



U.S. Department
of Transportation
**Pipeline and
Hazardous Materials
Safety Administration**

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0678/S-96, REVISION 2**

East Building, PHH-23
1200 New Jersey Avenue Southeast
Washington, D.C. 20590

This certifies that the source described has 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 X93 (Manufactured on or after May 15, 1981).
2. Source Description - Cylindrical single encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate exterior dimensions are 30.2 mm (1.19 in.) in diameter and 6.3 mm (0.25 in.) in length. Minimum wall thickness is 0.2 mm (0.008 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA11069, Rev. B.
3. Radioactive Contents - No more than 74.0 GBq (2.0 Ci) of Americium-241 in the form of an oxide pressed into a ceramic.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations¹ 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 applicable requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires on March 31, 2019.

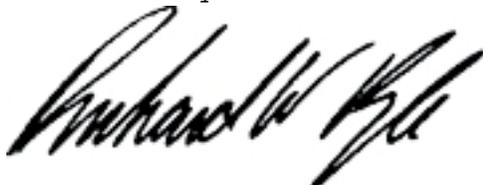
¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

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

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This certificate is issued in accordance with paragraph 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the March 11, 2014 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



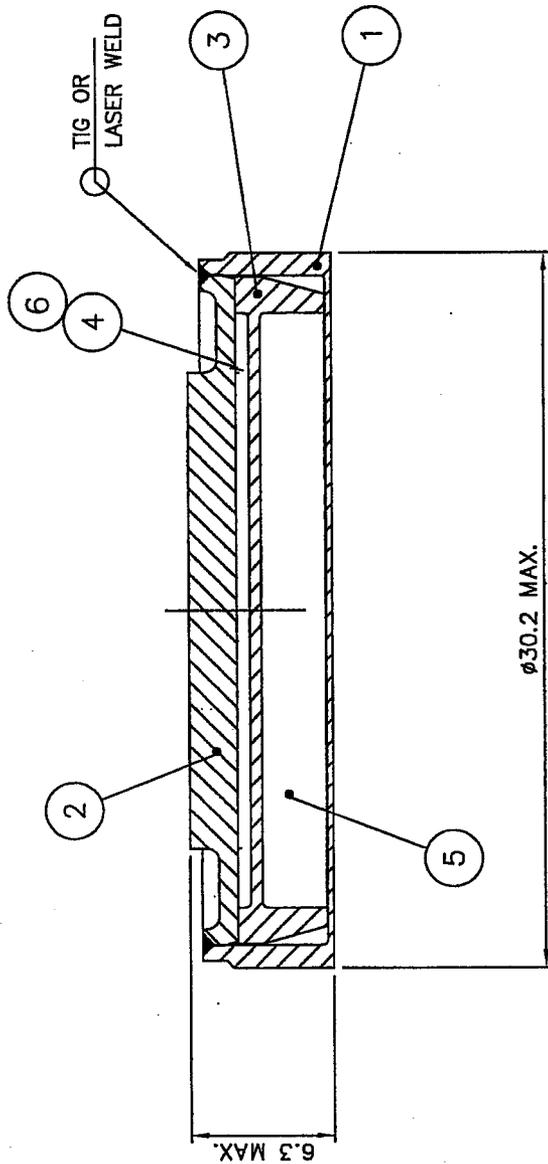
Mar 21 2014

(DATE)

 Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

Revision 2 - Issued to extend the expiration date.

ITEM	DESCRIPTION	QTY
1	BODY STAIN. STL.	1
2	LID STAIN. STL.	1
3	INSERT STAIN. STL.	1
4	GASKET (OPTIONAL) METAL	1
5	ACTIVE MATERIAL A/R	
6	SPRING (OPTIONAL) METAL	1



NOTES:

- ITEMS 4 & 6 MATERIALS TO BE METALS OR METAL ALLOYS WITH A MINIMUM MELTING POINT OF 800°C.
- ITEMS 4 & 6 DIMENSIONS AS NECESSARY TO ACHIEVE IMMOBILIZATION OF ITEM 3 INSERT WITHIN CAPSULE BODY & LID.

APPROVALS	
<i>[Signature]</i>	29 Jun 05
<i>[Signature]</i>	29 Jun 05

DIMENSIONS IN MILLIMETERS
UNLESS OTHERWISE STATED TOLERANCES:

X	±0.5	INTERNAL	✓
X.X	±0.1	INTERNAL	✓
X.XX	±0.05	EXTERNAL	✓
ANGULAR	±5°		

AEATECHNOLOGY QSA		40 NORTH AVE, BURLINGTON, MA 01803	
DESCRIPTIVE DRAWING		TITLE X93 CAPSULE ASSEMBLY	
SIZE	DWG. NO.	SCALE:	REV
A	RBA11069	NONE	B
		SHEET 1 OF 1	

ERF # 853