



U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS

CERTIFICATE USA/0619/S, REVISION 11

East Building, PHH-23
1200 New Jersey Ave, SE
Washington, D.C. 20590

This certifies that the sources described have 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 Numbers XN146, AXN146, and XN146/2 (All models manufactured on or after February 27, 1981).
2. Source Description - Cylindrical single encapsulations made of stainless steel with a stainless steel end cap and tungsten inert gas or laser seal welded. Approximate outer dimensions are 6.1 mm (0.24 in.) in diameter and 7.2 mm (0.28 in.) in length. Minimum wall thickness is 0.65 mm (0.026 in.). Construction shall be in accordance with attached QSA Global, Inc. Drawing No. RBA10623, Rev. E.
3. Radioactive Contents - No more than either 3.7 GBq (0.1 Ci) of Americium-241 or 18.5 GBq (0.5 Ci) of Californium-252. The Am-241 is in oxide form and mixed with a beryllium powder and pressed into a solid pellet. The Cf-252 is in the form of an oxide pressed into a pellet, a solid metal wire, or a ceramic.
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, 2018 Edition, No. SSR-6 (Rev. 1)" 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, 2030. 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 August 27, 2025 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



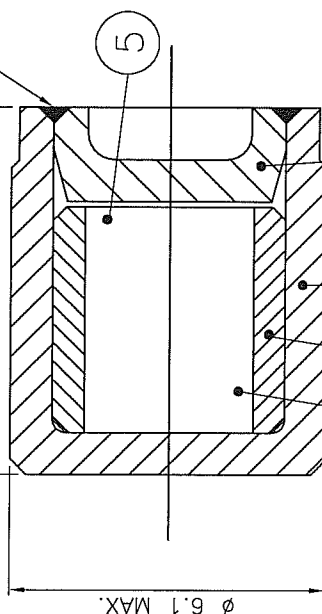
William Quade
Acting Associate Administrator for
Hazardous Materials Safety

September 23,
2025

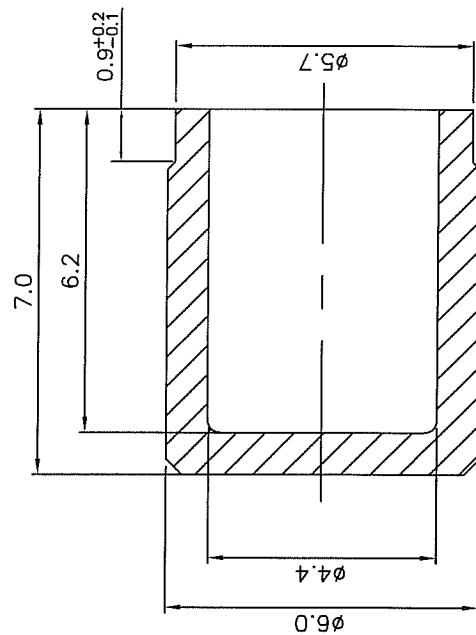
(DATE)

Revision 11 - Issued to endorse to 2018 edition of the IAEA Regulations for the Safe Transport of Radioactive Material, SSR-6 (Rev. 1) and to extend the expiration date.

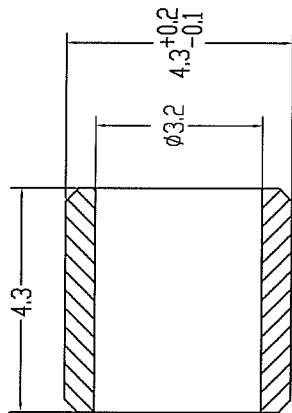
7.2 MAX.
AFTER WELDING.



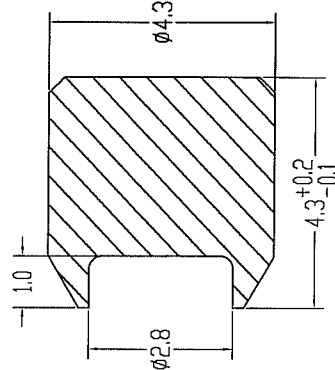
4 5 or 6 OPTIONAL



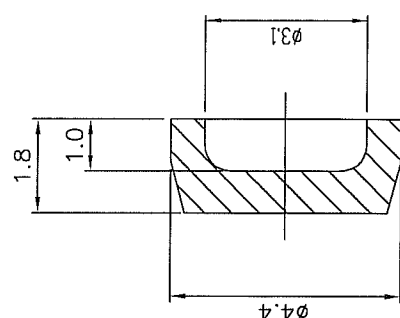
ITEM 1



ITEM 4



ITEM 6



ITEM 2

Item #	Description	Qty.
1	SHEATH BODY STAIN.STL.	1
2	SHEATH LID STAIN.STL.	1
3	ACTIVE MATERIAL	AR
4	SPACER(OPTIONAL) STAIN.STL.	AR
5	CERAMIC FIBER FILLER(OPTIONAL)	AR
6	ALUMINUM OR STEEL FILLER (XN146/2 ONLY)	1

APPROVALS	DATE
<i>D. Lh</i>	11A-00
<i>R. B. Lh</i>	11A-08

DIMENSIONS IN MILLIMETERS
UNLESS OTHERWISE STATED TOLERANCES:

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

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

QSA GLOBAL
40 NORTH AVE, BURLINGTON, MA 01803

DESCRIPTIVE
DRAWING

TITLE	
XN146, AXN146 & XN146/2 CAPSULE ASSY	
SIZE	DWG. NO.
A	RBA10623
SCALE:	NONE
SHEET	1 OF 1
REV	E

ERF # 1878



U.S. Department of
Transportation

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East Building, PHH-23
1200 New Jersey Ave, SE
Washington, D.C. 20590

CERTIFICATE NUMBER: USA/0619/S-96

ORIGINAL REGISTRANT(S) :

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