



U.S. Department
of Transportation
**Pipeline and
Hazardous Materials
Safety Administration**

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0135/S-96, REVISION 11**

East Building, PHH-23
1200 New Jersey Avenue Southeast
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 - Schlumberger Model Nos. NSR-L, NSR-M, and NSR-T.
2. Source Description - Cylindrical double encapsulations made of Type 304 stainless steel (inner encapsulations) and either 18% Ni maraging steel (MS) or MP35N alloy (outer encapsulations). Approximate outer dimensions of the Model NSR-L are 25 mm (0.98 in.) in diameter and 123 mm (4.84 in.) in length. Approximate outer dimensions of the Models NSR-M and NSR-T are 19 mm (0.75 in.) in diameter and 123 mm (4.84 in.) in length. Construction shall be in accordance with attached Schlumberger Well Services (SWS) Drawing Nos. H-239681, Rev. A or H357070, Rev. AA (Model NSR-L); or SWS Drawing Nos. H-245258, Rev. B or H357072, Rev. AA (Models NSR-M and NSR-T). All models manufactured after Dec. 31, 1999 shall be manufactured in accordance with SWS Drawing Nos. H357070, Rev. AA or H357072, Rev. AA.
3. Radioactive Contents - No more than 0.74 TBq (20.0 Ci) of Americium-241 for the Models NSR-L and NSR-M. No more than 277.5 GBq (7.5 Ci) of Americium-241 for the Model NSR-T. The Am-241 is an oxide mixed with a beryllium powder in pellet form.
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 in the United States exporting shipments under this certificate shall satisfy the applicable requirements of Subpart H of 10 CFR 71.
5. Expiration Date - This certificate expires on July 31, 2021.

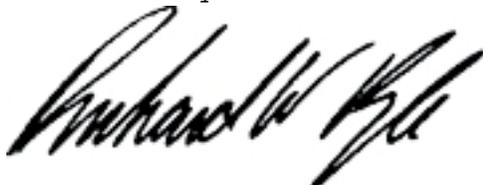
¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

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

CERTIFICATE USA/0135/S-96, REVISION 11

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 July 05, 2016 petition by Schlumberger, Sugar Land, TX, and in consideration of other information on file in this Office.

Certified By:



Jul 20 2016

(DATE)

 Dr. Magdy El-Sibaie

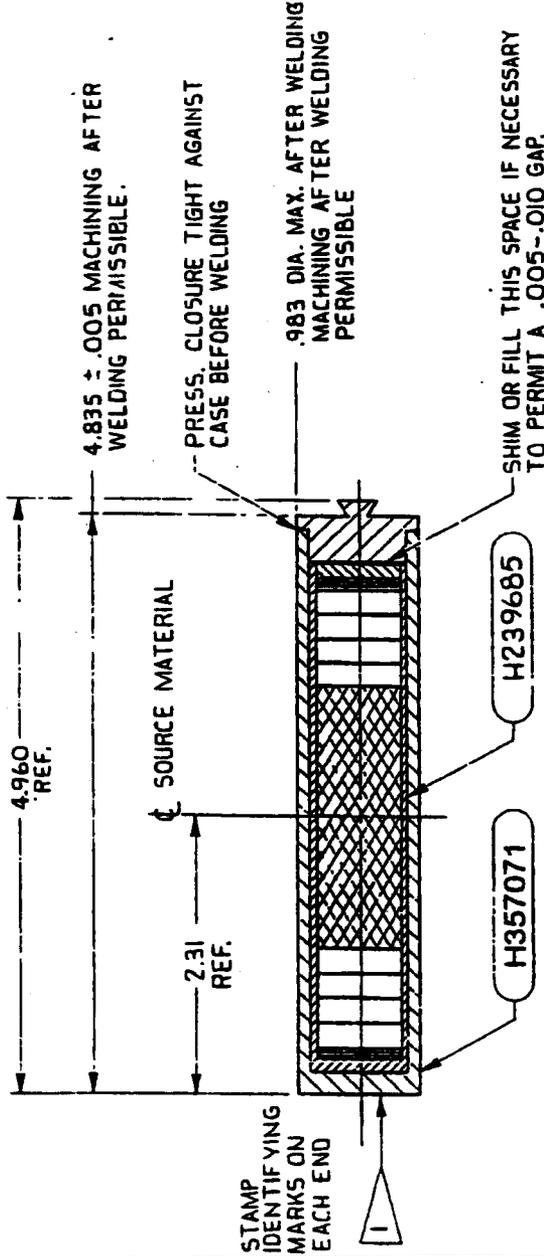
Associate Administrator for Hazardous Materials Safety

Revision 11 - Issued to extend the expiration date.

NOTES: 1

SERIAL NUMBER & IDENTIFICATION MARKING TO BE DONE BY SUPPLIER.
 SERIAL NUMBER TO BE SUPPLIED BY OFFICE OF CORPORATION
 RADIATION SAFETY OFFICER.

2. CONSTRUCTION & INSPECTION PER SH209986
3. SOURCE ACTIVITY NOT TO EXCEED 19.99 CURIES.
4. SOURCE OUTPUT: $4.0 \pm 0.8 \times 10^7$ N/SEC.



REVISIONS		
LTR	ECN NO.	DATE
A	N18950	2-6-98
		BY J.T. MORRISON

ENGINEERING APPROVED
SUPPLIER:
 GAMMATRON, INC.
 5703 ETHERIDGE
 HOUSTON, TX 77087
 713-641-3640

FINISH OR TREATMENT		DET. QTY.	MATERIAL
FILE CODE	NSR-LB		SCHLUMBERGER WELL SERVICES
UNLESS OTHERWISE SPECIFIED			A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION
TOLERANCES SURFACE FINISH			NEUTRON SOURCE RADIOACTIVE
DECIMALS			AM BE SOURCE, 16 CURIE
			(RECYCLED SOURCE)
ANGLES			REV
INSIDE CORNERS MAX DIMENSIONS ARE IN INCHES REMOVE BURRS, BREAK EDGES AND ROUNDS TO INCLUDE APPLIED FINISH			H357070
			AA
WHERE USED			RELEASED
H329762			DATE
			BY

NOTES: 1

SERIAL NUMBER & IDENTIFICATION STAMPING TO BE DONE BY SUPPLIER.
 SERIAL NUMBERING SYSTEM TO BE APPROVED BY SWS.

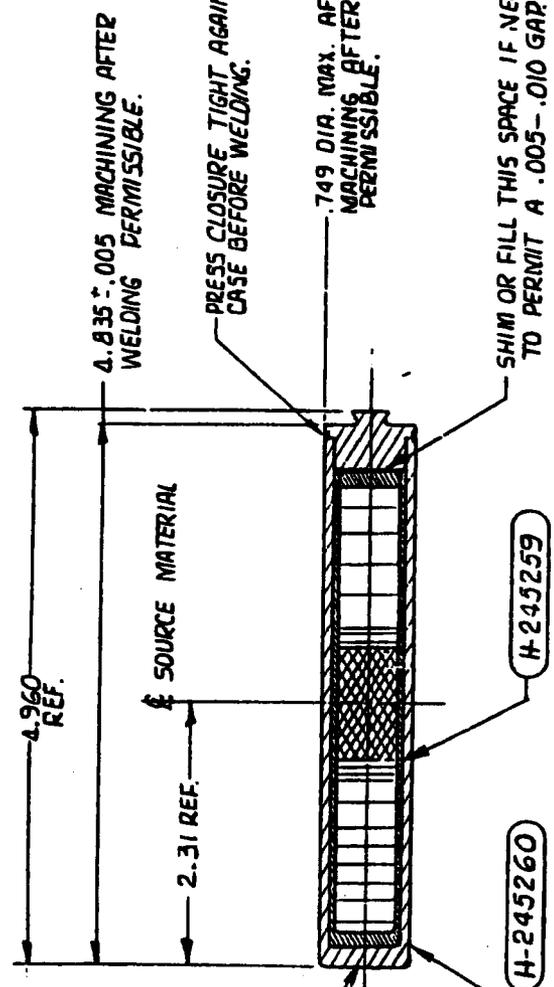
2. CONSTRUCTION & INSPECTION PER H-209986.

3. ENGINEERING APPROVED FABRICATOR: MONSANTO RESEARCH CORP.

4. SOURCE OUTPUT: 2.4×10^{16} N/SEC

MAX ACTIVITY: 19.99 CURIE

NUMEC, APOLLO PA.



STAMP IDENTIFYING MARKS ON EACH END.

REVISIONS

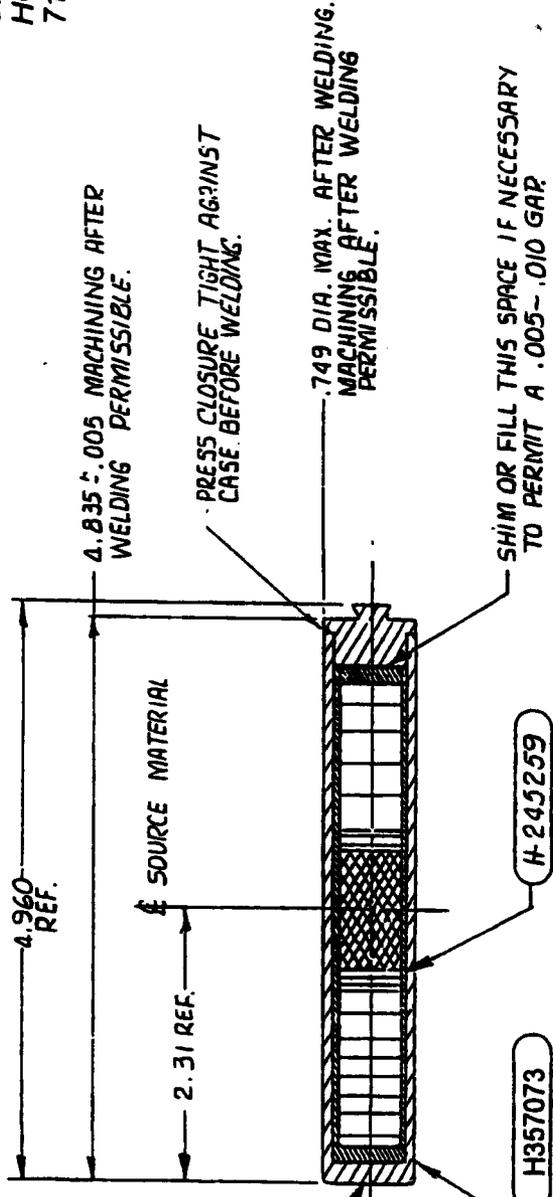
LTR	DESCRIPTION	DATE	BY
A	ECN 52900	9-1979	LVS
B	ECN 53537	1-16-80	GL

H-245258

FINISH OR TREATMENT		DET.	QTY.	MATERIAL
PROJECTS	MS2-M			SCHLUMBERGER WELL SERVICES A Division of Schlumberger Corporation HOUSTON, TEXAS
DO NOT COPY, DISPLAY, OR USE DRAWING WITHOUT AUTHORIZATION - DO NOT SCALE DRAWING				
UNLESS OTHERWISE SPECIFIED	GEN. V.H. ADAMS	6-8-76		NEUTRON SOURCE RADIOACTIVE
DRAWING	DES. GORSKY	6-8-76		Am Be SOURCE
REVISIONS	CHK. J.K.S.	7/17/80		10 CURIE
APPROVAL	ENGR. GORSKY	6-8-76		SEPARATE BILL MARK
	APP. K.E. Boyd	1/13/80		H-245258
	REV. H.B. Hays	1/13/80		REV B
WHERE USED				DATE
H-245267				APR 26 1979
				SHEET 1 OF 1

NOTES: 1. SERIAL NUMBER & IDENTIFICATION MARKING TO BE DONE BY SUPPLIER. SERIAL NUMBER TO BE SUPPLIED BY OFFICE OF CORPORATION RADIATION SAFETY OFFICER.

- 2. CONSTRUCTION & INSPECTION PER SH209906.
 - 3. SOURCE OUTPUT: $2.4 \pm 0.36 \times 10^7$ N/SEC
- MAX ACTIVITY: 19.99 CURIE



STAMP IDENTIFYING MARKS ON EACH END.

REVISIONS		
LTR	DESCRIPTION	DATE
A	ECN# N18950	2-9-98

ENGINEERING APPROVED
 SUPPLIER:
 GAMMATRON, INC.
 5703 ETHERIDGE
 HOUSTON, TX 77087
 713-641-3640

H357072

FINISH OR TREATMENT		DET. QTY.	MATERIAL
PROJECTS	NSR-MB		SCHLIMBERGER WELL SERVICES A Division of Schlumberger Technology Corporation HOUSTON, TEXAS
DO NOT COPY, DISPLAY, OR USE DRAWING WITHOUT AUTHORIZATION - DO NOT SCALE DRAWING			
UNLESS OTHERWISE SPECIFIED		DRN. J T MORRISON	2-9-98
TOLERANCES UNLESS OTHERWISE SPECIFIED		DES.	
FRACTIONS		CKD. J M BATES	2-9-98
DECIMALS		ENGR.	
ANGLES		APP. J M BATES	2-9-98
HOLE DIMENSIONS AND CLEARANCES UNLESS OTHERWISE SPECIFIED		REL./STDS	
		J M BATES	2-9-98
H329768		SCALLS	1/1
WHERE USED		RELEASED	
		BY	JT
		DATE	1/1

NEUTRON SOURCE RADIOACTIVE
 Am Be SOURCE (RECYCLED)
 10 CURIE
 H357072
 REV AA

SHEET SIZE 8



U.S. Department
of Transportation

East Building, PHH-23
1200 New Jersey Avenue SE
Washington, D.C. 20590

**Pipeline and
Hazardous Materials
Safety Administration**

CERTIFICATE NUMBER: USA/0135/S-96, Revision 11

ORIGINAL REGISTRANT(S):

Mr. Timothy McLaughlin
Radiation Safety Officer
Schlumberger
300 Schlumberger Drive
MD-121
Sugar Land, 77478
USA

Thomas Bracke
RSO
Schlumberger
Princeton Technology Center
20 Wallace Road
Princeton Junction, NJ 08550