



Westinghouse Electric Company  
Hematite Facility  
3300 State Road P  
Festus MO 63028  
U.S.A.

January 20, 2005

Mr. Marc Dapas  
Deputy Regional Administrator  
U.S. NRC Region III  
2443 Warrenville Road, Suite 210  
Lisle, IL 60532-4352

**Subject:** Nuclear Criticality Safety Issues

Dear Mr. Dapas:

An NRC/Westinghouse (WEC) teleconference was held on January 12, 2005 to discuss recent Nuclear Criticality Safety (NCS) issues identified at the Hematite Plant. This letter describes the NCS issues that WEC self-identified and additional concerns expressed by NRC inspectors, as well as the associated corrective actions that WEC has initiated.

Westinghouse considers these NCS items high significance and is taking detailed actions to correct. This includes WEC self-imposed work stoppage to assess the effectiveness of the content of the NCS program and procedures and to implement changes to appropriate revisions. Consistent with our mission of placing safety first, WEC suspended Special Nuclear Material (SNM) movement in the plant before noon on January 10, 2005. Portions of the workforce were consequently furloughed to allow proper time to identify corrective actions, revise procedures and conduct re-training. This training is now scheduled for 1/24/05 with work initiation expected 1/25/05.

The following issues were recognized in part as a result of the December restructuring of the Hematite resources and a subsequent audit by WEC contracted NCS staff during the week of January 4, 2005. The audit identified in-plant opportunities related to the rigor of implementing the NCS program's requirements, including work practices for following spacing requirements in and between storage locations, the type of items in storage locations, and the adequacy of criticality safety postings, and the traceability of mass measurements. The audit also identified several opportunities for programmatic and procedural improvement. Westinghouse took prompt corrective action regarding the in-plant issues, but identified additional programmatic and procedural opportunities while debriefing the personnel who performed that work.

Two NRC inspectors, one each from Headquarters and Region III, began an announced inspection on the afternoon of January 10. We informed them of our audit findings and corrective actions during the entrance meeting. On January 11, NRC inspectors identified additional concerns regarding the uranium enrichment sampling as required by our NCS evaluations.

Document Number: HEM-05-11

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The Westinghouse Hematite Project established and is implementing the following **Corrective Action Plan** to restart SNM operations:

1. Obtain at least 14 valid uranium enrichment sample results in addition to the 45 samples already performed. Our NCS evaluations are based on the samples assaying at less than or equal to 5% <sup>235</sup>U. If that enrichment is exceeded, additional NCS evaluation is required before SNM movement may resume.

**Status – Complete.** Twenty-one (21) additional sample results were received January 15, with all samples assaying at less than 5% <sup>235</sup>U. NRC Region III was informed of those results on January 15, 2005.

2. Revise the NCS program to improve its clarity.
  - a. NCS evaluations and supporting documents – Debriefing of safety and operations personnel has determined that several evaluations and supporting documents, which establish NCS controls using the double contingency principle, were based on assumptions that are no longer operationally valid and therefore need revision. Some clarifications regarding implementation of controls were also found to be necessary.  
**Status – In Process.** This includes approximately four (4) documents.
  - b. Procedures – Implementing procedures did not fully capture the controls established by the NCS evaluations. New and revised procedural requirements are being added to appropriately implement controls from the existing and revised NCS evaluations and enhance the program's clarity.  
**Status – In Process.** This includes approximately six (6) procedures.
  - c. Conduct tabletop exercises for new and revised draft documents to further refine them as necessary before they are approved and implemented.  
**Status – Complete.**
  - d. Complete peer reviews and management approval for NCS evaluation and procedure changes.  
**Status – In Process.** Completion expected on 1/20/05.
  - e. Prepare training materials as required for new and revised procedures.  
**Status – In Process.** Completion expected on 1/21/05.
3. Independent observation of pre-startup activities by the Plant Oversight Committee (POC) Chairman.  
**Status – POC Chairman onsite and reviewing actions 1/17 – 1/20/2005.**
4. Perform workforce training while actively soliciting feedback.
  - a. Morning briefing (full workforce) to discuss the basis for and conduct of this plan.
  - b. Worker training as necessary for new and revised procedures.**Status – Scheduled for 1/24/05.**
5. Resume normal project operations. NCS Engineers will be present during startup to supervise activities as necessary.  
**Status – Scheduled for 1/25/05.**

We expect to begin training on January 24, 2005. In-plant operations involving SNM movement will resume once training is complete. WEC considers these issues high significance and is taking deliberate and thorough corrective actions to assure appropriate NCS understanding and proper procedural implementation. We will keep you informed of any changes in the above plan. Please contact me with any questions.

Sincerely,

A handwritten signature in black ink, appearing to read 'H. A. Sepp', written in a cursive style.

H. A. Sepp  
Westinghouse Hematite Project Director

cc: C. Martin, NRC Region III  
J. Cameron, NRC Region III



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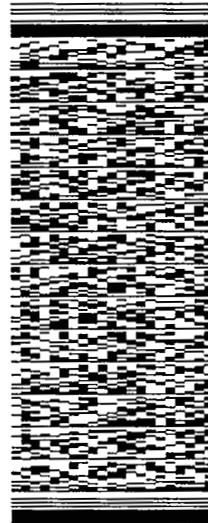
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