JTM was used to verify training was maintained current, and the program provided automatic alerts for required retraining. The inspectors randomly selected four individuals and reviewed the hardcopy documents comprising their official training records and found all their qualifications and training records were complete, up to date and consistent with the JTM.

c. Conclusions

The inspectors review of the licensee's training program determined that it was adequate to ensure personnel were trained and qualified to perform their assigned duties at the Hematite site.

2.0 Follow-up on Previously Identified Violations

The following three Violations were initially discussed as Apparent Violations in NRC Inspection Report 070-00036/08-02(DNMS), dated July 23, 2009. Following a Predecisional Enforcement Conference conducted in the Region III office in Lisle, Illinois on September 2, 2009, the NRC issued a "Notice of Violation and Proposed Imposition of Civil Penalty" regarding the Violations on October 23, 2009. By letter dated November 6, 2009, Westinghouse provided a written response addressing each of the Violations, which was reviewed in conjunction with discussions with the license during the conduct of this inspection. Each of these Violations is discussed below.

Violation APV 07000036/2008-02-01 Failure to Provide Complete and Accurate Information (Closed)

On March 17, 2006, the licensee provided incomplete and inaccurate information to the NRC in a response to a Request for Information, in which the licensee stated that, based on surveys performed and results measured, it estimated that the residual contamination remaining on the surfaces within the buildings was approximately 5 kilograms of uranium dioxide at less than 5 percent enrichment (250 grams of U-235) and there were zero grams of inventoried special nuclear material (U-235) mass for the process buildings. The NRC used this information to form part of the basis for the NRC granting License Amendment 52 on June 30, 2006. However, between November 11 and 14, 2008, the licensee conducted radiological surveys and identified process piping containing an estimated mass of 2,638 grams U-235.

The inspectors reviewed the licensee's corrective actions implemented in response to the violation, including, the licensee's formal written response to the violation, dated November 6, 2009; policy and procedures HDP-PO-DO-002, *Site Work Control*, Revision 2, HDP-PR-DO-023, *Site Work Planning and Performance*, Revision 2, PO-GM-004, *Project Oversight Committee Charter*, Revision 0, and HDP-PR-GM-010, *Document Requirements*, Revision 4; and Issue Report 08-325-W001. Policy HDP-PO-DO-002 and implementing procedure HDP-PR-DO-023 defines the requirements for work packages and for license department involvement in the work

package approval process. They were implemented to ensure the work objectives and requirements, including those for work close out, are defined, reviewed, and approved by the appropriate site personnel and therefore, the information provided to the NRC will be complete. Procedure HDP-PR-GM-010 defines the requirements for independent technical review and validation of calculations, assumptions, and data that support technical information included in the licensee documents listed in HDP-PR-GM-010 and any document that demonstrates compliance with applicable regulations, applicable regulator guidance, or national consensus standards. This procedure was implemented to ensure the information provided to the NRC will be accurate. In addition, through interviews with the licensee's training staff, the inspectors verified training had been given to all site personnel on human performance tools, including validating assumptions. The licensee's corrective actions appeared to be adequate to prevent recurrence of this violation. This item is closed.

Violation APV 07000036/2008-02-02 Deactivated Criticality Alarms without 70.24(a) Exemption (Closed)

Between March 22 and June 30, 2006, the licensee was authorized to possess special nuclear material in a quantity exceeding 700 grams of contained uranium-235 (U-235) and failed to maintain gamma- or neutron-sensitive radiation detectors which when energized would provide clearly audible alarm signals. Specifically, the licensee was authorized to possess uranium enriched to a maximum of 5.0 weight percent in the U-235 isotope, with up to 1,250 kilograms of U-235 at any one time, yet removed the criticality alarms from the process buildings sometime prior to March 22, 2006. This occurred before the NRC authorized the licensee to remove the criticality alarms with Amendment 52 to Westinghouse's Hematite License No. SNM-00033 on June 30, 2006.

The inspectors reviewed the licensee's corrective actions implemented in response to the violation, including, the licensee's formal written response to the violation dated November 6, 2009; policy and procedures HDP-PO-DO-002, *Site Work Control*, Revision 2, HDP-PR-DO-023, *Site Work Planning and Performance*, Revision 2, PO-GM-004, *Project Oversight Committee Charter*, Revision 0, and HDP-PR-LI-005, *Facility Change Management*, Revision 0; and Issue Reports 09-154-W008 and 08-325-W001. Policy HDP-PO-DO-002 and implementing procedure HDP-PR-DO-023 define the requirements for work packages and an overall formal work control process, including the requirements for a work package review committee with license department representation. This should ensure that there is an appropriate review of the licensee's work activities to verify the activities to be performed will be in accordance with the license requirements and applicable regulations. The licensee's corrective actions appeared to be adequate to prevent recurrence of this violation. This item is closed.

Violation APV 07000036/2008-02-05 Failure to provide adequate training for a Health Physics Technician (Closed)

From April 2007 to January 2009, the licensee failed to implement its Radiation Protection Program in that the licensee failed to provide training for a Health Physics Technician commensurate with the requirements in Procedure HDP-PR-GM-002, *Training of FFCF Hematite Project Personnel*. Specifically, the licensee had an individual fulfilling the position of a Health Physics Technician and had not provided the prescribed training to the individual.

As discussed in Section 1.0 of this inspection report, the licensee has implemented significant changes to its training program, including the hiring of a new Training Department Supervisor, revising the training program to include nine health physics training modules, updating the practical factors training, strengthening the process for verifying and accepting prior work experience and industry credentials, and improving the documentation and tracking process for verification of all training. The licensee's corrective actions appeared to be adequate to prevent recurrence of this violation. This item is closed.

3.0 Exit Meeting Summary

The NRC inspectors presented the inspection results to members of the facility management team following the onsite inspection on January 14, 2010. The licensee acknowledged the results presented.

ATTACHMENT: SUPPLEMENTAL INFORMATION

SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Westinghouse Electric Company

E. Kurt Hackmann, Director, Hematite Decommissioning Project
G. Rood, Radiation Safety Officer
D. Atchison, Supervisor, Training Department

INSPECTION PROCEDURES USED

IP 83822 Radiation Protection

ITEMS OPENED, CLOSED, AND DISCUSSED

Closed	Type	Summary
07000036/2008-02-01	APV	Failure to provide complete and accurate information.
07000036/2008-02-02	APV	Deactivated criticality alarms without 70.24(a) exemption.
07000036/2008-02-05	APV	Failure to provide adequate training for a Health Physics Technician.

Opened

None

Discussed

None

LIST OF ACRONYMS USED

ADAMS	Agencywide Documents Access and Management System
DNMS	Division of Nuclear Materials Safety
HDP	Hematite Decommissioning Project
JTM	Job Training Matrices
NRC	U.S. Nuclear Regulatory Commission
WEC	Westinghouse Electric Company