



U.S. Department
of Transportation
**Research and
Special Programs
Administration**

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE NUMBER USA/0462/S, REVISION 3**

400 Seventh Street, S.W.
Washington, D.C. 20590

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

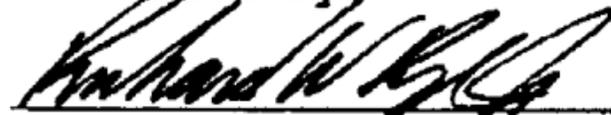
1. Source Identification - Isotope Products Laboratories (IPL) Models 3021 and 3027.
2. Source Description - The triply encapsulated sources are right circular cylinders measuring 12.7 mm (0.5") in diameter x either 12.7 mm (0.5") or 19.1 mm (0.75") long. In accordance with applicable design specifications, the capsules are constructed of either Type 304 or Type 316 stainless steel. The capsule end walls are 1 mm (0.04") thick and the side walls are 2.3 mm (0.09") thick. The inner encapsulation is an Amersham X.1 capsule. Source capsules are further described and shall be manufactured in accordance with IPL drawing nos. A3021 and 3027 (attached).
3. Radioactive Contents - These neutron sources contain not more than 1.48 GBq (40 mCi) of Am-241 as oxide mixed with beryllium powder.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 209 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 and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires April 30, 2002. On May 12, 1997, this certificate supersedes, in its entirety, all previously issued revisions of USA/0462/S.

1 "Safety Series No. 6, Regulations for the Safe Transport of Radioactive Materials, 1985 Edition, as amended 1990", published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

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

This certificate is issued in accordance with paragraph 703 of the IAEA Regulations and Section 173.476 of Title 49 of the Code of Federal Regulations, in response to the petition and information dated June 4, 1996 and March 5, 1997 submitted by Isotope Products Laboratories, Burbank, CA, and in consideration of other information on file in this Office.

Certified by;



Alan I. Roberts

Associate Administrator for Hazardous Materials Safety

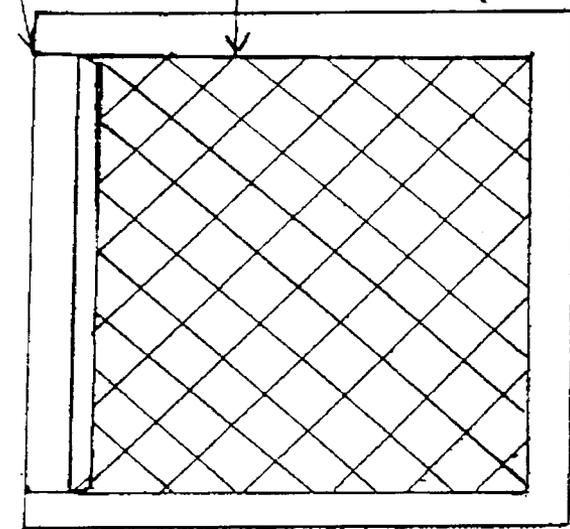
MAY - 7 1997

(DATE)

Revision 3 - Issued to correct capsule material specification.

0.500"

Fusion Weld
Plug Into Place



0.500"

Inner Capsule

AmerSham X.1

Diameter: 0.307"

Height: 0.394"

Wall Thickness: 0.032"

Engraving: letters ~ 3/32" high

IPL

Am-241

40 mCi

C-XXXX

Outer Capsule: 304 Stainless Steel
IPL Model 3021

ISOTOPE PRODUCTS LABORATORIES
BURBANK, CALIFORNIA 91504

DRAWING TITLE: AmBe CAPSULE ASSEMBLY

DATE: N75

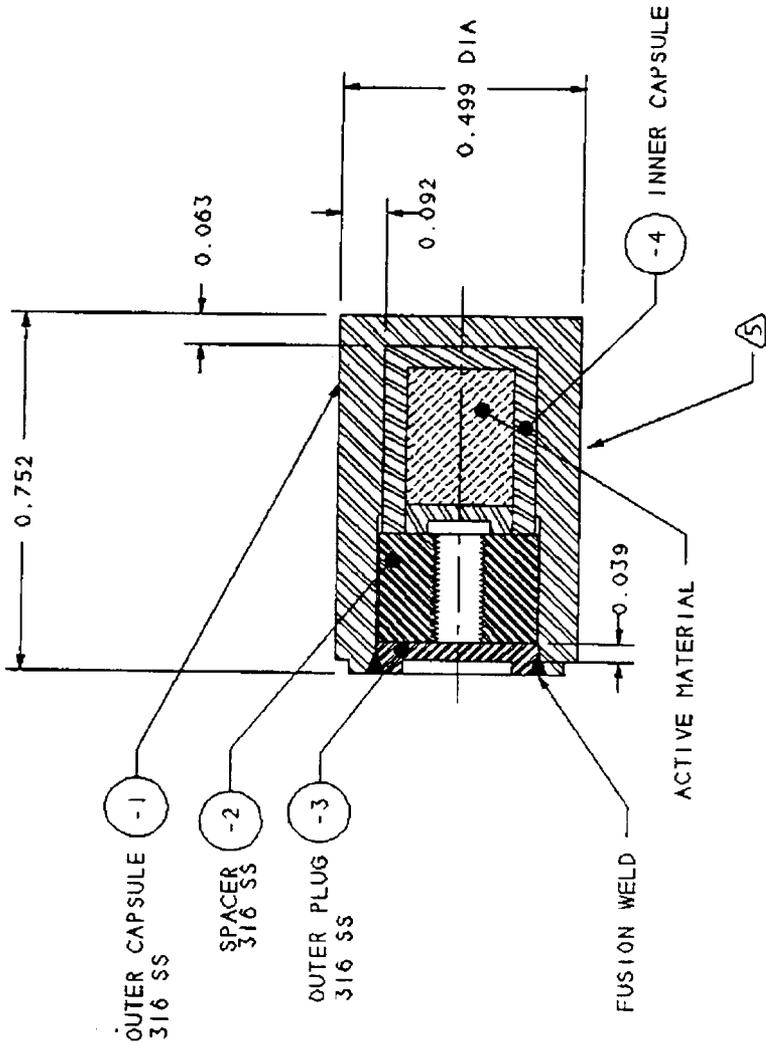
SERIES TITLE: HIGH ENERGY GAMMA & NEUTRON

DATE: 3/29/72

DRAWN BY: RAD 9/5/91

DRAWING NUMBER: A 3021

REV: R1



SECTION A-A

P/N: A3027 ASSEMBLY

ENGRAVE CHARACTERS 0.060 HIGH X 0.003 DEEP MAX AND BLACK FILL:

IPL ACTIVITY
NUCLIDE SERIAL NUMBER

4. PACKAGE AND IDENTIFY PART NUMBER
 3. TOLERANCES: .XXX ±.002. .XX ±.01. .X ±.1. ANGLE ±.5°
 2. DIMENSIONS ARE IN INCHES
 1. ASSEMBLE COMPLETE PER ENGINEERING DRAWING
- NOTE: UNLESS OTHERWISE SPECIFIED

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ISOTOPE PRODUCTS LABORATORIES
BURBANK, CALIFORNIA 91504

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|-----------------------------------------------------|----------------------|------------------------|
| SCALE: NTS | APPROVED: | DESIGNED: DFB/RLT |
| DATE: 09/01/93 | <i>Michael Davis</i> | REV/CHG: A |
| TITLE: AmBe SOURCE | | SHEET: 3 OF 7 |
| SERIES: HIGH INTENSITY GAMMA AND NEUTRON SOURCES | | DRAWING NUMBER 3027 |