



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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0643/S-96, REVISION 4**

East Building, PHH-23
1200 New Jersey Avenue Southeast
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. 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. 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 April 30, 2018.

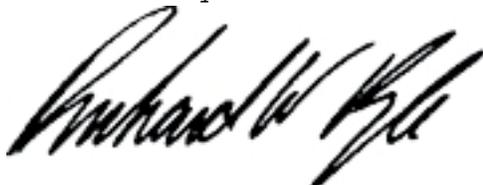
¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

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

CERTIFICATE USA/0643/S-96, REVISION 4

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 April 12, 2013 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:



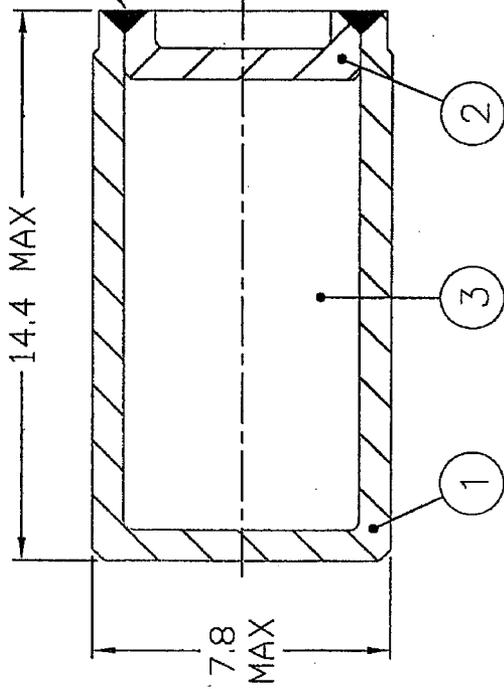
Apr 26 2013

(DATE)

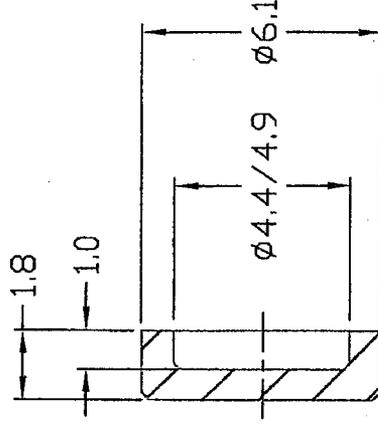
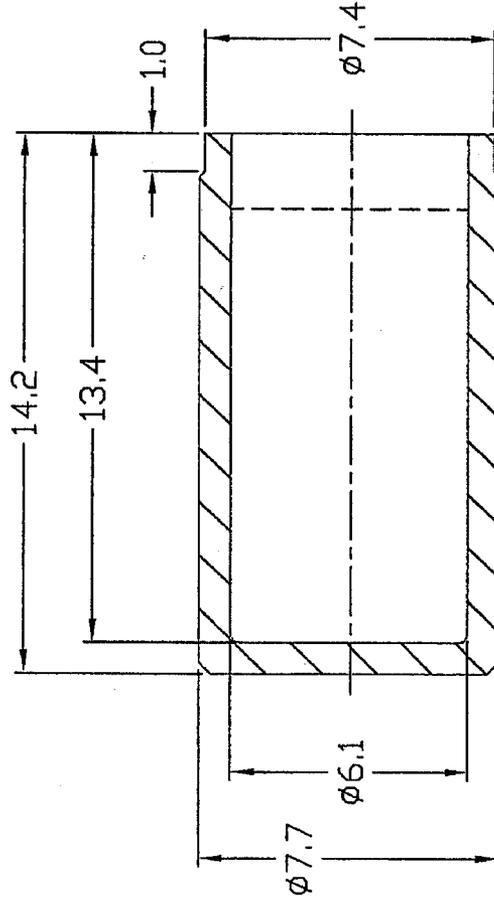
 _____
Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

Revision 4 - 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 ∇
 EXTERNAL ∇

AEATECHNOLOGY
 QSA
 40 NORTH AVE, BURLINGTON, MA 01803

DESCRIPTIVE DRAWING

TITLE XN177 & AXN177 CAPSULE ASSY
 SIZE DWG. NO. RBA10621
 SCALE: NONE SHEET 1 OF 1
 REV B

ERF # 754