



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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0192/S-96, REVISION 7**

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 Agency¹ and the United States of America² for the transport of radioactive material.

1. Source Identification - Isomedix Model No. ISO-1000 (Manufactured prior to June 30, 1998).
2. Source Description - The source is a welded double encapsulation constructed of Type 304L stainless steel. Outer dimensions are 1.26 cm (0.497 in.) diameter and 21.13 cm (10.68 in.) length. Construction shall be in accordance with attached Union Carbide Corporation Drawing No. C-SK1887 (2 pages).
3. Radioactive Contents - No more than 26.64 TBq (720 Ci) of Cesium-137 as cesium chloride powder.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations¹ 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 November 30, 2017.

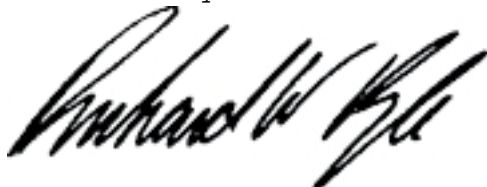
¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency(IAEA), Vienna, Austria.

² Title 49, Code of Federal Regulations, Parts 100-199, United States of America.

CERTIFICATE USA/0192/S-96, REVISION 7


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 November 07, 2012 petition by J.L. Shepherd & Associates, San Fernando, CA, and in consideration of other information on file in this Office.

Certified By:



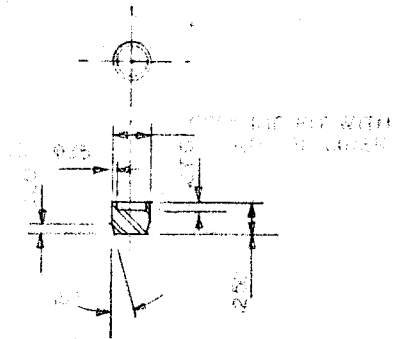
Nov 14 2012

(DATE)

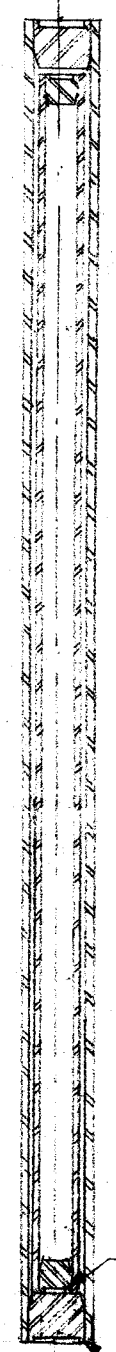
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Dr. Magdy El-Sibaie
Associate Administrator for Hazardous Materials Safety

Revision 7 - Issued to extend the expiration date.

SQUAD CHECK							REVISIONS					
EC	EE	EM	IE	MA	MD	PE	REV.	ZONE	DESCRIPTION	DATE	BY	APP'D
							1	3-A	REMOVE TAPPED CAPSULE PLUG	12-8-79	C.S.	SEE
							2	1-D	REVISED NOTES	1-11-80	CS	SEE



LINER PLUG
MATERIAL: 304L STAINLESS STEEL
AS PER A-213
2 PER 10



- NOTES:
1. FABRICATION SHOP TO WELD ONE LINER AND ONE CAPSULE PLUG PER WPS-307.
 2. MACHINE ANY WELD OVERLAP FROM OUTER CAPSULE.
 3. CENTERLESS GRIND OUTER CAPSULE O.D. TO $.497 \pm .002$
 4. SHOP FABRICATED OUTER CAPSULE TO BE STRAIGHT WITHIN 0.010 T.I.R. AND ROUND WITHIN 0.005 T.I.R. OVER ENTIRE LENGTH.
 5. HELIUM LEAK TEST BY METHOD SENSITIVE TO 1×10^{-7} cc/sec.

FABRICATION SHOP
WELD PER NOTE 1.

MECHANICAL QUALITY ASSURANCE DOCUMENTATION REQUIREMENTS*	
* DETAILS IN DRAWINGS, BAPP, ETC.	QA LEVEL
QA PROGRAM PLAN NO.	
1 MATERIAL MILL CERTIFICATION	X
2 UCC-NO MATERIAL INSPECTION REPORTS	
3 DEVIATION REPORTS	X
4 SHOP MANUFACTURING AND INSPECTION PLAN	
5 CONSTRUCTION AND INSPECTION PLAN	
6 MATERIAL/PART TRAVELER	
7 WELD AND/OR BRAZE INSPECTION REPORTS	X
8 HEAT TREAT REPORT WITH T-T CHART(S)	
9 DIMENSIONAL INSPECTION AND REPORTS**	X
10 PRESSURE TEST REPORTS	
11 LEAK TEST REPORTS	X
12 CLEANING REPORTS	
13 NONCONFORMANCE REPORTS	X X
14 FUNCTIONAL TEST REPORTS	
15 COMPLETED ITEM CERTIFICATE OF COMPLIANCE	
16	
17	

**INSPECTION SYMBOL LEGEND
 (X) RECORD ACTUAL DIM. (IN OR OUT OF TOLERANCE)
 (X) RECORD OUT OF TOLERANCE DIM. ONLY (RECORD IN TOL. DIM.)

William R. Cook 12-10-79
 DATE

TOLERANCES* OTHERWISE SPECIFIED	DESIGN	11-20-79	RES
	DRAWN	12-10-79	C. Smith
LS ± ALS ±	CHECKED	1-16-80	RWS
	SECTION		
RP EDGES _____ MAX.	DEPT.		
	DIVISION		
1909	OPERATOR		
	EQ. T & I/MID		
	SAFETY		
	FIRE PROT.		
	NUC. SAFETY		
	AIR & WATER POLL. CONTR.		

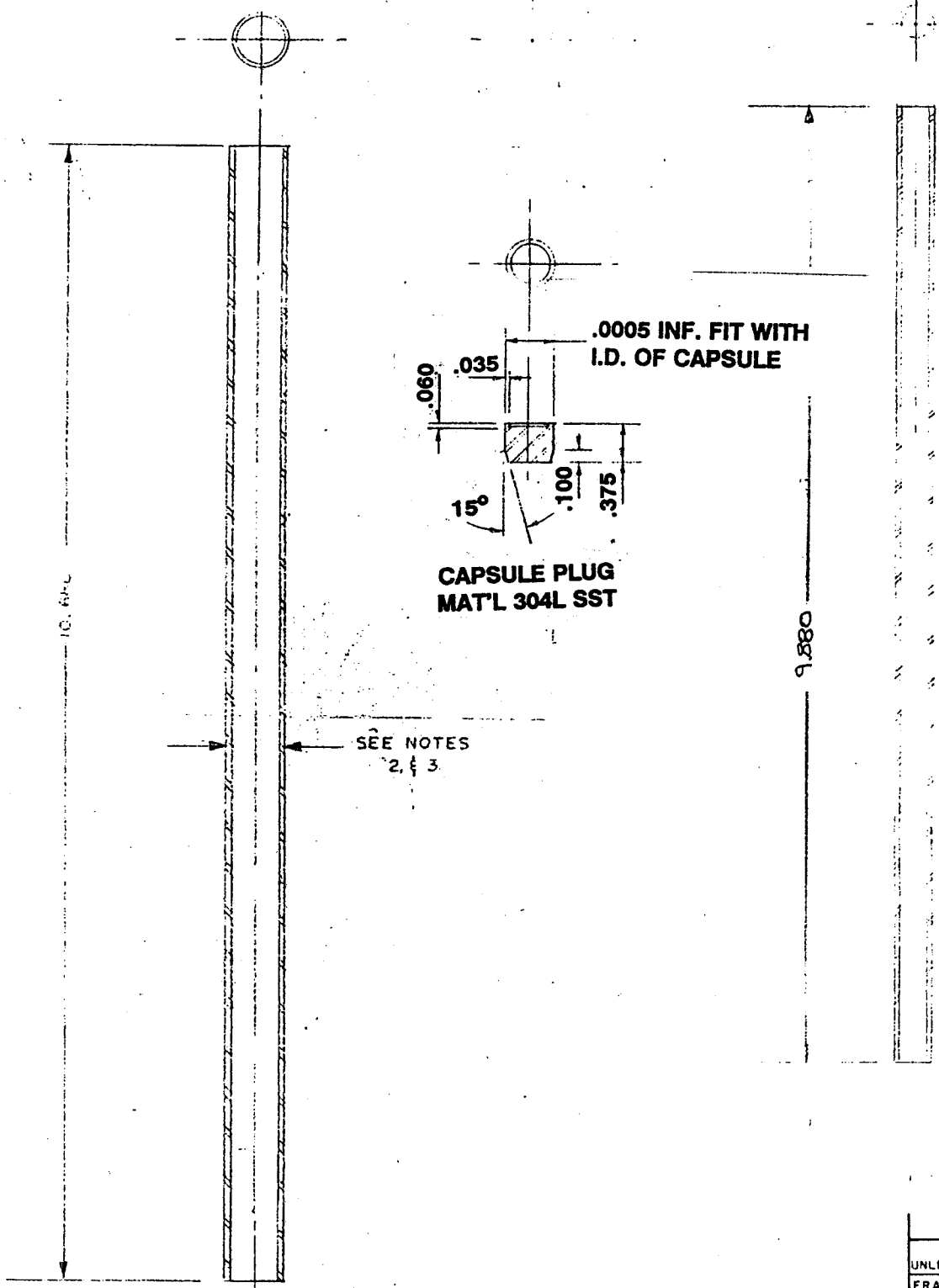
UNION CARBIDE CORPORATION • NUCLEAR DIVISION
 operated for the ATOMIC ENERGY COMMISSION under U.S. GOVERNMENT contract W 7405 eng 26
 Oak Ridge, Tennessee

137 Cs SOURCE (ISO-1000)

1	48	49	50	SCALE: FULL	SHEET	OF	CLASS
PLANT				BLDG.	FL. SHOP	C - SK1587	
							REV. 2

			SC
CA	CP	EC	

D
C
B
A



.0005 INF. FIT WITH
I.D. OF CAPSULE

CAPSULE PLUG
MAT'L 304L SST

SEE NOTES
2, 3

CAPSULE
MAT'L $\frac{1}{2}$ X .035 WALL
304L SST TUBING, PER ASTM A 312
REQ'D

TOLERANCES
UNLESS OTHERWISE
SPECIFIED:
FRACTIONS
XX DECIMALS
XXX DECIMALS
ANGLES
BREAK SHARP EDGES

REFERENCES:
C S K 1009
ORDER NO.
W. O.
B. M. No.

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Hazardous Materials
Safety Administration**

CERTIFICATE NUMBER: USA/0192/S-96, Revision 7

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