



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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0722/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 X0779 Source Assembly (Manufactured on or after July 5, 1988).
2. Source Description - Cylindrical single encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate outer dimensions of the single encapsulation are 3.0 mm (0.12 in.) in diameter and 26.3 mm (1.04 in.) in length. Nominal wall thickness is 0.15 mm (0.006 in.). The single encapsulation must be installed inside the rectangular shutter housing secured with screws welded in-place. Approximate outside dimensions of the shutter housing are 22.0 mm (0.87 in.) in height, 65.0 mm (2.56 in.) in width, and 45.0 mm (1.77 in.) in length. Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing Nos. RBA62007, Rev. A and RBA61601, Rev. A.
3. Radioactive Contents - No more than 7.4 GBq (200.0 mCi) of Americium-241. The Am-241 is in the form of an oxide incorporated into a ceramic enamel.
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 October 31, 2020.

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 October 08, 2015 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

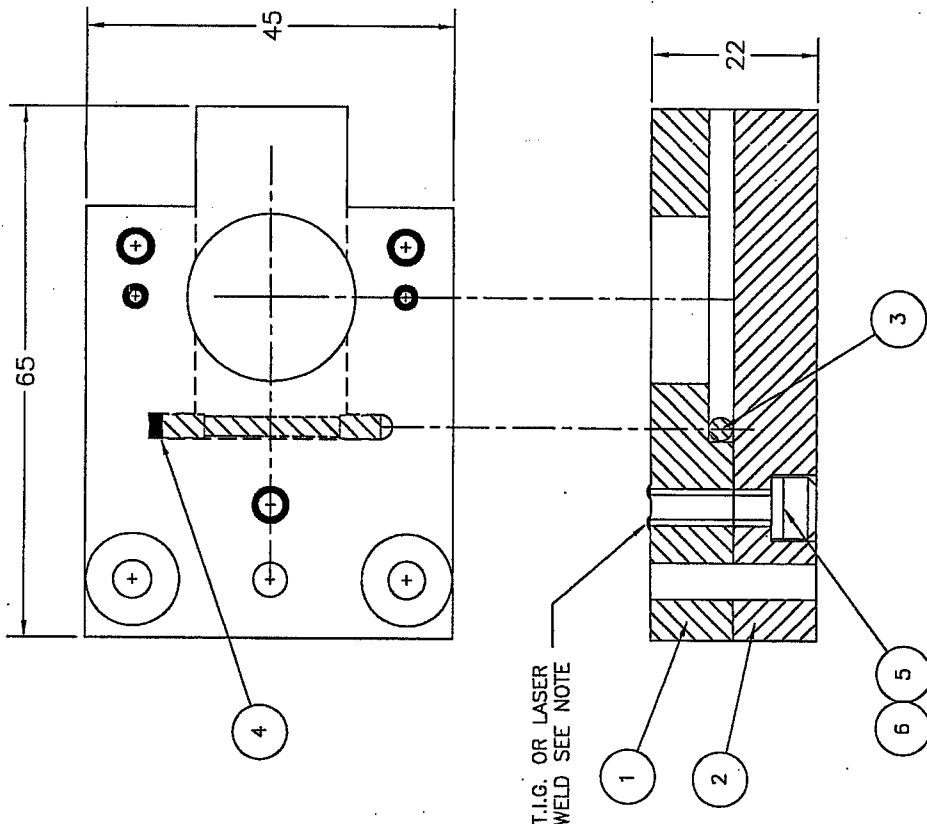
Certified By:



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

Oct 16 2015
(DATE)

Revision 2 - Issued to extend the expiration date.



T.I.G. OR LASER WELD SEE NOTE

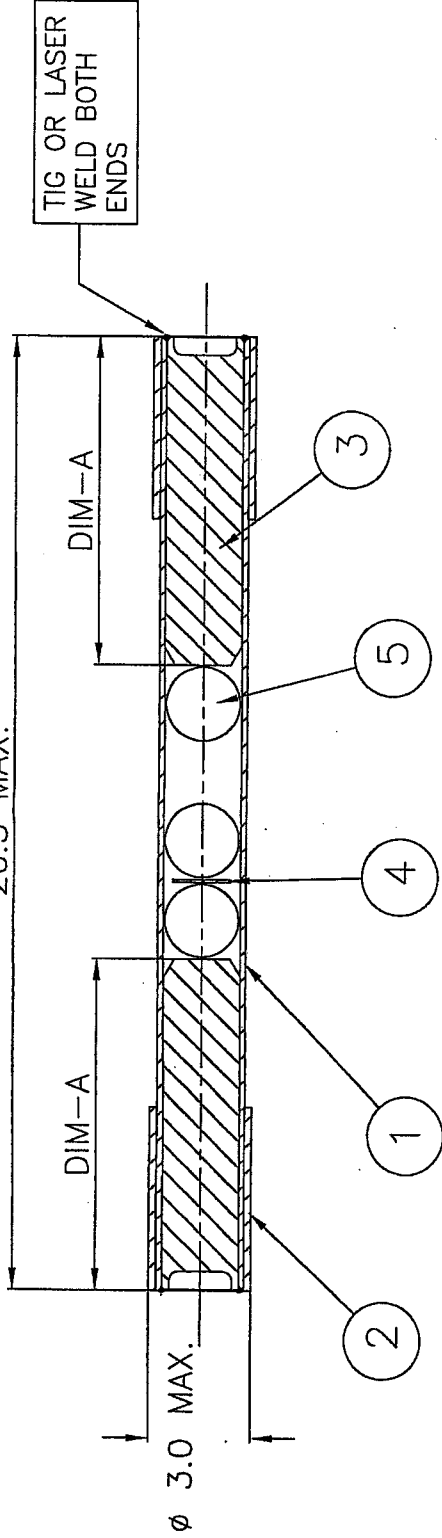
NOTE: WELD SCREW TO BODY IN THREE POSITIONS AND AFTER INSERTION OF M4x14 SCREWS.

NOTE:
 1) DIMENSIONS ARE IN MILLIMETERS.
 2) TOLERANCE:
 X ± 2
 X.X ± 0.2

ITEM #	DESCRIPTION	QTY.
1	SHUTTER UPPER SECTION, STAINLESS STEEL	1
2	SHUTTER LOWER SECTION, STAINLESS STEEL	1
3	X1122 SOURCE CAPSULE, STAINLESS STEEL	1
4	ANTI-RATTLE SPRING, STAINLESS STEEL	1
5	M4 x 14 SCREW, STEEL	3
6	M4 SPRING WASHER, STEEL	1

APPROVALS	DATE	 40 NORTH AVE, BURLINGTON, MA 01803	DESCRIPTIVE DRAWING
<i>D. P. ...</i>	7 Nov. 05		
<i>R. ...</i>	11/09/05	TITLE	SHUTTER ASSEMBLY X0779
UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES		SIZE	B
FRACTIONS ± 1/8 X.X ± 0.12 X.XX ± 0.06 X.XXX ± 0.020		DWG. NO.	RBA62007
ERF#		SCALE:	N.T.S.
1164		SHEET 1 OF 1	

26.3 MAX.

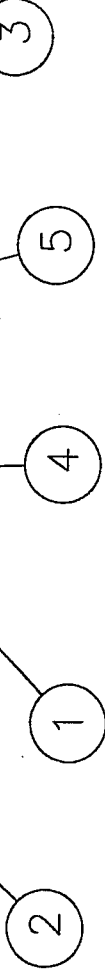


TIG OR LASER WELD BOTH ENDS

DIM-A

DIM-A

$\phi 3.0$ MAX.



TYPE	DIM-A
X1122/1	5
X1122/2	9

ITEM #	DESCRIPTION	QTY.
1	BODY, STAINLESS STEEL	1
2	SLEEVE, STAINLESS STEEL	2
3	PLUG, STAINLESS STEEL	2
4	CERAMIC FIBER PACKING	A/R
5	Am241 GLASS BEADS	A/R

NOTE:

1) DIMENSIONS ARE IN MILLIMETERS.

2) SLEEVES, ITEM 2, TO BE ATTACHED TO BODY , ITEM 1, WITH EPOXY RESIN.

APPROVALS: *D.P.* 7 Nov 07
A.P. 7 Nov 07

DATE: 7 Nov 07

UNLESS OTHERWISE SPECIFIED DIMENSIONS IN INCHES
 TOLERANCES:
 FRACTIONS $\pm 1/8$
 X.X ± 0.12
 X.XX ± 0.06
 X.XXX ± 0.020



DESCRIPTIVE DRAWING

TITLE: ASSEMBLY DRAWING CAPSULE X1122 /1 & /2

SIZE: B DWG. NO. RBA61601 SCALE: NTS SHEET 1 OF 1

ERF# 1164

RE: A



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**Pipeline and
Hazardous Materials
Safety Administration**

CERTIFICATE NUMBER: USA/0722/S-96, Revision 2

ORIGINAL REGISTRANT(S):

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