



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/0508/S-96, REVISION 5

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 Agency<sup>1</sup> and the United States of America<sup>2</sup> for the transport of radioactive material.

1. Source Identification - Eckert & Ziegler Isotope Products (EZIP) Model A3906.
2. Source Description - Cylindrical single IPL Model HEG-1 encapsulation constructed of Type 304 or 304L stainless steel and fusion seal welded. Approximate outer dimensions are 4.7 mm (0.186 in.) in diameter and 5.7 mm (0.225 in.) in length. The Model HEG-1 is in a cylindrical holder with a hexagonal extension made of Type 316L stainless steel and fusion welded. Approximate outer dimensions of the holder are 38.1 mm (1.5 in.) in length, 6.35 mm (0.25 in.) in diameter in the cylindrical section and 9.53 mm (0.375 in.) across the flats of the hexagonal section. Construction shall be in accordance with attached IPL Drawing No. 3906, Sheet 3 of 5, Rev. G.
3. Radioactive Contents -

Radionuclide	Form	Activity GBq (Ci)
Na -22	NaCl in gold or ceramic	3.7 (0.10)
Co - 57	CoO, CoCl <sub>2</sub> Co(NO <sub>3</sub> ) <sub>2</sub> in ceramic	11.1 (0.30)
Co - 58	CoO, CoCl <sub>2</sub> Co(NO <sub>3</sub> ) <sub>2</sub> in ceramic	11.1 (0.30)
Co - 60	CoO, CoCl <sub>2</sub> Co(NO <sub>3</sub> ) <sub>2</sub> in ceramic or	11.1 (0.30)

<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/0508/S-96, REVISION 5

	Co pellets	
Ge - 68	GeCl <sub>4</sub> in ceramic	1.85 (0.05)
Ba - 133	BaSO <sub>4</sub> or BaCl <sub>2</sub> in gold or ceramic	3.7 (0.10)
Cs - 137	CsCl, Cs <sub>2</sub> SO <sub>4</sub> or CsNO <sub>3</sub> in ceramic, AL or Au pellets	11.1 (0.30)
Ra - 226	RaSO <sub>4</sub> in gold or ceramic	1.85 (0.05)
Cf - 252	Oxide in metal or ceramic	0.037 (0.001)
Actinides*	Oxides in gold or ceramic	1.85 (0.05)

\* (Isotopes of Ac, Th, Pa, Np, U, Am, and Cm)

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.
5. Expiration Date - This certificate expires on January 31, 2025. Previous editions which have not reached their expiration date may continue to be used.

**CERTIFICATE USA/0508/S-96, REVISION 5**


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 24, 2019 petition by Eckert & Ziegler Isotope Products, Valencia, CA, and in consideration of other information on file in this Office.

Certified By:

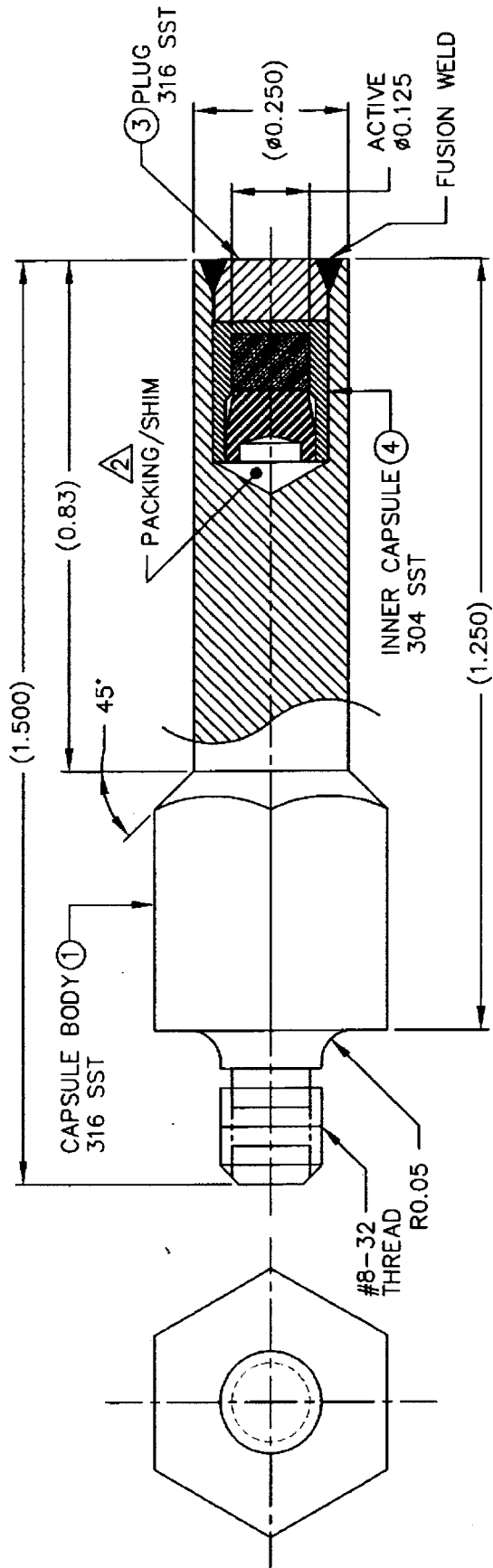


February 03, 2020

(DATE)

 William Schoonover  
Associate Administrator for Hazardous  
Materials Safety

Revision 5 - Issued to extend the expiration date.



LOGGING, DENSITOMETER SOURCE

MODEL	NUCLIDE	ACTIVITY
HEG-0027	Cs-137	10 mCi
HEG-0067	Cs-137	20 mCi
HEG-0066	Cs-137	55 mCi
HEG-0065	Cs-137	100 mCi
HEG-CUST	Cs-137	CUSTOM

3. SOURCE MUST PASS A RATTLE TEST (PER CUSTOMER REQUEST) AFTER WELDING.  
 2. SHIM AS REQUIRED TO ARREST INNER CAPSULE MOVEMENT.  
 1. ASSEMBLE COMPLETE PER ENGINEERING DRAWING AND PER PROCEDURE PM20-1. FUSION WELD AS REQUIRED.

NOTES: UNLESS OTHERWISE SPECIFIED

A3906 ASSEMBLY

ISOTOPE PRODUCTS  
 LABORATORIES  
 BURBANK, CALIFORNIA 91504

UNLESS OTHERWISE SPECIFIED  
 DIMENSIONS ARE IN INCHES

FRAC-TION	DECIMAL	ANGLE
±1/64	±.01	±.5°

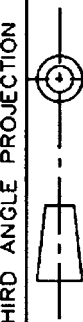
THIRD ANGLE PROJECTION

DESIGN  
 MG/DI

DRAWING TITLE  
 CALIBRATION SOURCE, Cs-137

SCALE  
 NONE

SERIES TITLE  
 INDUSTRIAL SOURCES, CUSTOM



SIZE  
 A

CAGE CODE  
 32993

REVISION  
 G

DRAWING NUMBER  
 3906

SHEET  
 3 OF 5



U.S. Department of  
Transportation

**Pipeline and  
Hazardous Materials  
Safety Administration**

East Building, PHH-23  
1200 New Jersey Ave, SE  
Washington, D.C. 20590

**CERTIFICATE NUMBER:** USA/0508/S-96

**ORIGINAL REGISTRANT(S) :**

Eckert & Ziegler Isotope Products  
24937 Avenue Tibbitts  
Valencia, CA, 91355  
USA

Halliburton  
3000 North Sam Houston Parkway, East  
Houston, TX, 77032  
USA