



U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0672/S-96, REVISION 2

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 Agency¹ and the United States of America² for the transport of radioactive material.

1. Source Identification - QSA Global, Inc. Model X21 (Manufactured on or after July 17, 1980).
2. Source Description - Cylindrical double encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate exterior dimensions are 8.0 mm (0.31 in.) in diameter and 15.3 mm (0.60 in.) in length. Minimum wall thickness of the outer encapsulation is 0.72 mm (0.03 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA11027, Rev. A.
3. Radioactive Contents - No more than 7.4 GBq (200.0 mCi) of either Americium-241 or Curium-244. The Am-241 and Cm-244 are in the form of an oxide mixed with a beryllium powder and then pressed into a solid pellet.
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 February 28, 2014.

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 February 14, 2009 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



Feb 19 2009

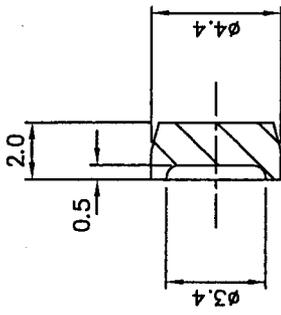
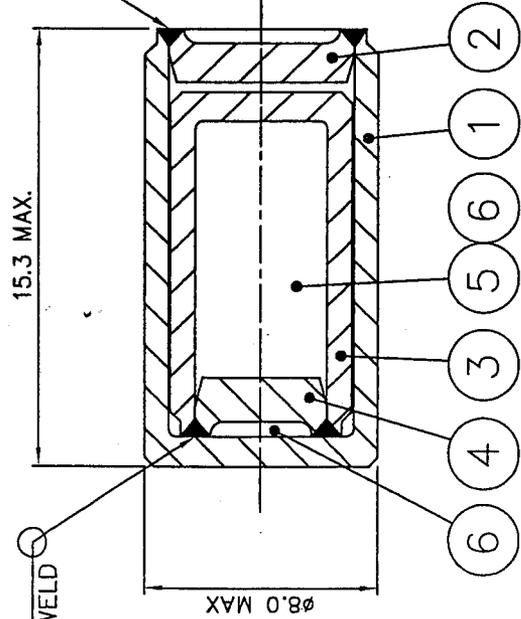
(DATE)

 Robert A. Richard
Deputy Associate Administrator for Hazardous Materials Safety

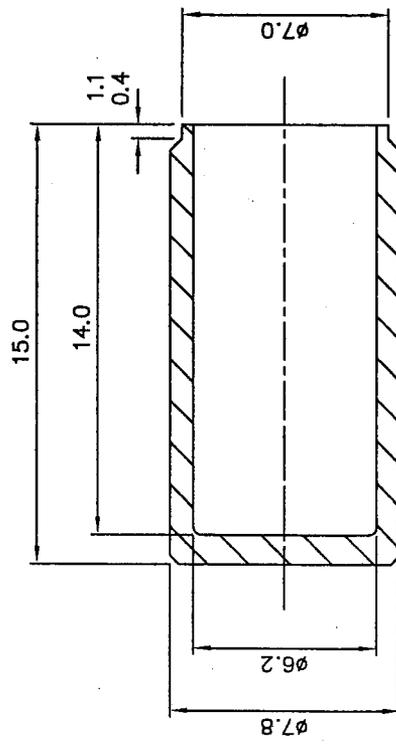
Revision 2 - Issued to extend the expiration date and to update corporate name.

ITEM No.	DESCRIPTION	QTY
1	SHEATH BODY STAIN.STL.	1
2	SHEATH LID STAIN.STL.	1
3	CELL BODY STAIN.STL.	1
4	CELL LID STAIN.STL.	1
5	ACTIVE MATERIAL	A/R
6	CERAMIC FIBRE (OPTIONAL)	A/R

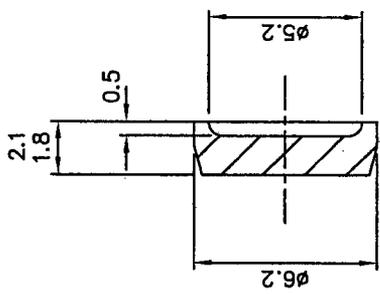
TIG OR LASER WELD



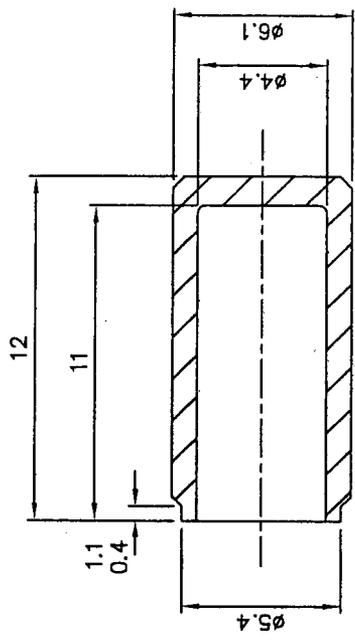
ITEM 4



ITEM 1



ITEM 2



ITEM 3

APPROVALS

16 Nov 07
21 Apr 04

DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES:

X ±0.5
XX ±0.1
XXX ±0.05
ANGULAR ±5°
INTERNAL M7
EXTERNAL M9



40 NORTH AVE., BURLINGTON, MA 01803

DESCRIPTIVE DRAWING

TITLE X21 CAPSULE ASSEMBLY

SIZE A	DWG. NO. RBA11027	REV A
SCALE: NONE	SHEET 1 OF 1	

ERF # 828



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CERTIFICATE NUMBER: USA/0672/S-96, Revision 2

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