



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

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

February 10, 2020

Dr. James M. Shuler
Manager, Packaging Certification Program
Department of Energy
U.S. Department of Energy
1000 Independence Ave, SW
EM-60
Washington, DC, 20585
USA

Dear Dr. James M. Shuler,

As your February 5, 2020 letter requested, Department of Energy has been registered as a user of IAEA Certificate of Competent Authority USA/0634/S-96 for the QSA Global, Inc. Model X.8 (Manufactured on or after September 23, 1981). The source described in the attached certificate has demonstrated its ability to meet the regulatory requirements for special form radioactive material as prescribed in the regulations of the United States of America and the International Atomic Energy Agency.

A copy of the certificate is enclosed. All future revisions of the certificate will be forwarded to Department of Energy at James.Shuler@em.doe.gov.

Sincerely,

Richard W. Boyle, Chief
Radioactive Materials Branch
Office of Engineering and Research



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/0634/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.8 (Manufactured on or after September 23, 1981).
2. Source Description - Cylindrical double encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate exterior dimensions are 6.1 mm (0.24 in.) in diameter and 8.3 mm (0.33 in.) in length. Minimum wall thickness of the outer encapsulation is 0.4 mm (0.02 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA62011, Rev. C.
3. Radioactive Contents - No more than either 37.0 GBq (1.0 Ci) of Cesium-137, or 740.0 MBq (20.0 mCi) of Radium-226, or 740.0 MBq (20.0 mCi) of Barium-133. The Cs-137 is in the form of a cesium silicate in a glass matrix or a sulfate as ceramic ion exchange pellets. The Ra-226 is in the form of a low solubility radium sulfate powder. The Ba-133 is in the form of barium silicate as a glass bead or a ceramic pellet.

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.

CERTIFICATE USA/0634/S-96, REVISION 5

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, 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 October 6, 2017 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:

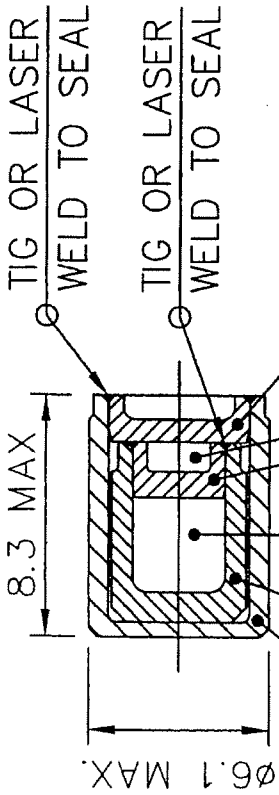


William Schoonover
Associate Administrator for Hazardous
Materials Safety

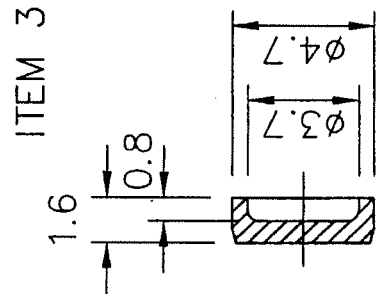
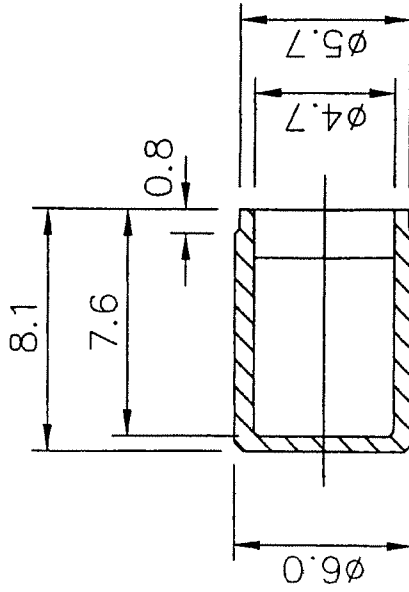
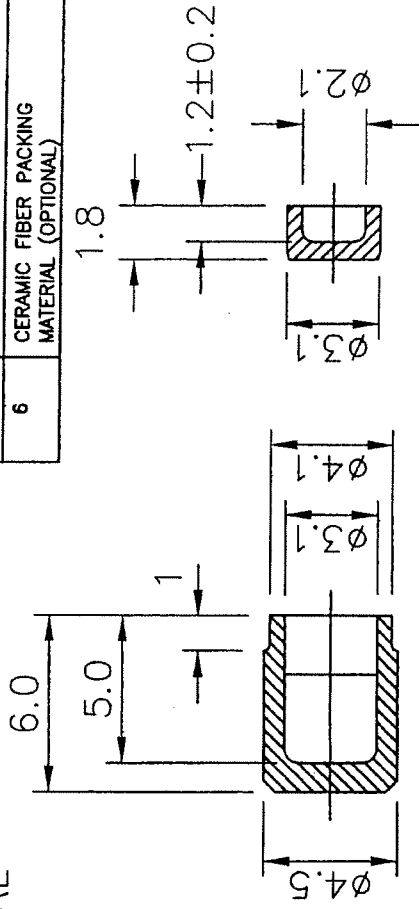
November 03,
2017

(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 AND CERAMIC FIBER PACKING MATERIAL	AR
6	CERAMIC FIBER PACKING MATERIAL (OPTIONAL)	AR



ITEM 1

ITEM 2

ITEM 3

ITEM 4

APPROVALS	
<i>R. Minn</i>	10003
<i>S. D. ...</i>	10003

DIMENSIONS IN MILLIMETERS
UNLESS OTHERWISE STATED TOLERANCES:

X ±0.5
XX ±0.1
XXX ±0.05
ANGULAR ±5°

INTERNAL $\frac{M}{A}$
EXTERNAL $\frac{A}{M}$

QSA
40 NORTH AVE. BURLINGTON, MA 01803

DESCRIPTIVE DRAWING

TITLE X8 CAPSULE ASSY

SIZE A	DWG. NO. RBA62011	REV C
SCALE: NONE		SHEET 1 OF 1

ERF # 679



U.S. Department of
Transportation

**Pipeline and
Hazardous Materials
Safety Administration**

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

CERTIFICATE NUMBER: USA/0634/S-96

ORIGINAL REGISTRANT(S) :

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

Schlumberger
300 Schlumberger Drive
MD-121
Sugar Land, TX, 77478
USA

Troxler Electronic Laboratories
P.O. Box 12057
3008 Cornwallis Road
Research Triangle Park, NC, 27709
USA

REGISTERED USERS:

Department of Energy
U.S. Department of Energy
1000 Independence Ave, SW
EM-60
Washington, DC, 20585
USA

U.S. Geologic Survey
Idaho Water Science Center, U.S. Geological Survey
Department of Interior
1955 N Fremont MS 4131
Idaho Falls, ID, 83415
USA

U.S. Army Corps of Engineers

USACE Huntsville Center - Environmental and Munitions Center of Expert
721 19th St.
Denver, CO, 80202
USA