



U.S. Department
of Transportation

Pipeline and
Hazardous Materials
Safety Administration

IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS

CERTIFICATE USA/0351/S-96, REVISION 11

East Building, PHH-23
1200 New Jersey Ave, SE
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 material.

1. Source Identification - Eckert & Ziegler Isotope Products Models 3004 and 3014-01, 3014-02, 3014-03, and 3014-04 (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 the attached Eckert & Ziegler Isotope Products Drawing No. 3014, Rev. N, Sheet 3 of 13. Construction of Capsule 3014-03 shall be in accordance with attached Eckert & Ziegler Isotope Products Drawing No. 3014, Rev. N, Sheet 4 of 13. Construction of Capsule 3014-04 shall be in accordance with attached Eckert & Ziegler Isotope Products Drawing No. 3014, Rev. N, Sheet 5 of 13.
3. Radioactive Contents - No more than 1.11 GBq (30.0 mCi) of Californium-252. The Cf-252 is in the form of Cf₂O₃ in aluminum, porous glass, 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.

CERTIFICATE USA/0351/S-96, REVISION 11

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 April 30, 2029. 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 March 18, 2024 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

April 30, 2024
(DATE)

Revision 11 - Issued to extend the expiration date, amend drawings to Revision N, and add the 3014-04 capsule.

WELD BOTH INNER
AND OUTER
CAPSULE

FOR PLASMA ARC WELDING

0.270⁺⁰_{-0.002} DIA

2 INNER CAPSULE
304 OF 3042
ST STL

④ INNER PLUG
304 or 304L
ST 57L

⑤ OUTER PLUG
3046F 3047L ST. STL

OUTER CAPSULE
304 or 304L ST. STL

ENGRAVE
IPL
ISOTOPE
ACTIVITY
SOURCE NO

ANG 43333 SPECIAL FORM

BURBANK, CALIFORNIA 91504

SCALE: 2 1

APPROVED BY:

DRAWN BY EW

DATE: NOV 20 86

REVISID A 9/15/88

NEUTRON SOURCE (CURRENTLY
MODEL SR-CE-100 (MODEL N-252)

HIGH INTENSITY GAMMA AND NEUTRON SOURCES

DRAWING NUMBER
A3004

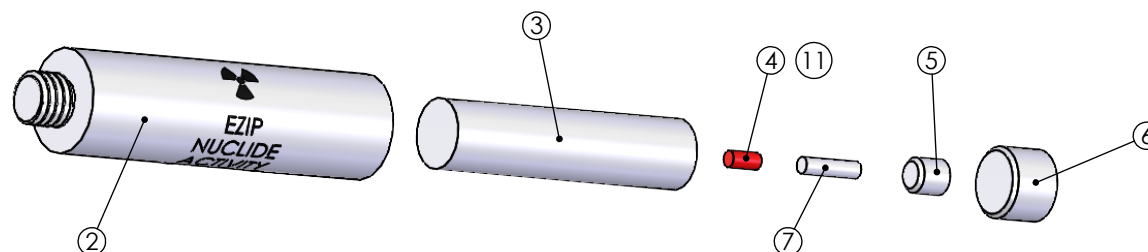
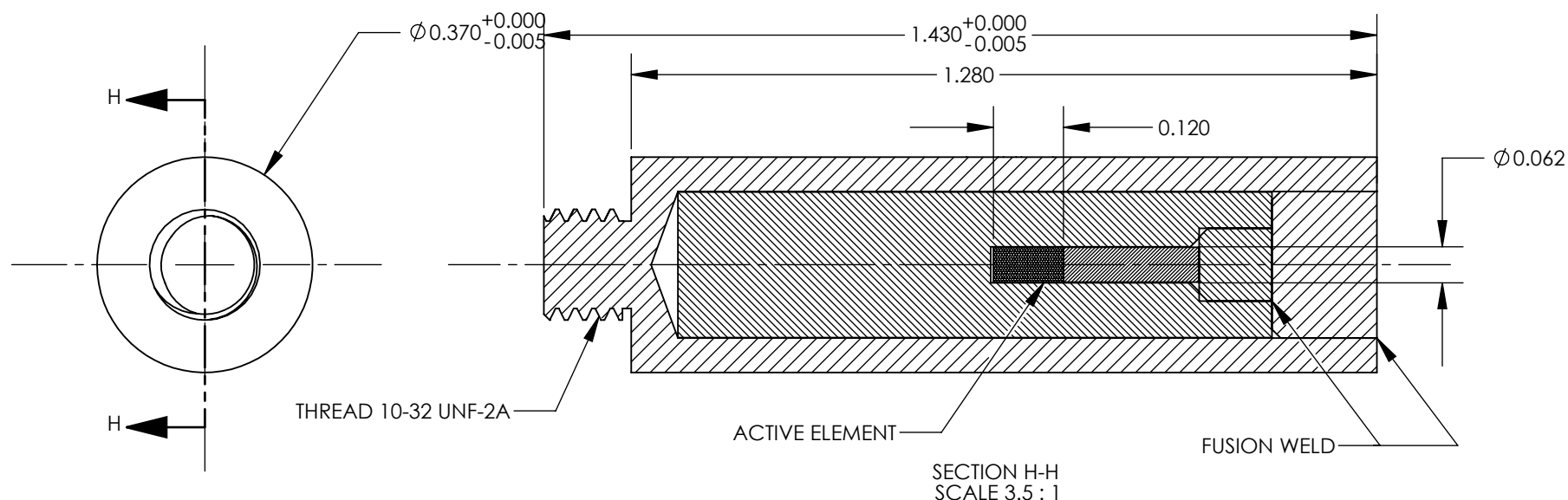
ISOTOPE PRODUCTS LAB

APPROVED BY _____ DATE _____

ENG. ERW. 4-21-46

QUALITY ASSURANCE

PRODUCTION 1/1C 12/2/82



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

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



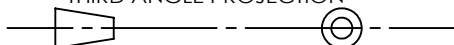
Eckert & Ziegler
Isotope Products

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

THIRD ANGLE PROJECTION



DRAWN
KP

ME/CHECKER
EZ

ENGINEER
EZ

SCALE
NONE

SIZE
A

TITLE
NEUTRON SOURCE

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

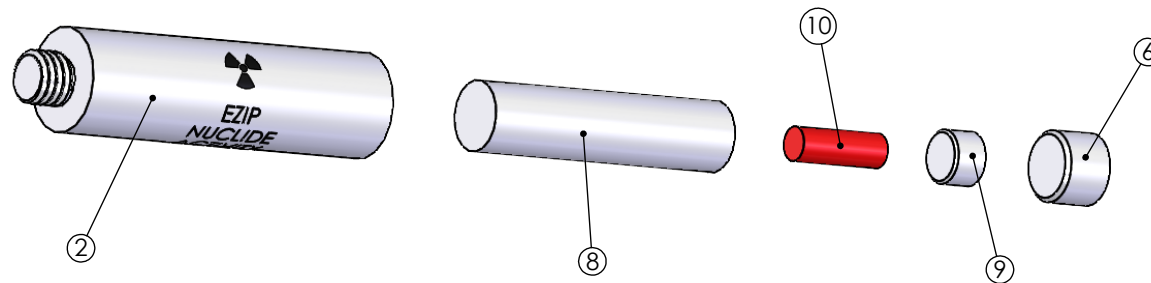
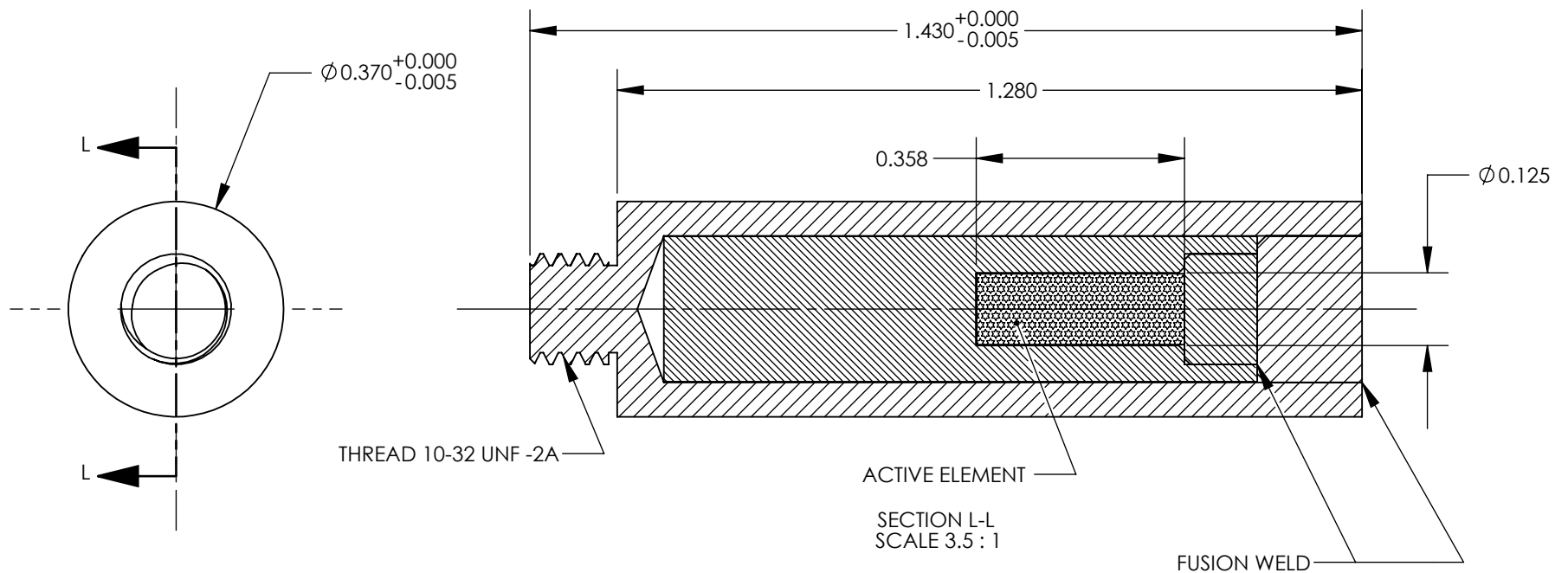
CAGE CODE
32993

DRAWING NO.
3014

REV
N

SHEET
3 OF 13

THIS DRAWING IS THE PROPERTY OF ECKERT&ZIEGLER ISOTOPE PRODUCTS
AND MAY NOT BE USED, REPRODUCED, PUBLISHED OR DISCLOSED TO OTHERS
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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)



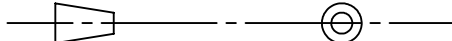
Eckert & Ziegler
Isotope Products

VALENCIA, CALIFORNIA 91355

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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

THIRD ANGLE PROJECTION



DRAWN
KP

ME/CHECKER
EZ

ENGINEER
EZ

SCALE
NONE

SIZE
A

TITLE
NEUTRON SOURCE

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

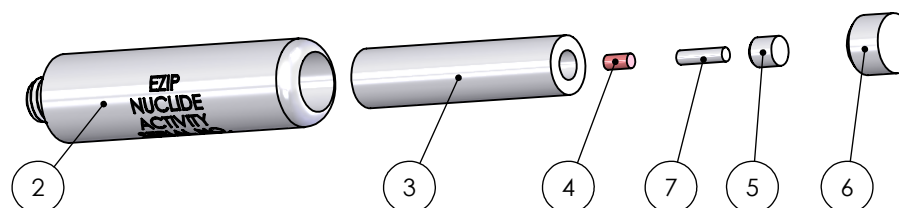
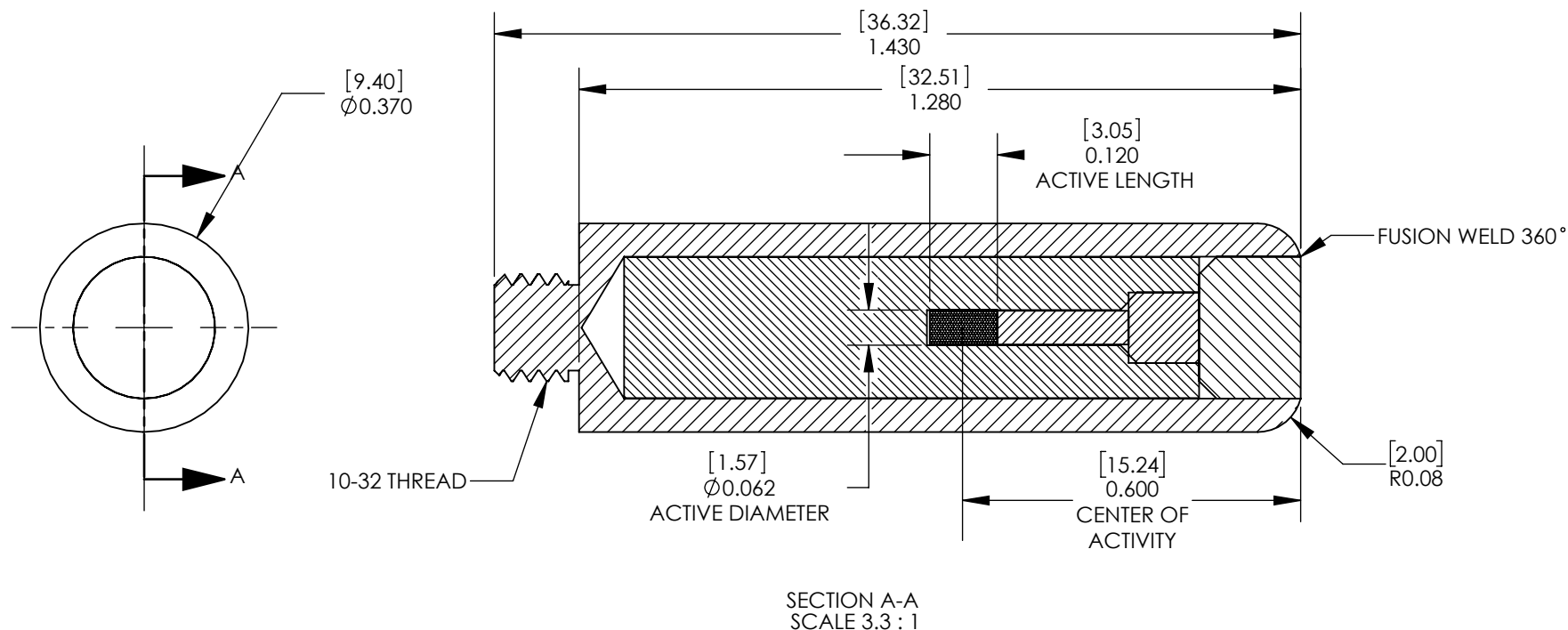
CAGE CODE
32993

DRAWING NO.
3014

REV
N

SHEET
4 OF 13

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

P/N A3014-04 NEUTRON SOURCE ASSEMBLY
(POROUS GLASS ACTIVE ELEMENT IN MODIFIED 3014-9 CAPSULE)



Eckert & Ziegler
Isotope Products

VALENCIA, CALIFORNIA 91355

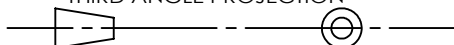
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TOLERANCES (UNLESS OTHERWISE SPECIFIED)

X.XXX	± .002	INCH	ANGULAR TOLERANCE OF $0^\circ \pm 30'$
X.XX	± .005	INCH	FRACTIONAL DIMENSIONS $\pm 1/32"$
X.X	± .03	INCH	REFERENCE DIMENSIONS (J) N/A
X.	± .1	INCH	SURFACE ROUGHNESS $\mu\text{INCH MAX}$

ALL DIMENSIONS ARE FINISHED DIMENSIONS

THIRD ANGLE PROJECTION



DRAWN
KP

ME/CHECKER
EZ

ENGINEER
EZ

SCALE
NONE

SIZE
A

TITLE

NEUTRON SOURCE

SERIES TITLE

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

CAGE CODE
32993

DRAWING NO.
3014

REV
N

SHEET
5 OF 13

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Washington, D.C. 20590

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ORIGINAL REGISTRANT(S) :

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

Troxler Electronic Laboratories
3008 Cornwallis Road
Research Triangle Park, NC, 27709
USA