

April 2, 2010

CAL 3-08-005D

Mr. E. Kurt Hackmann, Director  
Hematite Decommissioning Project  
Westinghouse Electric Company  
Nuclear Fuels  
3300 State Road P  
Festus, MO 63028

SUBJECT: CONFIRMATORY ACTION LETTER CLOSURE

Dear Mr. Hackmann:

The U.S. Nuclear Regulatory Commission (NRC) conducted an inspection between November 17, 2008 and June 24, 2009, at the Westinghouse Hematite decommissioning facility (Inspection Report No. 070-00036/08-002(DNMS)). In November 2008, the NRC was informed of previously unknown amounts of uranium-235 (U235) enclosed in piping and high efficiency particulate air (HEPA) filter units within the Process Building. A 24-hour report was subsequently submitted to the NRC on November 19, 2008 (Event Notification Report 44668), with a follow-up report on November 21, 2008. The two reports were based upon your determination that the quantity of U235 actually present was potentially greater than that previously reported to the NRC and used as a basis for an NRC License Amendment (Amendment 52, issued June 30, 2006) and might be of sufficient quantity to require criticality monitoring in accordance with 10 CFR 70.24.

A Confirmatory Action Letter (CAL) (CAL 3-08-005) dated December 15, 2008, was issued in response to the quantity of U235 found at the Westinghouse Hematite decommissioning facility. An addendum to the December 15, 2008, CAL was issued on July 9, 2009, (CAL 3-08-005A), following NRC's letter dated June 22, 2009, which granted Westinghouse an exemption from the requirements for a criticality monitoring system required by 10 CFR 70.24(a) and approved Westinghouse to conduct further characterization of the Process Buildings. By letter dated October 23, 2009, you submitted the *Hematite Decommissioning Project Summary Report of the 2009 Process Building Characterization*. Based on our review of that report, we issued a second addendum to the CAL on November 13, 2009, (CAL 3-08-005B). With the issuance of the second CAL Addendum, the only remaining issues to be addressed were Items 5 and 8.

By e-mail dated January 25, 2010, (see ADAMS ML100260733), Westinghouse requested CAL Item 8 be revised to allow for additional access to the Process Building. The NRC conducted a review of the request and as a result updated Item 8 of the CAL which was conveyed in a third addendum to the CAL issued on February 5, 2010 (see ADAMS ML100640138).

By letter dated December 4, 2009, Westinghouse Electric Company requested an exemption from 10 CFR 70.24(a) requirements pertaining to criticality monitoring systems. The Hematite license (SNM-33) authorizes Westinghouse to possess special nuclear material (SNM) in excess of 700 grams of contained U235 and as such the criticality requirements of Title 10 Code of Federal Regulations (CFR) 70.24(a) are applicable to the Hematite facility. Therefore,

Westinghouse is required to maintain a criticality monitoring system meeting the specifications of 10 CFR 70.24(a)(1) or (a)(2) in each area at the Hematite facility where SNM is handled, used or stored. The NRC staff reviewed the exemption request and approved it in part by letter dated March 17, 2010 (see ADAMS ML100640138). Also, as stated in the March 17 letter, the exemption does not include building demolition which will be addressed in subsequent NRC actions for the resolution of Hematite Amendment 52. However, the NRC approval of the exemption request does satisfactorily address the remaining Items 5 and 8 such that the CAL is being closed.

The following is the current status of the issues delineated in the December 15, 2008 CAL, as updated by the July 9, 2009, November 13, 2009 and February 5, 2010 CAL addenda:

- Item (1) Closed by letter dated July 9, 2009, and superseded by Item 6.
- Item (2) Closed by letter dated July 9, 2009.
- Item (3) Closed by letter dated July 9, 2009.
- Item (4) Closed by letter dated July 9, 2009.
- Item (5) Before any Process Building piping or equipment removal or demolition activities are conducted; discuss the methodology, including safety precautions with the NRC.

The July 9, 2009, addendum to the CAL approved Westinghouse to conduct further characterization of the Process Buildings. This characterization was completed and documented on the Hematite Decommissioning Project Summary Report of the 2009 Process Building Characterization, which was provided to the NRC by letter dated October 23, 2009. A request for an exemption from the requirements of a criticality monitoring system was subsequently submitted by letter dated December 4, 2009.

Because the authorization to remove piping or equipment or to conduct demolition activities was dependent on the outcome of the exemption request, this item remained open through Addendum 3 of the CAL. This issue was subsequently addressed by NRC letter dated March 17, 2010, that approved the request for an exemption from 10 CFR 70.24(a) requirements pertaining to criticality monitoring systems. The only issue specifically excluded from the exemption approval was demolition of the Process Building which will be addressed separately in another NRC action pertaining to the resolution of Hematite Amendment 52.

In summary, before any Process Building piping or equipment removal, or Process Building demolition, Westinghouse discussed its methodology and safety precautions with the NRC, as required by Item 5. The methodology

included an exemption request, which NRC reviewed and approved. That approval does not by itself permit demolition of the Process Building; the NRC has yet to approve demolition of the Process Building and will decide whether to do so in a separate regulatory action (resolution of Hematite Amendment 52). This item is closed.

Item (6) Closed by letter dated November 13, 2009.

Item (7) Closed by letter dated November 13, 2009.

Item (8) Request an exemption from 10 CFR Part 70.24(a) demonstrating that accidental criticality alarms are not required, or provide a description of plans to re-install an accidental criticality alarm capability.

The licensee provided the results of the characterization of the Process Building in a Summary Report dated October 23, 2009. Based on those results, the licensee submitted a criticality alarm exemption request by letter dated December 4, 2009. This adequately addressed the above paragraph.

By letter dated February 5, 2010, the Items a through d below were supplemented by Items e through g until such time that an exemption from 10 CFR Part 70.24(a) has been issued by the NRC, or an accidental criticality alarm capability has been installed and approved by the NRC. A Stop Work Order will be maintained for the Process Building except to allow entry to conduct the following activities:

- a. Conduct radiological surveys and safety inspections;
- b. Conduct required environmental sampling, including sampling existing wells;
- c. Perform routine maintenance work in the building and on the roof to the extent necessary to maintain the integrity of the facility and ensure the safety of workers;
- d. If required, install an accidental criticality monitoring system;
- e. Conduct building tours (or walk arounds) for visual observation, taking photographs, measurements and/or notes, for the purpose of engineering and work scope planning for future efforts of component decontamination or removal and eventual building demolition. No Special Nuclear Material will be handled during these inspections unless from incidental or inadvertent contact which could result in minor contamination of personnel or tools, and no former process components will be removed;
- f. Conduct housekeeping, remove tools and equipment, remove waste materials, and remove soil samples. The removal of Process Building piping or demolition activities is excluded; and

- g. Complete the Material Control & Accountability inventory.

By letter dated March 17, 2010, the NRC approved the Westinghouse request for an exemption from 10 CFR 70.24(a) requirements pertaining to criticality monitoring systems. In that letter, the NRC also stated that, "the exemption request addresses Item 8 of the NRC's Confirmatory Action Letter Second Addendum (CAL-3-08-005B) dated November 13, 2009". A third addendum (CAL-3-08-005C) was issued on February 5, 2010, that revised Item 8 of the CAL to allow additional activities to be conducted within the Process Building. The scope of those activities does not affect the fact that an exemption from 10 CFR Part 70.24(a) has been issued by the NRC, which was necessary to address this item. Therefore, this item is closed.

This Confirmatory Action Letter is closed because the NRC has confirmed that you are in compliance with your license requirements for the Process Building. Pursuant to Section 182 of the Atomic Energy Act, 42 U.S.C. 2232, you are required to notify me immediately if your understanding differs from that set forth above.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Sincerely,

*/RA/*

Mark A. Satorius  
Regional Administrator

Docket No. 070-00036  
License No. SNM-33

cc: Hematite Distribution Service List

- g. Complete the Material Control & Accountability inventory.

By letter dated March 17, 2010, the NRC approved the Westinghouse request for an exemption from 10 CFR 70.24(a) requirements pertaining to criticality monitoring systems. In that letter, the NRC also stated that, "the exemption request addresses Item 8 of the NRC's Confirmatory Action Letter Second Addendum (CAL-3-08-005B) dated November 13, 2009". A third addendum (CAL-3-08-005C) was issued on February 5, 2010, that revised Item 8 of the CAL to allow additional activities to be conducted within the Process Building. The scope of those activities does not affect the fact that an exemption from 10 CFR Part 70.24(a) has been issued by the NRC, which was necessary to address this item. Therefore, this item is closed.

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Sincerely,

*/RA/*  
 Mark A. Satorius  
 Regional Administrator

Docket No. 070-00036  
 License No. SNM-33

cc: Hematite Distribution Service List

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cc: Westinghouse - Hematite Service List

Alex S. Polonsky  
Morgan Lewis, Esq.  
Morgan, Lewis & Kocjus LLP  
1111 Pennsylvania Avenue, NW  
Washington, DC 20004

R. Budd Haemer  
Shaw Pittman, LLP  
2300 N Street, NW  
Washington, DC 20037-1128

Ramona J. Huckstep  
Community Relations Coordinator  
Missouri Department of Natural Resources  
Hazardous Waste Program  
State of Missouri  
P.O. Box 176  
Jefferson City, MO 65103-0176

Kent Bradford, Chairman  
Hematite Project Oversight Comm.  
Western Zirconium  
10000 West 900 South  
Ogden, UT 84404-9760

Eric Gilstrap, P.E.  
Missouri Department of Natural Resources  
917 N. Hwy 67, Suite 104  
Florissant, MO 63031

Kathleen M. Waltz  
The Honorable Russ Carnahan  
517 Bailey Road  
Crystal City, MO 63019

Aaron Schmidt, Chief  
Federal Facilities Section  
Department of Natural Resources  
State of Missouri  
P.O. Box 176  
Jefferson City, MO 65103-0176

Glenda Miller, Director  
Division of Community and Public Health  
Missouri Department of Health & Senior  
Services  
930 Wildwood  
P.O. Box 570  
Jefferson City, MO 65102-0570

Dennis Diehl  
Jefferson County Department of Public  
Health  
405 Main Street  
P.O. Box 437  
Hillsboro, MO 63050

Patrick Lamping  
Jefferson County Council Board of  
Executives  
P.O. Box 100  
Hillsboro, MO 63050

Chuck Banks  
Jefferson County Council Board of  
Executives  
P.O. Box 100  
Hillsboro, MO 63050

Edward L. Kemp  
Jefferson County Council Board of  
Executives  
P.O. Box 100  
Hillsboro, MO 63050

Daniel Schuette, Director  
Division of Environmental Quality  
Department of Natural Resources  
State of Missouri  
P.O. Box 176  
Jefferson City, MO 65102

Honorable Mark N. Templeton  
Director  
Department of Natural Resources  
State of Missouri  
P.O. Box 176  
Jefferson City, MO 65103-0176

Branden Doster  
Operating Facilities Unit Chief  
Federal Facilities Section  
Department of Natural Resources  
State of Missouri  
P.O. Box 176  
Jefferson City, MO 65102-0176

Michele M. Gutman  
Westinghouse Electric Company LLC  
4350 Northern Pike  
Monroeville, PA 15146-2886

Terry Draper  
Festus City Administrator  
Festus City Hall  
711 West Main  
Festus, MO 63028

Wm. Earl Cook, Sr  
Mayor, Festus City  
Festus City Hall  
711 West Main  
Festus, MO 63028