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|---|---|---|
| | **MATERIALS LICENSE** | |

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, a license 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 | |
|---|---|
| | License Number: SNM-95, Renewal |
| Pennsylvania State University | Amendment 1 |
| University Park, Pennsylvania 16802 | Expiration Date: October 31, 2013 |
| | Docket No. 70-113 |
| | |

| 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 in the U-238 isotope | A. Any | A. |
| B. Deleted by Amendment 1 | | |
| C. Uranium 233 | C. Any | C. |
| D. Plutonium 239 | D. Encapsulated Pu-Be sources | D. |
| E. Plutonium 239 | E. Plated alpha sources or fission foils | E. |
| F. Deleted by Amendment 1 | | |
| G. Deleted by Amendment 1 | | |
| H. Plutonium-238, Plutonium-239, Plutonium-240, Plutonium-241, Plutonium-242 | H. Non-dispersible, solid or plated | H. |

**MATERIALS LICENSE**
**SUPPLEMENTARY SHEET**

License Number
SNM-95

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70-113

Amendment 1

9. Authorized place of use: The materials specified in Conditions 6.A and 6.C shall be used in the Breazeale Nuclear Reactor Facility and the Academic Projects Building located at University Park, Pennsylvania. The authorized examinations and tests may be performed in the Academic Projects Building or the Breazeale Nuclear Reactor Facility. The materials specified in Conditions 6.D and 6.E shall be used in locations specified in the application.

10. Authorized use: The materials specified in Conditions 6.A, 6.D, 6.E and 6.H shall be used in accordance with the statements, representations, and conditions specified in the application dated May 22, 2003, except as modified by other conditions in this license and by revisions submitted on October 9 and November 12 and updated by email dated November 25, 2009.

11. Insertion of source or special nuclear material covered by this license into a nuclear reactor is not authorized.

12. The authorizations to use the radioactive materials, issued by the University Isotopes Committee, shall be grated for a three year period. For continuing work, a new request is to be approved by the University Isotopes Committee prior to the expiration of an existing authorization.

13. Suitable clothing (lab coats, gloves, etc.) specific to the job shall be required for work with encapsulated special nuclear material (SNM). Hands, feet and clothing shall be monitored when leaving an area where the material is used. Except by approval of the University Health Physicist, persons shall not exit an area if personal clothing and/or skin are contaminated above background levels.

14. The maximum “start-up” or “driving force” used in conjunction with the subcritical assembly shall not exceed that of a 5 curie Pu-Be neutron source.

15. Surface contamination surveys in laboratories shall be conducted daily when unencapsulated SNM is used. Routine radiation surveys shall be conducted monthly in areas where radioactive materials are used and/or stored.

16. Release of equipment, facilities or packages to the unrestricted area or to uncontrolled areas onsite shall be in accordance with the attached, “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.

17. Sealed plutonium sources shall be subject to the leak testing and actions specified in the attached, “License Condition for Leak Testing Sealed Plutonium Sources, “dated April 1993.

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Amendment 1

18. Plutonium alpha sources shall be subject to the actions specified in the attached, "License Condition for Plutonium Alpha Sources," dated April 1993.

19. The licensee shall comply with 10 CFR Part 71 for packaging and transportation of radioactive material.

20. Deleted by Amendment 1.

**FOR THE NUCLEAR REGULATORY COMMISSION**

Date: February 18, 2010

By: **/RA/**
Michael D. Tschiltz, Deputy Director
Fuel Facility Licensing Directorate
Division of Fuel Cycle Safety and Safeguards
U.S. Nuclear Regulatory Commission
Washington, DC 20555-0001