

IMPORT AND EXPORT LICENSE

NRC FORM 250P (12/05)



United States of America

Nuclear Regulatory Commission
Washington, D.C. 20555

NRC LICENSE NO.: CBP3-5

LICENSE EXPIRES: October 31, 2015

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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.

<p align="center">LICENSEE</p> <p>MDS Nordion ATTN: Marc-Andre Charette 447 March Road Ottawa, Ontario K2K 1X8 Canada</p> <p>APPLICANT'S REFERENCE: Application dated 02/14/08</p>	<p align="center">ULTIMATE FOREIGN CONSIGNEE(S)</p> <p>MDS Nordion 447 March Road Ottawa, Ontario K2K 1X8 Canada</p>
<p align="center">INTERMEDIATE FOREIGN AND/OR DOMESTIC CONSIGNEE(S)</p> <p align="center">NONE</p>	<p align="center">OTHER PARTY(IES) TO IMPORT/EXPORT</p> <p align="center">Listed on Pages 3-4.</p>

COUNTRY(IES) OF ULTIMATE DESTINATION: Canada 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 MDS Nordion, Category 1 quantity of Cobalt-60, contained in sealed sources used in irradiators by the gamma processing industry for the sterilization of medical disposables, food, and consumer products.

MDS Nordion and each recipient or ultimate consignee in the United States are responsible for compliance with all applicable import, export, and other domestic regulatory requirements, including all terms and conditions of domestic materials license(s). MDS Nordion is responsible for ensuring that all end users of Cobalt-60 sources have obtained and hold valid and appropriate material possession licenses prior to the receipt of any sealed sources containing radioactive material(s). MDS Nordion is exempt from the requirement in 10 CFR §110.53(a) to maintain an office within the United States.

MDS Nordion, 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 **24 hours prior to shipment**. See Page 2 for Mandatory Pre-shipment Notifications.

License expiration date is based on October 31, 2015 expiration date of Canadian Nuclear Safety Commission Operating License NSPFOL-11A.01/2015. This license replaces CBP3-4 and amends its authority to 1) add, delete, and update locations and 2) change the expiration date from December 31, 2010 to October 31, 2015.

Neither this license or 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 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 regulations of NRC.

THIS LICENSE IS INVALID UNLESS SIGNED BELOW
BY AUTHORIZED NRC REPRESENTATIVE

Scott W. Moore

NAME AND TITLE: Scott W. Moore, Deputy Director
Office of International Programs

DATE OF ISSUANCE: April 24, 2008

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

Radioactive Material	Category 1		Category 2	
	Terabequerels (TBq)	Curies (Ci) ¹	Terabequerels (TBq)	Curies (Ci) ¹
Americium-241	60	1,600	0.6	16
Americium-241/Beryllium	60	1,600	0.6	16
Californium-252	20	540	0.2	5.4
Curium-244	50	1,400	0.5	14
Cobalt-60	30	810	0.3	8.1
Cesium-137	100	2,700	1.0	27
Gadolinium-153	1,000	27,000	10.0	270
Iridium-192	80	2,200	0.8	22
Plutonium-238 ²	60	1,600	0.6	16
Plutonium-239/Beryllium ²	60	1,600	0.6	16
Promethium-147	40,000	1,100,000	400	11,000
Radium-226 ³	40	1,100	0.4	11
Selenium-75	200	5,400	2.0	54
Strontium-90 (Y-90)	1,000	27,000	10.0	270
Thulium-170	20,000	540,000	200	5,400
Ytterbium-169	300	8,100	3.0	81

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 radionuclide 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 TBq (i.e., metric) values of Table 1.

R1 = activity for radionuclides or source number 1

R2 = activity for radionuclides or source number 2

RN = activity for radionuclides or source number n

AR1 = activity limit for radionuclides or source number 1

AR2 = activity limit for radionuclides or source number 2

ARN = activity limit for radionuclides or source number n

$$\sum_{1}^n \left[\frac{R_1}{AR_1} + \frac{R_2}{AR_2} + \frac{R_n}{AR_n} \right] \geq 1$$

MANDATORY NOTIFICATIONS: Notifications required by 10 CFR 110.50(b)(4) are to be emailed to hoo1@nrc.gov (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 301-415-2342 or 415-1678.

¹ 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.

² 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.

³ Discrete sources of Radium-226.

OTHER PARTIES TO IMPORT

1. Bausch & Lomb
8507 Pelham Road
Greenville, SC 29615
2. Baxter Healthcare Corporation
State Road 721, Km 0.3
Aibonito, Puerto Rico 00705
3. BD Vacutainer Systems
1575 Airport Road
Sumter, SC 29153
4. Becton, Dickinson, and Company
One Becton Circle
Durham, NC 27712
5. Becton, Dickinson, and Company
1862, 10th Avenue
Columbus, NE 68601
6. Becton, Dickinson, and Company
dba BD Medical Systems - Diabetes Care
1329 West Highway 6
Holdrege, NE 68949-0860
7. Becton Dickinson Infusion Therapy Systems, Inc.
150 South 1st Avenue
Broken Bow, NE 68822
8. Cardinal Health 200 Inc.
Medical Products and Services
Convertors Division
One Butterfield Trail
El Paso, TX 79906
9. COVIDIEN (Tyco Healthcare Group LP)
1222 Sherwood Road
P.O. Box 1169
Norfolk, NE 68702-1169
10. Department of the Army Commander
White Sands Missile Range, NM 88002-5158
11. Ethicon Endo Surgery
3801 University Blvd, SE
Albuquerque, NM 87125
12. Food Technology Service, Inc.
502 Prairie Mine Road
Mulberry, FL 33860
13. General Electric Company
Vallecitos Nuclear Center
6705 Vallecitos Road
Sunol, CA 94586
14. Hospira Inc.
Highway 301 North
Rocky Mount, NC 27802-2226
15. Isomedix Operations, Inc.
STERIS Isomedix Services
9 Apollo Drive
Whippany, NJ 07981
16. Isomedix Operations, Inc.
23 Elizabeth Drive
Village of Chester, NY 10918
17. Isomedix Operations, Inc.
4405 Marketing Place
Hamilton/33 Industrial Park
Groveport, OH 43125
18. Isomedix Operations, Inc.
DBA Steris Isomedix Services
Vista del Sol Industrial Park
1435 Isomedix Place
El Paso, TX 79936
19. Isomedix Operations, Inc.
9120 South 150 East
Sandy, Utah 84070
20. Pall Corporation
225 Marcus Blvd.
Hauppauge, NY 11788-3799
21. Sandia National Laboratories
Operated for the U.S. Department of Energy by
Sandia Corporation
Albuquerque, NM 87185
22. Sterigenics East Corporation
1148 Porter Avenue
Haw River, NC 27258
23. Sterigenics East Corporation
108 Lake Denmark Road
Rockaway, NJ 07866-4317
24. Sterigenics East Corporation
75 Tilbury Road
Salem, NJ 08079
25. Sterigenics International, Inc.
1700 North Airport Road
West Memphis, AR 72301
26. Sterigenics International, Inc.
344 Bonnie Circle
Corona, CA 92880

