



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/0659/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 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. 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 April 30, 2023. 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 April 2, 2018 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:

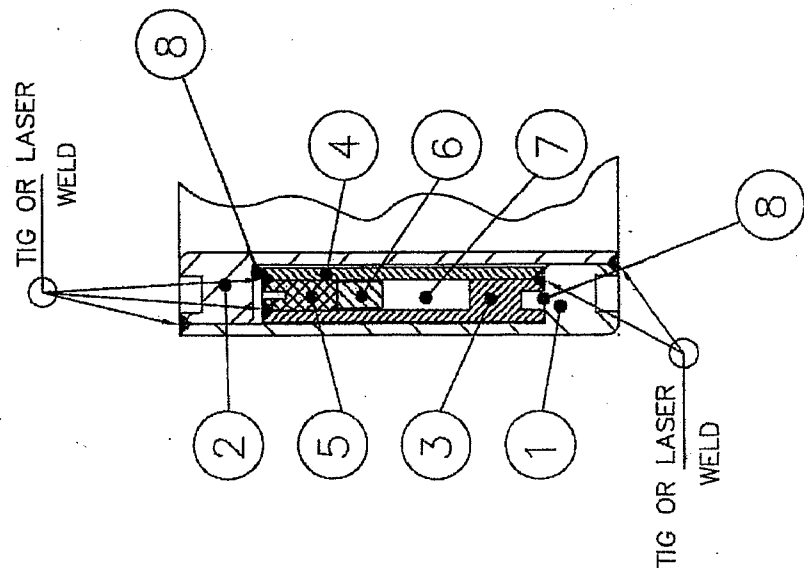


April 17, 2018
(DATE)

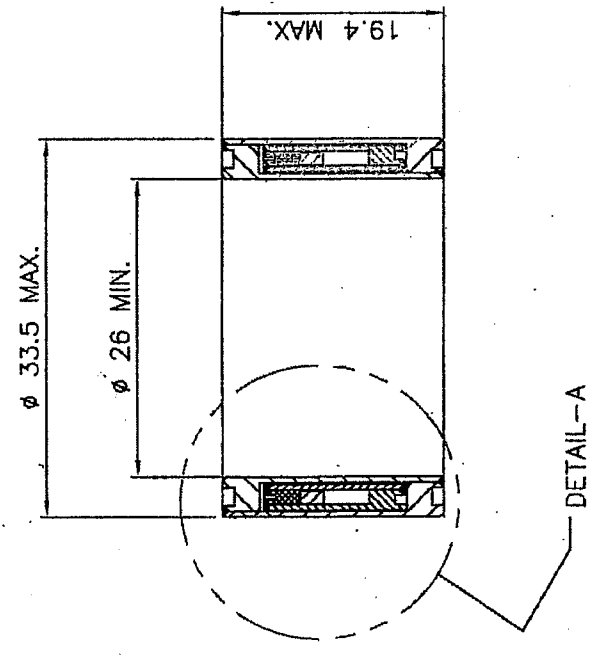
 William Schoonover
Associate Administrator for Hazardous
Materials Safety

Revision 5 - 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

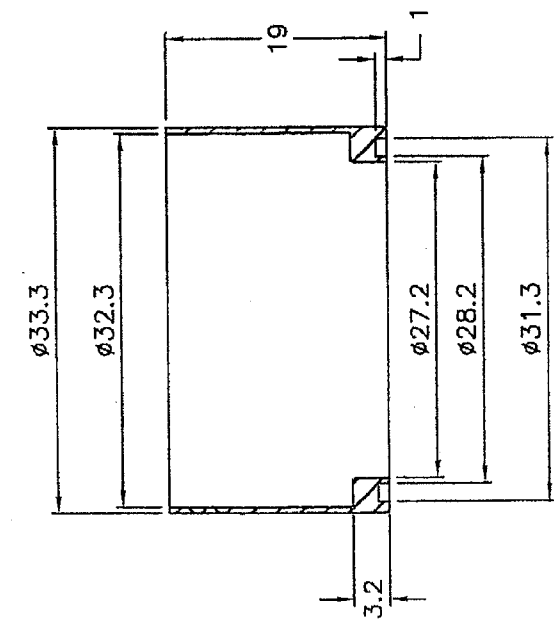


DETAIL-A
SCALE 4/1

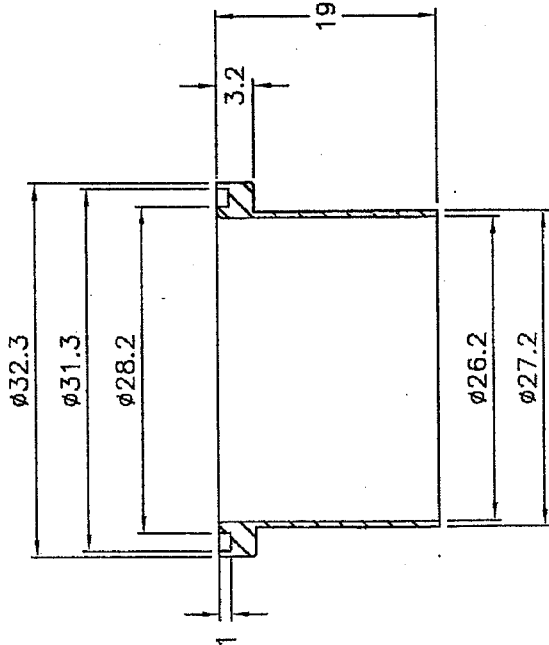


APPROVALS	
<i>R. W. ...</i>	9/20/04
<i>R. P. ...</i>	9/25/04
DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES:	
X.X ±0.5	INTERNAL <input checked="" type="checkbox"/>
X.XX ±0.1	EXTERNAL <input checked="" type="checkbox"/>
X.XXX ±0.05	
ANGULAR ±5°	

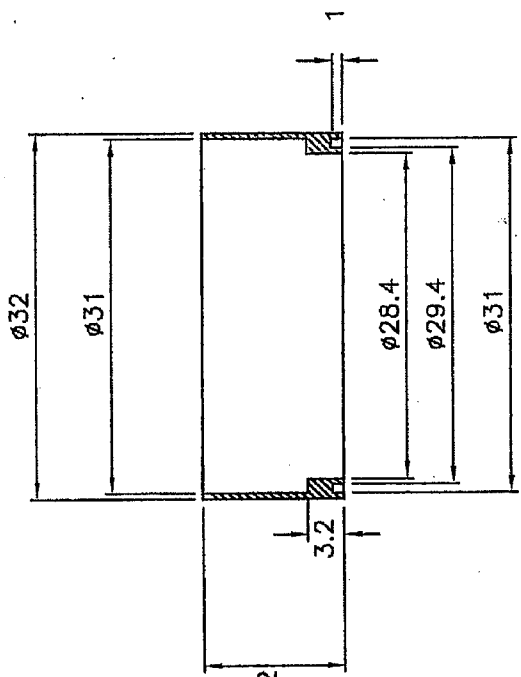
AEATECHNOLOGY QSA 46 NORTH AVE. BURLINGTON, MA 01805	
DESCRIPTIVE DRAWING	
TITLE X20 CAPSULE ASSEMBLY	
SIZE A	DWG. NO. RBA11120
SCALE: NONE	SHEET 1 OF 2
REV	B



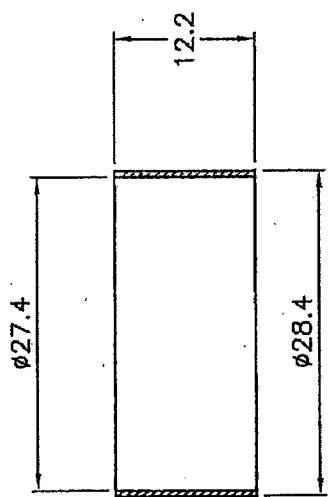
1 OUTER SHEATH



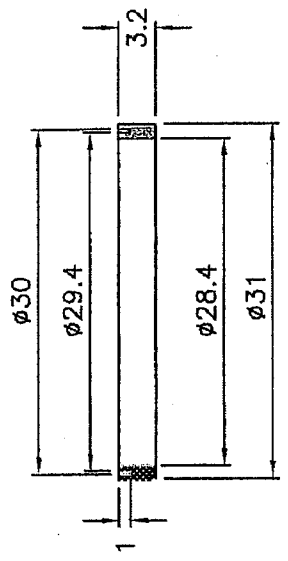
2 INNER SHEATH



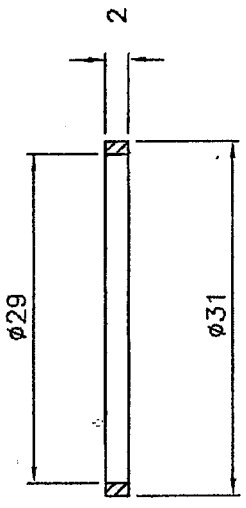
3 CELL OUTER



4 CELL INNER



5 END RING



6 PACKING RING



DESCRIPTIVE DRAWING

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

DIMENSIONS IN MILLIMETERS
UNLESS OTHERWISE STATED TOLERANCES:

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

ERF # 753



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CERTIFICATE NUMBER: USA/0659/S-96

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