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Our ref: HEM-10-8
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Subject: Hematite Decommissioning Project, Process Buildings Activities Safety Reports (License No. SNM-00033, Docket No. 070-00036)

Reference: 1) Westinghouse (E. K. Hackmann) letter to NRC (M. A. Satorius), HEM-09-121, Dated, October 23, 2009, "Hematite Decommissioning Project Summary Report of the 2009 Process Building Characterization"

Westinghouse submits for your information two safety reports for near term work in the Hematite Decommissioning Project (HDP) process buildings. Attached please find the Process Hazards Analysis (PHA) report and the Nuclear Criticality Safety Assessment (NCSA) that Westinghouse has prepared for the near term activities associated with "Phase 1 – Removal of selected Process Building components containing uranium prior to building demolition", as mentioned in Reference 1. Westinghouse offers these reports to assist timely NRC approvals for access to the process buildings to prepare for process building demolition.

While Integrated Safety Management (ISM) is not a regulatory requirement for the Hematite facility (in decommissioning status; per 10 CFR 70.60), Westinghouse uses such techniques if deemed appropriate, as in the current case. The core functions of ISM include: 1) Define the Scope of Work, 2) Analyze the Hazards, 3) Develop & Implement Hazard Controls, 4) Perform Work within Controls, and 5) Provide Feedback and Continuous Improvement.

The attached Process Hazards Analysis (PHA) is one tool used to address the first few ISM core functions. An interdisciplinary PHA team consisting of knowledgeable individuals from the HDP examined each process section or node for the purpose of identifying the underlying process hazards and ensuring that there is adequate safety margin to protect against these hazards. The Phase 1 activities evaluated in the PHA involve removal or decontamination (e.g., by vacuuming) of selected process building components which were identified in Reference 1 with elevated radiological measurements. Other items may remain (e.g., due to size or other constraints) until they can be removed or disposed of as part of the process building demolition (Phase 2 -Removal of other components containing uranium and Building Demolition). Fixative may be applied in selected areas to minimize dispersion of airborne radioactive material during demolition (fixative was previously applied for this purpose throughout the buildings several years ago).

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The potential events (i.e., "What if ...?" postulates) identified and evaluated by the PHA team are listed in Table 5. The PHA resulted in the recommendations (or Action Items) summarized in Table 1. The PHA identifies those events which are evaluated within the NCSA in accordance with the HDP Nuclear Criticality Safety Program.

Table 1-5 of the NCSA outlines the list of items targeted for removal during Phase 1 and Table 1-6 identifies those targeted for decontamination. Section 2.4 of the NCSA provides the assessment of the postulated event sequences and demonstrates the large margin of safety present. This NCSA demonstrates that activities related to the planned operations involving elevated piping, ventilation duct, and miscellaneous items/components remaining within the former process buildings at the Hematite site will be safe under all normal and foreseeable abnormal conditions. All event sequences identified in the PHA and assessed in the NCSA are shown to result in no criticality consequences, or are demonstrated to have no credible potential to result in a criticality accident.

Following access to the process buildings, HDP will complete work planning necessary to prepare the work package to address the remaining core functions of ISM to develop and implement hazard controls followed by performing that work within the controls established in the work package. HDP will utilize its Human Performance tools to ensure feedback from this work is captured to assist in continuous improvement of decommissioning activities at the HDP. The detailed work package(s) developed will be available on site for NRC inspection.

Please contact Gerald Couture, HDP Licensing Manager of my staff at (803)647-2045, should you have questions or need any additional information.

Sincerely,

E. Kurt Hackmann
Director, Hematite Decommissioning Project

Attachments: 1) DO-09-003, Revision 0, Process Hazards Analysis for the Removal of Equipment and Piping from the HDP Process Building

2) NSA-TR-09-25, Revision 0, Nuclear Criticality Safety Assessment of Decontamination and Decommissioning Operations within the Former Process Buildings at the Hematite Site

cc: G. F. Couture, Westinghouse, w attachements
J. J. Hayes, NRC/FSME/DWMEP/DURLD, w attachments
J. W. Smetanka, Westinghouse, w/o attachments
W. G. Snell, NRC Region III/DNMS/DB, w attachments
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