

U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 5

**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.

<p style="text-align: center;">Licensee</p> <p>1. Gamma Irradiator Service</p> <p>2. 337 Distillery Hill Road Benton, Pennsylvania 17814</p>	<p>In accordance with the letter dated February 9, 2011,</p> <p>3. License number 37-30850-01 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date January 31, 2014</p> <hr/> <p>5. Docket No. 03036438 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Cobalt 60</p> <p>B. Strontium 90</p> <p>C. Yttrium 90</p> <p>D. Cesium 137</p> <p>E. Europium 152</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed sources registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State</p> <p>B. Sealed sources registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State</p> <p>C. Sealed sources registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State</p> <p>D. Sealed sources registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State</p> <p>E. Sealed sources registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. Not Applicable (See Condition 10)</p> <p>B. Not Applicable (See Condition 10)</p> <p>C. Not Applicable (See Condition 10)</p> <p>D. Not Applicable (See Condition 10)</p> <p>E. Not Applicable (See Condition 10)</p>
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**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License Number  
37-30850-01

Docket or Reference Number  
03036438

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| 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 |
| F. Americium 241                                      | F. Sealed sources registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State | F. Not Applicable<br>(See Condition 10)  |
| G. Americium 241: Beryllium                           | G. Sealed sources registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State | G. Not Applicable<br>(See Condition 10)  |
| H. Californium 252                                    | H. Sealed sources registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State | H. Not Applicable<br>(See Condition 10)  |

9. Authorized use:

A. through H. For use incident to:

- (1) Taking of leak test samples; analysis of test samples as a service for other persons as defined in 10 CFR 20.1003.
- (2) Installation into or removal from self-shielded irradiators.
- (3) Installation, relocation, radiation surveys, realignment, replacement, repair, maintenance, and servicing of self-shielded irradiators that have been registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State.
- (4) Instruction and training of individuals in the safe use and operation of self-shielded irradiators that have been registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State.

**CONDITIONS**

10. The licensee does not take possession of the radioactive material(s) and/or source(s) while at the client's facility.
11. Licensed material may be used only 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, including areas of exclusive Federal jurisdiction within Agreement States.

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If the jurisdiction status of a Federal facility within an Agreement State is unknown, the licensee should contact the Federal agency controlling the job site in question to determine whether the proposed job site is an area of exclusive Federal jurisdiction. Authorization for use of radioactive materials at job sites in Agreement States not under exclusive Federal jurisdiction shall be obtained from the appropriate state regulatory agency.

12. A. Licensed material shall be used by, or under the supervision of, Doyle Terry Stout and Christopher Van Nostrand.
- B. The Radiation Safety Officer for this license is Doyle Terry Stout.
13. A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to primarily emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
- C. 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 the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.
- D. Sealed sources need not be tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta- and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material.
- E. 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.
- F. 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.

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- G. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
- H. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.
14. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
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. Application dated November 10, 2003 (ML033371063)
- B. Facsimile dated December 31, 2003 (ML040170045)
- C. Letter dated September 13, 2006 (ML062640391)
- D. Letter dated April 14, 2010 (ML101050145)



For the U.S. Nuclear Regulatory Commission

Date April 22, 2011

By

**Original signed by Kathy Modes**

Kathy Modes  
Decommissioning Branch  
Division of Nuclear Materials Safety  
Region I  
King of Prussia, Pennsylvania 19406