



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/0453/S-96, REVISION 5

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 - 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. 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.

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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5. Expiration Date - This certificate expires on December 31, 2023. 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 November 20, 2018 petition by J.L. Shepherd & Associates, San Fernando, CA, and in consideration of other information on file in this Office.

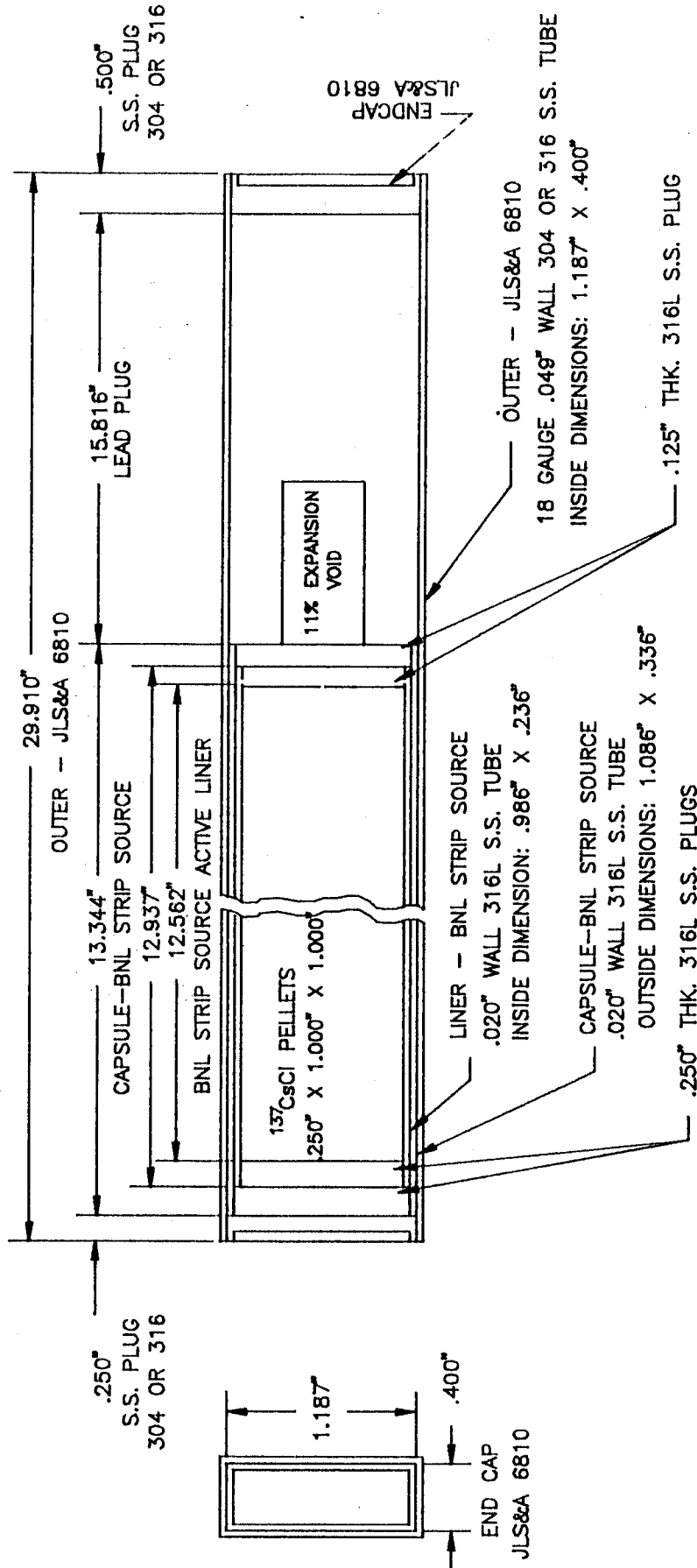
Certified By:



December 20, 2018
(DATE)

 William Schoonover
Associate Administrator for Hazardous
Materials Safety

Revision 5 - Issued to extend 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" |

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 $< 5 \times 10^{-3}$ μ CI 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.

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

| | | | |
|--------------------------------------|---------|-------------|------------|
| 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 |



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ORIGINAL REGISTRANT(S) :

MDS Nordion
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Canada

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USA