NRC FORM 250P
(12/10)

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

NRC LICENSE NO.: PXB12.03

LICENSE EXPIRES: December 31, 2020

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 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

QSA Global, Inc.
ATTN: Cathleen Roughan
40 North Avenue
Burlington, Massachusetts 01803

APPLICANT'S REFERENCE: Application Dated 10/28/2010

ULTIMATE FOREIGN CONSIGNEE(S)

See 'Country(ies) of Ultimate Destination'

INTERMEDIATE CONSIGNEE(S)

NONE

OTHER PARTY(IES) TO EXPORT

NONE

COUNTRY(IES) OF ULTIMATE DESTINATION: Australia, Belgium, Canada, Czech Republic, France, Germany, Japan, Mexico, Netherlands, Norway, Poland, Russia, South Korea, and United Kingdom

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

Export to countries listed as 'Country(ies) of Ultimate Destination,' of Category 1 quantities of Co-60, Ir-192, and Se-75 contained in sealed sources for return to suppliers and distributors, is authorized. **See conditions on Page 3.**

Licensee is responsible for compliance with all applicable export and other domestic regulatory requirements, including all terms and conditions of domestic material license(s). Licensee must submit information required by 10 CFR §110.32(d) and pertinent documentation required by 10 CFR §110.32(g) at least **24 hours prior to shipment**. See Page 2 for Mandatory Pre-shipment Notifications.

License expiration date is based on established limits. This license replaces PCB12.02 and amends its authority by: 1) extending the expiration date from November 30, 2010 until December 31, 2020; 2) removing all supplier/recipient addresses listed as 'Other Party(ies) to Export/Import;' 3) updating the list of 'Ultimate Foreign Consignee(s);' 4) revising the licensing conditions; and 5) reissuing as a specific export only license.

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 the NRC.

THIS LICENSE IS INVALID UNLESS SIGNED BELOW BY AUTHORIZED NRC REPRESENTATIVE

NAME AND TITLE: Stephen Dembek, Acting Director
Office of International Programs

DATE OF ISSUANCE: December 27, 2010

MANDATORY PRE-SHIPMENT NOTIFICATIONS PER 10 CFR PART 110.50(c)

The following Prior Shipment Notifications must be made to both the NRC and, in case of exports, the government of the importing country in advance of each shipment:

Prior Shipment Notifications to the NRC are to be emailed to hoo.hoc@nrc.gov (preferred method) or faxed to the NRC at 301-816-5151. In the subject line of the email or on the fax cover page include: "10 CFR 110.50(c) Notification." For technical assistance, use the same e-mail address or call 301-816-5100.

Prior Shipment Notifications to the government of the importing country must be emailed or faxed to the appropriate foreign government authorities. To locate the point-of-contact for international Prior Shipment Notifications see: http://www-ns.iaea.org/downloads/rw/imp-export/import-export-contact-points.pdf. In the subject line of the email or on the fax cover page include: "NOTIFICATION TO THE IMPORTING STATE PRIOR TO SHIPMENT OF CATEGORY 1 OR 2 RADIOACTIVE SOURCES." For technical assistance or for countries not listed, contact the Office of International Programs' export/import staff at 301-415-2344.

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-170)	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.

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

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

[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 exports of Pu-238 and Pu-239/Be can be found in § 110.21.

[3] Discrete sources of Radium-226.

ULTIMATE FOREIGN CONSIGNEE(S)

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

QSA Global, Inc. is prohibited from shipping 10 CFR §110 Appendix P Category 1 quantities of Cobalt-60, Iridium-192 and Selenium-75 to Australia, Belgium, Canada, Czech Republic, France, Germany, Japan, Mexico, Netherlands, Norway, Poland, Russia, South Korea, and United Kingdom for which government-to-government consent has not yet been requested and received until:

[1] QSA Global, Inc. 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 QSA Global, Inc. in writing, that it is authorized to ship the materials to the ultimate consignee(s) specified.

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