



U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

East Building, PHH-23
1200 New Jersey Ave, SE
Washington, D.C. 20590

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS

CERTIFICATE USA/0502/S-96, REVISION 11

This certifies that the sources described have been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the International Atomic Energy Agency¹ and the United States of America² for the transport of radioactive material.

1. Source Identification - QSA Global, Inc. Model Nos. X54 (Manufactured before January 1, 1998), X540 (Manufactured on or after February 17, 1981), and X540/1 (Manufactured on or after September 27, 2000).
2. Source Description - Tungsten inert gas or laser seal welded cylindrical single or double encapsulations. The outer encapsulation is made of titanium or stainless steel and the inner encapsulation, if used, is made of titanium, stainless steel, or aluminum. Approximate exterior dimensions are 5.15 mm (0.2 in.) maximum diameter and 15.15 mm (0.6 in.) in length (Model X54); and 5.16 mm (0.2 in.) in diameter and 7.65 mm (0.3 in.) in length (Models X540 and X540/1). Construction shall be in accordance with attached Amersham Drawing No. A10639, Issue C (Model X54) or QSA Global Inc. Drawing No. R87527, Rev. H (Models X540 and X540/1).
3. Radioactive Contents - No more than 17.0 TBq (459.5 Ci) of Cobalt-60 (Model X54); or no more than either 20.0 TBq (540.5 Ci) of Cobalt-60, 17.0 TBq (459.5 Ci) of Iridium-192, or 5.56 TBq (150.3 Ci) of Selenium-75 (Models X540 and X540/1). The Co-60, Ir-192, and Se-75 are in the form of a metal.

¹ "Regulations for the Safe Transport of Radioactive Material, 2012 Edition, No. SSR-6" published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

² Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

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4. Management System Activities - Records of Management System activities required by Paragraph 306 of the IAEA regulations shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors in the United States exporting shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.

5. Expiration Date - This certificate expires on June 30, 2018. USA/0502/S-96 Revision 10 may be used until February 28, 2018. All other revisions are not authorized for use.

This certificate is issued in accordance with paragraph(s) 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the December 4, 2017 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

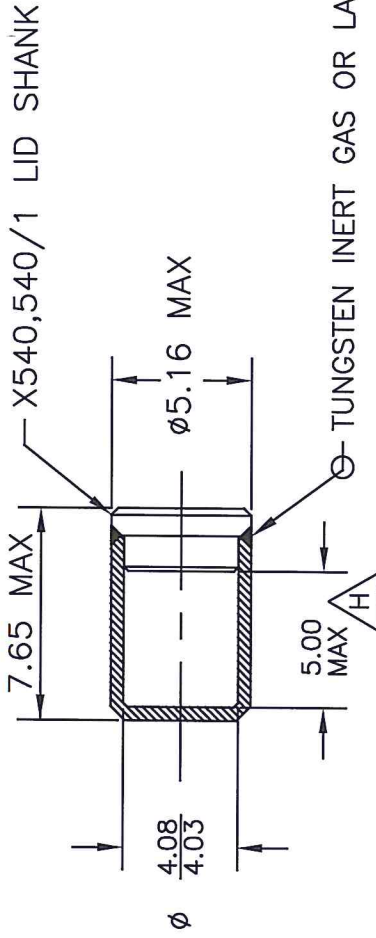
Certified By:



William Schoonover
Associate Administrator for Hazardous
Materials Safety

January 11, 2018
(DATE)

Revision 11 - Issued to update QSA Global Inc. Drawing No. R87527.



MODEL	MATERIAL
X540	316L STAINLESS STEEL
X540/1	TITANIUM

NOTES:

- INTERNAL VOID TO BE 0.010 mL OR GREATER.
- MATERIAL: SEE TABLE
- INNER CAVITY DIMENSIONS MAY VARY. METALLIC SPACERS, SPRINGS AND GUARDS WHICH SECURE AND/OR LOCATE THE RADIOACTIVE MATERIAL OR INNER SOURCE CAPSULE WITHIN THE CAPSULE MAY BE USED.
- MINIMUM WALL THICKNESS TO BE 0.22.
- DIMENSIONS ARE IN MILLIMETERS

NOTES:

- MATERIAL: SEE TABLE

APPROVALS	DATE	 QSA GLOBAL 40 NORTH AVE, BURLINGTON, MA 01803	DESCRIPTIVE DRAWING
<i>R. Smith</i>	04 DEC 17		
	Dec 17	TITLE X540 CAPSULE SERIES	SIZE DWG. NO. R87527
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES TOLERANCES: FRACTIONS ± 1/8 XX ± 0.12 X.XX ± 0.06 X.XXX ± 0.020			
		ERF # 3726	REV H



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