

EXPORT LICENSE

NRC FORM 250



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

NRC LICENSE NO.: PXB224.00-R

Page 1 of 4

NRC DOCKET NO.: 11006318

LICENSE EXPIRES: July 31, 2021

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 of the byproduct materials listed below, subject to the terms and conditions herein. This license is only valid if the licensee or 'Other Party (ies) to Export' maintain the requisite NRC or Agreement State domestic license(s).

LICENSEE ISOFLEX Radioactive LLC 108 Teal Street St. Rose, LA 70087 Attn: Kevin J. Schehr	ULTIMATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES) See following page(s)
INTERMEDIATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES) None	OTHER U.S. PARTY(IES) TO EXPORT None
APPLICANT'S REFERENCE: Application dated 11/19/19	ULTIMATE DESTINATION: India

**DESCRIPTIONS OF 10 CFR PART 110, APPENDIX P BYPRODUCT MATERIAL
TO BE EXPORTED, INCLUDING CONDITIONS AND NOTES**
(NOTE: SEE PAGE 4 FOR DEFINITIONS OF CATEGORY 1 AND CATEGORY 2)

Export to India of Category 2 quantities of: Ir-192 not to exceed 80 terabecquerels (TBq); Se-75 not to exceed 200 TBq, and Yb-169 not to exceed 7.4 TBq, for industrial radiography to the end-users listed is authorized.

Licensee is responsible for compliance with all applicable export, and other domestic regulatory requirements, including all terms and conditions of domestic material possession licenses.

Licensee must submit pertinent documentation required by 10 CFR § 110.32(g) at least 24 hours prior to shipment. See Page 4 for Mandatory Advanced Notifications.

This license replaces PXB224.00 by removing the authority to export Category 1 quantities of Ir-192, Se-75 and Yb-169 to India.

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 the other provisions of said Acts, now or hereafter in effect and to all valid rules and regulations of the Nuclear Regulatory Commission.

**THIS LICENSE IS INVALID UNLESS SIGNED BELOW
BY AUTHORIZED NRC REPRESENTATIVE**

NAME AND TITLE: Mohamed K. Shams Digitally signed by Mohamed K. Shams
Date: 2019.11.22 11:18:21 -0500
**Mohamed K. Shams, Acting Deputy Director
Office of International Programs**

DATE OF ISSUANCE: November 22, 2019

EXPORT LICENSE

ULTIMATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES) Continued:

- | | |
|---|--|
| <p>1. APT X-Ray (INDIA) PVT LTD (BRANCH OFFICE)

B-2 Shree Niwas No.8, Vennu Reddy Street,
Guindy, Chennai 600032
India

(industrial radiography)</p> | <p>2. APT X-Ray (INDIA) PVT LTD (HEAD OFFICE)
Office No.3 Mangal Murti, Plot No 31
Jawahar Nagar, Road No 12,
Goregaon (W), Mumbai 400062
India
(industrial radiography)</p> |
| <p>3. Bolax NDT Engineering (International Radiography)
Plot No. 75/A/3/5, Telco-Bhosari Road, General Block,
MIDC, Corporation Bank, Next To Tuljia Bhavani
Complex Bhosari, Pune, Maharashtra -411026
India

(industrial radiography)</p> | <p>4. Bolax NDT Engineering (Kolhapur OFFICE)
5 Star MIDC Kagal, Plot No. G - 107 Randive Wadi
Road, MIDC, Kolhapur Maharashtra 416236
India

(industrial radiography)</p> |
| <p>5. Bolax NDT Engineering (Rajkot Office)
Panna Furniture Industries, S. No. 267/2,
Shaper Industrial Area, Behind Nova Techno
Shaper, Rajkot 360024 Gujarat
India

(industrial radiography)</p> | <p>6. CR Quality and Engg Services
Gyan Pushpa Building Office No. 1 & 2,
Beside Bharat Forge Pune-Nashik Highway,
Kuruli, Chakan, Pune 410501
India

(industrial radiography)</p> |
| <p>7. IRICO (Coimbatore)
No 75, Sidco Industrial Estate,
Kurichi Coimbatore 641021
India

(industrial radiography)</p> | <p>8. IRICO (Plant B)
Old No 69 Natesan Nager,
Vivekananda Street, Athipet, Chennai -600095
India

(industrial radiography)</p> |
| <p>9. IRICO (Ranipet)
No. 477/9, Sipcot Industrial Estate
Ranipet- 632403
India

(industrial radiography)</p> | <p>10. SITAS NDT (BANGALOR CORP OFFICE)
#51, 3rd Floor, 5th Main Road, 36th Cross,
5th Block Jayanagar,
Bangalore Karnataka 560041
India

(industrial radiography)</p> |
| <p>11. SITAS NDT (COIMBATORE)
SF No. 472/1,2,3, Sendhampalayam,
S.S. Kulam (via) P.G.Pudur(Post),
Coimbatore - 641 107, Tamilnadu
India

(industrial radiography)</p> | <p>12. SITAS NDT (HUBLI)
Plot No. 90 B, Tarihal Industrial Area, Tarihal,
Hubil 580026
Karnataka -580 026
India

(industrial radiography)</p> |

ULTIMATE CONSIGNEE(S) IN FOREIGN COUNTRY(IES) Continued:

13. SITAS NDT (SHIMOGA)
No. 19 - F, Machenahalli Shimoga,
Bhadravathi Industrial Area
Shimoga - 577222, Karnataka
India

(industrial radiography)
14. View NDT (Coimbatore)
S.F.No. 233/2B & 2C
MasagoundanChettiPalayam Village,
Telungupalayam Road, Near Annur,
Coimbatore 641653
India

(industrial radiography)
15. View NDT (Trichy)
1152/A, Kainankarai, Mathur Post,
Pudukkottai Road, Trichy -622515
India

(industrial radiography)

MANDATORY ADVANCED NOTIFICATIONS PER 10 CFR PART 110.50(c)

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

Mandatory Advanced 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 301-287-9056.

Mandatory Advanced 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 Advanced 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 301-287-9056.

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 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 AR1 = activity limit for radionuclides or source number 1
- R2 = activity for radionuclides or source number 2 AR2 = activity limit for radionuclides or source number 2
- RN = activity for radionuclides or source number n 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.