



U.S. Department  
of Transportation

Pipeline and  
Hazardous Materials  
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY  
SPECIAL FORM RADIOACTIVE MATERIALS

CERTIFICATE USA/0851/S, REVISION 0

East Building, PHH-23  
1200 New Jersey Ave, SE  
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 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. Model X9111.
2. Source Description - The Model X9111 source capsule is a cylindrical single encapsulation, fabricated from titanium and seal welded. The minimum wall thickness is 1 mm (0.04 inches). The minimum weld penetration for this capsule will be 0.69 mm (0.027 inches). The total mass of this source capsule assembly will not exceed 56 grams. Construction shall be in accordance with attached QSA Global Inc. Drawings RX9111, Rev. A, and RX9111-1, Rev. A.
3. Radioactive Contents - No more than 260 TBq (7,020 Ci) of Iridium-192 (Ir-192) or 75 TBq (2,000 Ci) of Selenium-75 (Se-75).
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 February 28, 2029. 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, 2018 Edition, No. SSR-6 (Rev. 1)" 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/0851/S, REVISION 0**

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 23, 2023 petition by QSA Global, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified By:

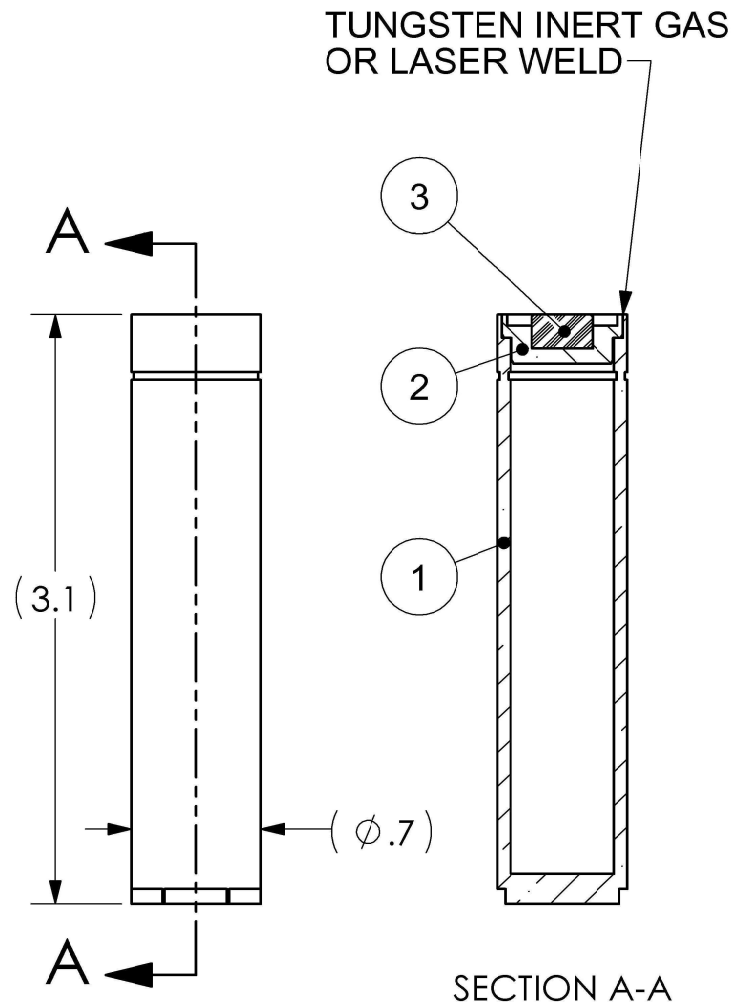


 William Schoonover  
Associate Administrator for Hazardous  
Materials Safety

February 28, 2024  
(DATE)

Revision 0 - Original Issue.

| ITEM | PART NO | QTY | TITLE              | MATERIAL        |
|------|---------|-----|--------------------|-----------------|
| 1    | X9111-1 | 1   | CAPSULE SHELL      | TITANIUM        |
| 2    | X9111-2 | 1   | CAPSULE LID        | TITANIUM        |
| 3    | X9111-3 | 1   | CAPSULE LID INSERT | STAINLESS STEEL |



#### 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, METAL HOLDERS, AND/OR METAL GUARDS.
4. SPACERS, SPRINGS, HOLDERS, AND GUARDS MAY BE ALUMINUM, OR MAY BE OTHER METALS WITH A MELTING TEMPERATURE 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                  | SIZE | DWG. NO. | SCALE | SHEET | OF   | REV |
|-------|--------------------------------------------------------|-------------------|------------------------|------|----------|-------|-------|------|-----|
| 4525  | E-SIGNED by Dave wood<br>on 2023-12-26 16:15:56 GMT    | December 26, 2023 | X9111 CAPSULE ASSEMBLY | A    | RX9111   | NONE  | 1     | OF 1 | A   |
|       | E-SIGNED by Lori Podolak<br>on 2023-12-26 16:16:30 GMT | December 26, 2023 |                        |      |          |       |       |      |     |



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**CERTIFICATE NUMBER:** USA/0851/S

**ORIGINAL REGISTRANT(S) :**

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