



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/0816/S-96, REVISION 1

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<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 7810-484-1A Capsule Series.
2. Source Description - Cylindrical double encapsulations constructed of Type 304, 304L 316, or 316L stainless steel and metal inert gas, tungsten inert gas, or helium arc welded. Approximate outer dimensions are 1.1 cm (0.435 in.) to 1.78 cm (0.702 in.) in diameter and 5.08 cm (2.0 in.) to 27.5 cm (10.83 in.) in length. Construction shall be in accordance with attached J.L Shepherd and Associates Drawing A-0068-500-CAN.
3. Radioactive Contents - No more than 925 TBq (25,000 Ci) of Cobalt-60. The Co-60 is in the form of pellets, rods, slugs, wafers, or discs. Spacers of aluminum, stainless steel, or Co-59 pellets may be used to fill void spaces.
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.

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<sup>1</sup> "Regulations for the Safe Transport of Radioactive Material, 2012 Edition, No. SSR-6" 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/0816/S-96, REVISION 1**


5. Expiration Date - This certificate expires on January 31, 2026. 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 December 23, 2020 petition by J.L. Shepherd & Associates, San Fernando, CA, and in consideration of other information on file in this Office.

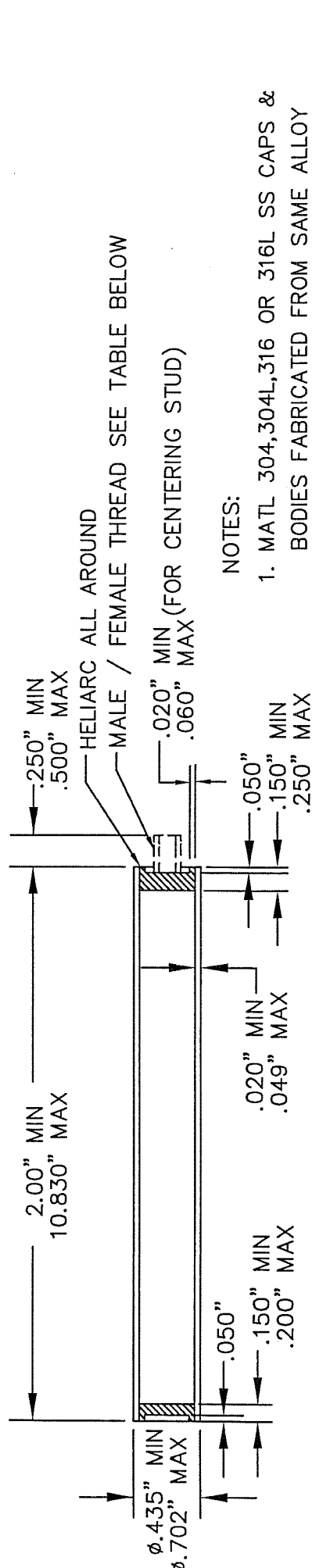
Certified By:



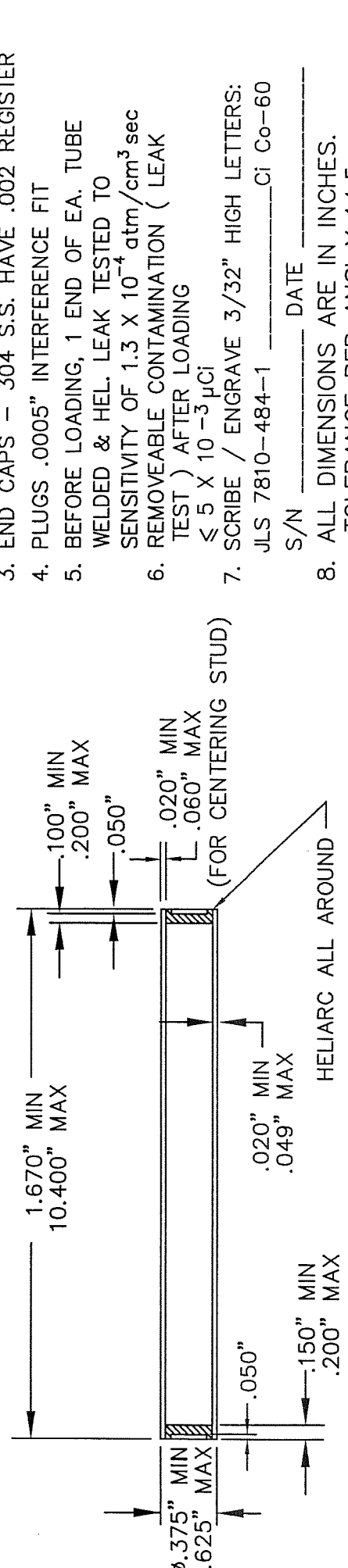
January 05, 2021  
(DATE)

 William Schoonover  
Associate Administrator for Hazardous  
Materials Safety

Revision 1 - Issued to extend the expiration date.



**OUTER CAPSULE**



**INNER CAPSULE**

**NOTES:**

1. MATL 304,304L,316 OR 316L SS CAPS & BODIES FABRICATED FROM SAME ALLOY
2. HELIARC - ALL AROUND BOTH ENDS
3. END CAPS - 304 S.S. HAVE .002 REGISTER
4. PLUGS .0005" INTERFERENCE FIT
5. BEFORE LOADING, 1 END OF EA. TUBE WELDED & HEL. LEAK TESTED TO SENSITIVITY OF  $1.3 \times 10^{-4}$  atm/cm<sup>3</sup> sec TEST ) AFTER LOADING  $\leq 5 \times 10^{-3}$   $\mu$ Ci
6. REMOVEABLE CONTAMINATION ( LEAK TEST ) AFTER LOADING  $\leq 5 \times 10^{-3}$   $\mu$ Ci
7. SCRIBE / ENGRAVE 3/32" HIGH LETTERS: JLS 7810-484-1 \_\_\_\_\_ Ci Co-60  
S/N \_\_\_\_\_ DATE \_\_\_\_\_
8. ALL DIMENSIONS ARE IN INCHES. TOLERANCE PER ANSI Y 14.5
9. MAXIMUM ACTIVITY: 25,000 Ci /925 TBq CO-60

OUTER CAPSULE SIZE RANGES			
CAPSULE DIAMETER	.435" TO .500"	.501" TO .567"	.568" TO .702"
CAPSULE LENGTH	2.0" TO 3.9"	4.0" TO 5.9"	6.0" TO 7.9"
OUTER CAPSULE WALL THICKNESS	.020" TO .032" .020" TO .049" .020" TO .049"		
OPTIONAL MALE THREAD	6-32	MIN: 6-32 MAX: 8-32	MIN: 8-32 MAX: 1/4-28
OPTIONAL FEMALE THREAD	6-32	MIN: 8-32 MAX: 1/4-28	MIN: 8-32 MAX: 1/4-28
OPTIONAL MALE STUD DIAMETER	.138"	MIN: .138" MAX: .164"	MIN: .164" MAX: .250"
OPTIONAL FEMALE STUD DIAMETER	.250"	.312"	
OPTIONAL MALE/FEMALE STUD LENGTH	.250"	.312"	.375"

REV A 24MAR16 NOTE 8 ADDED TOLERANCE PER ANSI Y 14.5 & ADDED OUTER CAPSULE SIZE RANGES TABLE

J. L. SHEPHERD and Associates			
DRAWN BY D. TRAN	DATE 4JAN16	APPROVED BY <i>[Signature]</i>	SCALE NONE
MODEL 7810 484-1A CAPSULE SERIES			
			A-0068-500-CAN



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**CERTIFICATE NUMBER:** USA/0816/S-96

**ORIGINAL REGISTRANT(S) :**

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