IMPORT AND EXPORT LICENSE					
NRC FORM 250P (12/05)	NF	RC LICENSE NO.:	PCB16.05		
Inited States of America      Nuclear Regulatory Commission		CENSE EXPIRES:	November 30, 2011		
Washington, D.C. 20555			Page 1 of 4		
	<u> </u>				
Pursuant to the Atomic Energy Act of 1954, as amended, and the regulations issued by the Nuclear Regulatory Commission (NRC) pursuant thereto, and in reliance on statements and representations heretofore made by the applicant/licensee, this license is hereby issued authorizing the licensee to import and/or export the byproduct materials listed below, subject to the terms and conditions herein. This license is only valid if the licensee maintains the requisite NRC or Agreement State domestic licenses.					
LICENSEE	ι	ULTIMATE FOREIGN CONSIGNEE(S)			
REVISS Services, Inc.	Stuart Hunt & Associates Ltd.				
Attn: John L. Schrader	5949 Ambler Drive				
175 Fast Hawthorn Place	Mississauga, ON L4VV 2K2 Canada				
Vernon Hills, IL 60061					
APPLICANT'S REFERENCE: Application Dated 9/28/09					
INTERMEDIATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES) AND/OR IN THE U.S.	OTHER PARTY(IES) TO IMPORT AND/OR EXPORT				
High Technology Sources Limited Unit 6 Moorbrook	Listed on Page(s) 3 and 4				
Didcot, Oxfordshire					
United Kingdom OX11 /HP	(Suppliers a	and Domestic Custome	ers)		
COUNTRY(IES) OF ULTIMATE DESTINATION: Argentina, Canada, United Kingdom and United States					
CONDITIONS, NOTES, AND DESCRIPTIONS OF 10 CFR PART 110, APPENDIX P, BYPRODUCT MATERIALS TO BE IMPORTED AND/OR EXPORTED (NOTE: SEE PAGE 2 FOR DEFINITIONS OF CATEGORY 1 AND CATEGORY 2)					
Import and export, from and to Canada, of Category 2 quantities of Cs-137, contained in sealed sources, for testing, reuse, recycling, or disposal, are authorized.					
Import and export, from and to the United Kingdom, of Category 1 and Category 2 quantities of Co-60 and Cs-137, contained in sealed sources for testing, reuse, recycling, or disposal, by companies in the United States, licensed by the U.S. NRC or Agreement States, in accordance with their license, are authorized.					
Import from Argentina, of Category 1 and Category 2 quantities of Co-60, contained in sealed sources for testing, reuse, recycling, or disposal by companies in the United States, licensed by the U.S. Nuclear Regulatory Commission or Agreement States, in accordance with their license, is authorized.					
Licensee is responsible for compliance with all applicable import, export, and other domestic regulatory requirements, including all terms and conditions of domestic materials licenses. Licensee, if not already submitted with your application, must submit information required by 10 CFR §110.32(d) and pertinent documentation required by 10 CFR §110.32(h) at least <b>24 hours prior to shipment</b> . See Page 2 for Mandatory Pre-shipment Notifications.					
License expiration date is based on established limits. This license replaces PCB16.04 and amends its authority by: 1) adding domestic customers; 2) correcting ultimate foreign consignee and suppliers; 3) separately listing the suppliers; and 4) extending the expiration date from October 31, 2009 to November 30, 2011.					
Neither this license nor any right under this license shall be assigned or otherwise transferred in violation of the provisions of the Atomic Energy Act of 1954, as amended.	THIS	LICENSE IS INVALID UNL BY AUTHORIZED NRC RE	ESS SIGNED BELOW		
This license is subject to the right of recapture or control by Section 108 of the Atomic Energy Act of 1954, as amended, and to all of the other provisions of said Act, now or hereafter in effect and to all valid rules and	NAME AND TITLE: Scott W. Moore, Deputy Director, Office of International Programs				
regulations of NRC.	DATE OF ISS	UANCE: November 2	25, 2009		
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MANDATORY NOTIFICATIONS: Notifications required by 10 CFR 110.50(b)(4) are to be emailed to <u>hoo.hoc@nrc.gov</u> (preferred method) or faxed to 301-816-5151. In the subject line of the email or on the fax cover page include: "10 CFR 110.50(b)(4) Notification." To contact someone in the Operations Center, use the same e-mail address or call 301-816-5100. Difficulties notifying the U.S. Nuclear Regulatory Commission must be promptly reported to the Office of International Programs' import/export licensing staff at 301-415-3684 or 415-3329.

For international notifications see http://www-ns.iaea.org/downloads/rw/imp-export/import-export-contact-points.pdf.

Radioactive Material	Category 1		Category 2	
	Terabequerels (TBq)	Curies (Ci) <sup>1</sup>	Terabequerels (TBq)	Curies(Ci)
Americium-241 (Am-241)	60	1,600	0.6	16
Americium-241/Beryllium (Am-241/Be)	60	1.600	0.6	16
Californium-252 (Cf-252)	20	540	0.2	54
Cunum-244 (Cm-244)	50	1,400	0.5	14
Cobalt-60 (Co-60)	30	810	0.3	81
Cesium-137 (Cs-137)	100	2,700	1.0	27
Gadolinium-153 (Gd-153)	1,000	27,000	10.0	270
Iridium-192 (Ir-192)	80	2.200	0.8	22
Pkutonium-238* (Pu-238)	60	1,600	0.6	16
Plutonium-239/Beryilium <sup>2</sup> (Pu-239/Be)	60	1,600	0.6	16
Promethium-147 (Pm-147)	40.000	1.100.000	400	11,000
Radium-226 (Ra-226)	40	1,100	0.4	11
Selenium-75 (Se-75)	200	5,400	2.0	54
Strontium-90 (Y-90)	1.000	27,000	10.0	270
Thulium-170 (Tm-69)	20.000	540,000	200	5.400
Ytterbium-169 (Yb-169)	300	8,100	3.0	81

#### Table 1: Appendix P to Part 110-Category 1 and Category 2 Radioactive Material Threshold Limits

#### Calculation of Shipments Containing Multiple Sources or Radionuclides:

The "sum of fractions" methodology for evaluating combinations of radionuclides being transported is to be used when import or export shipments contain multiple sources or multiple radionuclides. The threshold limit values used in a sum of the fractions calculation must be the metric values (i.e., TBq).

I. If multiple sources and/or multiple radionuclides are present in an import or export shipment, the sum of the fractions of the activity of each radionuclides must be determined to verify the shipment is less than the Category 1 or 2 limits of Table 1, as appropriate. If the calculated sum of the fractions ratio, using the following equation, is greater than or equal to 1.0, then the import or export shipment exceeds the threshold limits of Table 1 and the applicable security provisions of this part apply.

II. Use the equation below to calculate the sum of the fractions ratio by inserting the actual activity of the applicable radionuclides or of the individual sources (of the same radionuclides) in the numerator of the equation and the corresponding threshold activity limit from the Table 1 in the denominator of the equation. Ensure the numerator and denominator values are in the same units and all calculations must be performed using the TBg (i.e., metric) values of Table 1.

- $R_1$  = activity for radionuclides or source number 1
- $R_2$  = activity for radionuclides or source number 2

R<sub>N</sub> = activity for radionuclides or source number n

 $AR_1$  = activity limit for radionuclides or source number 1  $AR_2$  = activity limit for radionuclides or source number 2  $AR_N$  = activity limit for radionuclides or source number n

$$\sum_{1}^{n} \left[ \frac{\mathbf{R}_{1}}{\mathbf{A}\mathbf{R}_{1}} + \frac{\mathbf{R}_{2}}{\mathbf{A}\mathbf{R}_{2}} + \frac{\mathbf{R}_{n}}{\mathbf{A}\mathbf{R}_{n}} \right] \geq 1$$

<sup>&</sup>lt;sup>1</sup> The values to be used to determine whether a license is required are given in TBq. Curie (Ci) values are provided for practical usefulness only and are rounded after conversion.

<sup>&</sup>lt;sup>2</sup> The limits for Pu-238 and Pu-239/Be in this table apply for imports to the U.S. The limits for exports of Pu-238 and Pu-239/Be can be found in § 110.21.

<sup>&</sup>lt;sup>3</sup> Discrete sources of Radium-226.

# OTHER PARTY(IES) TO EXPORT/IMPORT

### SUPPLIERS

Dioxitek S.A. Centro Atomico Ezeiza Presbitero Juan Gonzalez Y Aragon No. 15 Partido De Ezeiza, Prov. De Buenos Aires Argentina

1. Bausch and Lomb 8507 Pelham Road Greenville, SC 29615

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- 2. Duke Energy Corporation McGuire Island Buildings 7403, 7405, 7408 Huntersville, NC 28078-7929
- General Electric Vallecitos Nuclear Center
   6705 Vallecitos Road Sunol, CA 94586
- 4. J.L. Shepherd and Associates 1010 Arroyo Avenue San Fernando, CA 91340
- 5. Omaha Public Power District Fort Calhoun Station 9610 Power Lane Blair, NE 68008
- QSA Global
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  Burlington, MA 01803
- Sterigenics Corporation 1700 North Airport Road West Memphis, AZ 72301
- Sterigenics Corporation 344 Bonnie Circle Corona, CA 92880
- 9. Sterigenics Corporation 5900 Obata Way Gilroy, CA 95020
- 10. Sterigenics Corporation 2311 Lincoln Avenue Hayward, CA 94545
- 11. Sterigenics Corporation 1401 Morgan Circle Tustin, CA 92680

REVISS Services (UK) Ltd Building 466 Harwell Business Centre Harwell, Didcot, Oxon United Kingdom OX11 0RA

### DOMESTIC CUSTOMERS

- 12. Sterigenics Corporation 1003 Lakeside Drive Gurnee, IL 60031
- 13. Sterigenics Corporation 711 East Cooper Court Schaumburg, IL 60173
- 14. Sterigenics Corporation 10811 Withers Cove Park Drive Charlotte, NC 28273
- 15. Sterigenics Corporation 1148 Porter Avenue Haw River, NC 27258
- Sterigenics Corporation
  108 Lake Denmark Road
  Rockaway, NJ 07866
- Sterigenics Corporation 75 Tilbury Road Salem, NJ 08079
- Sterigenics Corporation 305 Enterprise Drive Westerville, OH 43081
- Sterigenics Corporation
  3001 and 3125 Wichita Court
  Fort Worth, TX 76140
- 20. Steris Isomedix Services 1000 S. Sarah Place Ontario, CA 91764
- 21. Steris Isomedix Services 2500 Commerce Drive Libertyville, IL 60048
- 22. Steris Isomedix Services 1880 Industrial Drive Libertyville, IL 60048

## DOMESTIC CUSTOMERS: Continued

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  Northborough, MA 01532
- 24. Steris Isomedix Services 9 Apollo Drive Whippany, NJ 07981
- Steris Isomedix Services
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- 26. Steris Isomedix Services 4405 Marketing Place Groveport, OH 43125

- 27. Steris Isomedix Services State Road 690, KM 1.7 Barrio Sabana Hoyos Vega Alta, Puerto Rico 00692
- Steris Isomedix Services
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- 29. University of Maryland The Gamma Irradiation Laboratory Room 1319A, Building 090 Chemical Engineering Building College Park Campus College Park, MD 20742