



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

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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE NUMBER USA/0543/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 Agency¹ and the United States of America² for the transport of radioactive materials.

1. Source Identification - Sperry Sun Source Plug Assembly No. 009100.
2. Source Description - The source plug is manufactured from steel and consists of an inner capsule containing Americium-241/Beryllium pressed powder pellets. The source plug has outside dimensions of 42.5 mm (1.6 inches) in diameter and 30.2 mm (1.19 inches) in length. The closure of the source plug is welded using Tungsten Inert Gas and a minimum 75% weld penetration is achieved. All capsules authorized by this certificate shall be manufactured in accordance with Sperry-Sun drawing no. 009100, revision H (attached).
3. Radioactive Contents - source plug assemblies authorized by this certificate shall contain not more than 148 GBq (4 Ci) of Americium-241. The Americium-241 shall be in the form of Americium/Beryllium pressed powder pellets and contained in an inner source capsule.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 209 of the IAEA regulations¹ 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 January 23, 2003.

1 "Safety Series No. 6, Regulations for the Safe Transport of Radioactive Materials, 1985 Edition, as amended 1990", published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

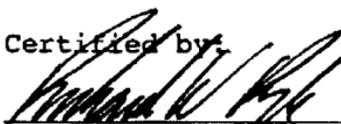
2 Title 49, Code of Federal Regulations, Parts 100 - 199, United States of America.

(- 2 -)

CERTIFICATE USA/0543/S, REVISION 0

This certificate is issued in accordance with paragraph 703 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 December 29, 1997 submitted by Nycomed Amersham, Arlington Heights, IL, and in consideration of other information on file in this Office.

Certified by:



Alan I. Roberts

Associate Administrator for Hazardous Materials Safety

JAN 23 1998

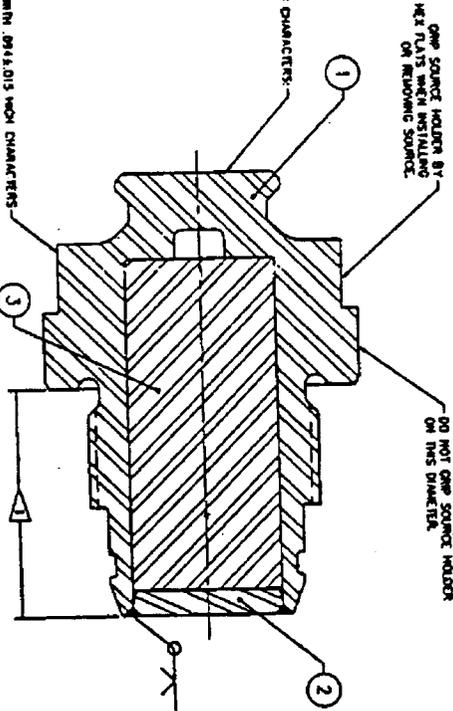
(DATE)

Revision 0 - New issue.

REV	DATE	CONTROL NO	BY
1	10/11/54	CON 31108	SP
2			P

NOTES:

- 1. MULTI INSULATION/WOOD KENOON IS TO VERIFY THAT ANY PART OF WOOD ASSEMBLY (BRACK, NAILS, ETC.) DOES NOT EXCEED .01" DIA FROM SURFACE AS SHOWN.
- 2. RETROFIT RADIODIAGNOSTIC SOURCE PUNCHING SPECIFICATION 990041.
- 3. AFTER SOURCE PLUG IS ASSEMBLED AND DELIVERED TO SSO'S, SSO'S QC DEPT IS TO INSPECT SOURCE ASSEMBLY PER INSPECTION PROCEDURE FORM 18 AND FILL OUT INSPECTION FORM (FORM 9) WITH COPIES OF DOCUMENT GOING TO SSO'S RADIONON SAFETY DIVISION AND QC (HOUSTON) FILE.
- 4. WHEN SOURCE PLUG ASSEMBLY IS DISPOSED TO REPLACE SOURCE PLUG, ITEM 1, REMOVE PER SSO'S DRAWING 000111.



ENGAGE WITH .0015 DIA'S HIGH CHARACTER:
 1) ACTIVITY IN "C"
 2) SOURCE "Am-241B"
 3) SOURCE SERIAL NO
 4) EXHAUSTION SYMBOL

ENGAGE WITH .0015 DIA'S HIGH CHARACTER:
 ON B SIZES OF KEY SURFACE:
 1ST SIZE: "SOURCE"
 2ND SIZE: "RADIODIAGNOSTIC MATERIAL"
 3RD SIZE: "TO NOT HANDLE"
 4TH SIZE: "DO NOT CHISEL"
 5TH SIZE: "WARNING NET"
 6TH SIZE: "OR SSO'S"

spertty-sun BRILLIANT SERVICES	
SOURCE PLUG ASSEMBLY, NEUTRON TOOL	
PROJECT NO: 009100 REV: C DATE: 10/11/54	DRAWN BY: A. JAMES CHECKED BY: C. WESSER
PART NO: 00015 00013 014142 020204 020205	REV: 0 DATE: 10/11/54