



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/0158/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 the United States of America² for the transport of radioactive material.

1. Source Identification - E.I. DuPont/New England Nuclear Model NER-479C.
2. Source Description - Cylindrical single encapsulation made of Type 316L stainless steel and heli-arc seal welded. Approximate outer dimensions range from 15.2 mm (0.6 in.) to 38.1 mm (1.5 in.) in diameter and 5.6 mm (0.22 in.) to 12.7 mm (0.5 in.) in length. The active face has a wall thickness of approximately 0.25 mm (0.01 in.). Construction shall be in accordance with attached New England Nuclear Corp. Drawing No. 313-306, dated 9-11-78.
3. Radioactive Contents - No more than 74.0 GBq (2.0 Ci) of Americium-241. The Am-241 is in the form of a ceramic.
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 July 31, 2026. Previous editions which have not reached their expiration date may continue to be used.

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/0158/S-96, REVISION 9


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 May 26, 2021 petition by J.L. Shepherd & Associates, San Fernando, CA, and in consideration of other information on file in this Office.

Certified By:

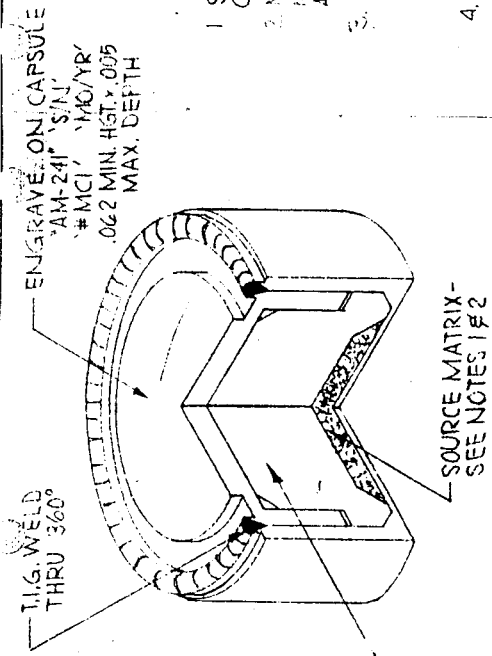


July 01, 2021

(DATE)

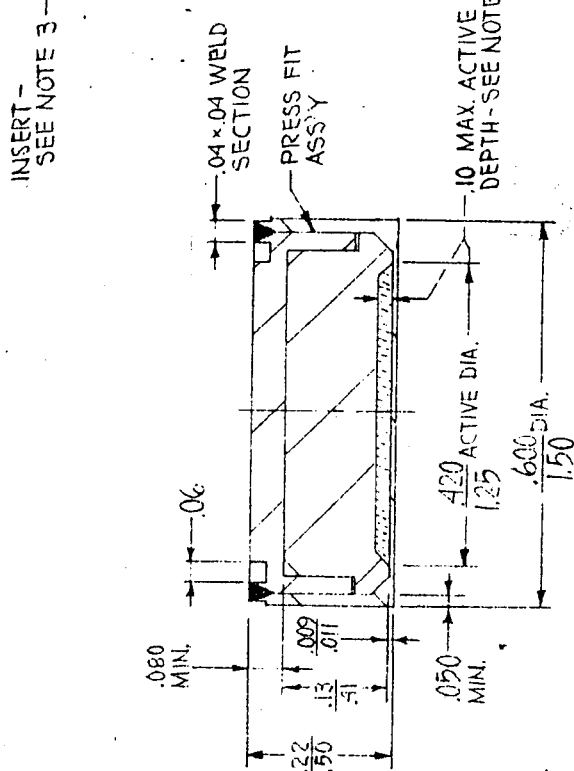
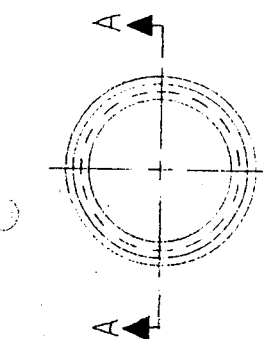
 William Schoonover
Associate Administrator for Hazardous
Materials Safety

Revision 9 - Issued to extend the expiration date.



NOTES

1. SOURCE MATRIX CONSISTS OF AM 241 AS A VITREOUS CERAMIC FUSED TO THE INSERT FORMING A CERAMIC GLAZE.
2. MAXIMUM ACTIVE AREA CONCENTRATION SHALL BE 2000 MCI.
3. MAXIMUM ACTIVITY CONCENTRATION SHALL BE 1.25 CI/CM² ACTIVE AREA. A TLE DIAPYCNIVE HST. RATIO TO BE 5:1 MIN.
4. INSERT TO WHICH THE SOURCE MATRIX IS FUSED, SHALL BE CRES 316L STL. OR AN ALKALING-BILICATE MACHINABLE CERAMIC (MELTING POINT ~1200°C AFTER FIRING AND SUBSEQUENT COOLING).
5. LEAK TEST PER ANSI N542-1977 PROCEDURES A2.11, SMEAR TEST, A2.13, IMMERSION TEST AND A2.21, BUBBLE TEST. SEE NS-A TEST DIRECTIVE 603. LIMIT 100³ MCI.
6. ANSI N542-1977 PERFORMANCE CLASSIFICATION C6-44.
7. D.O.T. 'SPECIAL FORM' MATERIAL PER 10CFR 71.4.



SECTION A-A

NEW ENGLAND NUCLEAR CORP.

MATERIAL SPECIFICATIONS		FRACTIONAL	DECIMAL	ANGULAR
CRES 316L STN.STL.		* 1/64	* XY ± .010 XX ± .005	* 30'
DRAWN	J. SUMARES	REV.	DATE 9-11-78	SCALE N.T.S.
CHECKED				
APPROVED				
DO NOT SCALE DRAWING				DRAWING NO. 313-306
NEW ENGLAND NUCLEAR CORP. BOSTON, MASS.				NAME NER-479C AM-241 L.E. PHOTON SOURCE



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CERTIFICATE NUMBER: USA/0158/S-96

ORIGINAL REGISTRANT(S) :

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San Fernando, CA, 91340-1822
USA