

## MATERIALS LICENSE

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License Number: SNM-33

Docket or Reference Number: 070-00036

Amendment No. 61

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and the applicable parts of Title 10, Code of Federal Regulations, Chapter I, Parts 19, 20, 30, 31, 32, 33, 34, 35, 36, 39, 40, 51, 70, and 71, and in reliance on statements and representations heretofore made by the licensee, a licensee is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations, and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

	Licensee			
1.	Westinghouse Electric Company LLC	3.	License Number	SNM-00033
2.	3300 State Road P Festus, Missouri 63028	4.	Expiration Date	License is continued until decommissioning is complete and the U.S. Nuclear Regulatory Commission notifies Westinghouse Electric Company LLC in writing that the license is terminated.
		5.	Docket or Reference Number	070-00036
6.	Byproduct, Source, and/or Special Nuclear Material:	7.	Chemical and/or Physical Form:	8. Maximum Amount that Licensee May Possess at Any One Time Under This License:

A. Uranium enriched to a maximum of less than 10 weight percent in the U-235 isotope

A. Any (including only metal powders existing at the Hematite Site on July 1, 2001)

A. 10,000 kilograms U-235

B. Uranium enriched greater than or equal 10 weight percent and less than 20 weight percent in the U-235 isotope

B. Any (including only metal powders existing at the Hematite Site on July 1, 2001)

B. 9,999 grams U-235

C. Uranium enriched greater than or equal to 20 weight percent in the U-235 isotope

C. Any (including only metal powders existing at the Hematite Site on July 1, 2001)

C. 4,999 grams U-235\*

D. Uranium (natural or

C. Any (including only metal

C. 2,000 kilograms

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depleted)

powders existing at the  
Hematite Site on July 1,  
2001)

E. Co-60	E. Sealed sources	E. 40 millicuries
F. Cs-137	F. Sealed sources	F. 500 millicuries
G. Byproduct material, including Am-241	G. Any	G. 400 microcuries
H. Special, Source, and Byproduct Material as residual contamination	H. Any (residual contamination)	H. Existing at the Hematite site On July 1, 2001

\*License conditions for Category III HEU (for less than 1000 grams U-235) and Category II HEU (1000 to 4999 grams of U-235) are defined in the Fundamental Nuclear Material Control Plan and the Physical Security Plan.

9. Authorized Use: Items A through H. Uses as described in August 12, 2009 Decommissioning Plan and associated supporting documents noted in Hematite Decommissioning Plan SER (ADAMS Accession No. ML112101630) and July 5, 2011 License Application (ADAMS Accession No. ML111880290).

**CONDITIONS**

10. The licensee is hereby granted the following special authorization from Chapter 1, Section 1.6.1 of the July 5, 2011, License Application.
- Release of equipment and materials from restricted areas to controlled areas or offsite in accordance with the NRC's "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of Licenses for Byproduct, Source, or Special Nuclear Material," dated April 1993.
11. The licensee shall follow the revision dated February 18, 2011 of its Fundamental Nuclear Material Control Plan. This Plan may be further revised in accordance with, and pursuant to, the provisions of either 10 CFR Part 70.32(c) or 70.34.
12. The licensee shall follow the physical protection plans entitled, Physical Security Plan, October 10, 2012 Revision, Category I Contingency Safeguards Contingency Response Plan, dated July 28, 2011 and Category I Contingency Security Training and Qualification Plan, dated July 28, 2011.
13. Licensee is hereby granted permission to demolish or dismantle buildings including building slabs and foundations.
14. Notwithstanding the requirement of 10 CFR 70.24, the licensee shall be exempted from the "monitoring

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system" requirements in the areas, and under the conditions specified below:

- A. Low concentration materials (1.4 g U-235/L for solids, and 11.6 g U-235/L for liquids) that are safely subcritical by virtue of their low concentration, irrespective of any other physical conditions, including mass, geometry, moderation, reflection, etc.
- B. Materials that are contained in authorized packages as defined in NRC/DOT regulations, including 10 CFR 71 and 49 CFR 173.
- C. Materials within neutronically separate areas containing less than the following isotopic mass amount per separate area:
  - 1. 700 g U-235 in uranium enriched to more than 5 wt.% U-235/U, and
  - 2. 1640 g U-235 in uranium enriched to no more than 5 wt.% U-235/U.

Notes: (1) Structure surfaces within the separate area that contain residual U-235 surface contamination below an areal density of 10 g U-235/ft<sup>2</sup> are not included in the mass amount for the separate area.

(2) Any U-235 in undisturbed subsurface areas is not included in the isotopic mass amount for the separate area.

(3) Neutronically separated areas are to be considered effectively neutronically isolated from all other areas used to store fissile material when either of the following conditions are satisfied:

- a. A minimum edge-to-edge separation distance of 12 feet is maintained between each area used to store fissile material; or
- b. The configuration of each area used to store fissile material, in conjunction with any present fixed shielding (e.g., concrete block walls) between the areas, is demonstrated by neutron transport calculations to result in effective neutron isolation between each area.

- D. Residual materials on surfaces of the site buildings or installed equipment in those buildings including removal and transit of those SNM-bearing materials from the buildings. (Any SNM-bearing materials brought into site buildings must satisfy another provision in this Section 1.6.2 to meet the exemption.)
- E. A Contingency Hot Spot that is in secure storage, is neutronically isolated from other SNM, and is intrinsically safe due to two of its physical parameters

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(e.g., mass, volume, enrichment, geometry, moderation) being in a known state that is sufficient to render the item safely subcritical. The term 'Contingency Hot Spot' is defined in the *Nuclear Criticality Safety Contingency Plan for Remediating Contingency Hot Spots*. The term 'secure storage' is defined as an area in which dual controlled entry is required as well as tandem operations with oversight.

15. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear Regulatory Commission's regulations shall govern unless the statements, representations, and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Westinghouse HEM-11-96, "Final Supplemental Response to NRC Request for Additional Information on the Hematite Decommissioning Plan and Related Revision to a Pending Licensing Action", July 5, 2011. (ADAMS Accession Nos. ML111880290 and ML111880292)
  - B. Documents identified in Chapter 1 of NRC Decommissioning Plan SER ADAMS Accession No. (ML112101630).
  - C. Westinghouse HEM-11-56, "Evaluation of Technetium-99 Under the Process Buildings", May 5, 2011. (ADAMS Accession No. ML111260624).
  - D. Documents identified in the NRC's 10CFR20.2002 SERs associated with Amendment Nos. 58 and 60. (ADAMS Accession Nos. ML111441087 and ML12158A401).
16. Notwithstanding the requirement of 10 CFR 70.22(a)(4), the licensee shall be exempted from the possession limit requirements of requirements of 6.C, 7.C and 8.C above with respect to the SNM covered by the Settlement Agreement, Consent Order and Final Judgment entered by the United States District Court for the Eastern District of Missouri – Eastern Division in *Westinghouse Electric Company, LLC v. the United States of America*, et al, Case 4:03-cv-00861-CDP (ML112630111) subject to the conditions specified below:

If the licensee discovers any such SNM during decommissioning, the SNM shall be handled in accordance with the approved Physical Security Plan, Fundamental Nuclear Material Control Plan, and Nuclear Criticality Contingency Plan for Remediating Contingency Hot Spots.

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17. Pursuant to 10 CFR 20.2002, the licensee may dispose of solid materials (22,809 m<sup>3</sup> of soils 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 U.S. 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.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date: 7/19/2013/RA/

Andrew Persinko, Deputy Director  
Decommissioning and Uranium Recovery Licensing  
Division of Waste Management  
and Environmental Protection  
Office of Federal and State Materials  
and Environmental Management Programs

