



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/0257/S-96, REVISION 14

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 849.
2. Source Description - Cylindrical single encapsulation made of Type 410 stainless steel and seal welded. Approximate exterior dimensions are 12.7 mm (0.5 in.) in diameter and either 38 mm (1.5 in.) or 50.8 mm (2.0 in.) in length. Ceramic fiber packing material and/or metallic spacers, springs or guards with melting point above 800°C may be used. Construction shall be in accordance with attached QSA Global Drawing No. R84901, Rev. D.
3. Radioactive Contents - No more than 55.5 TBq (1,500 Ci) of Iridium-192, in solid metallic form, in the 38 mm (1.5 in.) length capsule and no more than 185 TBq (5,000 Ci) in the 50.8 mm (2.0 in.) length capsule. No more than either: 74 TBq (2,000 Ci) of Selenium-75, in a physically inert and stable metal-selenide compound, or 37 GBq (1.0 Ci) of Californium-252, in the form of a metal wire or an oxide solid ceramic, in either length capsule. Only the activity of Ir-192 in special form may be determined from a measurement of the rate of decay or a measurement of the radiation level at a prescribed distance from the source.

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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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 December 31, 2025. 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 December 8, 2020 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

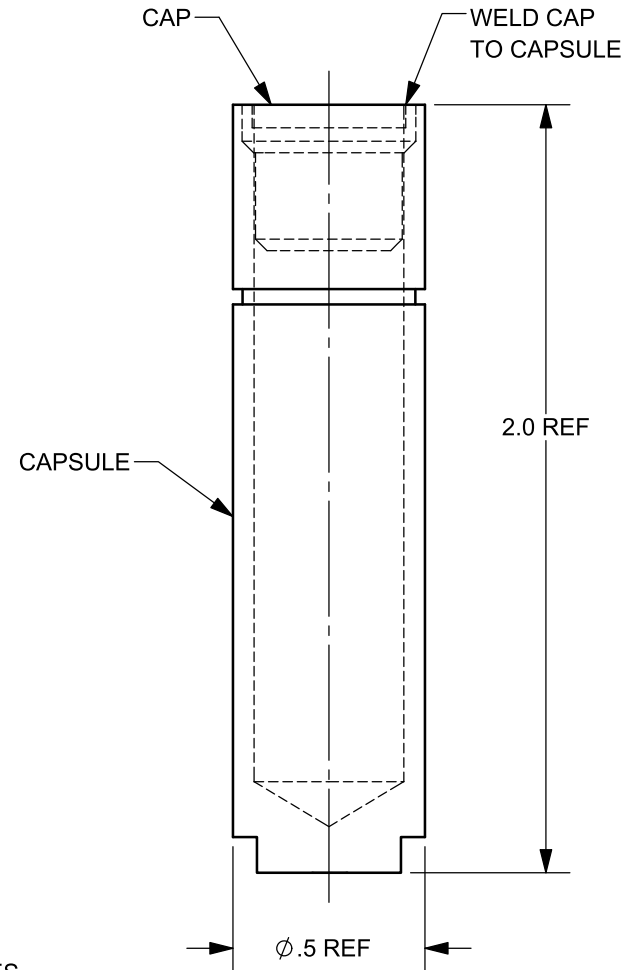
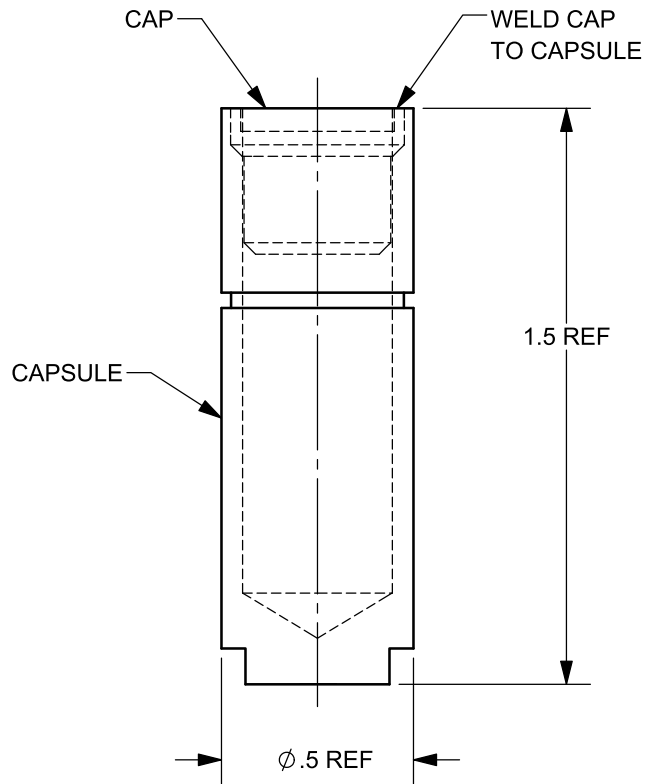
Certified By:



William Schoonover
Associate Administrator for Hazardous
Materials Safety

January 04, 2021
(DATE)

Revision 14 - Issued to extend the expiration date and approve the optional use of ceramic fiber packing material and/or metallic spacers, springs or guards with melting point above 800°C.



NOTES:

1. LEAK TEST IN ACCORDANCE WITH ANSI N43.6 OR ISO 9978.
2. ACTIVE CONTENTS INCLUDE UNENCAPSULATED MATERIAL, WELDED INNER CAPSULES OR WELDED TARGETS.
3. OPTIONAL ADDITIONAL CONTENTS USED FOR LOCATING OR SECURING ACTIVE MATERIAL MAY INCLUDE CERAMIC FIBER PACKING MATERIAL, METAL SPACERS, METAL SPRINGS, AND/OR METAL GUARDS.
4. SPACERS, SPRINGS, AND GUARDS MELTING TEMPERATURE SHALL BE ABOVE 800 °C.

UNLESS OTHERWISE SPECIFIED:
ALL DIMENSIONS ARE INCHES, TOLERANCE $\pm 1/16$

QSA GLOBAL

**DESCRIPTIVE
DRAWING**

40 NORTH AVE, BURLINGTON, MA 01803

ERF #		APPROVALS	DATE	TITLE		
4214			December 07, 2020	849 CAPSULE ASSEMBLY		
			December 08, 2020			
			December 08, 2020	SIZE	DWG. NO.	REV
				A	R84901	D
				SCALE:	NONE	SHEET 1 OF 1



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CERTIFICATE NUMBER: USA/0257/S-96

ORIGINAL REGISTRANT(S) :

QSA Global, Inc.
30 North Avenue
Burlington, MA, 01803
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San Leandro, CA, 94577
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