



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/0645/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 XN159/XN160 (Manufactured on or after February 27, 1980).
2. Source Description - Cylindrical double encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate exterior dimensions are 8.05 mm (0.32 in.) in diameter and 32.35 mm (1.27 in.) in length. Minimum wall thickness of the outer encapsulation is 0.65 mm (0.025 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA10923, Rev. B.
3. Radioactive Contents - No more than 9.25 GBq (250.0 mCi) 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 November 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 November 2, 2017 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



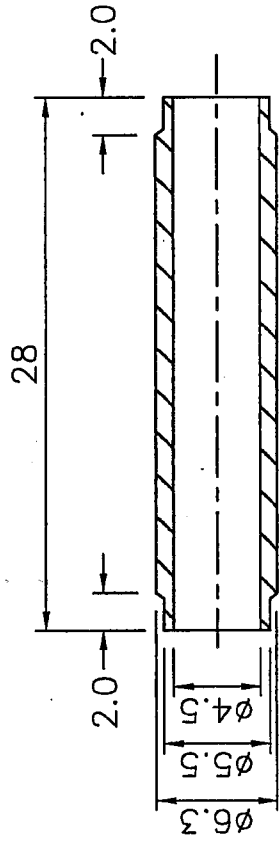
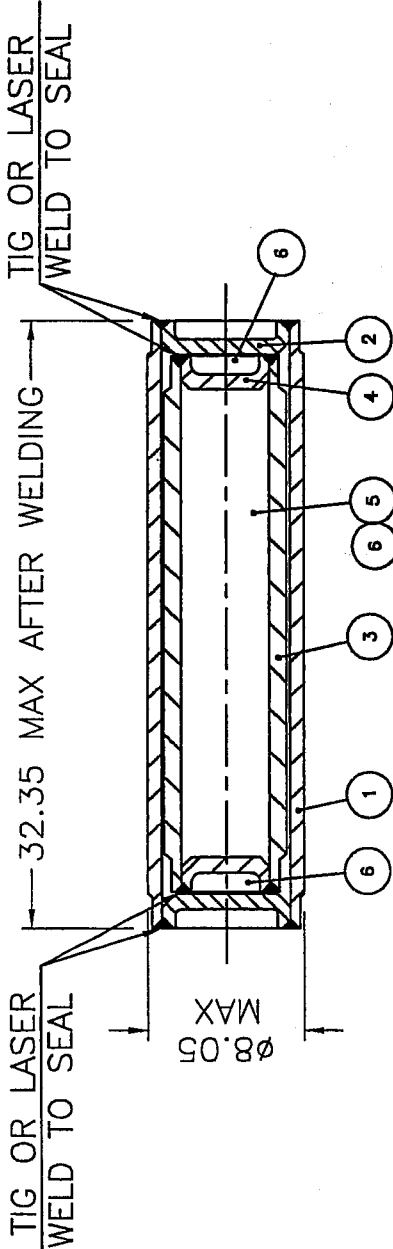
December 13,
2017

 _____
William Schoonover
Associate Administrator for Hazardous
Materials Safety

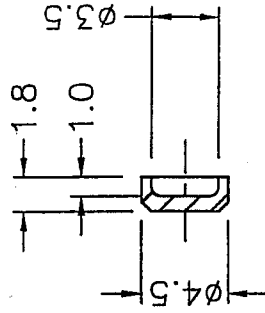
(DATE)

Revision 5 - Issued to extend the expiration date.

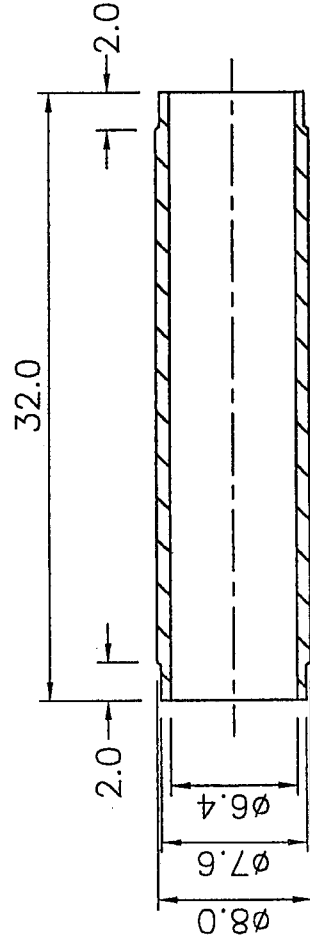
ITEM No.	DESCRIPTION	QTY.
1	SHEATH BODY STAIN.STL.	1
2	SHEATH LID STAIN.STL.	1
3	CELL BODY STAIN.STL.	1
4	CELL LID STAIN.STL.	1
5	ACTIVE MATERIAL	AR
6	CERAMIC FIBER (OPTIONAL)	AR



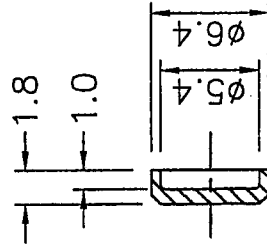
ITEM 3



ITEM 4



ITEM 1



ITEM 2

APPROVALS	
<i>R. Munn</i>	17 NOV 03
<i>R. P. ...</i>	18 NOV 03

DESCRIPTIVE DRAWING



TITLE XN159/XN160 CAPSULE ASSEMBLY

SIZE	DWG. NO.	SCALE:	SHEET	REV
A	RBA10923	NONE	1 OF 1	B

DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES:

X	±0.5	INTERNAL	<input checked="" type="checkbox"/>
X.X	±0.1	INTERNAL	<input checked="" type="checkbox"/>
X.XX	±0.05	EXTERNAL	<input checked="" type="checkbox"/>
ANGULAR	±5		

ERF # 715



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CERTIFICATE NUMBER: USA/0645/S-96

ORIGINAL REGISTRANT(S) :

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