



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY  
SPECIAL FORM RADIOACTIVE MATERIALS  
CERTIFICATE USA/0677/S-96, REVISION 1

East Building, PHH-23  
1200 New Jersey Avenue SE  
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 Agency<sup>1</sup> and the United States of America<sup>2</sup> for the transport of radioactive material.

1. Source Identification - QSA Global, Inc. Model X9032/1 (Manufactured on or after July 17, 1990).
2. Source Description - Cylindrical triple encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate exterior dimensions are 12.6 mm (0.5 in.) in diameter and 40.2 mm (1.58 in.) in length. Minimum wall thickness of the outer encapsulation is 0.4 mm (0.02 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA62119, Rev. A.
3. Radioactive Contents - No more than 40.0 GBq (1.08 Ci) of either Curium-244 or Plutonium-238. The Cm-244 and Pu-238 are in the form of an oxide powder mixed with Carbon-13 and pressed into a pellet.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations<sup>1</sup> 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 June 30, 2014.

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<sup>1</sup> "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.

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

**CERTIFICATE USA/0677/S-96, REVISION 1**

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 June 23, 2009 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



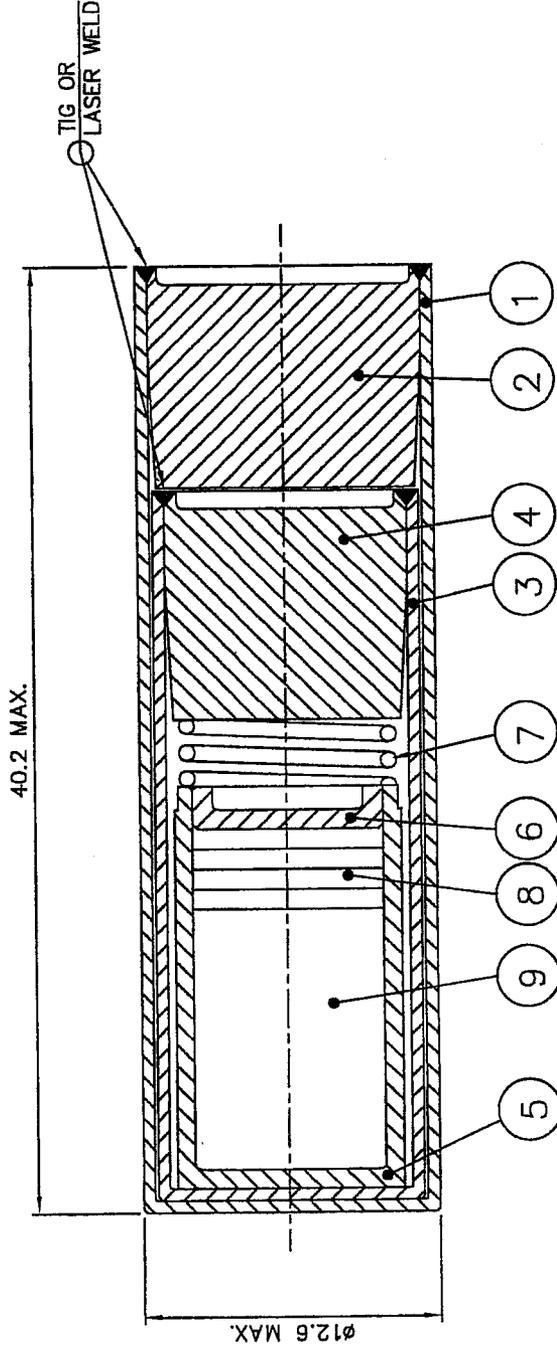
**Jul 16 2009**

(DATE)

Robert A. Richard  
Deputy Associate Administrator for Hazardous Materials Safety

Revision 1 - Issued to update corporate name and to extend the expiration date.

ITEM	DESCRIPTION	QTY
1	OUTER SHEATH BODY	1
2	OUTER SHEATH LID	1
3	INNER SHEATH BODY	1
4	INNER SHEATH LID	1
5	CELL BODY	1
6	CELL LID	1
7	SPRING	1
8	CERAMIC FIBRE	A/R
9	ACTIVE MATERIAL	A/R



<b>AEATECHNOLOGY</b> QSA 40 NORTH AVE, BURLINGTON, MA 01803		<b>DESCRIPTIVE DRAWING</b>	
		TITLE X9032/1 CAPSULE ASSEMBLY	
APPROVALS	6 Jun 04	SIZE	DWG. NO. RBA62119
<i>R. J. ...</i>	6 Jul 04	A	SCALE: NONE
DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES:		REV A	
X ±0.5	INTERNAL $\frac{M}{N}$	SHEET 1 OF 1	
X.X ±0.05	EXTERNAL $\frac{M}{N}$		
X.XX ±0.05	ANGULAR ±5°		

ERF # 860



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**CERTIFICATE NUMBER:** USA/0677/S-96, Revision 1

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