

**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.

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<p style="text-align: center;">Licensee</p> <p>1. TranSystems Corporation</p> <p>2. 2400 Pershing Road Suite 400 Kansas City, MO 64108</p>	<p>In accordance with letter dated <b>May 17, 2007,</b></p> <p>3. License number 24-32091-01 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date May 31, 2008</p> <hr/> <p>5. Docket No. 030-34733 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Cesium-137</p> <p>B. Americium-241</p> <p>C. Cesium-137</p> <p>D. Americium-241</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed sources registered either with NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gauging device as specified in Item 9 of this license.</p> <p>B. Sealed sources registered either with NRC under 10 CFR 32.210 or with an Agreement State and incorporated in a compatible gauging device as specified in Item 9 of this license.</p> <p>C. Sealed source (Amersham Model No. CDCW556 or Isotope Products Model No. HEG-137-8M)</p> <p>D. Sealed source (Amersham Model Nos. AMNV.339 or AMNV.340)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. No single source to exceed 11 millicuries each for a total of 198 millicuries</p> <p>B. No single source to exceed 44 millicuries each for a total of 792 millicuries</p> <p>C. No single source to exceed 9 millicuries each for a total of 18 millicuries</p> <p>D. 300 millicuries</p>
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9. **Authorized use**

A. and B. To be used in Humboldt Model 5001 and Troxler Model 3400 Series portable gauges for measuring physical properties of materials.

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- C. To be used in Troxler Model 4640 Series portable gauges for measuring physical properties of materials.
- D. To be used in Troxler Model 3241-C portable gauges for measuring physical properties of materials.

**CONDITIONS**

- 10. Licensed material may be used or stored at the licensee's facilities located 2400 Pershing Ave., Kansas City, Missouri and at temporary job sites of the licensee anywhere in the United States where the U. S. Nuclear Regulatory Commission maintains jurisdiction for regulating the use of licensed material.
- 11. **A. The Radiation Safety Officer (RSO) for this license is Scott A. Sharp.**
  - B. Before assuming the duties and responsibilities as RSO for this license and before obtaining licensed material, future Radiation Safety Officers shall have successfully completed one of the training courses described in Criteria in Section 8.8 of NUREG-1556, Volume 1, dated May 1997.
- 12. Licensed material shall only be used by, or under the supervision and in the physical presence of, individuals who have received their training described in the application dated April 20, 1998.
- 13. **A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed the intervals specified in the certificate of registration issued by NRC under 10 CFR 32.210 or by an Agreement State.**
  - B. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by NRC under 10 CFR 32.210 or by an Agreement State prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
  - C. Sealed sources need not be tested if they are in storage and are not being used. However, when they are removed from storage for use or transferred to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

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- D. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.
- E. Tests for leakage and/or contamination shall be performed by persons specifically licensed by the Commission or an Agreement State to perform such services. In addition, the licensee is authorized to collect leak test samples but not perform the analysis; analysis of leak samples must be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.
14. Sealed sources or source rods containing licensed material shall not be opened or sources removed or detached from source rods or gauges by the licensee, except as specifically authorized.
15. Except for maintaining labeling as required by 10 CFR Part 20.6071, the licensee shall obtain authorization from NRC before making any changes in the sealed source, device, or source-device combination that would alter the description or specifications as indicated in the respective Certificates of Registration issued either by the Commission pursuant to 10 CFR 32.210 or by an Agreement State.
16. The licensee shall conduct a physical inventory every 6 months, or at other intervals approved by NRC, to account for all sources and/or devices received and possessed under the license.
17. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
18. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.
- 19. Each portable nuclear gauge shall have a lock or outer locked container designed to prevent unauthorized or accidental removal of the sealed source from its shielded position. The gauge or its container must be locked when in transport. A minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal whenever the portable gauge is not under the control and constant surveillance of the licensee are required.**
20. Any cleaning, maintenance, or repair of the gauges that requires detaching the source or source rod from the gauge shall be performed only by the manufacturer or other persons specifically licensed by the Commission or an Agreement State to perform such services.

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21. 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 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. Application dated April 20, 1998; and
- B. Letters dated May 15, 1998, March 16, 2001 and **May 17, 2007.**



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JUL 26 2007

By *Toye L. Simmons*  
 Toye L. Simmons  
 Materials Licensing Branch  
 Region III