

Westinghouse Non-Proprietary Class 3



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Our ref: HEM-17-51
Date: August 15, 2017

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
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Subject: Westinghouse Hematite Decommissioning Project – Response to NRC Region III
email dated August 10, 2017, Future Inspection – NRC Confirmatory Surveys in
LSA 10-05 and 10-14 (License No. SNM-00033, Docket No. 070-00036)

Reference 1: NRC (M. LaFranzo) email to Westinghouse (K. Pallagi, W.C. Evers), “Future
Inspection – NRC Confirmatory Surveys in LSA 10-05 and 10-14” dated August
10, 2017

The purpose of this letter is to provide for the U.S. Nuclear Regulatory Commission (NRC)
review information in response to the request for information contained in the NRC email to
Westinghouse dated August 10, 2017 (Reference 1).

Attachment 1 contains the Westinghouse response to the NRC request as contained in
Reference 1.

Please contact me at 314-810-3353, should you have questions or need additional information.

Sincerely,

Kenneth E. Pallagi
Licensing Manager,
Hematite Decommissioning Project

Attachment: 1) Response To NRC Request, NRC Email Dated August 10, 2017

RG003
NMSS01
NMSS
RG00-III

cc: J. Smetanka, Westinghouse
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Attachment 1

**Response To NRC Request
NRC Email Dated August 10, 2017**

Westinghouse Electric Company LLC, Hematite Decommissioning Project

Docket No. 070-00036

**RESPONSE TO NRC REQUEST
NRC EMAIL DATED AUGUST 10, 2017**

This attachment contains the response to the NRC request for information as provided in the NRC email (M. LaFranzo) to Westinghouse (K. Pallagi and W.C. Evers) dated August 10, 2017.

NRC QUESTION 1

During the removal of soil associated with the core bores, there will be a certain amount of waste generated. It is expected that solid and liquid waste will be generated in relatively small, but not insignificant, quantities. The solid waste is expected to be primarily soil from the core bores and gloves and rags from the process. The liquid waste is expected to be primarily generated from using water/solvent to clean material to prevent cross contamination between cores. What capabilities does the licensee have to store and dispose of such material?

WESTINGHOUSE RESPONSE

At this time the Westinghouse Hematite site maintains programs and procedures that are commensurate to NRC License SNM-33 licensed activities. As decommissioning, site restoration and Final Status Survey field activities have been completed in accordance with the Decommissioning Plan the remaining licensed activities include documentation and submittal of Final Status Survey reports, and performance of radiological environmental monitoring which includes groundwater monitoring (which will be terminated upon submittal of the request to terminate the NRC License SNM-33).

As the NRC is aware, Westinghouse is nearing the completion of the submittal of the FSS reports and will request termination of NRC License SNM-33. As such, the radiological survey and sample data obtained during FSS allows Westinghouse to conclude that the site meets the requirements of 10 CFR 20.1402, *Radiological Criteria for Unrestricted Release*. As such, Westinghouse no longer maintains the capability to store, process, ship or dispose of solid Low Level Radioactive Waste, liquid Low Level Radioactive Waste or Mixed Waste.

Additional Considerations for NRC Planning Activities - Radiological

Westinghouse provides the following considerations that may be useful to the NRC in planning core bore sampling in LSA 10-05 and LSA 10-14 for disposition of the soil cuttings.

- a. Backfill soil - LSA 10-05. LSA 10-05 from the surface layer to the backfill/excavation surface interface was backfilled with off-site "borrow" soil. Further details on off-site "borrow" soil can be found in FSSFR Volume 2, Chapter 8 {ML16285A368}. As such, if the core bore operation does not introduce a contaminate into the backfill soil that is removed from the bore hole the soil would remain acceptable for placement in the surface layer of the survey unit.

- b. Backfill soil – LSA 10-14. The entire volume of Combined Reuse Stockpile 1-2 (FSSFR Volume 2, Chapter 2 {ML16285A369}) material was used as backfill and placed within the Deep Stratum of LSA 10-14. As such, if the core bore operation does not introduce a contaminate into the backfill soil (Combined Reuse Stockpile 1-2) that is removed from the bore hole there are various scenarios for disposition of the backfill soil that is removed from the Deep Stratum:
 - b.1) The NRC/ORAU can dispose of the backfill soil at an appropriate facility.
 - b.2) The NRC may wish to seek a waiver/exemption from the MDNR to return the backfill soil to the core bore hole within the Deep Stratum. If the NRC pursues this method of disposition, Westinghouse requests sufficient data and documentation for inclusion to a revised FSSFR Volume 3, Chapter 5, Survey Area Release Record for LSA 10-13 and LSA 10-14.
 - b.3) Refer to the discussion of FSSFR Volume 2, Chapter 1, *Reuse Soil and Off-site Borrow Material Overview*, Section 3.3, *Modified Investigation Level*. This section captures potential paths forward that the NRC provided to Westinghouse to address the Tc-99 MIL issue in regards to placement of reuse soil. The NRC/ORAU may determine an appropriate path forward for the reuse backfill soil removed from the core bore that would comply with the intent of the NRC's proposed potential paths. If the NRC pursues this method of disposition, Westinghouse request sufficient data and documentation for inclusion in FSSFR Volume 3, Chapter 6, Survey Area Release Record for Land Survey Area 10, Survey Units 05, 06, 07, 08, 09, and 10.

The LSA 10-14 Root and Surface Stratums were backfilled with off-site "borrow" soil. As such, if the core bore operation does not introduce a contaminate into the backfill soil that is removed from the bore hole the Root and Surface Stratums soil would remain acceptable for placement in the surface layer the survey unit.

- c. For SUs LSA 10-05 and LSA 10-14, evaluation of analytical results against the Derived Concentration Guideline Levels for the Uniform Stratum Conceptual Site Model was the selected approach.

Additional Considerations for NRC Planning Activities - Chemical

- a. Once radiological survey and soil sample data indicated that radiological remediation of LSA 10-05 and LSA 10-14 was complete excavation continued for the purpose of removal of VOC contaminated soil. In specific areas of both LSA 10-05 and LSA 10-14 excavation continued until the phreatic surface was reached at which time excavation was terminated. Therefore core bores advancing beyond the excavation surface can be expected to evidence VOC contamination. Westinghouse refers the NRC to coordinate with the MDNR the disposition of the soil cuttings that may evidence VOC contamination. Westinghouse request sufficient data and documentation for inclusion in respective FSSFR Volume 3 as to the disposition of the soil cuttings and further interactions with the MDNR.

NRC QUESTION 2

The NRC plans to use ORAU and ORAU subcontractors to perform the core bores. ORAU would like to know what type of site specific training will be required to allow individuals on site?

WESTINGHOUSE RESPONSE

At this time the Westinghouse Hematite site maintains programs and procedures that are commensurate to NRC License SNM-33 licensed activities. As decommissioning, site restoration and Final Status Survey field activities have been completed in accordance with the Decommissioning Plan the remaining licensed activities include documentation and submittal of Final Status Survey reports; and performance of radiological environmental monitoring which includes groundwater monitoring (which will be terminated upon submittal of the request to terminate the NRC License SNM-33).

As Westinghouse is not a direct participant in the core bore sampling operation, as Westinghouse has concluded that the site is acceptable for unrestricted release, and as Westinghouse does not currently anticipate the need for Westinghouse to perform any further activity in Operable Unit 1 in regards to VOC contamination, at this juncture there are no site specific training requirements under a Westinghouse program that would be applicable to the NRC/ORAU conducting core bore operations at the site.

NRC QUESTION 3

The NRC is interested in performing confirmatory core bore surveys in specific areas of LSA 10-05 and 10-14, specifically concentrated in and around the lowest points of those LSA's and possibly leading west toward the former Waste Handling Area. Consequently, ORAU will need specific GPS or other mechanisms to find those surface locations and depths. Does the licensee possess that information associated with LSA 10-05 and 10-14? If so, please forward that information to NRC.

WESTINGHOUSE RESPONSE

Yes, Westinghouse possesses specific GPS data in regards to excavation surface depths. In each FSSFR Volume 3 chapter in which remediation excavation has occurred Westinghouse provides a depth of excavation map for each survey unit. For the purpose of NRC review of a survey area release record the depth of excavation maps are provided in 4 foot increments. Westinghouse has previously supplied NRC Region III with an excavation depth map that included LSA 10-05 and LSA 10-14 in Westinghouse letter HEM-17-30 {ML17123A381}. Figure 1 below is an excavation depth map of LSA 10-05 and LSA 10-14 in 1 foot increments. As the NRC/ORAU provide the specific sampling locations desired, Westinghouse can and will provide specific GPS coordinates for the sample locations.

Figure 1

