



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/0351/S-96, REVISION 10

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 material.

1. Source Identification - Eckert & Ziegler Isotope Products Models 3004 and 3014-01, 3014-02, and 3014-03 (also referred to as Model N-252 Series).
2. Source Description - Cylindrical double encapsulation made of Type 304 or 304L stainless steel and fusion welded. Approximate outer dimensions are 9.4 mm (0.37 in.) in diameter and 32.5 mm (1.28 in.) in length. A threaded stud measuring 5.08 mm (0.2 in.) long maximum is located at the center of the end opposite the weldment. Construction of Capsule 3004 shall be in accordance with attached Isotope Products Laboratories Drawing No. A3004, Rev. A. Construction of Capsules 3014-01 and 3014-02 shall be in accordance with attached Eckert & Ziegler Isotope Products Drawing No. 3014, Rev. L, Sheet 3 of 11. Construction of Capsule 3014-03 shall be in accordance with attached Eckert & Ziegler Isotope Products Drawing No. 3014, Rev. L, Sheet 4 of 11.
3. Radioactive Contents - Certificate printed manually. No more than 1.11 GBq (30.0 mCi) of Californium-252. The Cf-252 is in the form of Cf203 in aluminum, ceramic, or palladium metal.

¹ "Regulations for the Safe Transport of Radioactive Material, 2012 Edition, No. SSR-6" 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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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 May 31, 2024. Previous editions which have not reached their expiration date may continue to be used.

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 April 15, 2019 petition by Eckert & Ziegler Isotope Products, Valencia, CA, and in consideration of other information on file in this Office.

Certified By:

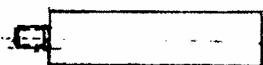


William Schoonover
Associate Administrator for Hazardous
Materials Safety

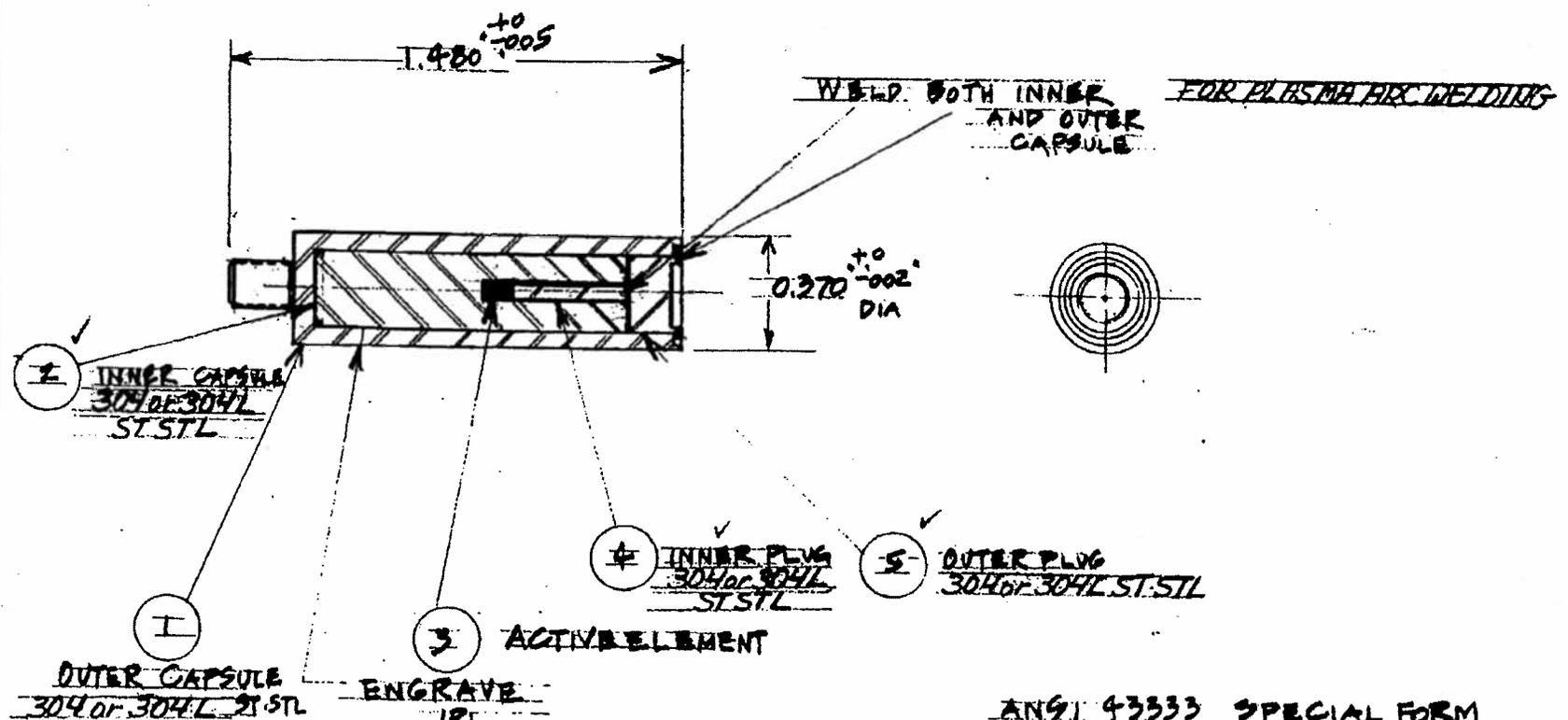
May 01, 2019
(DATE)

Revision 10 - Issued to extend the expiration date.

INDIVIDUALLY PACKAGE
ASSEMBLY



ACTUAL SIZE



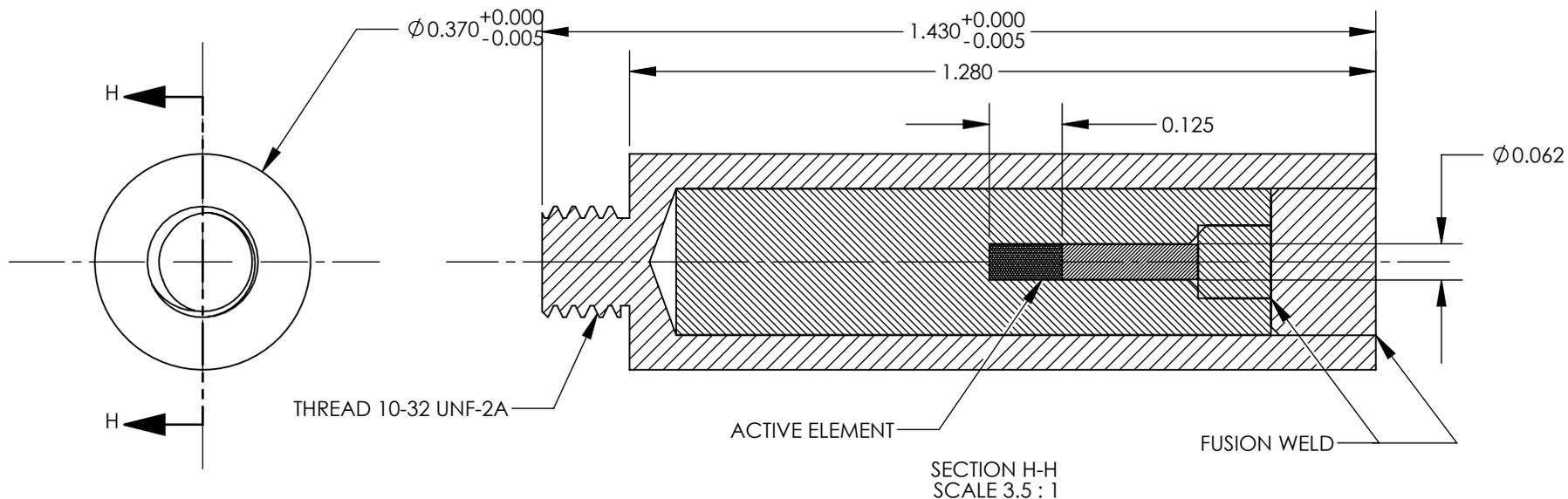
ANSI 43333 SPECIAL FORM

ISOTOPE PRODUCTS LAB

APPROVED BY	DATE
ENG. <u>ERW N-21</u>	
QUALITY ASSURANCE <u>11/12/86</u>	
PRODUCTION <u>JLC 12/2/86</u>	

ENGRAVE
IPL
ISOTOPE
ACTIVITY
SOURCE NO

ISOTOPE PRODUCTS LABORATORIES BURBANK, CALIFORNIA 91504		
SCALE: <u>2p 1</u>	APPROVED BY:	DRAWN BY: <u>ERW</u>
DATE: <u>NOV 20 86</u>		REVISED <u>A 9/15/88</u>
NEUTRON SOURCE (CURRENTLY MODEL SR-CE-100 (MODEL N-252))		
HIGH INTENSITY GAMMA AND NEUTRON SOURCES		DRAWING NUMBER A3004

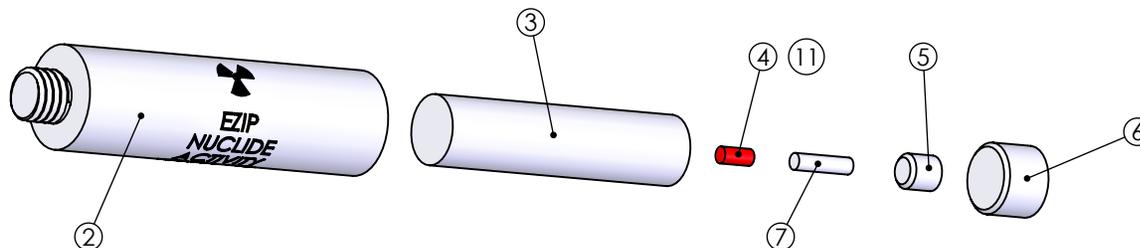


THREAD 10-32 UNF-2A

ACTIVE ELEMENT

FUSION WELD

SECTION H-H
SCALE 3.5 : 1



2. PACKAGE AND IDENTIFY PART NUMBER THEREON.
1. ASSEMBLE PER ENGINEERING DRAWING.
NOTES: UNLESS OTHERWISE SPECIFIED

P/N A3014-01 NEUTRON SOURCE ASSEMBLY (CERAMIC ACTIVE ELEMENT)
P/N A3014-02 NEUTRON SOURCE ASSEMBLY (SINGLE Cf-252 WIRE ACTIVE ELEMENT)

 **Eckert & Ziegler**
Isotope Products

VALENCIA, CALIFORNIA 91355

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCH-SIZES. METRIC UNITS [mm] ARE IN MILLIMETERS.

TOLERANCES (UNLESS OTHERWISE SPECIFIED)
X.XXX ± .002 INCH ANGULAR TOLERANCE OF 0°±30'
X.XX ± .005 INCH FRACTIONAL DIMENSIONS ± 1/32"
X.X ± .03 INCH REFERENCE DIMENSIONS (J) N/A
X. ± .1 INCH SURFACE ROUGHNESS μINCH MAX
ALL DIMENSIONS ARE FINISHED DIMENSIONS

DRAWN
KP

ME/CHECKER
EZ

ENGINEER
EZ

TITLE
NEUTRON SOURCE

SERIES TITLE
HIGH INTENSITY GAMMA AND NEUTRON SOURCES
(HEG SERIES CAPSULES 193, 225 & N-252)

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THIRD ANGLE PROJECTION

SCALE
NONE

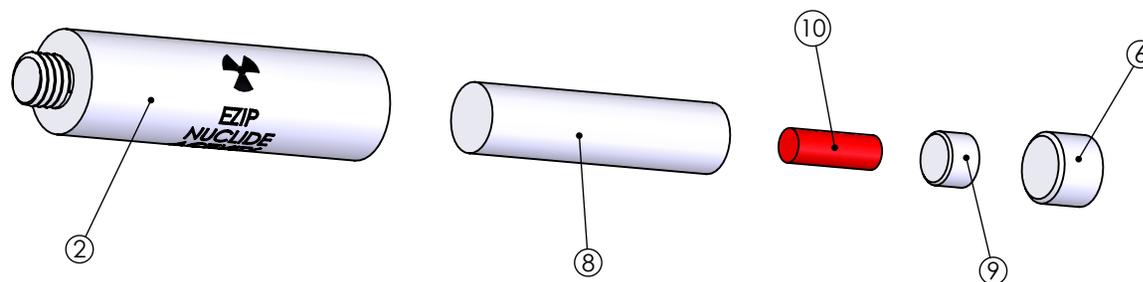
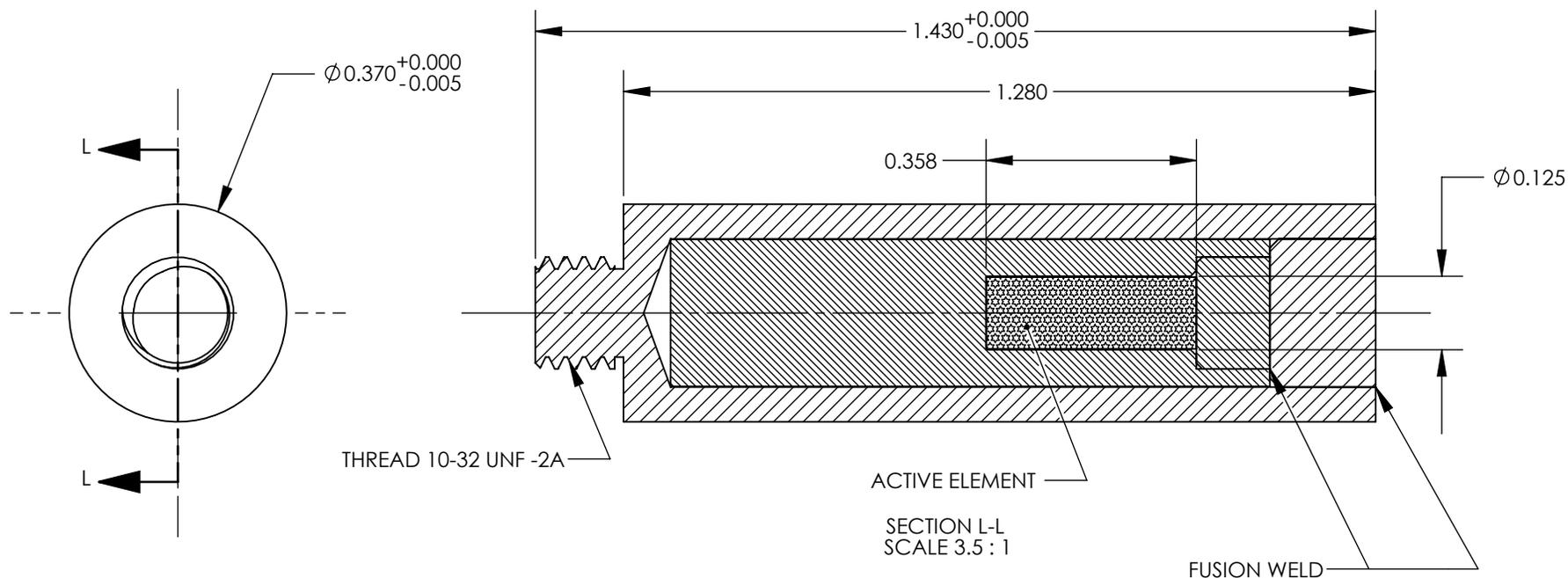
SIZE
A

CAGE CODE
32993

DRAWING NO.
3014

REV
L

SHEET
3 OF 11



2. PACKAGE AND IDENTIFY PART NUMBER THEREON.
 1. ASSEMBLE PER ENGINEERING DRAWING.
 NOTES: UNLESS OTHERWISE SPECIFIED

P/N A3014-03 NEUTRON SOURCE ASSEMBLY
 (MULTIPLE Cf-252 ACTIVE ELEMENTS; UP TO THREE)

 **Eckert & Ziegler**
 Isotope Products

VALENCIA, CALIFORNIA 91355

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCH-SIZES. METRIC UNITS [mm] ARE IN MILLIMETERS.

TOLERANCES (UNLESS OTHERWISE SPECIFIED)
 X.XXX ± .002 INCH ANGULAR TOLERANCE OF 0°±30'
 X.XX ± .005 INCH FRACTIONAL DIMENSIONS ± 1/32"
 X.X ± .03 INCH REFERENCE DIMENSIONS (J) N/A
 X. ± .1 INCH SURFACE ROUGHNESS μINCH MAX
 ALL DIMENSIONS ARE FINISHED DIMENSIONS

DRAWN
 KP
 ME/CHECKER
 EZ
 ENGINEER
 EZ

TITLE
 NEUTRON SOURCE

SERIES TITLE
 HIGH INTENSITY GAMMA AND NEUTRON SOURCES
 (HEG SERIES CAPSULES 193, 225 & N-252)

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SCALE
 NONE
 SIZE
 A

CAGE CODE
 32993

DRAWING NO.
 3014

REV
 L

SHEET
 4 OF 11



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/0351/S-96

ORIGINAL REGISTRANT(S) :

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

Troxler Electronic Laboratories
P.O. Box 12057
3008 Cornwallis Road
Research Triangle Park, NC, 27709
USA