



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/0543/S, REVISION 1**

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 310 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 April 1, 2008.

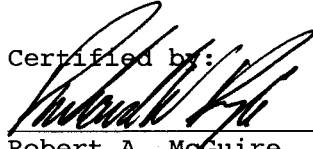
1 "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

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

CERTIFICATE USA/0543/S, REVISION 1

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 January 13, 2003 submitted by Halliburton Energy Services, Houston, TX, and in consideration of other information on file in this Office.

Certified by:



Robert A. McGuire
Associate Administrator for
Hazardous Materials Safety

MAR 31 2003

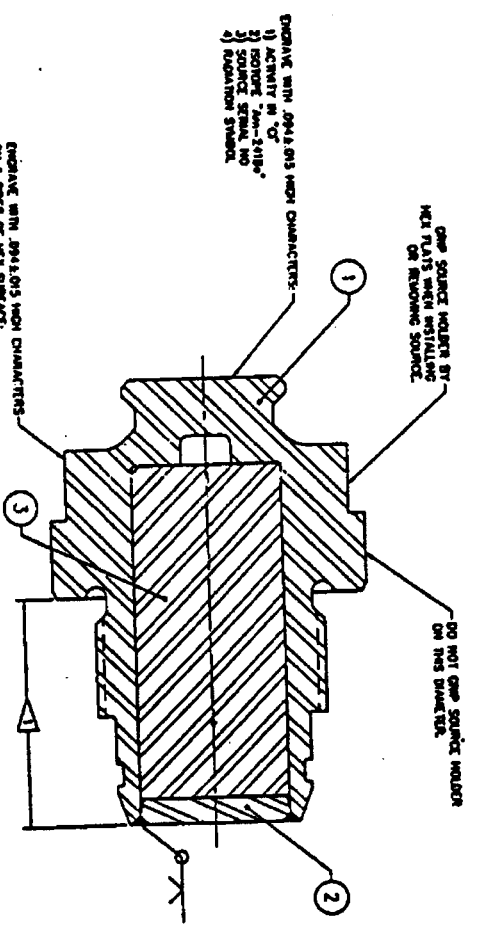
(DATE)

Revision 1 - Issued to extend the expiration date.

REV	DATE BY	DATE	DESCRIPTION	BY	CHKD
1	10/10/50	10/10/50	CONTRACT NO. EON 31100	SA	P

NOTES:

1. **△** HOLET INSTALLATION/NO. VENDOR IS TO VERIFY THAT AIR PART OF WELD ASSEMBLY (WELD, WELD, ETC.) DOES NOT EXCEED AT MAX FROM SHOULDER AS SHOWN.
2. RETURNED RADIOACTIVE SOURCE PURCHASING INFORMATION SHEET.
3. AFTER SOURCE PLUG IS ASSEMBLED AND DELIVERED TO SS95, SS95 OR DPT IS TO INSPECT SOURCE ASSEMBLY PER INSPECTION PROCEDURE FORMS AND FILL OUT INSPECTION FORM (D00113) WITH COPIES OF E DOCUMENT GOING TO SS95 RADIATION SAFETY DIVISION AND CC (HOUSTON) FILES.
4. WHEN SOURCE PLUG ASSEMBLY IS DEPOSED TO REPLACE SOURCE PLUG, ITEM 1, RETURN FOR SS95 DRAWING 026611.



<p>SPERRY-SUN DRILLING SERVICES</p> <p>SOURCE PLUG ASSEMBLY, NEUTRON TOOL</p>		<p>010025 010026 010027 010028 010029 010030</p>	<p>REV 1/51 REV 2/51 REV 3/51 REV 4/51 REV 5/51</p>	<p>DATE BY CHKD</p>	<p>DATE BY CHKD</p>	<p>DATE BY CHKD</p>
---	--	--	---	-----------------------------	-----------------------------	-----------------------------