

U.S. Department of Transportation

IAEA CERTIFICATE OF COMPETENT AUTHORITY SPECIAL FORM RADIOACTIVE MATERIALS

Pipeline and Hazardous Materials Safety Administration CERTIFICATE USA/0559/S-96, REVISION 4

This certifies that the sources described have 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 material.

- Source Identification J.L. Shepherd & Associates Model Nos. 6810G
 Types I, II, III, IV, V and VI.
- 2. Source Description Cylindrical double encapsulations made of Type 314 stainless steel and seal heliarc welded. Approximate outer dimensions are 8.6 mm (0.34 in.) to 16.0 mm (0.63 in.) in diameter and 16.0 mm (0.63 in.) to 42.3 mm (1.665 in.) in length. Sources 6810G Type I, II, III, IV, V and VI shall be constructed in accordance with attached J.L. Shepherd & Associates Drawing Nos. A-0659-6810G-1, -2, -3, -4, -5, -6, respectively.
- 3. Radioactive Contents No more than 370.0 GBq (10.0 Ci) of Cesium- 137 as cesium chloride, in pellet or ceramic form.
- 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 July 31, 2025. Previous editions which have not reached their expiration date may continue to be used.

 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.

CERTIFICATE USA/0559/S-96, REVISION 4

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 April 15, 2020 petition by J.L. Shepherd & Associates, San Fernando, CA, and in consideration of other information on file in this Office.

Certified By:

William Schoonover

William Schoonover Associate Administrator for Hazardous Materials Safety July 24, 2020 (DATE)

Revision 4 - Issued to renew the expiration date.

NOTE.

1. MATL = 304 STAINLESS STL.

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- . END CAPS TO HAVE .006 REGISTER & .0005 INTERFERENCE FIT, 100% HELIARC WELDED.
- 3. CAPSULES TO BE CERTIFIED "SPECIAL FORM"
 PER US DOT 10CFR173.469, 10-1-95 EDITION
 AND IAEA SAFETY SERIES NO. 6, 1985 EDITION
 AS AMENDED 1990.

.460 DIA .500 DIA

.050

INNER CAPSULE

- REMOVEABLE CONTAMINATION ≤ 5X10⁻⁵ uCi.
 PER ANSI N 43.6-1997 AND ISO
 9978, 1992-02-15.
- 5. INSIDE CONTENTS CESIUM—137 CHEMICAL FORM — CHLORIDE OR CERAMIC
- 6. MAXIMUM ACTIVITY 370 GBq (10 CI.) CESIUM-137.
- 7. ANSI N43.6-1997 AND ISO 2919, 1980-005-01 PERFORMANCE CLASSIFICATION C-43434.

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NOTE: 1. MATL = 304 STAINLESS STL.

REGISTER & .0005 INTERFERENCE FIT, 100% HELIARC WELDED. END CAPS TO HAVE .006

PER US DOT 10CFR173.469, 10-1-95 EDITION AND IAEA SAFETY SERIES NO. 6, 1985 EDITION CAPSULES TO BE CERTIFIED "SPECIAL FORM" AS AMENDED 1990.

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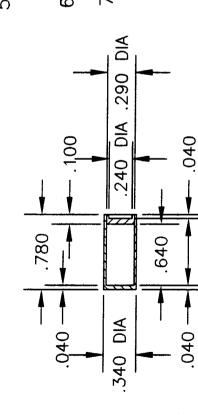
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4. REMOVEABLE CONTAMINATION ≤ 5X10⁻⁵ uCi. PER ANSI N 43.6-1997 AND ISO 9978, 1992-02-15.

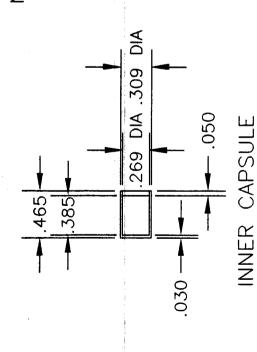
INNER CAPSULE

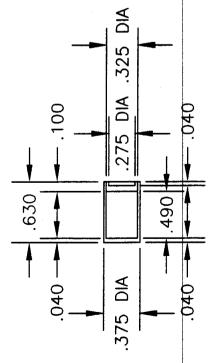
- CHEMICAL FORM CHLORIDE OR CERAMIC 5. INSIDE CONTENTS - CESIUM-137
- 6. MAXIMUM ACTIVITY 370 GBq (10 CI.) CESIUM-137.
- 7. ANSI N43.6-1997 AND ISO 2919, 1980-005-01 PERFORMANCE CLASSIFICATION C-43434.



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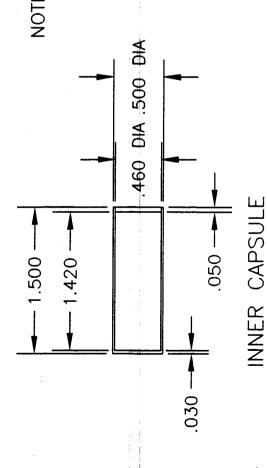




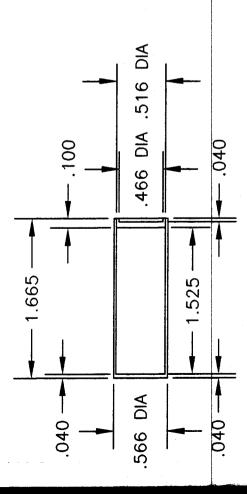
OUTER CAPSULE

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- 2. END CAPS TO HAVE .006 REGISTER & .0005 INTERFERENCE FIT, 100% HELIARC WELDED.
- 3. CAPSULES TO BE CERTIFIED "SPECIAL FORM"
 PER US DOT 10CFR173.469, 10-1-95 EDITION
 AND IAEA SAFETY SERIES NO. 6, 1985 EDITION
 AS AMENDED 1990.
- 4. REMOVEABLE CONTAMINATION $\leq 5 \times 10^{-5}$ uCi. PER ANSI N 43.6–1997 AND ISO 9978, 1992–02–15.
- 5. INSIDE CONTENTS CESIUM-137 CHEMICAL FORM - CHLORIDE OR CERAMIC
- 6. MAXIMUM ACTIVITY 370 GBq (10 CI.) CESIUM-137.
- 7. ANSI N43.6-1997 AND ISO 2919, 1980-005-01 PERFORMANCE CLASSIFICATION C-43434.

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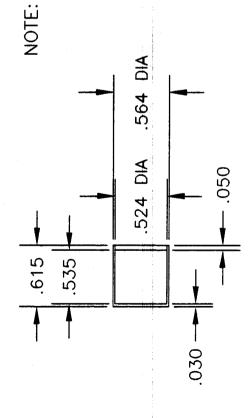


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 REGISTER & .0005 INTERFERENCE
 FIT, 100% HELIARC WELDED.
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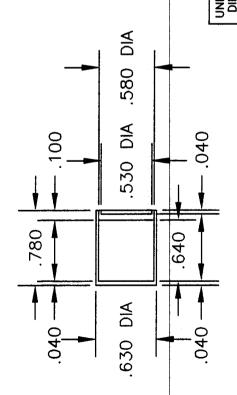
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- END CAPS TO HAVE .006
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 FIT, 100% HELIARC WELDED.
- 3. CAPSULES TO BE CERTIFIED "SPECIAL FORM"
 PER US DOT 10CFR173.469, 10-1-95 EDITION
 AND IAEA SAFETY SERIES NO. 6, 1985 EDITION
 AS AMENDED 1990.
- 4. REMOVEABLE CONTAMINATION $\leq 5 \times 10^{-5}$ uci. PER ANSI N 43.6–1997 AND ISO 9978, 1992–02–15.
- 5. INSIDE CONTENTS CESIUM-137 CHEMICAL FORM - CHLORIDE OR CERAMIC
- 6. MAXIMUM ACTIVITY 370 GBq (10 CI.) CESIUM-137.
- 7. ANSI N43.6-1997 AND ISO 2919, 1980-005-01 PERFORMANCE CLASSIFICATION C-43434.

	CE CAPSULE	6810G-5 REV	SHEET 1 OF 1
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NOTE: 1. MATL = 304 STAINLESS STL. AS AMENDED 1990. 309 DIA .269 DIA .050 1.025

REGISTER & .0005 INTERFERENCE FIT, 100% HELIARC WELDED. END CAPS TO HAVE .006

PER US DOT 10CFR173.469, 10-1-95 EDITION AND IAEA SAFETY SERIES NO. 6, 1985 EDITION "SPECIAL FORM" 3. CAPSULES TO BE CERTIFIED

4. REMOVEABLE CONTAMINATION $\leq 5 \times 10^{-5}$ uci. PER ANSI N 43.6-1997 AND ISO 9978, 1992-02-15.

INNER CAPSULE

CHEMICAL FORM - CHLORIDE OR CERAMIC 5. INSIDE CONTENTS - CESIUM-137

6. MAXIMUM ACTIVITY - 370 GBq (10 CI.) CESIUM-137.

7. ANSI N43.6-1997 AND ISO 2919, 1980-005-01 PERFORMANCE CLASSIFICATION C-43434.

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Pipeline and Hazardous Materials Safety Administration

CERTIFICATE NUMBER: USA/0559/S-96

ORIGINAL REGISTRANT(S):

J.L. Shepherd & Associates 1010 Arroyo Ave. San Fernando, CA, 91340-1822 USA