



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/0643/S-96, REVISION 6

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 Agency<sup>1</sup> and the United States of America<sup>2</sup> for the transport of radioactive material.

1. Source Identification - QSA Global, Inc. Models XN177 and AXN177 (Both models manufactured on or after March 5, 1981).
2. Source Description - Cylindrical single encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate exterior dimensions are 7.8 mm (0.31 in.) in diameter and 14.4 mm (0.57 in.) in length. Minimum wall thickness is 0.6 mm (0.024 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA10621, Rev. B.
3. Radioactive Contents - No more than 74.0 GBq (2.0 Ci) of Californium-252. The Cf-252 is in the form of a metal wire or an oxide solid 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.
5. Expiration Date - This certificate expires on October 31, 2027. Previous editions which have not reached their expiration date may continue to be used.

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<sup>1</sup> "Regulations for the Safe Transport of Radioactive Material, 2012 Edition, No. SSR-6" published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

<sup>2</sup> Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

**CERTIFICATE USA/0643/S-96, REVISION 6**

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 October 3, 2022 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



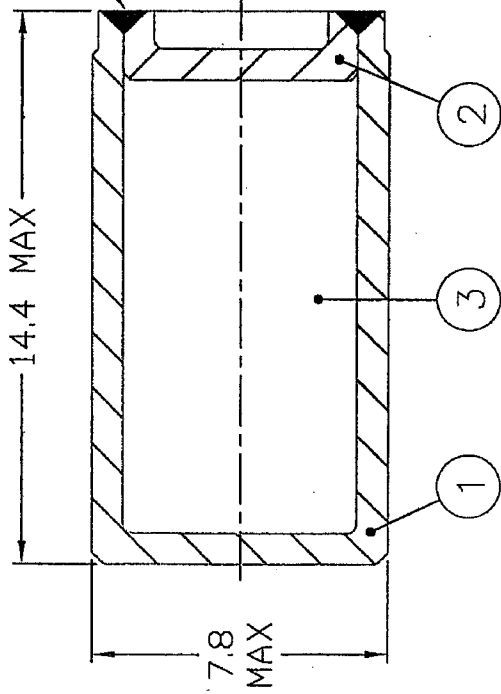
October 26, 2022

(DATE)

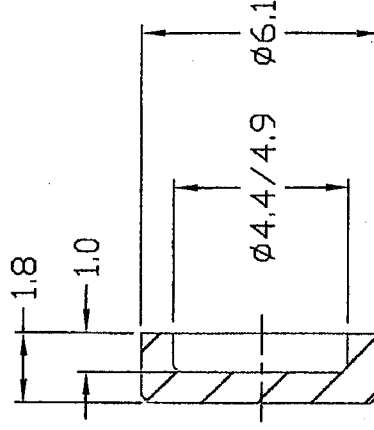
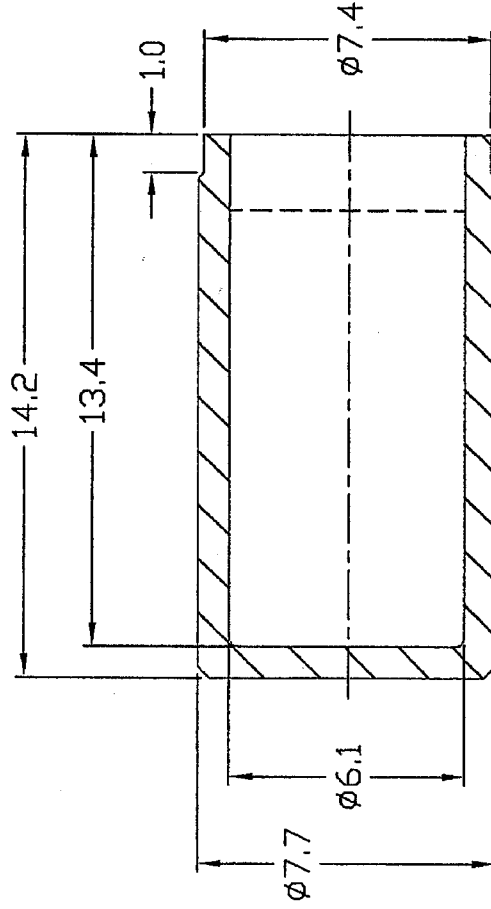
 William Schoonover  
Associate Administrator for Hazardous  
Materials Safety

Revision 6 - Issued to extend the expiration date.

TIG OR LASER  
WELD TO SEAL



Item #	Description	Qty.
1	SHEATH BODY STAINSTL	1
2	SHEATH LID STAINSTL	1
3	ACTIVE MATERIAL	AR



ITEM 1

ITEM 2

APPROVALS	
<i>R. Munn</i>	1 Apr 04
<i>L. P. ...</i>	1 Apr 04

DIMENSIONS IN MILLIMETERS  
UNLESS OTHERWISE STATED TOLERANCES:

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

INTERNAL  $\nabla$   
EXTERNAL  $\nabla$

**AEATECHNOLOGY**  
QSA  
40 NORTH AVE, BURLINGTON, MA 01803

DESCRIPTIVE  
DRAWING

TITLE  
XN177 & AXN177 CAPSULE ASSY

SIZE  
A

DWG. NO. RBA10621

SCALE: NONE

REV B

SHEET 1 OF 1

ERF # 754



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**CERTIFICATE NUMBER:** USA/0643/S-96

**ORIGINAL REGISTRANT(S) :**

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