



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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0257/S-96, REVISION 11**

East Building, PHH-23
1200 New Jersey Avenue Southeast
Washington, D.C. 20590

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. Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. R84901, Rev. C.
3. Radioactive Contents - No more than either 55.5 TBq (1,500 Ci) of Iridium-192 in the 38 mm (1.5 in.) length capsule, or 185 TBq (5,000 Ci) of Iridium-192 in the 50.8 mm (2.0 in.) length capsule, or 74 TBq (2,000 Ci) of Selenium-75 in either length capsule, or 37 GBq (1.0 Ci) of Californium-252 in either length capsule. The Ir-192 is in solid metallic form. The Se-75 is in the form of a metal-selenide pellet. 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 March 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.

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

Certified By:

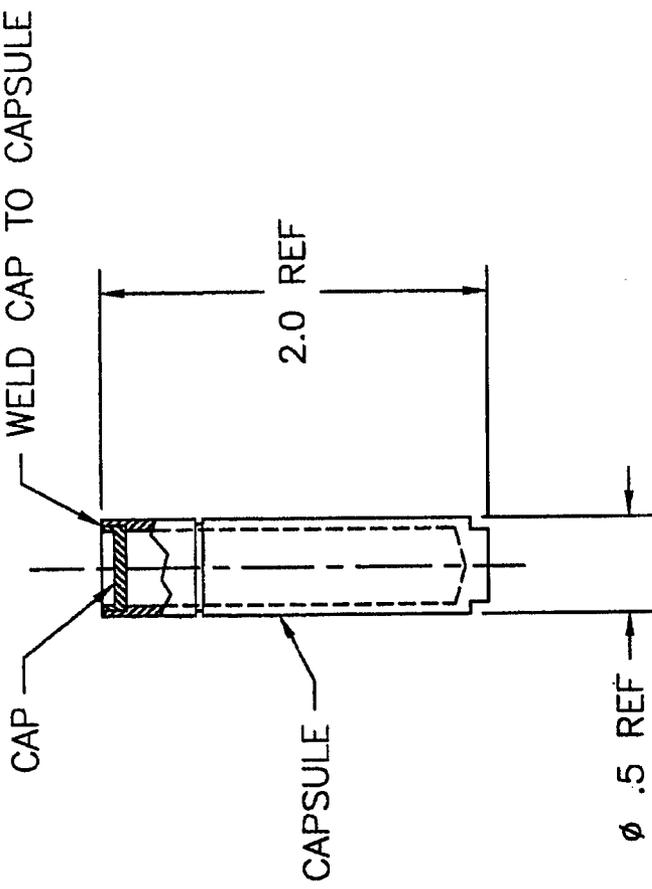


Mar 20 2013

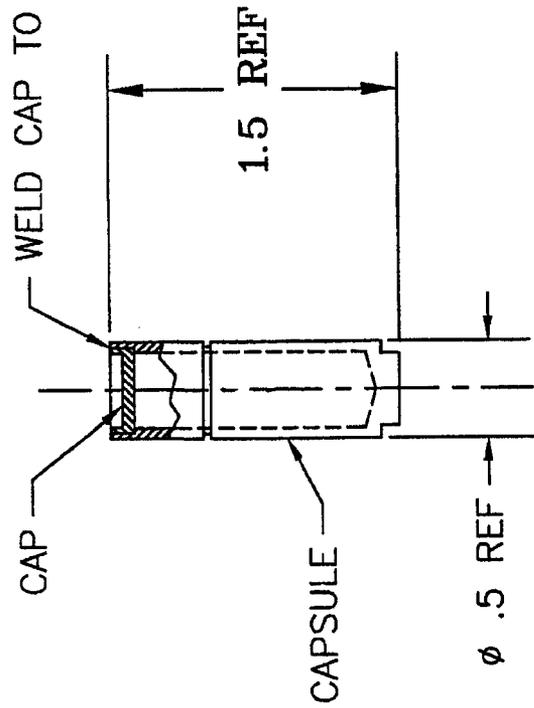
(DATE)

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

Revision 11 - Issued to increase the maximum Ir-192 activity limit per capsule for the 2.0 in long capsule design from 74 TBq (2,000 Ci) to 185 TBq (5,000 Ci).



VERSION 2



VERSION 1

NOTE:

1. LEAK TEST IN ACCORDANCE WITH ANSI N43.6 OR ISO 9978.

 <small>QSA 40 NORTH AVE. BURLINGTON, MA 01803</small>		DESCRIPTIVE DRAWING	
APPROVALS <i>R. J. Mun</i> <i>L. P. ...</i>		TITLE 849 CAPSULE, ASSEMBLY	REV C
6 Nov 03 6 Nov 03	DWG. NO. R84901	SIZE A	SCALE: NONE SHEET 1 OF 1
DIMENSIONS IN INCHES TOLERANCES: FRACTIONS ±1/16 X ± 0.1 XX ± 0.01 XXX ± 0.005		ERF#707	



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ORIGINAL REGISTRANT(S):

Ms. Lori Podolak
Product Licensing Specialist
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

Ms. Cathleen Roughan
Director, Regulatory Affairs and QA
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

Mr. Michael Fuller
Regulatory Compliance Associate
QSA Global, Inc.
40 North Avenue
Burlington, MA 01803

REGISTERED USER(S):

Mr. Mike Rose
Industrial Nuclear Company, Inc.
14320 Wicks Blvd.
San Leandro, CA 94577