

January 13, 2014

MEMORANDUM TO: Michael Norato, Chief  
Materials Decommissioning Branch  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

FROM: John J. Hayes, Senior Project Manager **/RA/**  
Materials Decommissioning Branch  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

SUBJECT: PUBLICLY NOTICED CONFERENCE CALL SUMMARY

On November 27, 2013, a publicly noticed conference call was held between U.S. Nuclear Regulatory Commission (NRC) personnel from the Material Control, ISFSI, and Decommissioning Branch of NRC Region III, the Materials Decommissioning Branch of the Office of Federal and State Materials and Environmental Management Programs and representatives of the Westinghouse Electric Company (WEC) Hematite Facility located in Hematite, MO. Marvin Lewis participated as a member of the public.

Enclosure 1 is the agenda for the call. Enclosure 2 is a listing of the call participants. Enclosure 3 is the latest proposal for Hematite License Condition No. 17.

In the introductory remarks, the NRC explained that the conference call was a Category 1 Publicly Noticed Call in which members of the public were invited to listen to the call consistent with past practice. The public would be allotted the opportunity to communicate with the NRC after the business portion of the call but before the call was adjourned. The NRC stated that there was nothing which required the licensee to respond to any comments or questions from members of the public. However, while there was no requirement to respond, there was also nothing which precluded the licensee from responding to questions if the licensee chose to do so.

CONTACT: John Hayes, FSME/DWMEP  
(301) 415-5928

Following the introduction of each participant, each of the two agenda items was discussed.

The first agenda item involved the addition to License Condition No. 17 limiting any shipment to USEI for chemical treatment to 700 g or less of U-235 per railcar. Westinghouse indicated that they did not have any issue associated with such a limit. That limit was consistent with their email response of November 19, 2013 (ADAMS Accession No. ML13330B678).

On October 28, 2013, Westinghouse submitted a Final Status Survey (FSS) Release Record in Support of Hematite Decommissioning Project License Termination. This submittal was to demonstrate the format and content for subsequent FSS Release Records and was submitted for NRC comment to facilitate the quality and content of future submittals. During the call the NRC provided comments on the October 28<sup>th</sup> submittal. Region III's comments were discussed during the call.

- On Page 5 of 22 under Section 2.2, the 2<sup>nd</sup> to last paragraph on that page briefly describes how Westinghouse determined the excavation and remediation activities were completed. Although four cores could be satisfactory, more detail should be provided to explain why four cores are adequate to determine no more buried material remains in this area. The bases for the four cores need to be provided.
- Westinghouse should explain in more detail how the background for Th-232 and Ra-226 was calculated? They were described in Section 5.8, 1<sup>st</sup> paragraph. From prior Westinghouse submittals, e.g., Reuse Pile paperwork, the Ra-226 background was stated to be 0.9 pCi/g. Why has it now changed? While Westinghouse referenced the Hematite Radiological Characterization Report, the addition of a description to the FSSR document might lessen the NRC's review time and the need for additional Westinghouse submittals.
- It would be helpful if Westinghouse would describe from which source various values, e.g., DCGL's, Scan Minimum Detectable Concentrations (MDCs), etc., originate. Did they originate from the NRC Safety Evaluation Report Table or the FSS Plan for the particular area? For example, how were Tables 3.1 and 3.2 developed? Providing the sources of various values facilitates the NRC's review and could present a review savings in time and expense. A road map of where information originates would be helpful including Scan MDC values which are not readily available to NRC Headquarters.
- In Section 4.3, the text generally states 10 samples were found to be adequate. The basis for that conclusion needs to be provided. Westinghouse should either provide a description in Section 4.3 or a reference indicating where that number was determined. Westinghouse needs to show, through a retrospective power analysis, that 10 are sufficient. The NRC would expect to see how the number of samples was determined based upon using Westinghouse's predicted/calculated Lower Bound of the Gray Region (LBGR), the standard deviation, and the Type I and Type II errors chosen.
- One area that was lacking in the documentation was the data assessment phase of the Multi-Agency Radiation Survey and Site Investigation Manual (MARSSIM) process. Topics not discussed that the NRC will want to review include:

- Westinghouse's determination that the number of samples taken was adequate once FSS data were obtained (retrospective power analysis), which includes a comparison of the LBGR chosen for planning and the mean determined with FSS data.
- In Section 5.9, the statement that the Wilcoxon Rank Sum (WRS) test does not need to be performed because all values were under the  $DCGL_w$  is incorrect. This is true for the Sign Test but not the WRS. To determine if the WRS Test needs to be performed a difference between the highest survey unit measurements minus the lowest background measurement needs to be calculated to determine if that is below the  $DCGL_w$ .
- Since MARSSIM is being used to demonstrate compliance with the unrestricted use criteria, the release paperwork should in some way (be it the whole document or a section of the document) be structured to follow the MARSSIM process and describe how Westinghouse went through that process. Portions of the process were described but not the method as a whole. For example, the four phases of the MARSSIM process were not described in the paperwork. While it is possible to determine how each of the sections relate it's hard to see how the entire MARSSIM process was followed if it isn't structured with that in mind. Two examples of key MARSSIM components that were not described were the statement of the decision made for the survey unit and the null hypothesis the statistical test is trying to reject.
- Some benchmarking with recent sites that have been terminated would be helpful; NASA Plum Brook was suggested as a good example.

Members of the public were asked whether they had any questions or comments regarding the discussion. They had none.

Enclosures:

1. Agenda
2. Attendee List
3. NRC's Proposed License Condition No. 17

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FORTHCOMING PUBLIC MEETING ON WESTINGHOUSE HEMATITE  
DECOMMISSIONING TECHNICAL DISCUSSIONS

***Agenda***  
***Wednesdays, November 27, 2013***  
***11:00 AM – 12:00 PM***

- *Introductory Remarks – NRC*
- *Topics for Discussion –*
  - *Addition to License Condition No. 17 of 700 g or less limit of U-235 per railcar being shipped to USEI for chemical treatment*
  - *NRC Comments on Westinghouse October 28, 2013 Final Status Survey Release Record Report*
- *Public's Opportunity for Questions - Public*
- *Concluding Remarks – NRC*

Attendance List  
November 27, 2013 Conference Call

Name	Organization	Title
Mike LaFranzo	NRC, Region III	Senior Health Physicist, Material Control, ISFSI and Decommissioning Branch
Jeremy Tapp	NRC, Region III	Health Physicist, Material Control, ISFSI and Decommissioning Branch
Dennis Richardson	Westinghouse	Deputy Director, Hematite Decommissioning Project
Joe Guido	Westinghouse	Radiation Safety Officer, Hematite Decommissioning Project
Joe Smetanka	Westinghouse	Director, Hematite Decommissioning Project
Derek Mann	Westinghouse	Nuclear Criticality Safety Specialist, Hematite Decommissioning Project
Rock Neveau	Westinghouse	Radiation Safety Engineer, Hematite Decommissioning Project
Bill Mattern	Westinghouse	Security Manager, Hematite Decommissioning Project
Scott Zollar	ECC	
Marvin Lewis		Member of the Public
Michele Bresnahan	Westinghouse	Radiation Safety Engineer, Hematite Decommissioning Project
John Hayes	NRC, FSME	Senior Project Manager, Materials Decommissioning Branch,
Kevin Davis	Westinghouse	Licensing/Environmental Manager, Hematite Decommissioning Project
Mike Norato	NRC, FSME	Chief, Materials Decommissioning Branch,
Robert Orlikowski	NRC, Region III	Chief, Material Control, ISFSI and Decommissioning Branch

NRC's Proposed License Condition No. 17

17. Pursuant to 10 CFR 20.2002, the licensee may dispose of solid materials (44,809 m<sup>3</sup> of soils, soil like material (dewatered sanitary sludge) and associated debris and 23,000 m<sup>3</sup> of concrete/asphalt, piping, soil and miscellaneous equipment) provided the total inventory of Tc-99 based on the average concentration and total mass shipped remains below 1.3 Ci or 2.05 Ci based upon the 95<sup>th</sup> upper confidence limit as waste at the US Ecology Idaho facility in Grand View, ID. Pursuant to 10 CFR 30.11 and 10 CFR 70.17, this material is exempt from the requirements in 10 CFR 30.3 and 10 CFR 70.3. Any waste material which will be chemically treated at the US Ecology Idaho facility in Grand View Idaho will be shipped in a rail car and total U-235 content per rail car will be limited to 700 grams.