



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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY  
SPECIAL FORM RADIOACTIVE MATERIALS  
CERTIFICATE USA/0809/S-96, REVISION 0**

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 Agency<sup>1</sup> and the United States of America<sup>2</sup> for the transport of radioactive material.

1. Source Identification - J.L. Shepherd & Associates Model 6810-500.
2. Source Description - Cylindrical double encapsulation made of Type 304, 304L, 316, or 316L stainless steel and heliarc welded. Approximate outer dimensions are 11.43 mm (0.45 in.) to 17.45 mm (0.687 in.) in diameter and 49.53 mm (1.95 in.) to 83.95 mm (3.305 in.) in length. Construction shall be in accordance with attached J.L. Shepherd and Associates Drawing No. A-0068-500-1, Rev. B.
3. Radioactive Contents - No more than 22.2 TBq (600 Ci) of Cesium-137. The Cs-137 is in the form of pelletized CsCl.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations<sup>1</sup> 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 July 31, 2020.

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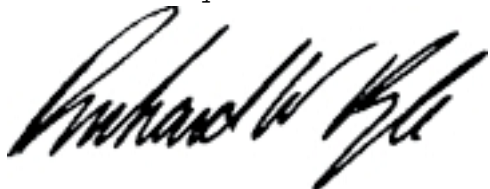
<sup>1</sup> "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency(IAEA), Vienna, Austria.

<sup>2</sup> 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 May 28, 2015 petition by J.L. Shepherd & Associates, San Fernando, CA, and in consideration of other information on file in this Office.

Certified By:



**Jul 16 2015**

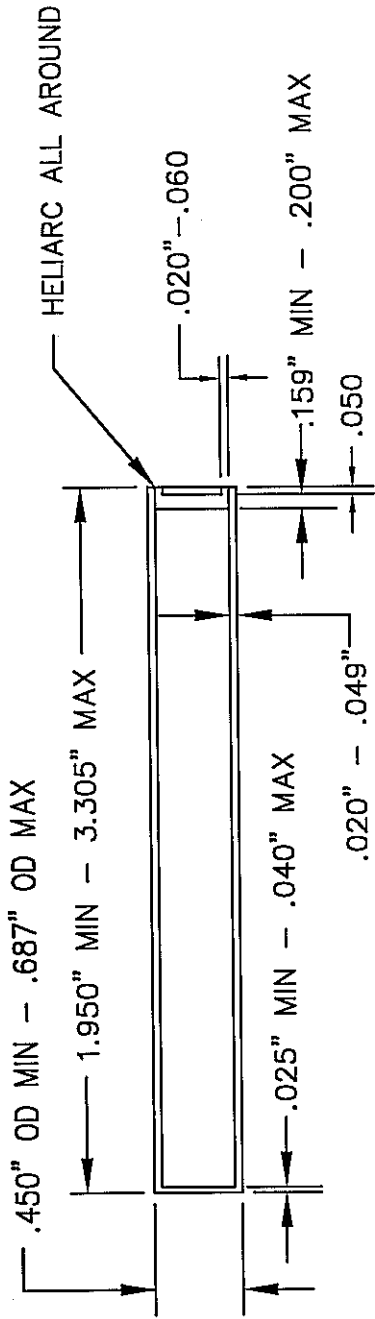
(DATE)

 Dr. Magdy El-Sibaie

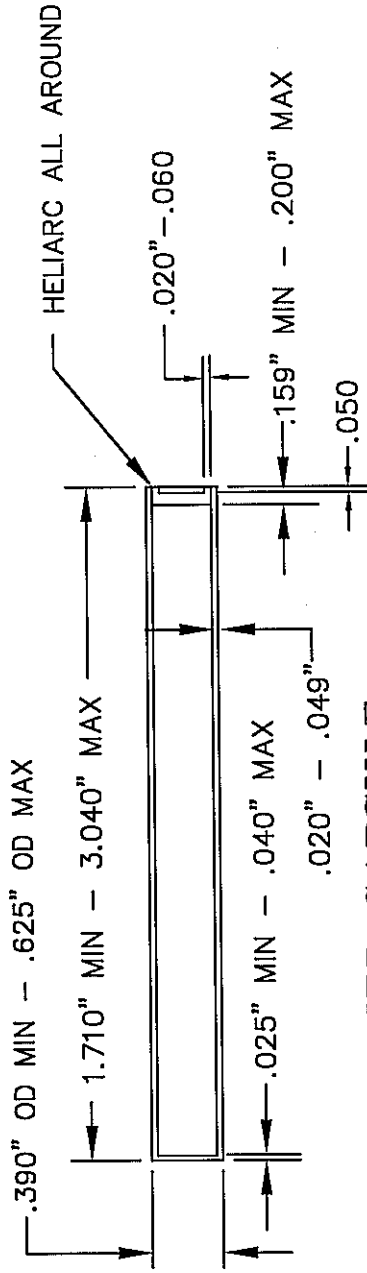
Associate Administrator for Hazardous Materials Safety

Revision 0 - Original issue.

ORIGINAL



OUTER CAPSULE



INNER CAPSULE

NOTES:

1. MATL 304,304L,316 OR 316L SS CAPS & BODIES FABRICATED FROM SAME ALLOY
2. PLUGS .0005" INTERFERENCE FIT
3. REMOVEABLE CONTAMINATION  $\leq 5 \times 10^{-3}$   $\mu$ Ci
4. INNER & OUTER MUST PASS BUBBLE TEST OR HELIUM LEAK TEST AFTER FABRICATION
5. CHEMICAL FORM OF CS-137 IS CsCl
6. LABELING, ETCHED OR ENGAVED CS-137 XXX CURIES XXX MODEL, XXX SERIAL NUMBER RADIOACTIVE MATERIAL
7. STUD OPTIONAL ON END CAP
8. MAXIMUM ACTIVITY: 600 Ci /22.2 TBq CS-137

9JUL15 REV. B

J. L. SHEPHERD and Associates			
DRAWN BY D. TRAN	DATE 9JUL15	APPROVED BY <i>QPS</i>	SCALE NONE
TYPE 6810 CAPSULE			
SUBMODEL 6810-500		A-0068-500-1	



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**CERTIFICATE NUMBER:** USA/0809/S-96, Revision 0

**ORIGINAL REGISTRANT(S):**

Ms. Mary Shepherd  
Vice President  
J.L. Shepherd & Associates  
1010 Arroyo Ave.  
San Fernando, 91340-1822  
USA