



U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0612/S-96, REVISION 3

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

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 Numbers X.1301 and X.1302.
2. Source Description - Both models are single encapsulations made of Armco 17-4 PH stainless steel, with stainless steel inserts. Minimum wall thickness in each case is 0.60 mm (0.02 in.). Welds are by tungsten inert gas or laser method. Approximate outer dimensions of Model X.1301 are 8.5 mm (0.33 in.) in diameter and 14.5 mm (0.57 in.) in length. Approximate outer dimensions of Model X.1302 are 7.94 mm (0.31 in.) in diameter and 10.65 mm (0.42 in.) in length. Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawings RBA63205, Rev. B and RBA61678, Rev. B for Model X.1301, and Drawings RBA63206, Rev. B and RBA61721 Rev. B for Model X.1302.
3. Radioactive Contents - No more than 130 GBq (3.5 Ci) of Cesium-137 for Model X.1301, and no more than 93 GBq (2.5 Ci) of Cesium-137 for Model X.1302. The Cesium-137 is in solid form, bonded in a borosilicate glass polymer.
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 November 30, 2012.

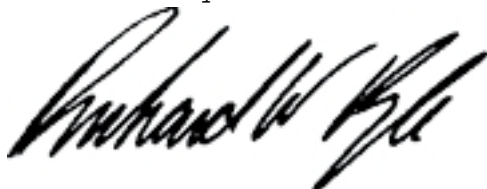
¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency(IAEA), Vienna, Austria.

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

CERTIFICATE USA/0612/S-96, REVISION 3

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 December 04, 2007 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



Dec 13 2007

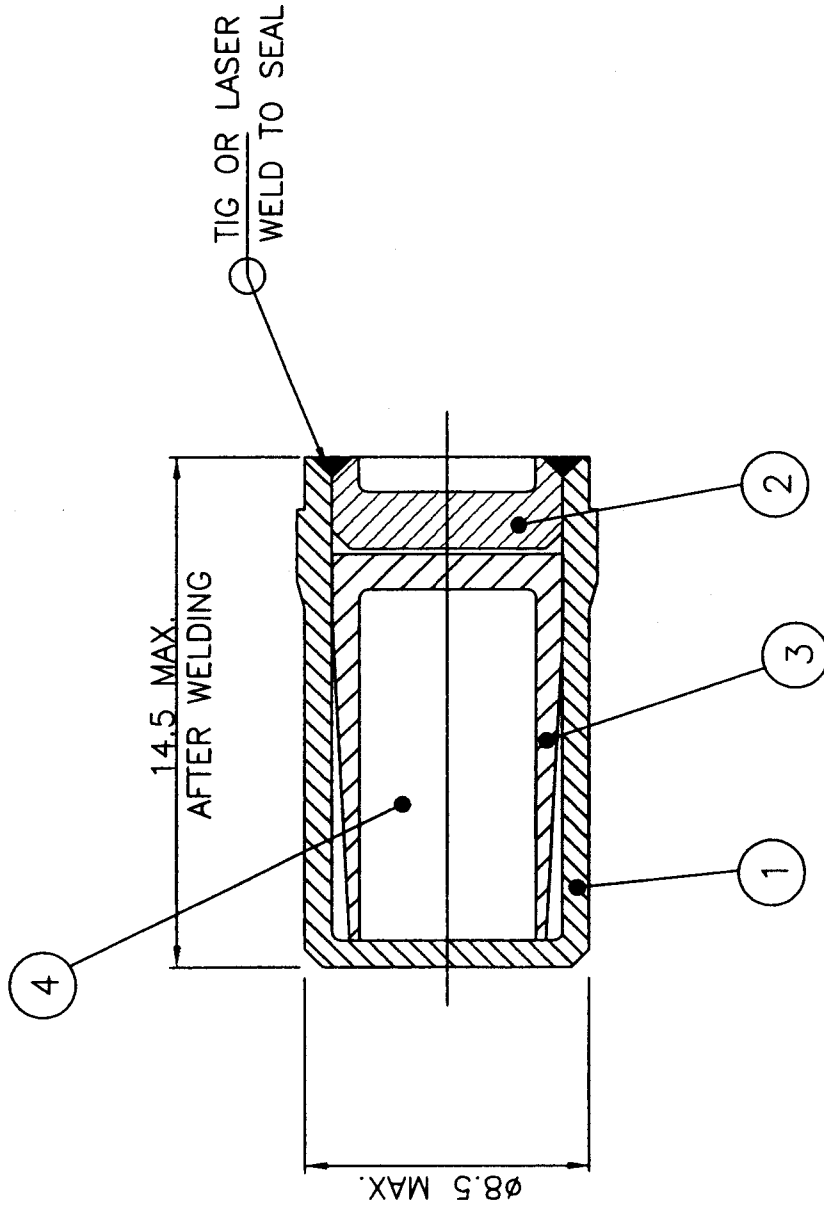
(DATE)


Robert A. Richard

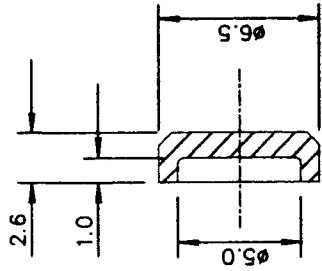
Deputy Associate Administrator for Hazardous Materials Safety

Revision 3 - Issued to extend the expiration date and update corporate name.

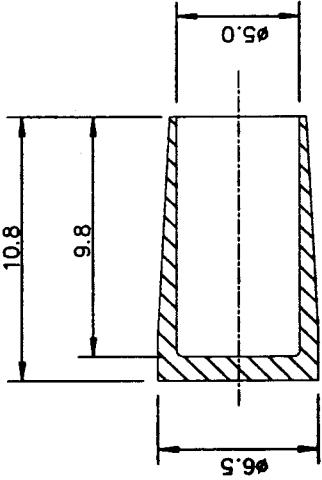
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1	BODY	STAINLESS STEEL	1
2	LID	STAINLESS STEEL	1
3	INSERT	STAINLESS STEEL	1
4	ACTIVE MATERIAL		A/R



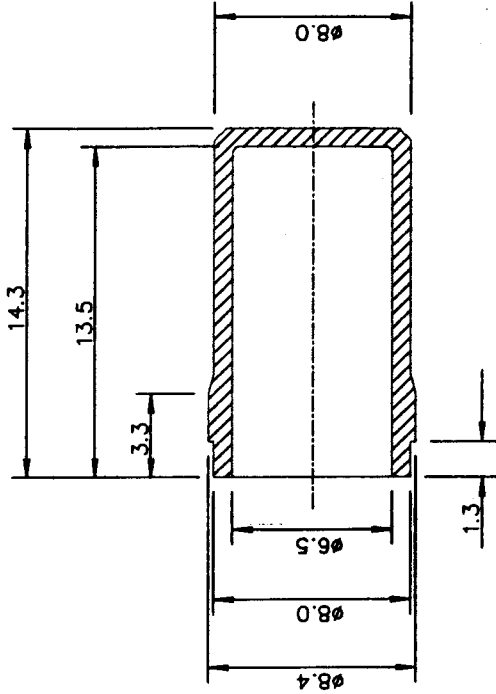
 40 NORTH AVE, BURLINGTON, MA 01803		DESCRIPTIVE DRAWING	
APPROVALS <i>[Signature]</i> 12 Feb 03 <i>[Signature]</i> 12 Feb 03		TITLE X1301 CAPSULE ASSEMBLY	
DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES: X ±0.5 X.X ±0.1 X.XX ±0.05 ANGULAR ±5°		SIZE A	DWG. NO. RBA63205
ERF 443		SCALE: N/A	SHEET 1 OF 1
		REV B	



ITEM.1 LID



ITEM.2 INSERT



ITEM.3 BODY

- NOTES:
 1. MATERIAL: ITEM 1 = 17-4 PH
 ITEM 2 = 316L STAINLESS STEEL
 ITEM 3 = 17-4 PH

APPROVALS	
<i>[Signature]</i>	12 Feb 03
<i>[Signature]</i>	12 Feb 03

DIMENSIONS IN MILLIMETERS
 UNLESS OTHERWISE STATED TOLERANCES:

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



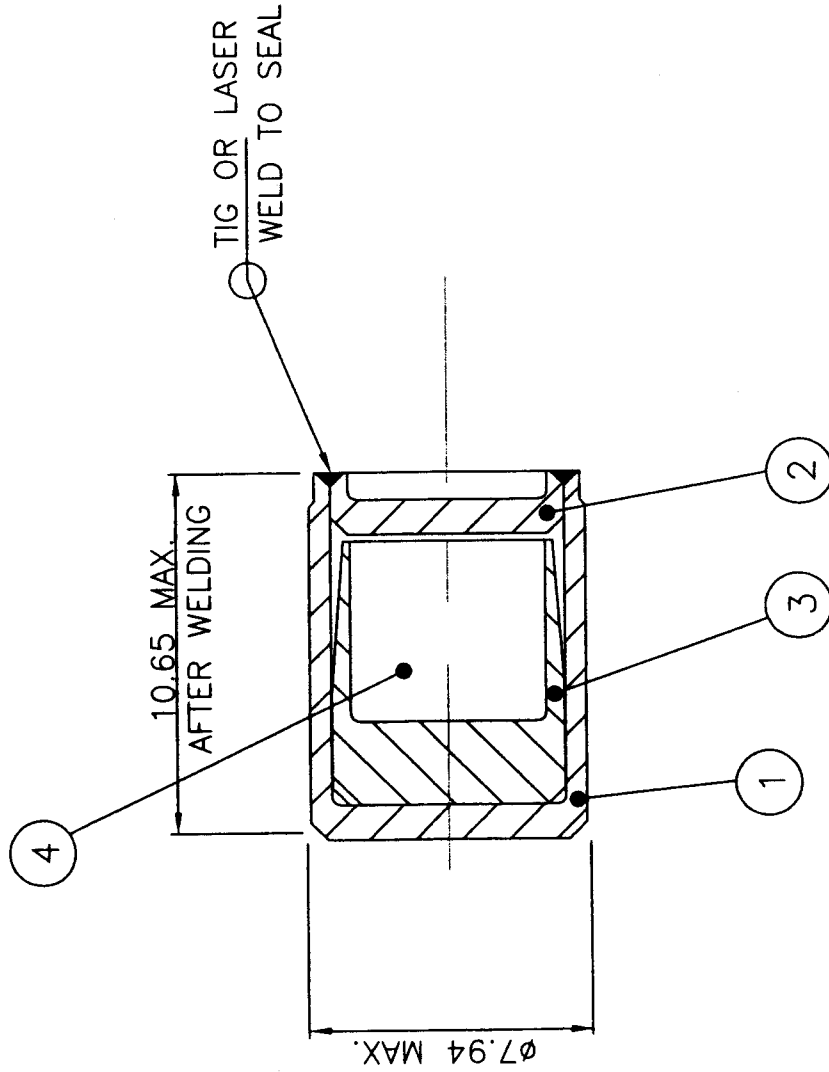
DESCRIPTIVE
 DRAWING

TITLE X1301 CAPSULE DETAILS

SIZE	DWG. NO.	REV
A	RBA61678	B
SCALE: N/A		SHEET 1 OF 1

ERF # 443

Item	Description	Material	QTY
1	BODY	STAINLESS STEEL	1
2	LID	STAINLESS STEEL	1
3	INSERT	STAINLESS STEEL	1
4	ACTIVE MATERIAL		A/R



APPROVALS	
<i>[Signature]</i>	12 Feb 03
<i>[Signature]</i>	12 Feb 03

DIMENSIONS IN MILLIMETERS
UNLESS OTHERWISE STATED TOLERANCES:

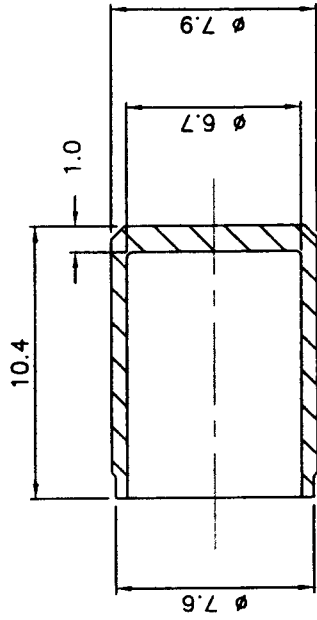
X	±0.5	INTERNAL	NS
X.X	±0.1	INTERNAL	NS
X.XX	±0.05	EXTERNAL	NS
ANGULAR	±5°		

AEATECHNOLOGY
QSA
40 NORTH AVE, BURLINGTON, MA 01803

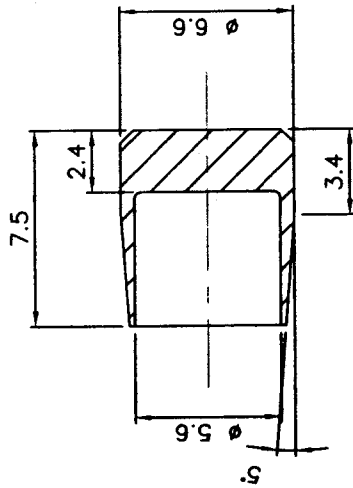
DESCRIPTIVE
DRAWING

TITLE X1302 CAPSULE ASSEMBLY

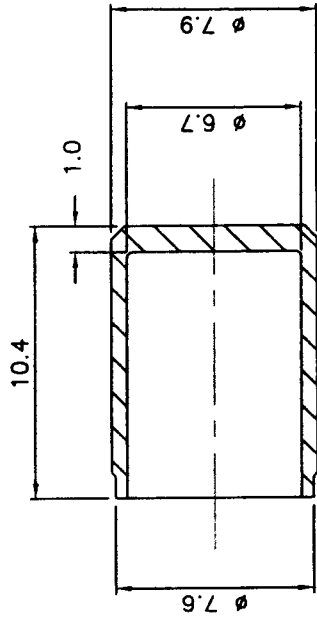
SIZE	DWG. NO.	REV
A	RBA63206	B
SCALE: N/A		SHEET 1 OF 1



ITEM.1 LID



ITEM.2 INSERT



ITEM.3 BODY

NOTES:

- 1. MATERIAL: ITEM 1 = 17-4 PH
- ITEM 2 = 316L STAINLESS STEEL
- ITEM 3 = 17-4 PH

APPROVALS	
<i>[Signature]</i>	12 Feb 03
<i>[Signature]</i>	12 Feb 03

DIMENSIONS IN MILLIMETERS
UNLESS OTHERWISE STATED TOLERANCES:

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



DESCRIPTIVE
DRAWING

TITLE X1302 CAPSULE DETAIL

SIZE	DWG. NO.	SHEET	OF	REV
A	RBA61721	N/A	1	B
SCALE:		SHEET 1 OF 1		

ERF 443



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

CERTIFICATE NUMBER: USA/0612/S-96, Revision 3

ORIGINAL REGISTRANT(S):

Ms. Lori Podolak
Product Licensing Specialist
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

Ms. Cathleen Roughan
Director, Regulatory Affairs and QA
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803



AEA Technology

QSA Inc.

40 North Avenue

Burlington, MA 01803

Telephone (781) 272-2000

Telephone (800) 815-1383

Facsimile (781) 273-2216

AEA Technology QSA, Inc. Regulatory/Health Physics Department – Burlington, MA

Information regarding Special Form Certificate USA/0612/S for Capsule Code X1301

Special Form certificate GB/311/S-85 for the X2074 capsule will lapse at the end of February 2003. All products that were previously approved as Special Form Radioactive Material by Special Form Certificate GB/311/S-85 are now approved as special form based on the inner encapsulation (X1301). This special form is now approved under Special Form Certificate USA/0612/S.


Product Licensing Specialist


Date