



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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0659/S-96, REVISION 4**

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 X.20 (Manufactured on or after March 3, 1980).
2. Source Description - Annular double encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate exterior dimensions are 33.5 mm (1.32 in.) in diameter and 19.4 mm (0.76 in.) in length. Minimum wall thickness of the outer encapsulation is 0.4 mm (0.016 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA11120, Rev. B (2 pages).
3. Radioactive Contents - No more than 74.0 GBq (2.0 Ci) of Americium-241. The Am-241 is in the form of an oxide mixed with a beryllium powder and 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 July 31, 2018.

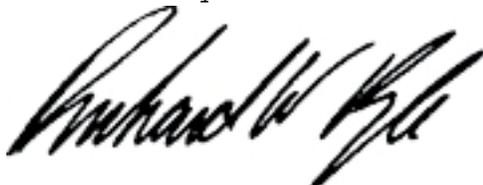
¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

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 July 09, 2013 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



Jul 24 2013

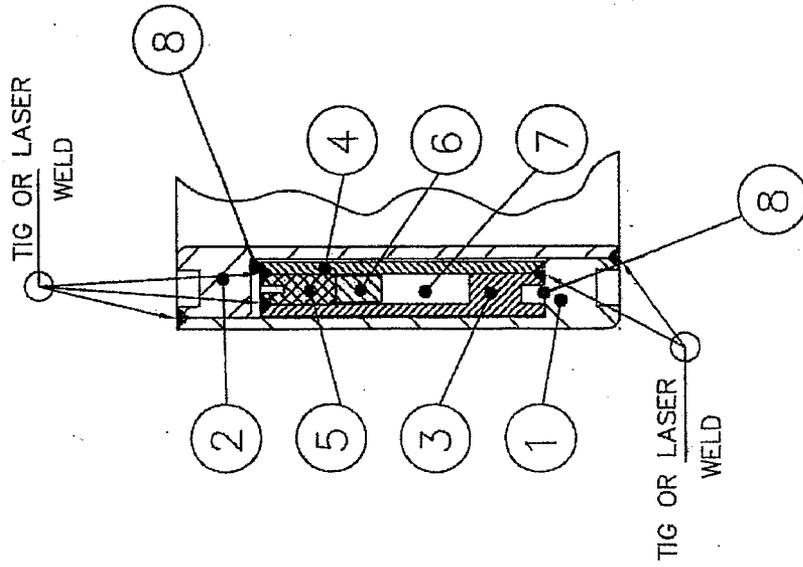
(DATE)

 Dr. Magdy El-Sibaie

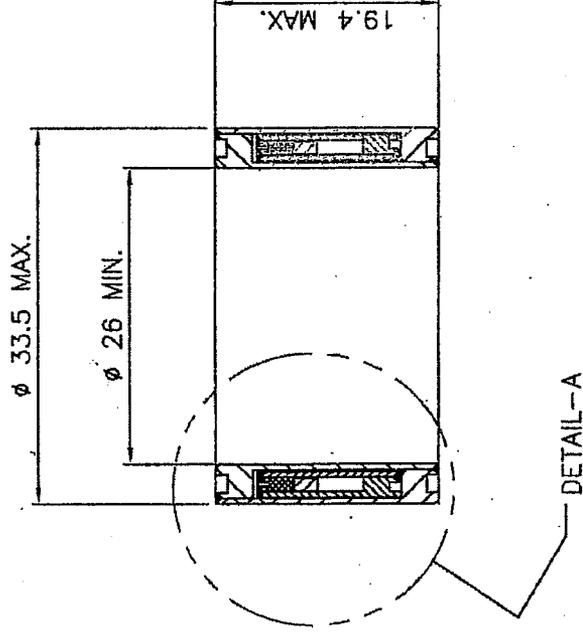
Associate Administrator for Hazardous Materials Safety

Revision 4 - Issued to extend the expiration date.

Item	Description	Material	QTY
1	OUTER SHEATH	STAIN.STL.	1
2	INNER SHEATH	STAIN.STL.	1
3	CELL OUTER	STAIN.STL.	1
4	CELL INNER	STAIN.STL.	1
5	END RING	STAIN.STL.	1
6	PACKING RING	STAIN.STL.	1
7	ACTIVE MATERIAL		A/R
8	CERAMIC FIBER (OPTIONAL)		A/R



DETAIL-A
SCALE 4/1



APPROVALS

R. W. [Signature] 9/20/04
[Signature] 10/15/04

DIMENSIONS IN MILLIMETERS
 UNLESS OTHERWISE STATED TOLERANCES:

X.X ±0.5
 X.XX ±0.1
 X.XXX ±0.05
 ANGULAR ±5'

INTERNAL
 EXTERNAL

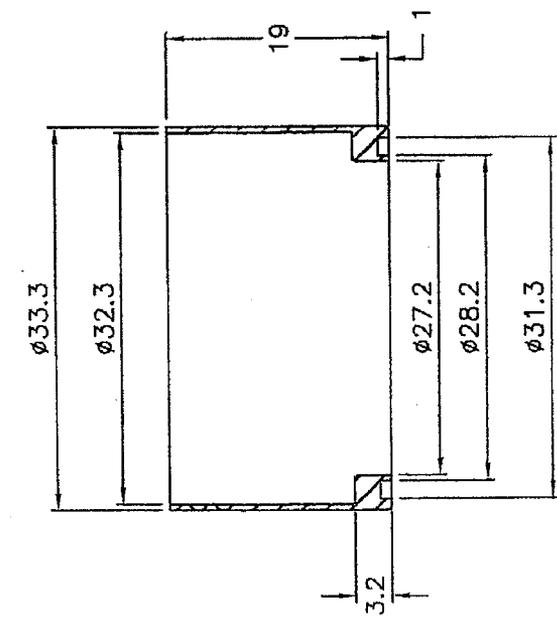
AEATECHNOLOGY
 QSA
 46 NORTH AVE. BURLINGTON, MA 01805

DESCRIPTIVE DRAWING

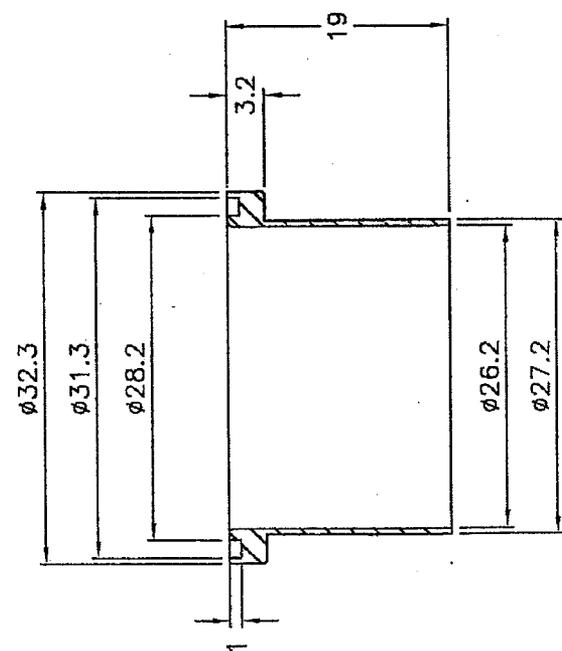
TITLE X20 CAPSULE ASSEMBLY

SIZE A
DWG. NO. RBA11120
SCALE: NONE
SHEET 1 OF 2

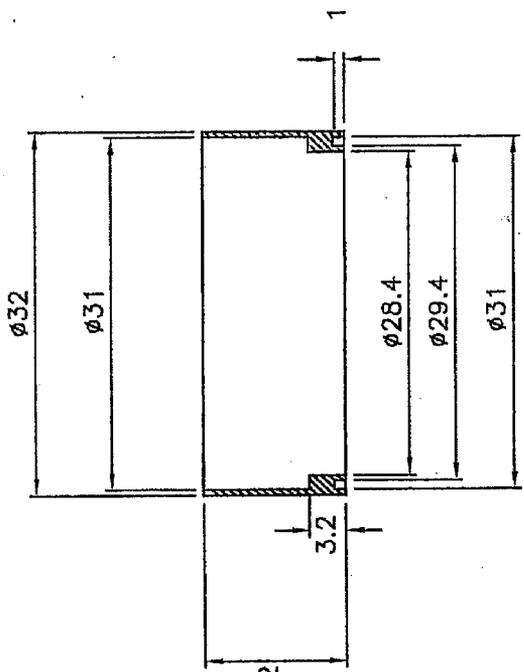
REV B



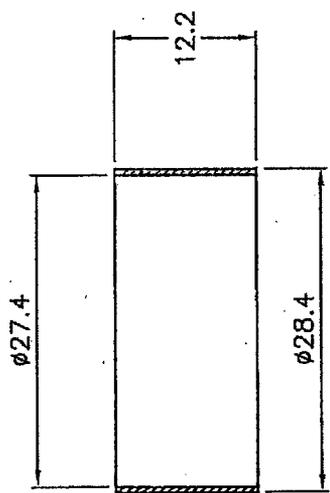
1 OUTER SHEATH



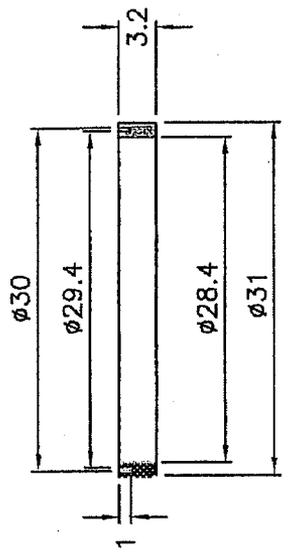
2 INNER SHEATH



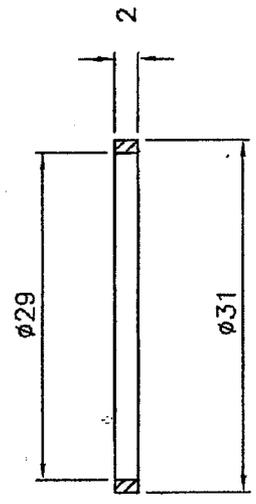
3 CELL OUTER



4 CELL INNER



5 END RING



6 PACKING RING



DESCRIPTIVE DRAWING

TITLE		X20 CAPSULE ASSEMBLY	
SIZE	DWG. NO.	RBA11120	
A	SCALE:	NONE	SHEET 2 OF 2
REV		B	

DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES:			
X.X	±0.5	INTERNAL	M
X.XX	±0.1	EXTERNAL	N
X.XXX	±0.05	INTERNAL	N
X.XXX	±0.05	EXTERNAL	N
ANGULAR	±5		

ERF #	753
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**Pipeline and
Hazardous Materials
Safety Administration**

CERTIFICATE NUMBER: USA/0659/S-96, Revision 4

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