EXPORT AND IMPORT LICENSE

NRC FORM 250P

United States of America
Nuclear Regulatory Commission
Washington, D.C. 20555

NRC LICENSE NO.: PCB110.02

LICENSE EXPIRES: February 29, 2012

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

GE Hitachi Nuclear Energy Americas LLC
Attn: Donald Krause
Vallecitos Nuclear Center
6705 Vallecitos Road
Sunol, CA 94586

APPLICANT'S REFERENCE: Appl. Dated November 20, 2009

ULTIMATE FOREIGN CONSIGNEE(S)

Listed on Page 3

INTERMEDIATE FOREIGN AND/OR DOMESTIC CONSIGNEE(S)

NONE

OTHER PARTY(IES) TO EXPORT/IMPORT

NONE

COUNTRY(IES) OF ULTIMATE DESTINATION: Argentina, Australia, Belgium, Brazil, Chile, China, Colombia, Egypt, France, Germany, Italy, Japan, Malaysia, Netherlands, Norway, Peru, Poland, Russia, Saudi Arabia, South Korea, Switzerland, Taiwan, Thailand, Turkey, the United Kingdom, the United States and Venezuela

CONDITIONS, NOTES, AND DESCRIPTIONS OF 10 CFR PART 110, APPENDIX P, BYPRODUCT MATERIALS TO BE EXPORTED AND/OR IMPORTED
(NOTE: SEE PAGE 2 FOR DEFINITIONS OF CATEGORY 1 AND CATEGORY 2)

Export and import to and from countries listed on "Country(ies) of Ultimate Destination," of Category 1 quantities of Co-60 (not to exceed 3,700 TBq per shipment), for inspection, reuse, recycling or disposal of medical equipment, are authorized. **For exports, see conditions on Page 4.**

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

License expiration date is based upon established limits. This license replaces PCB110.01 and amends its authority by: 1) extending expiration date from December 6, 2009 to February 29, 2012; 2) increasing the maximum authorized activity level of Co-60 from 740 TBq to 3,700 TBq per shipment; 3) adding additional Countries of Ultimate Destination; 4) updating list of Ultimate Foreign Consignees; and 5) revising authorized end use.

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 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 Acts, 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

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

DATE OF ISSUANCE: February 12, 2010

MANDATORY NOTIFICATIONS: Notifications required by 10 CFR 110.50(b)(4) are to be emailed to hoo.hoc@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 301-415-2344.

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

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 (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	5.4
Curium-244 (Cm-244)	50	1,400	0.5	14
Cobalt-60 (Co-60)	30	810	0.3	8.1
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
Plutonium-238[2] (Pu-238)	60	1,600	0.6	16
Plutonium-239/Beryllium[2] (Pu-239/Be)	60	1,600	0.6	16
Promethium-147 (Pm-147)	40,000	1,100,000	400	11,000
Radium-226[3] (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

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 TBq (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_N = 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

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

[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.

ULTIMATE FOREIGN CONSIGNEE(S): Cont'd

A **Government-to-Government consent has been requested but not yet received for:**

Macquarie University Hospital
Talavera Rd
North Hyde NSW
2019
Australia

International Medical Center
Km 42 Ismailia Desert Road
Cairo
Egypt

B **Government-to-Government consent has been received for:**

Haukeland Universitetssykehus
Nevrokirg.avd.
Sentralblokken, 7 Etg Term 71
NO-5021 Bergen
Norway

St. James University Hospital
Becket Street
Leeds
LS9 7TF
United Kingdom

C **Government-to-Government consent has expired for:**

Gemeinschaftspraxis fur
Strahlentherapie
Runde Str. 10
30161 Hannover
Germany

GKZ GmbH & Co. Kg
Lutherstr. 54
47805 Krefeld
Germany

Seoul National University Hospital
28, Yeongeon-Dong, Jongno-Gu
Seoul 110-744
South Korea

Yonsei University Severance
Hospital
134 ShinChon-Dong, Seodaemun-Gu
Seoul 120-752
South Korea

Marmara University Hospital
Tephaelioglu Cad. No 13-15
Altinizade 81190 Istanbul
Turkey

HCA Healthcare International
St. Bartholomew's Hospital
West Smithfield, ECIA 7BE
London
United Kingdom

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CONDITIONS, NOTES, AND DESCRIPTIONS OF 10 CFR PART 110, APPENDIX P, BYPRODUCT MATERIALS TO BE IMPORTED AND/OR EXPORTED

GE Hitachi Nuclear Energy Americas LLC is prohibited from shipping 10 CFR §110 Appendix P Category 1 quantities of Cobalt-60 to the 'Country(ies) of Ultimate Destination,' listed on Page 1 for which government-to-government consent has not yet been requested and received until:

[1] GE Hitachi Nuclear Energy Americas LLC has requested the U.S. Nuclear Regulatory Commission (NRC) in writing to obtain specific consent from the importing country's regulatory authority, on a case-by-case basis for each additional consignee;

[2] NRC has received and considered government-to-government consent pursuant to 10 CFR §110.42(e)(3); and,

[3] NRC has informed GE Hitachi Nuclear Energy Americas LLC in writing, that it is authorized to ship the materials to the ultimate consignee(s) specified.

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