



U.S. Department
of Transportation

1200 New Jersey Avenue, S.E.
Washington, D.C. 20590

Pipeline and
Hazardous Materials
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0221/S-96, REVISION 9

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 United States of America² for the transport of radioactive material.

1. Source Identification - Eckert & Ziegler Isotope Products (EZIP) Model 301 Series.
2. Source Description - Cylindrical double encapsulations made of either Type 304 or 304L stainless steel and fusion welded. Approximate outer dimensions are 3.0 mm (0.12 in.) in diameter and 25.4 mm (1.0 in.) to 838.2 mm (33.0 in.) in length. Construction shall be in accordance with attached Eckert & Ziegler Isotope Products Drawing No. 3402, Sheet 4 of 10, Rev. M.
3. Radioactive Contents - The source described by this certificate is authorized to contain any one of the following radionuclides in the chemical form identified and limited to the activity shown.

<u>Radionuclide</u>	<u>Form</u>	<u>Activity</u>
Na-22	NaCl in ceramic	11.1 GBq (0.30 Ci)
Co-57	CoCl ₂ in ceramic	11.1 GBq (0.30 Ci)
Co-60	CoCl ₂ in ceramic	11.1 GBq (0.30 Ci)
Ge-68	GeO in ceramic	11.1 GBq (0.30 Ci)
Ba-133	BaCl ₂ in ceramic	11.1 GBq (0.30 Ci)
Cs-137	CsCl or CsNO ₃ in ceramic	11.1 GBq (0.30 Ci)
Eu-152	EuCl ₃ in ceramic	11.1 GBq (0.30 Ci)
Eu-154	EuCl ₃ in ceramic	11.1 GBq (0.30 Ci)
Eu-155	EuCl ₃ in ceramic	11.1 GBq (0.30 Ci)
Gd-153	GdCl ₃ in ceramic	37.0 GBq (1.00 Ci)
Am-241	AmO ₂ in ceramic	11.1 GBq (0.30 Ci)

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 and consignees in the United States exporting or importing shipments under this certificate shall satisfy the requirements of Subpart H of 10 CFR 71.

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.

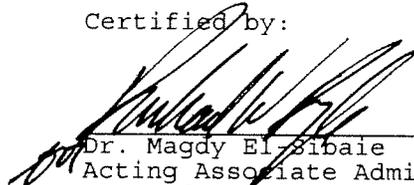
² Title 49, Code of Federal Regulations, Parts 100 - 199, United States of America.

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5. Expiration Date - This certificate expires on February 28, 2015. On September 30, 2010, this certificate supersedes all previous revisions of USA/0221/S-96.

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 June 11, 2010 petition submitted by Eckert & Ziegler Isotope Products, Valencia, CA and in consideration of other information on file in this Office.

Certified by:

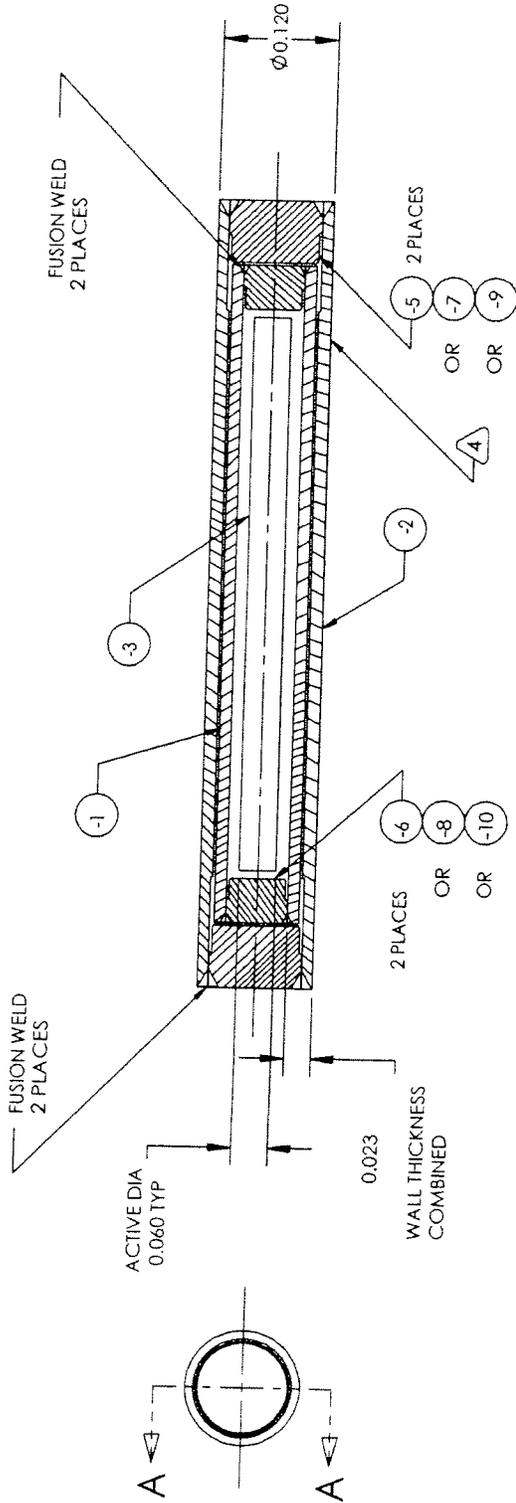


Dr. Magdy El-Sibaie
Acting Associate Administrator for
Hazardous Materials Safety

JUN 17 2010

(DATE)

Revision 9 - Issued to correct clerical error for activity listing.



SECTION A-A

P/N:	PLUG LENGTH	TOTAL LENGTH	ACTIVE LENGTH
A3402-AXXXXX	0.040	XX.XXX+0.160	XX.XXX
A3402-BXXXXX	0.0625	XX.XXX+0.250	XX.XXX
A3402-CXXXXX	0.125	XX.XXX+0.500	XX.XXX
A3402-DXXXXX	0.098	XX.XXX+0.392	XX.XXX

ECKERT & ZIEGLER ISOTOPE PRODUCTS
 BURBANK, CALIFORNIA 91504

SCALE: NTS	APPROVED: MD/GG/LF	DESIGNED: MG/DI
DATE: 05/17/94		REV/CHG: M
TITLE: DOUBLE ENCAPSULATED LINE SOURCE (301B)		SHEET: 4 OF 10
SERIES: LINE SOURCES		DRAWING NUMBER: 3402

6. CAPSULE COMPONENTS ARE 304 OR 304L STAINLESS STEEL.
 ACTIVE ELEMENT IS CERAMIC.

5. PACKAGE AND IDENTIFY PART NUMBER THEREON
 ENGRAVE CHARACTERS 0.060 HIGH X 0.003 DEEP MAX
 ON CIRCUMFERENCE OF 3402-2 0.500" MIN FROM END:
 IPL
 NUCLEIDE
 ACTIVITY
 SERIAL NUMBER

3. TOLERANCES: 0.XXX ±0.002, 0.XX ±0.01, 0.X ±0.1, ANGLE ±0.5°

2. DIMENSIONS ARE IN INCHES
 1. ASSEMBLE COMPLETE PER ENGINEERING DRAWING
 PRESS FIT PLUGS INTO TUBES
 AND FUSION WELD IN PLACE

NOTE: UNLESS OTHERWISE SPECIFIED

THIS DRAWING IS THE PROPERTY OF ISOTOPE PRODUCTS LABORATORIES, AND MAY NOT BE USED, REPRODUCED, PUBLISHED OR DISCLOSED TO OTHERS WITHOUT EXPRESS AUTHORIZATION BY ISOTOPE PRODUCTS LABORATORIES.



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