



U.S. Department  
of Transportation  
**Research and  
Special Programs  
Administration**

400 Seventh St., S.W.  
Washington, D.C. 20590

**IAEA CERTIFICATE OF COMPETENT AUTHORITY  
SPECIAL FORM RADIOACTIVE MATERIALS  
CERTIFICATE NUMBER USA/0630/S, REVISION 0**

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 materials.

1. Source Identification - GE Neutron Source under Contract No. NAS 3-8244.
2. Source Description - Spherical welded double encapsulation of Type 304 stainless steel. Outside diameter of 61.0 mm (2.40 in). Inside diameter of inner capsule is 54.6 mm (2.15 in). Inner capsule consists of a hemispherical shell and a truncated hemispherical shell welded together. Contents are in shape of a hemisphere and a truncated hemisphere separated by a steel leaf spring; separation distance between the two hemispheres is 6.35 mm (0.25 in). Construction is in accordance with IPO/VAL Drawing No. 104B2856 (attached).
3. Radioactive Contents - Not more than 1.9 TBq (51.3 Ci) of Americium-241 mixed with beryllium powder.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations<sup>1</sup> 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.
5. Expiration Date - This certificate expires August 31, 2003.

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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.

**CERTIFICATE USA/0630/S, REVISION 0**

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 petition and information dated May 1, 2003 submitted by NASA John H. Glenn Research Center, Cleveland, OH, and in consideration of other information on file in this Office.

Certified by:

*Charles H. Hochman*

*for* Robert A. McGuire  
Associate Administrator for  
Hazardous Materials Safety

MAY -9 2003

(DATE)

Revision 0 - Issued for a one-time shipment.

9582870

UNLESS OTHERWISE SPECIFIED USE THE FOLLOWING:  
APPLIED PRACTICES: SURFACES:  FINISH:  TOLERANCES:  DIMENSIONS:

GENERAL ELECTRIC

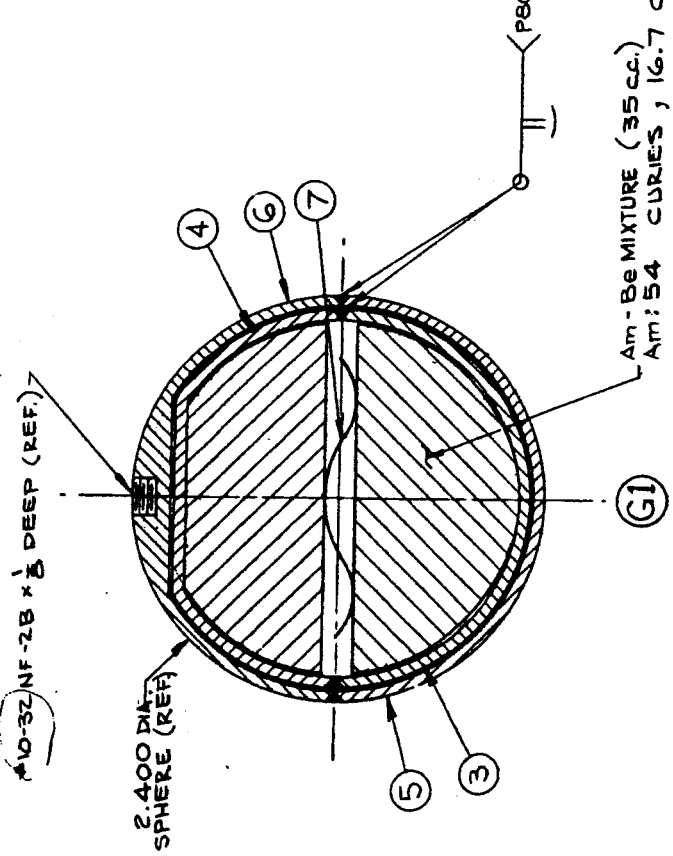
104B2856

TITLE  
Am-Be NEUTRON SOURCE  
FIRST MADE FOR RML (NASA)  
NEXT ASSEM. 107C5189 G1

104B2856  
CONT. ON SHEET

GI ITEM	NAME	DESCRIPTION
1	LOWER TA CRUCIBLE	107C5172 P1
2	UPPER TA CRUCIBLE	107C5172 P2
3	INNER HEMISPHERE - LOWER	107C5173 P1
4	INNER HEMISPHERE - UPPER	P2
5	OUTER HEMISPHERE - LOWER	P3
6	OUTER HEMISPHERE - UPPER	107C5173 P4
7	LEAF SPRING	107C5173 P5

FURNISHED UNDER UNITED STATES GOVERNMENT CONTRACT NR NAS-3-8244 AND SHALL NOT BE DISCLOSED, USED, OR DUPLICATED FOR PROCUREMENT OR MANUFACTURING PURPOSES WITHOUT THE PERMISSION OF THE GENERAL ELECTRIC COMPANY.



Am-Be MIXTURE (35 cc.)  
Am: 54 CURIES; 16.7 GRAMS

"AS BUILT"

1. HELIUM LEAK CHECK INNER & OUTER SPHERES

NOTE:

REVISIONS	PRINTS TO
1 AS BUILT	
2 P7 ADDED	
3 P7 ADDED	
4 P7 ADDED	
5 P7 ADDED	
6 P7 ADDED	
7 P7 ADDED	

DATE: JULY 30-65  
BY: [Signature]  
104B2856  
IPO VAL  
104B2856  
CHK'D: [Signature]