



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

April 14, 2008

Docket No. 03033025
Control No. 141924

License No. 06-30007-01

K. Paul Steinmeyer
President And Radiation Safety Officer
RSA Laboratories
A Division of Radiation Safety Associates, Inc.
P.O. Box 107
Hebron, CT 06248-0107

SUBJECT: RSA LABORATORIES, LICENSE AMENDMENT, CONTROL NO. 141924

Dear Mr. Steinmeyer:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5239, so that we can provide appropriate corrections and answers.

An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14).

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **Regulations, Guidance, and Communications**. You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

Thank you for your cooperation.

Sincerely,

Original signed by Jenny Johansen

Jenny Johansen
Health Physicist
Materials Security and Industrial Branch
Division of Nuclear Materials Safety

Enclosure:
Amendment No. 16

DOCUMENT NAME: C:\FileNet\ML081120422.wpd

SUNSI Review Complete: JJohansen

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DATE	4/14/08						

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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.

<p style="text-align: center;">Licensee</p> <p>1. RSA Laboratories A Division of Radiation Safety Associates, Inc</p> <p>2. P. O. Box 107 Hebron, Connecticut 06248-0107</p>	<p>In accordance with the letter dated February 13, 2008,</p> <p>3. License No. 06-30007-01 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date: April 30, 2013</p> <hr/> <p>5. Docket No. 030-33025 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Any byproduct material with Atomic Numbers 1 through 96</p> <p>B. Any special nuclear material</p> <p>C. Technetium 99m</p> <p>D. Any byproduct material</p> <p>E. Cesium 137</p> <p>F. Cesium 137</p> <p>G. Gadolinium-153</p> <p>H. Gadolinium 153</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Any</p> <p>C. Any</p> <p>D. Sealed Sources</p> <p>E. Sealed Source (NEN Model NER-570)</p> <p>F. Sealed source (J.L. Shepherd and Associates Model 6810)</p> <p>G. Sealed Sources (Amersham Model GD-1S; IPL Model PHI-153; or DuPont-Merck NER-8430)</p> <p>H. Sealed Sources (Amersham Model GDC.Cy1)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 10 millicuries per radionuclide and 100 millicuries total, except as specified in Condition 12</p> <p>B. 10 microcuries per radionuclide and 100 microcuries total, except as specified in Condition 12</p> <p>C. 50 millicuries</p> <p>D. 1 millicurie per source and 100 millicuries total</p> <p>E. 750 millicuries per source and 1.5 curies total</p> <p>F. 750 microcuries per source and 1.5 millicuries total</p> <p>G. 420 millicuries per source and 1 curie total</p> <p>H. 1 curie per source and 20 curies total</p>
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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License No.
06-30007-01

Docket No.
030-33025

Amendment No. 16

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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 |
| I. Gadolinium 153 | I. Sealed Sources | I. 1 curie per source and 1 curie total |
| J. Any byproduct or special nuclear material with atomic numbers 1 through 98 | J. Sealed Sources | J. 1 curie per source, 2 curies per shipment and 4 curies total |
| K. Cesium 137 | K. Sealed Source (Amersham Model 77302, Serial Number S-814) | K. 108.6 millicuries |
| L. Americium 241 | L. Sealed Sources (Amersham Model AMN9118, Serial Number 6754NE) | L. 2 curies |

9. Authorized use:

- A. and B. Performing leak tests, sample analysis and instrument calibration as a service for other persons.
- C. Calibration of instruments, including calibration for other persons.
- D. Calibration of instruments, including calibration for other persons; training purposes.
- E. and F. In a J. L. Shepherd and Associates Model 89 LAB-3 Calibrator for calibration of instruments, including calibrations for other persons.
- G. and H. Use and/or possession incident to:
- (1) Installation into or removal from United Technologies Corporation Model DG-1 Density Gauge devices.
 - (2) Installation, relocation, repair, and servicing of United Technologies Corporation Model DG-1 Density Gauge devices including the leak testing of sealed sources and radiation surveys of devices.
 - (3) Removal and shipping from customers' facilities, storage, and transfer of United Technologies Corporation Model DG-1 Density Gauge devices and/or sealed sources received from customers for transfer and/or disposal.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License No.
06-30007-01Docket No.
030-33025

Amendment No. 16

- (4) Distribution of the United Technologies Corporation Model DG-1 Density Gauge devices to persons authorized to receive the licensed material pursuant to terms and conditions of specific licenses issued by the U.S. Nuclear Regulatory Commission or any Agreement State.
- (5) Instruction and training of individuals in the use of United Technologies Corporation Model DG-1 Density Gauge devices.
- I. Storage and transfer of sealed sources received from customers for transfer and/or disposal.
- J. Use and/or possession incident to:
- (1) Installation and/or removal of source holders or detector cells containing sealed sources in equipment at temporary job sites;
 - (2) Locking/unlocking shutter and turning it on/off;
 - (3) Test for proper operation of the shutter and shutter position indicator;
 - (4) Performing initial and periodic radiation field survey;
 - (5) Removal and reinstallation of the gauge and
 - (6) Receipt of non-leaking sources from clients for evaluation.
- K. In an Amersham Instrument Calibrator Model 773 for calibration of instruments including calibration for other persons.
- L. Calibration of instruments, including calibration for other persons.



CONDITIONS

10. A. Licensed material may be used or stored at the licensee's facilities located at 19 and 21 Pendleton Drive, Hebron, Connecticut, 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.
- B. 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.
- C. Licensed material in item 6.D., may also be used for training purposes at temporary sites.
11. A. Licensed material shall be used by, or under the supervision of, Jay R. Dockendorff, Kurt Newton, K. Paul Steinmeyer, or Paul R. Steinmeyer.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License No.
06-30007-01Docket No.
030-33025

Amendment No. 16

- B. The Radiation Safety Officer for this license is K. Paul Steinmeyer.
12. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material so that at no time is a quantity of radioactive material possessed in excess of a quantity which requires decommissioning funding in accordance with 10 CFR 30.35(d), 10 CFR 40.36(b), or 10 CFR 70.25(d).
13. Licensed material shall not be used in or on human beings.
14. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
15. 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 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©)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License No.
06-30007-01Docket No.
030-33025

Amendment No. 16

- 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.
16. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, 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 and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.
17. Installation, initial radiation surveys, relocation, removal from service, dismantling, alignment, replacement, disposal of the sealed source and non-routine maintenance or repair of components related to the radiological safety of the gauge shall be performed only by, Kurt Newton, K. Paul Steinmeyer, Paul R. Steinmeyer, Jay R. Dockendorff or other individuals who have completed the training specified in the application dated February 3, 2003, and who have been approved in writing by the Radiation Safety Officer, or by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
18. Prior to initial use and after installation, relocation, dismantling, alignment, or any other activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above, and below the gauge with the shutter open. This survey shall be performed only by persons authorized to perform such services by the U.S. Nuclear Regulatory Commission or an Agreement State.
19. The licensee shall operate each device containing licensed material within the manufacturer's specified temperature and environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.
20. The licensee is authorized to hold radioactive material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal in ordinary trash, provided:
- A. 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, the waste shall be surveyed at the container surface with the appropriate survey instrument 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 such 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

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License No.
06-30007-01

Docket No.
030-33025

Amendment No. 16

rate measured at the surface of each waste container, and the name of the individual who performed the disposal.



**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License No.
06-30007-01

Docket No.
030-33025

Amendment No. 16

21. The licensee may transport licensed material in accordance with the provisions of 10 CFR 71, "Packaging and Transportation of Radioactive Material."
22. 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.
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|--|-------------|
| A. Application dated February 3, 2003 | ML030420180 |
| B. Electronic mail dated April 5, 2004 | ML040980502 |
| C. Letter dated December 23, 2004 | ML050100332 |
| D. Letter dated April 26, 2005 | ML051440741 |
| E. Letter dated August 22, 2005 | ML052420355 |
| F. Letter dated May 25, 2006 | ML061560185 |
| G. Letter dated June 22, 2006 | ML061780019 |
| H. Letter dated January 25, 2007 | ML070290096 |
| I. Letter dated February 13, 2008 | ML080650637 |



For the U.S. Nuclear Regulatory Commission

Date March 7, 2008

By

Original signed by Jenny Johansen

Jenny Johansen
Materials Security and Industrial Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406-1415