

U.S. NUCLEAR REGULATORY COMMISSION

**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.

*NO 3221*  
Licensee

*317038*

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| 1. Photon Measurements Plus<br>Edward E. Wroblewski, M.A.<br><br>2. P.O. Box 63<br>Spiceland, IN 47385 | In accordance with letter dated<br><b>April 2, 2008,</b>                     |
|  | 3. License number 13-32533-01 is amended in its entirety to read as follows: |
|  | 4. Expiration date <b>October 31, 2014</b>                                   |
|  | 5. Docket No. <b>030-36648</b><br>Reference No.                              |

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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 |
| A. Any byproduct material with Atomic Numbers 1 through 83 | A. Any  | A. Not to exceed one millicurie total  |
| B. Cobalt-57   | B. Sealed source (DuPont Merck Pharmaceuticals and Amersham Model # CRC-165E)     | B. Not to exceed 7 millicuries total   |
| C. Barium-133  | C. Sealed source (Capintec, Inc. and DuPont Merck Pharmaceuticals Model # CR-178) | C. Not to exceed 280 microcuries total   |

9. Authorized use:

A. For use in performing leak tests as a commercial service for any person as defined in 10 CFR 30.4.

**B. and C. For use in commercial instrument calibrations.**

CONDITIONS

10. A. Licensed material may be used and stored at the licensee's facilities located at 1800 West County Road 500 South, New Castle, Indiana and **6820 Parkdale Place, Indianapolis, Indiana.**

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**B. License material in subitems 6.B and 6.C may be used 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. The Radiation Safety Officer for this license is Edward E. Wroblewski, M.A.
12. Licensed material shall be used by, or under the supervision of, Edward E. Wroblewski, M.A., and William K. Breeden, III, M.S.
13. The licensee is authorized to provide commercial instrument calibration services in accordance with procedures described in letter dated February 28, 2005, for any person as defined in 10 CFR 30.4.
14.
  - A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration referred to in 10 CFR 32.210.
  - B. In the absence of a certificate from a transferor indicating that a leak test has been made within 6 months 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 leak tested if:
      - (i) they contain not more than 100 microcuries of beta and/or gamma emitting material;
      - (ii) they are not designed to emit alpha particles, 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 or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
      - (iii) the half-life of the isotope is 30 days or less; or
      - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
      - (v) they are not designed to emit alpha particles, 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 or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
  - 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 the licensee or by other persons specifically licensed by the Commission or an Agreement State to perform such services.

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15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders or detector cells by the licensee.
16. Licensed material shall not be used in or on human beings.
17. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
18. The licensee shall conduct a physical inventory every 6 months to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory.
19. The licensee is authorized to hold radioactive material with a physical half-life of less than 65 days for decay-in-storage before disposal in ordinary trash provided:
  - A. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.
  - B. Before disposal as ordinary trash, byproduct material shall be surveyed at the container surface with the appropriate meter set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.
  - C. A record of each disposal permitted under this License Condition shall be retained for 3 years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.
20. The licensee shall use the model waste procedures published in Appendix N of NUREG-1556, Vol. 18, "Consolidated Guidance About Materials Licenses: Program -Specific Guidance About Service Provider Licenses," dated November 2000.
21. 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."
22. 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.
23. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the limits specified in 10 CFR 30.72 which require consideration of the need for an emergency plan for responding to a release of licensed material.

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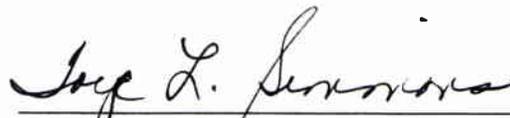
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24. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents, including any enclosures, listed below. The U.S. Nuclear 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 July 27, 2004; and,
  - B. Letters dated July 28, 2004, February 28, 2005, **April 2, 2008** and **June 4, 2008**; and
  - C. Facsimile dated **June 23, 2008**.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JUN 30 2008

By

Toye L. Simmons  
Materials Licensing Branch  
Region III