



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/0631/S-96, REVISION 5

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 No. X.3 (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 outer dimensions are 22.5 mm (0.89 in.) in diameter and 31.2 mm (1.23 in.) in length. Minimum wall thickness of the outer encapsulation is 1.2 mm (0.05 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA11006, Rev. A.
3. Radioactive Contents - No more than either 185.0 GBq (5.0 Ci) of Americium-241, 185.0 GBq (5.0 Ci) of Plutonium-238, or 37.0 GBq (1.0 Ci) of Radium-226. The Am-241 and Pu-238 are in oxide form and mixed with a beryllium powder and pressed into a solid pellet. The Ra-226 is in the form of a sulphate or chloride.
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.

¹ "Regulations for the Safe Transport of Radioactive Material, 2012 Edition, No. SSR-6" 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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5. Expiration Date - This certificate expires on September 30, 2022. 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 6, 2017 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



September 15,
2017

 _____
William Schoonover
Associate Administrator for Hazardous
Materials Safety

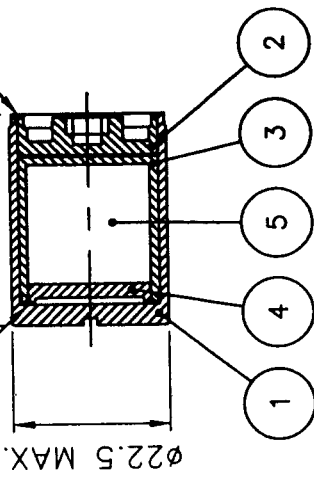
(DATE)

Revision 5 - Issued to extend the expiration date.

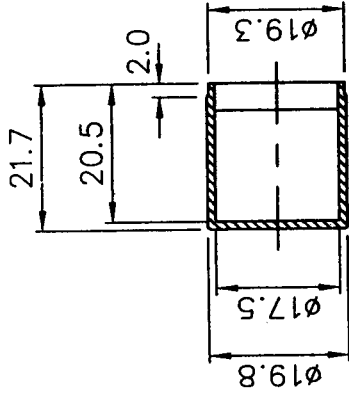
TIG OR LASER WELD TO SEAL

31.2 MAX. AFTER WELDING

TIG OR LASER WELD TO SEAL

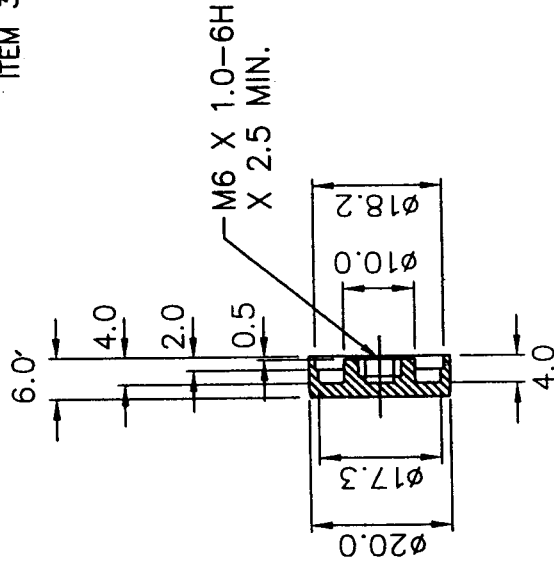
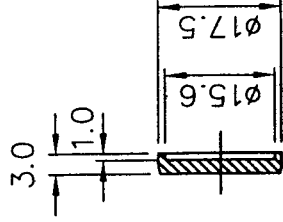


ITEM No.	DESCRIPTION	QTY.
1	SHEATH BODY STAIN.STL.	1
2	SHEATH LID STAIN.STL.	1
3	CELL BODY STAIN.STL.	1
4	CELL LID STAIN.STL.	1
5	ACTIVE MATERIAL	AR

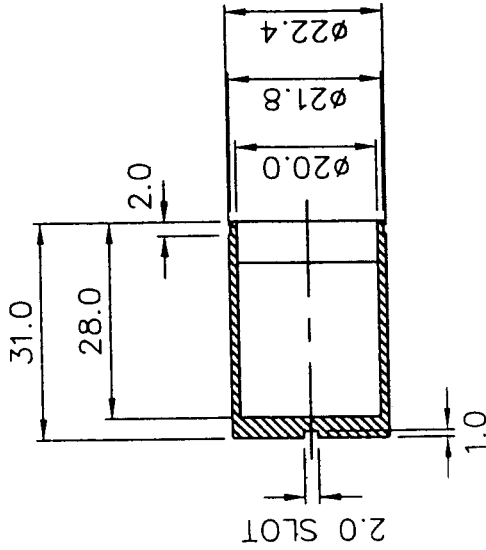


ITEM 3

ITEM 4



ITEM 2



ITEM 1

APPROVALS

[Signature] 16 Apr 03
[Signature] 16 Apr 03

DIMENSIONS IN MILLIMETERS
 UNLESS OTHERWISE STATED TOLERANCES:

X ±0.5
 X.X ±0.1
 X.XX ±0.05
 ANGULAR ±5°

INTERNAL $\frac{M}{N}$
 EXTERNAL $\frac{M}{N}$



DESCRIPTIVE DRAWING

TITLE X3 CAPSULE ASSEMBLY

SIZE	DWG. NO.	REV
A	RBA11006	A
SCALE:	NONE	SHEET 1 OF 1

ERF # 477



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CERTIFICATE NUMBER: USA/0631/S-96

ORIGINAL REGISTRANT(S) :

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