

Westinghouse Non-Proprietary Class 3 (Except for Attachment 1)



Westinghouse Electric Company LLC  
Hematite Former Fuel Cycle Facility  
3300 State Road P  
Festus, MO 63028  
USA

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Direct tel: 314-810-3376  
Direct fax: 636-937-6380  
E-mail: richardc@westinghouse.com  
Our ref: HEM-13-106, Revision 2  
Date: November 27, 2013

Subject: Westinghouse Hematite Decommissioning Project: August 28, 2013, Report of Concentrations of Radioactive Material Exceeding Limits in an Unrestricted Area, Revision 2 (Docket No. 70-36, License No. SNM-33)

- Reference:
- 1) Westinghouse (D.C. Richardson) letter to NRC (Document Control), HEM-13-106, Revision 1, dated October 23, 2013 "Westinghouse Hematite Decommissioning Project: August 28, 2013, Report of Concentrations of Radioactive Material Exceeding Limits in an Unrestricted Area, Revision 1"
  - 2) Westinghouse (D.C. Richardson) letter to NRC (Document Control), HEM-13-106, dated August 28, 2013 "Report of Concentrations of Radioactive Material Exceeding Limits in an Unrestricted Area"
  - 3) NRC (Hayes) letter to Westinghouse (Richardson), dated November 13, 2013, "U.S. Nuclear Regulatory Commission Response to Westinghouse Request for Withholding from Public Disclosure Information Attached to August 28, 2013, Letter on Exposure of Individuals in an Unrestricted Area"

The purpose of this letter is to retract References 1 and 2, and resubmit the attached report based on the U.S. Nuclear Regulatory Commission (NRC) comment in Reference 3. The report is being submitted based on 10 CFR 20.2203(a)(3)(ii), and is for an occurrence at the Hematite Decommissioning Project (HDP) involving radioactive material that exceeded the applicable limits of 10 CFR 20, Appendix C, and was not within an HDP radioactive material area.

Westinghouse Electric Company LLC (Westinghouse) has revised the report submitted in References 1 and 2 to conform to partial withholding requirements of 10 CFR 2.390. Westinghouse had requested in References 1 and 2 that the report be withheld from public disclosure since it contained information that would constitute an unwarranted invasion of personal privacy if publically disclosed. NRC commented in Reference 3 that only individual names and social security numbers should be withheld, and not the remaining information in the report.

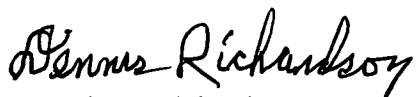
The privacy information to be withheld is subject to the Privacy Act submitted for NRC's system of records, which are identified in 77 FR 67203. In accordance with 10 CFR 2.390(a)(6), Westinghouse requests that the portion marked in Attachment 1 to this letter be withheld from

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public disclosure since disclosure would constitute an unwarranted invasion of personal privacy. The withheld information is the affected individuals' names and social security numbers. Attachment 2 contains the report with the privacy information redacted, allowing its release to the public.

If you have any questions concerning this letter, please contact me at the number indicated above, or Kevin T. Davis of my staff at 314-810-3348.

Sincerely,



Dennis C. Richardson

Deputy Director, Hematite Decommissioning Project

- Attachments:
- 1) Report of Concentrations of Radioactive Material Exceeding Limits in an Unrestricted Area
  - 2) Redacted Report of Concentrations of Radioactive Material Exceeding Limits in an Unrestricted Area

cc: J. J. Hayes, NRC/FSME/DWMEP/DURLD  
J. E. Tapp, NRC Region III/DNMS/DB  
M. M. LaFranzo, NRC Region III/DNMS/DB  
J. W. Smetanka, Westinghouse

**Attachment 2**

**REDACTED REPORT OF CONCENTRATIONS OF RADIOACTIVE  
MATERIAL EXCEEDING LIMITS IN AN UNRESTRICTED AREA**

**Westinghouse Electric Company LLC  
Hematite Decommissioning Project**

REDACTED REPORT OF CONCENTRATIONS OF RADIOACTIVE MATERIAL  
EXCEEDING LIMITS IN AN UNRESTRICTED AREA

This report addresses an occurrence involving storage of a small bag containing filter media in an area of the Hematite site that was not stored in a radioactive material area, and the levels of radioactive material contained within the filter media exceeded the applicable limits of 10 CFR 20, Appendix C, requiring posting and labeling pursuant to 10 CFR 20.1902 and 10 CFR 20.1904.

Background Information

As a necessary activity of nearing the completion of decommissioning of the site, the Document Control organization has implemented a document recording campaign. Historical documents that have been maintained in secure Document Control areas of Building 230 and Building 110 are being electronically scanned and placed on the Westinghouse document system. Building 230 is located within the Controlled Access Area of the facility which is clearly demarcated and access to which is controlled affording isolation of radioactive material. Entry into Building 110 requires the same access authorization as that of the Controlled Access Area to enter.

The site Westinghouse staff is aware that previous owners of the facility had erroneously placed radioactively contaminated documents in storage. The Westinghouse Health Physics Department also previously implemented a radiological survey campaign of these documents to identify and segregate any documents that may have been contaminated.

Prior to implementing the document recording campaign, the Document Control staff was advised of the possibility of identifying suspect contaminated documents. They were advised to stop the activity and report any suspect documents to Health Physics.

Incident Description

On August 2, 2013, a Document Control worker discovered a small bag of filter media inside of a file folder attached to a document dated July 23, 1993, while inspecting a box of historical site documents. The filter media was not labeled as radioactive material, nor was the box it was being stored in. As a consequence of the prior briefing of the possibility of identifying suspect documents the Document Control worker transferred the document/filter media to the Health Physics Count Room. Health Physics was notified of the identification of a suspect document. A radiological survey was completed of the filter media.

The Radiation Safety Officer was notified and directed an investigatory radiological survey of the document storage box in which the document/filter media originated. The Radiation Safety Officer also directed that onsite isotopic analysis be performed to determine the amount of radioactive material present in the filter media.

Reporting in accordance with 10 CFR 20.2203(a)(3)(i) is required as the concentrations of radioactive material in the package exceeded the limits as provided in 10 CFR 20 Appendix C requiring labeling in accordance with 10 CFR 20.1904 and for posting as required by

10 CFR 20.1902(e). Therefore, Westinghouse Electric Company LLC (Westinghouse) provides the required written report meeting the content requirements of 10 CFR 20.2203(b), which states:

*Contents of reports. (1) Each report required by paragraph (a) of this section must describe the extent of exposure of individuals to radiation and radioactive material, including, as appropriate:*

*(i) Estimates of each individual's dose; and*

*(ii) The levels of radiation and concentrations of radioactive material involved; and*

*(iii) The cause of the elevated exposures, dose rates, or concentrations; and*

*(iv) Corrective steps taken or planned to ensure against a recurrence, including the schedule for achieving conformance with applicable limits, ALARA constraints, generally applicable environmental standards, and associated license conditions.*

5. 10 CFR 20.2203(b)(1)(i) – Estimates of Each Individual's Dose

Personnel Involved

The identification of the document/filter media was made by one Document Control worker, of the six Document Control workers assigned to the recording campaign. All six Document Control workers have access to the area where the box containing the bag of filter media was being stored. Dose estimates have been completed for the six Document Control workers.

Dose Estimate Methodology

Radiological survey reports were reviewed to determine if any exposure could have been received by an employee or member of the public, as a result of this material being stored in the secured document storage locations.

External Dose Estimate

No gamma dose rates above normal background radiation levels were identified in the secured document storage locations. Dose rate readings taken on contact with the bag of filter media were identified to be indistinguishable above background, and as a result, external exposure is considered to be zero mrem.

Internal Dose Estimate

No removable contamination was identified on the document file or intact plastic resealable bag as indicated by the radiological survey, and as a result, no internal exposure occurred.

6. 10 CFR 20.2203(b)(1)(ii) – Levels of Radiation and Radioactive Material Concentrations Involved

The filter media was measured with an In Situ Object Counting System (ISOCS) at approximately 2.73 E-02  $\mu\text{Ci}$  total activity.

The maximum removable activity on the filter itself was measured to be less than MDA ( $< 31.8 \text{ dpm}/100\text{cm}^2$ ). The maximum fixed activity was measured at 25,000  $\text{dpm}/100\text{cm}^2$ .

7. 10 CFR 20.2203(b)(1)(iii) – Cause of the Elevated Exposures, Dose Rates, or Concentrations

The cause of this event (attaching filter media in a bag to a memo) cannot be determined as the inappropriate action occurred in July of 1993 and the individuals associated with the memo are no longer associated with site activities.

8. 10 CFR 20.2203(b)(1)(iv) – Corrective steps taken or planned to ensure against a recurrence, including the schedule for achieving conformance with applicable limits, ALARA constraints, generally applicable environmental standards, and associated license conditions

As previously stated in the Background Information section, the site Westinghouse staff is aware that previous owners of the facility had erroneously placed radioactively contaminated documents in storage. As such, the Westinghouse Health Physics Department previously implemented a radiological survey campaign of these documents to identify and segregate any documents that may have been contaminated. Documents with any significant activity were previously segregated and handled in accordance with Health Physics procedures.

The identification of the document/filter media is a result of the corrective action implemented based upon the previous identification of contaminated documents. Although documents had been previously segregated by identification during radiological survey, as a prudent action, the Document Control staff was pre-briefed on the need to inspect for suspect documents.

The Document Control staff will continue to inspect for suspect documents.

Radiation Safety Officer's Report: Levels of Radiation and Concentrations of Radioactive  
Material Involved

<b>Isotope</b>	<b>Activity Identified (uCi)</b>	<b>Limit in 10 CFR 20 (uCi)</b>	<b>Over limit requiring labeling package</b>	<b>Over limit requiring posting area</b>
U-235	1.19E-03	1.00E-03	Yes	No
U-238	4.61E-03	1.00E+02	No	No
U-234*	2.15E-02	1.00E-03	Yes	Yes
*Note: U-234 result calculated based on U-235 result, and a ratio of 18.1 to 1 of U-234 to U-235 based on 100% enrichment U-235				
Total activity in package	<b>2.73E-02</b>			

<b>Radiological Survey Results</b>		
<b>Dose Rate on Contact</b>	0 uR/Hr	(5 uR/Hr gross)
<b>Maximum fixed readings observed</b>	25,000 dpm/100cm <sup>2</sup>	
<b>Maximum removable readings observed</b>	< MDA	(MDA = 20 dpm/100cm <sup>2</sup> )

APPENDIX 1

Estimate of Individual Dose

<b>Individual</b>	<b>Social Security Number</b>	<b>DDE mRem</b>	<b>CEDE mRem</b>
[	]	0	0
[	]	0	0
[	]	0	0
[	]	0	0
[	]	0	0
[	]	0	0

Privacy Information in brackets, 10CFR2.390a(6)