



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/0363/S-96, REVISION 9

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 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 Nos. X38/1, X38/3, and X38/4.
2. Source Description - Cylindrical double encapsulations constructed of Type 316L stainless steel and tungsten inert gas or laser seal welded. Approximate outer diameters are 12.8 mm (0.5 in.) for the Models X38/1 and X38/3; and 12.9 mm (0.5 in.) for the Model X38/4. All Models are approximately 19.3 mm (0.76 in.) in length. Minimum wall thickness of the outer capsule for all Models is 0.6 mm (0.024 in.). Construction shall be in accordance with attached AEA Technology Drawing Nos. RBA61765, Rev. A (Model X38/1); RBA61769, Rev. A (Model X38/3); or RBA61759, Rev. B (Model X38/4).
3. Radioactive Contents - No more than either 95 GBq (2.6 Ci) of Cesium-137 or 12 TBq (324 Ci) of Cobalt-60 for the Model X38/1. No more than 37 GBq (1.0 Ci) of Cesium-137 for the Model X38/3. No more than 440 GBq (12 Ci) of Cesium-137 for the Model X38/4. The Cs-137 is in the form of a ceramic bead or pellet. The Co-60 is in the form of a metal.

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<sup>1</sup> "Regulations for the Safe Transport of Radioactive Material, 2012 Edition, No. SSR-6" 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/0363/S-96, REVISION 9**

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 November 30, 2026. Previous editions which have not reached their expiration date may continue to be used.

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 September 2, 2021 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:

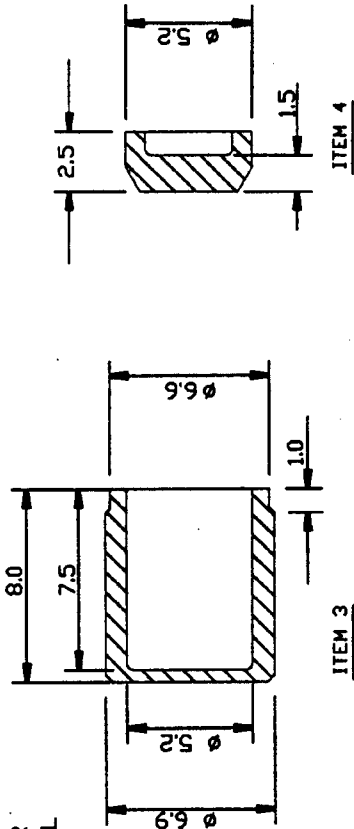
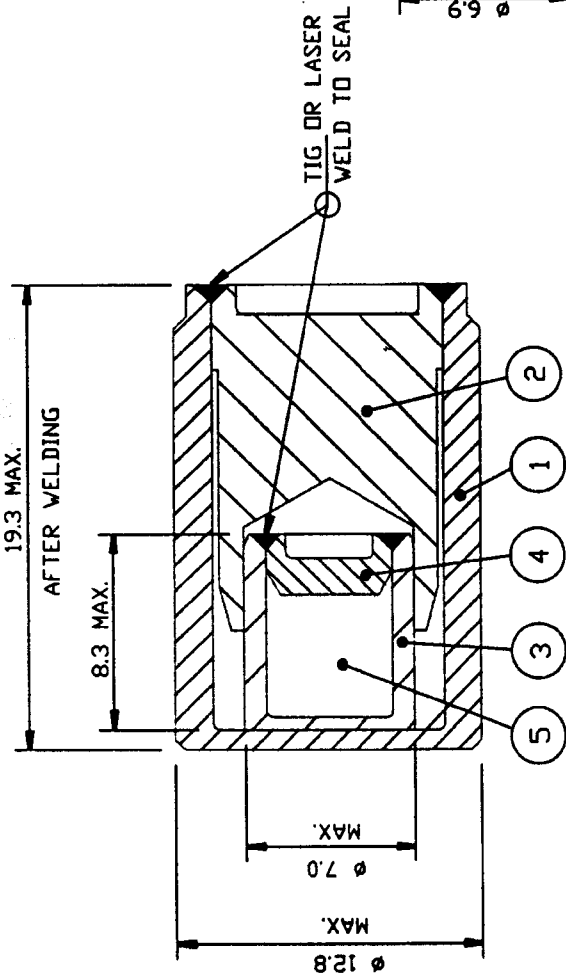


William Schoonover  
Associate Administrator for Hazardous  
Materials Safety

November 15, 2021  
(DATE)

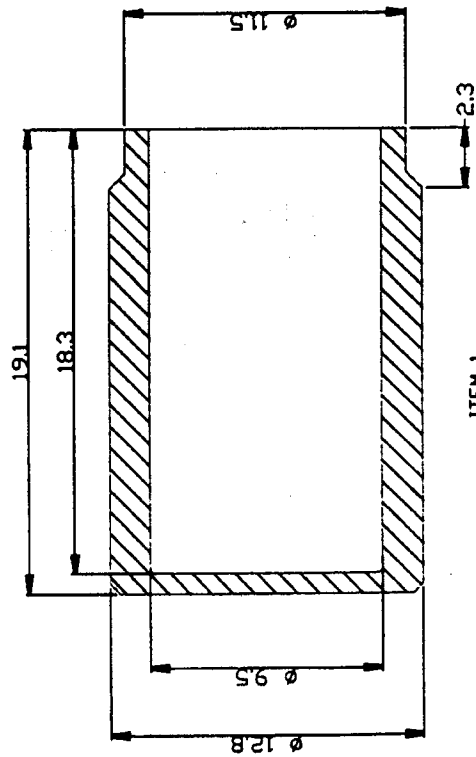
Revision 9 - Issued to extend the expiration date and revise the capsule design in accordance with Drawing RBA61759 Rev B. for X38/4, which allows for an increase in the total activity of Cs-137 to 12 Ci.

Item #	Description	Qty.
1	SHEATH BODY STAINSTL.	1
2	SHEATH LID STAINSTL.	1
3	CELL BODY (X19) STAINSTL.	1
4	CELL LID (X19) STAINSTL.	1
5	ACTIVE MATERIAL	AR



ITEM 3

ITEM 4



ITEM 1

ITEM 2

**AEATECHNOLOGY**  
QSA  
40 NORTH AVE. BURLINGTON, MA 01803

**DESCRIPTIVE  
DRAWING**

**TITLE** X38/1 CAPSULE ASSEMBLY

<b>SIZE</b> A	<b>DWG. NO.</b> RBA61765	<b>REV</b>
	<b>SCALE:</b> NONE	<b>SHEET</b> 1 OF 1

**APPROVALS**

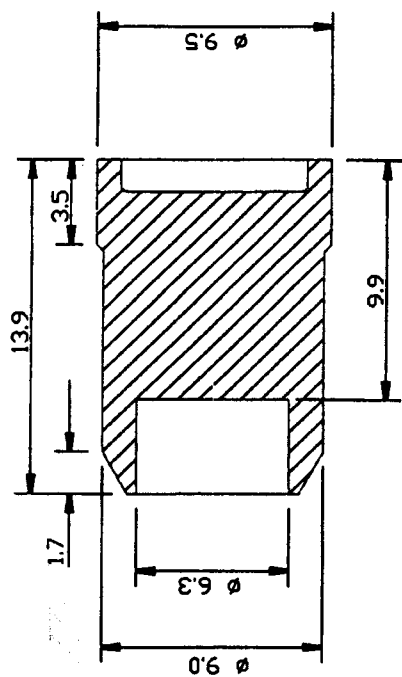
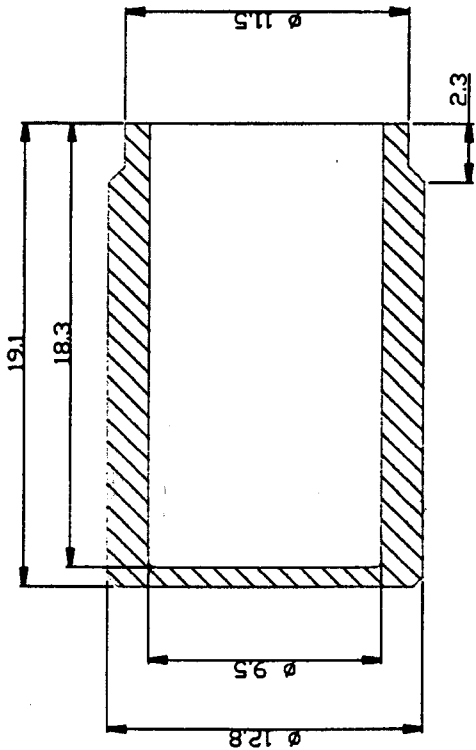
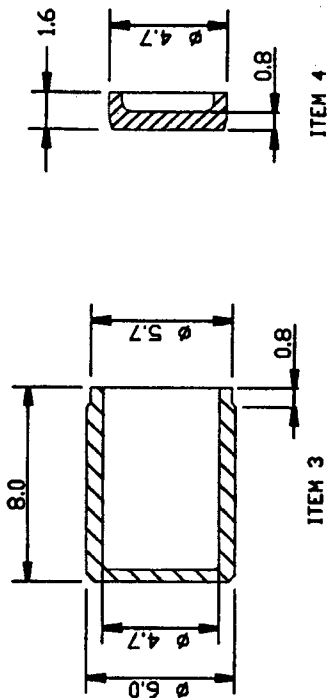
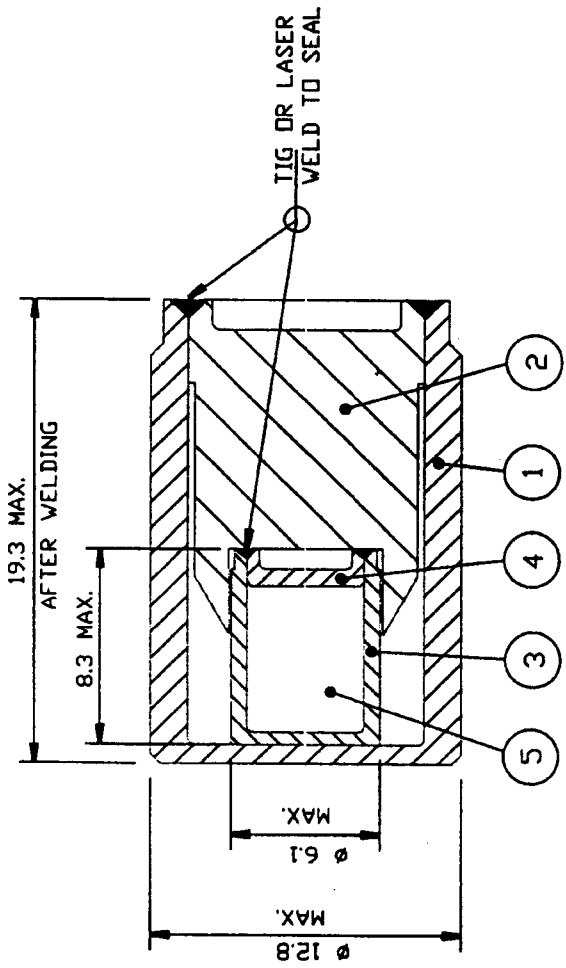
<i>[Signature]</i>	15/11/07
<i>[Signature]</i>	18 Nov 07

**DIMENSIONS IN MILLIMETERS  
UNLESS OTHERWISE STATED TOLERANCES:**

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

**ERF #** 390

Item #	Description	Qty.
1	SHEATH BODY STAINSTL.	1
2	SHEATH LID STAINSTL.	1
3	CELL BODY (X8 SHEATH)	1
4	CELL LID (X8 SHEATH)	1
5	ACTIVE MATERIAL	AR



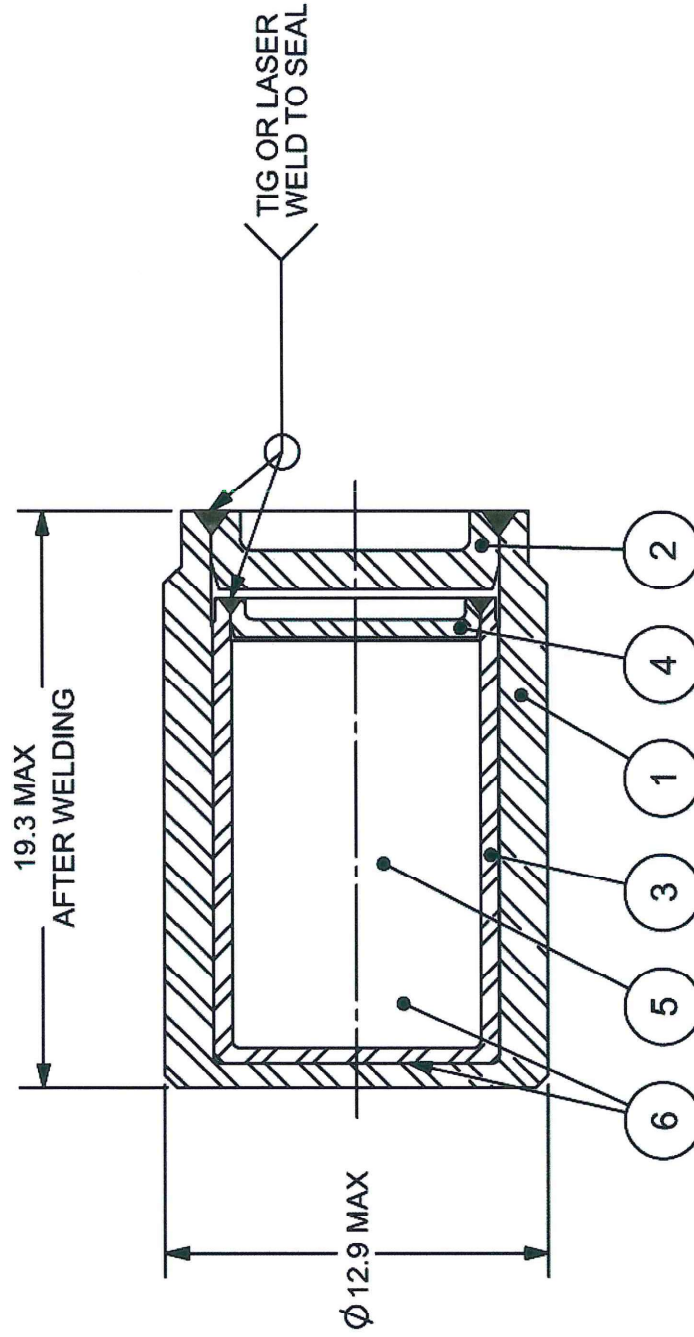
ITEM 1

ITEM 2

		<b>DESCRIPTIVE DRAWING</b>	
APPROVALS <i>[Signatures]</i> 18 MAY 07		<b>TITLE</b> X38/3 CAPSULE ASSEMBLY	
DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES: X ±0.5 XX ±0.1 XXX ±0.05 ANGULAR ±5°		<b>SIZE</b> A	<b>REV</b> A
<b>ERF #</b> 390		<b>DWG. NO.</b> RBA61769	<b>SCALE:</b> NONE
		<b>SHEET 1 OF 1</b>	

40 NORTH AVE. BURLINGTON, MA 01803

ITEM #	DESCRIPTION	QTY.
1	SHEATH BODY STAIN.STL.	1
2	SHEATH LID STAIN.STL.	1
3	CELL BODY (X1165) STAIN.STL.	1
4	CELL LID (X1165) STAIN. STL.	1
5	ACTIVE MATERIAL AR	AR
6	CERAMIC FIBER PACKING AR	AR



<b>QSA GLOBAL</b> 40 NORTH AVE, BURLINGTON, MA 01803		<b>DESCRIPTIVE DRAWING</b>	
TITLE <b>X38/4 CAPSULE ASSEMBLY</b>		REV <b>B</b>	
SIZE <b>A</b>		DWG. NO. <b>RBA61759</b>	
ERF # <b>4311</b>		SCALE: <b>NONE</b> SHEET <b>1</b> OF <b>1</b>	
DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES: X ± 0.5 XX ± 0.1 XXX ± 0.05 ANGULAR ± 5°		APPROVALS DATE	
E-SIGNED by Brian Girouard on 2021-08-25 12:58:20 EDT		E-SIGNED by Mary Flanigan on 2021-08-25 13:04:50 EDT	



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1200 New Jersey Ave, SE  
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**CERTIFICATE NUMBER:** USA/0363/S-96

**ORIGINAL REGISTRANT(S) :**

QSA Global, Inc.  
40 North Avenue  
Burlington, MA, 01803  
USA