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

East Building, PHH-23
1200 New Jersey Avenue Southeast
Washington, D.C. 20590

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0735/S-96, REVISION 5

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.

1. Source Identification - International Isotopes Inc. (INIS) Models INIS-SF-CS-1J and INIS-SF-CS-2J.

2. Source Description - Cylindrical single over-encapsulations made of either Type 304, Type 304L, Type 316, or Type 316L stainless steel and tungsten inert gas seal welded. Approximate exterior dimensions of the Models INIS-SF-CS-1J and INIS-SF-CS-2J range from 7.47 mm (0.294 in.) to 11.18 mm (0.440 in.) in diameter and 11.38 mm (0.448 in.) to 17.15 mm (0.675 in.) in length. Construction shall be in accordance with attached International Isotopes Inc. Drawing No. INIS-DWG-0014, Rev. 1.

3. Radioactive Contents - No more than 555.0 GBq (15.0 Ci) of Cesium-137. The Cs-137 is in the form of a solid cesium chloride, cesium sulfate or cesium nitrate.

4. Special Conditions -

   a. Sources to be over-encapsulated shall be double encapsulations.

   b. Sources to be over-encapsulated shall be constructed from a series 300 stainless steel to ensure material compatibility with the INIS Types 304, 304L, 316, or 316L stainless steel outer capsule.

   c. Sources to be over-encapsulated shall have outside dimensions that are compatible with the range specified for the Model INIS-SF-CS-1J and INIS-SF-CS-2J source capsule design.

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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.

d. Sources to be over-encapsulated shall be marked with a Model and/or Serial number and shall be linked to a specific Registry of Radioactive Sealed Sources and Devices Safety Evaluation of a Device, or Special Form Certificate of Competent Authority.

e. Sources to be over-encapsulated shall successfully pass either a vacuum bubble test, hot liquid bubble test, or a helium pressurization bubble test in accordance with ANSI/HPS N43.6-1997 Annex A Paragraph A.2.2.1, A.2.2.2, or A.2.2.3, respectively. This test shall be performed within 6 months prior to over-encapsulation.

f. Sources to be over-encapsulated shall successfully pass either the wipe (smear) test or dry wipe test in accordance with ANSI/HPS N43.6-1997 Annex A Paragraphs A.2.1.1 or A.2.1.2, respectively. This test shall be performed within 6 months prior to over-encapsulation.

g. Sources to be over-encapsulated shall pass a visual inspection indicating they are free of defects at the time of over-encapsulation.

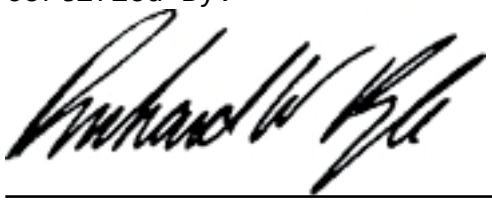
5. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations[1] shall be maintained and made available to the authorized officials for at least three years after the last shipment authorized by this certificate. Consignors in the United States exporting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

6. Expiration Date - This certificate expires on April 30, 2021.

CERTIFICATE USA/0735/S-96, REVISION 5

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 March 30, 2016 petition by International Isotopes Inc., Idaho Falls, ID, and in consideration of other information on file in this Office.

Certified By:



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

Apr 28 2016
(DATE)

Revision 5 - Issued to extend the expiration date.

REVISIONS				
LTR.	DESCRIPTION	BY	DATE	APPROVED
	FIRST ISSUE			

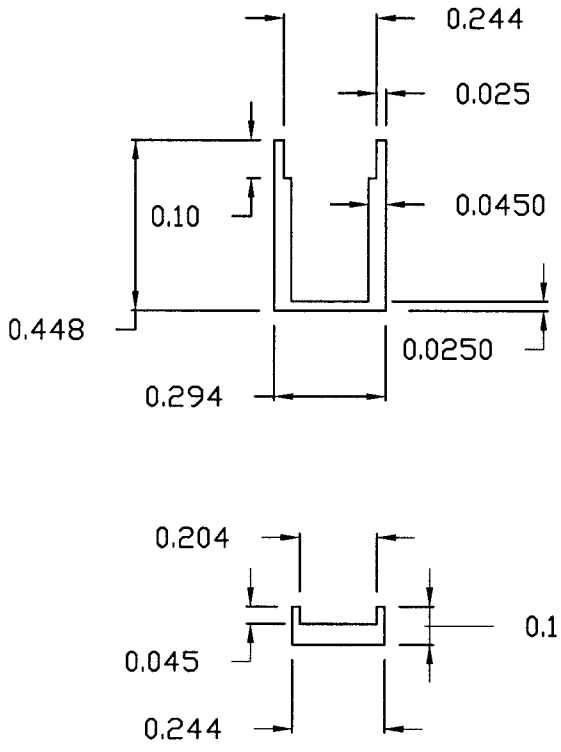
All dimensions in inches

All componants fabricated from 304, 304L, 316 or 316L SST.

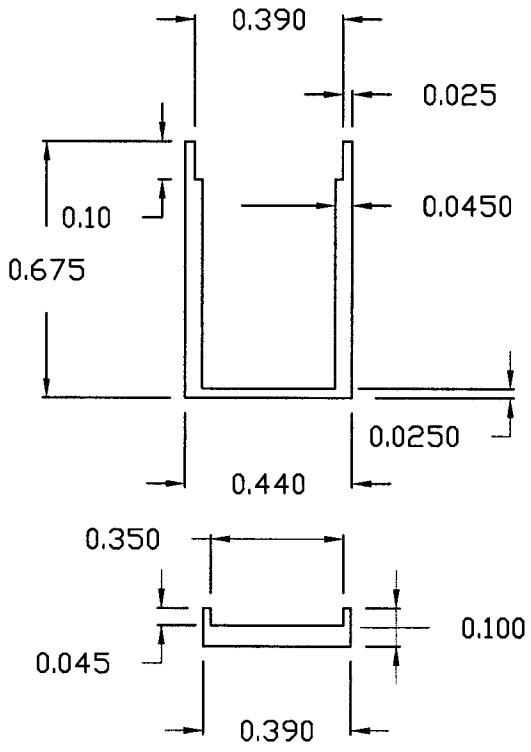
Caps and capsule bodies shall be fabricated from the same alloy

Fusion seal weld on the full circumfrence of all end caps

MINIMUM
CAPSULE DIMENSIONS



MAXIMUM
CAPSULE DIMENSIONS



ITEM NO.	DWG. SIZE	PART OR IDENTIFYING NO.	DESCRIPTION	QTY

International Isotopes Inc.
(Including International Isotopes Idaho Inc. subsidiary)

TOLERANCE		DRAWN:	DATE:
.XX	±.010	D.JL	11/22/06
.XXX	±.005	CHECKED: D.JL	11/22/06
FRACT.	±1/64	APPROVED D.JL	11/22/06
ANGLES	±30'	ENG: N/A	
SCALE: None		Sheet 1 of 1	

CS-137 SOURCE CAPSULES

DWG. NO. INIS-DWG-0014 REV. 1

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CERTIFICATE NUMBER: USA/0735/S-96, Revision 5

ORIGINAL REGISTRANT(S):

Mr. John Miller
Radiation Safety Officer
International Isotopes Inc.
4137 Commerce Circle
Idaho Falls, 83401
USA