U.S. Department
of Transportation
**Research and
Special Programs
Administration**

400 Seventh St., S.W.
Washington, D.C. 20590

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE NUMBER USA/0453/S, REVISION 2

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[1] and the United States of America[2] for the transport of radioactive materials.

1. Source Identification - J.L. Shepherd & Associates Model 6810/143-512 BNL Strip.

2. Source Description - Rectangular triple encapsulation made of Type 304 or 316 stainless steel (outer encapsulation) containing a Type 304 stainless steel double encapsulation BNL Strip Source, all heliarc seal welded. Approximate exterior dimensions are 759.7 mm (29.91 in.) in length, 32.6 mm (1.285 in.) in width, and 12.6 mm (0.498 in.) in thickness. Construction shall be in accordance with attached J.L. Shepherd and Associates Drawing No. A-0527-512, Rev. B.

3. Radioactive Contents - No more than 74.0 TBq (2000.0 Ci) of Cesium-137. The Cs-137 is in the form of cesium chloride pellets.

4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations[1] shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.

5. Expiration Date - This certificate expires September 30, 2009.

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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.

CERTIFICATE USA/0453/S, REVISION 2

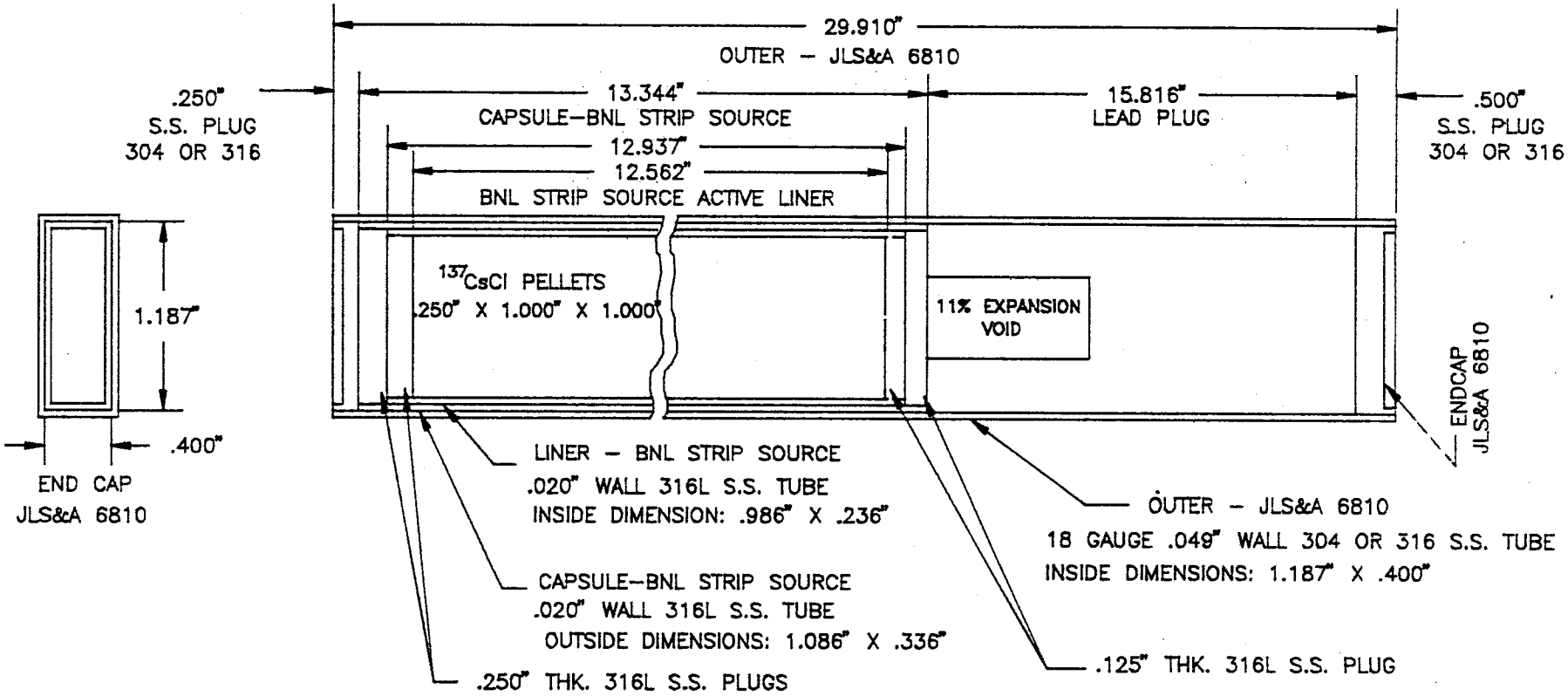
This certificate is issued in accordance with paragraph 804 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the petition and information dated September 21, 2004 submitted by J.L. Shepherd & Associates, San Fernando, CA, and in consideration of other information on file in this Office.

Certified by:

Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

OCT -5 2004
(DATE)

Revision 2 - Issued to renew the expiration date.



	INSIDE DIM'S	WALL THICKNESS
BNL LINER (INNER)	.986" X .236"	.020"
BNL CAPSULE (OUTER)	1.046" X .296"	.020"
JLS&A OUTER 6810	1.187" X .400"	.049"

3–7–96 REV. (B) DIMENSIONAL CORRECTION
PER US DOT 3/6/96 REQUEST IAEA
CERT OR COMPLETEN AUTHORITY USA/6453/S

NOTES:

1. ALL PLUGS (LINER, CAPSULE AND OUTER) SEALED BY HELIARC WELD– 100% WITH 100% PENETRATION.
2. FINAL ASSEMBLY – LINER, CAPSULE AND OUTER MUST PASS RADIOACTIVE SMEAR TEST $< 5 \times 10^{-3}$ μCI REMOVABLE CONTAMINATION.
3. CAPSULE & LINER CERTIFIED TO MEET "SPECIAL FORM" PER ORNL – 4092 – CAPSULES PRIOR TO LOADING & AFTER FINAL WELD LINER & CAPSULE MUST PASS HELIUM LEAK TEST– SENSATIVITY 1×10^{-6} CC/MIN. & RADIOACTIVE SMEAR TEST.

J. L. SHEPHERD and Associates

DRAWN BY	DATE	APPROVED BY	SCALE
D. TRAN	3–20–91	MFS	NONE

MODEL 6810–143/152 ENL STRIP SOURCE

A–0527–512