



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/0135/S-96, REVISION 12

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.

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.

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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 April 30, 2026. Previous editions which have not reached their expiration date may continue to be used.

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 April 14, 2021 petition by Schlumberger, Sugar Land, TX, and in consideration of other information on file in this Office.

Certified By:



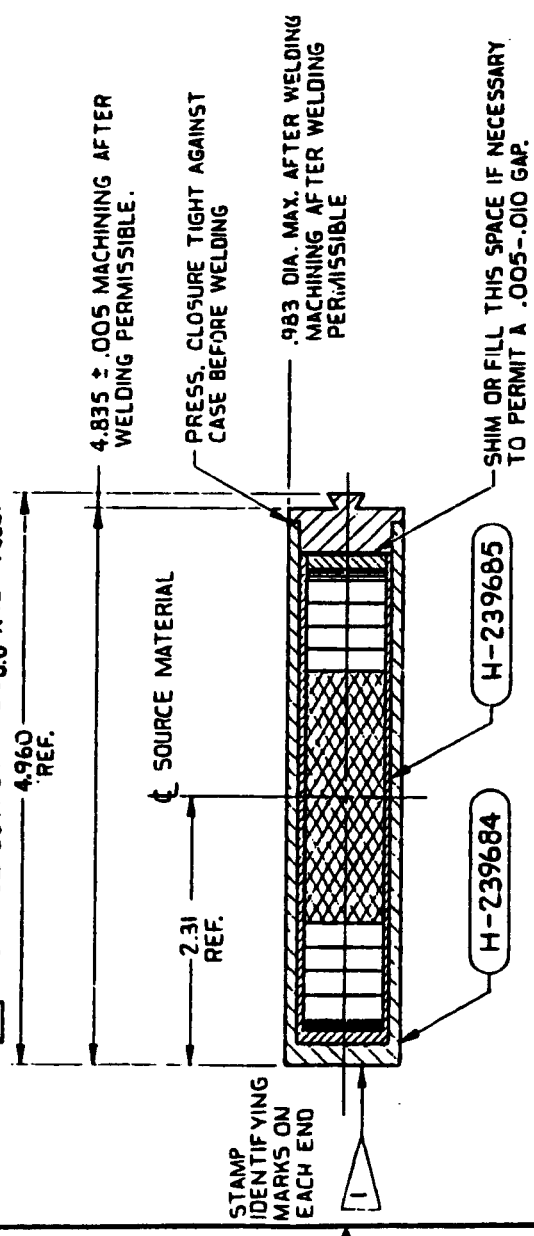
William Schoonover
Associate Administrator for Hazardous
Materials Safety

April 28, 2021
(DATE)

Revision 12 - Issued to extend the expiration date.

REVISIONS		
LTR	SCN NO.	DATE
A	52900	9-19-79
		BY
		LVS

- NOTES: 1 SERIAL NUMBER IDENTIFICATION STAMPING TO BE DONE BY SUPPLIER.
 SERIAL NUMBERING SYSTEM TO BE APPROVED BY SVIS
 2. CONSTRUCTION & INSPECTION PER H-209986
 3. ENGINEERING APPROVED FABRICATOR: MONSANTO RESEARCH CORP.
 NUMEC, APOLLO P. A.
 OR
 4. SOURCE ACTIVITY NOT TO EXCEED 19.99 CURIES.
 5. SOURCE OUTPUT: $4.0 \pm 0.6 \times 10^7$ γ /SEC.



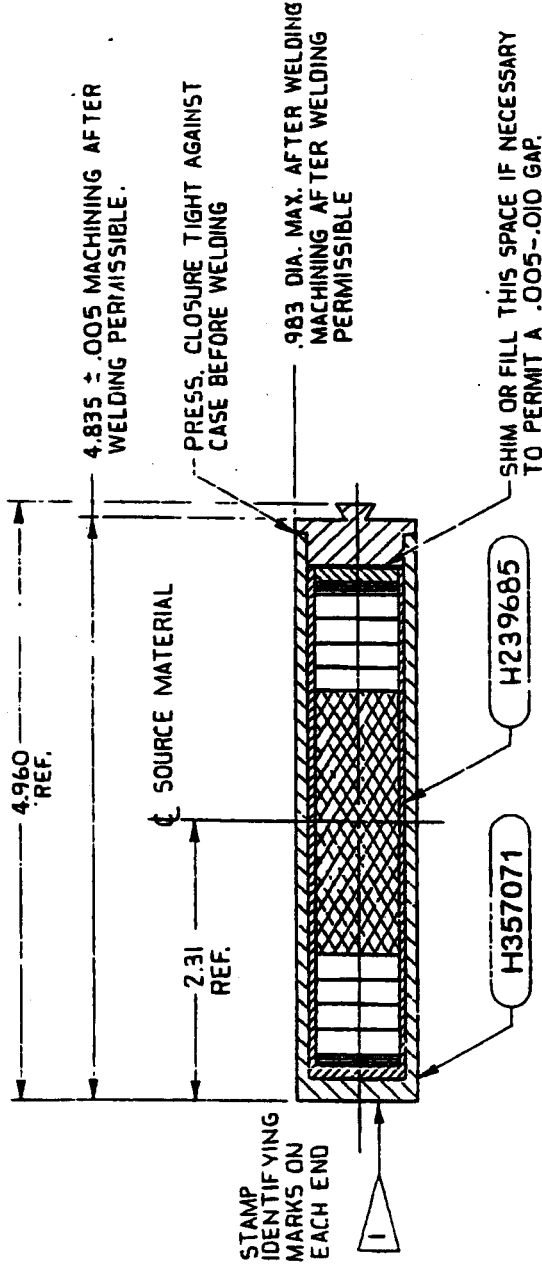
FILE CODE	FINISH OR TREATMENT	DET. QTY.	MATERIAL
NSR-L			SCHLUMBERGER WELL SERVICES A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION
UNLESS OTHERWISE SPECIFIED SURFACE FINISH	DO NOT COPY, DISPLAY, OR USE DRAWING WITHOUT AUTHORIZATION		
125 ✓	E. MARTINEZ 2-17-76		NEUTRON SOURCE RADIOACTIVE AM BE SOURCE, 16 CURIE
ANGLES	DES. CED.		
INSIDE CORNERS & MAX. DIMENSIONS ARE IN INCHES REMOVE BURRS, BREAK EDGES & .005 MIN. RADIUS APPLIED FINISH	APP. APPROVED BY		
	REV		
	H-239681		
	REV		
	A		
	RELEASED		
	SEP 2 1 10 79		

H-239690
WHERE USED

NOTES: 1

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

- CONSTRUCTION & INSPECTION PER SH209986
- SOURCE ACTIVITY NOT TO EXCEED 19.99 CURIES.
- SOURCE OUTPUT: $4.0 \pm 0.6 \times 10^7$ 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
ANGLES			(RECYCLED SOURCE)
INSIDE CORNERS MAX. DIMENSIONS ARE IN INCHES			
REMOVE BURRS, BREAK EDGES			
DO NOT COPY, DISPLAY, OR USE DRAWING WITHOUT AUTHORIZATION			
DRN. J.T. MORRISON 2-6-98			
DES. J.M. BATES 2-6-98			
ENGR. J.M. BATES 2-6-98			
APP. J.M. BATES 2-6-98			
REL/STOR. J.M. BATES 2-6-98			
APPLIED FINISH			
WHERE USED			
H329762			
125°			
H357071			
H239685			
1			
RELEASED			
H357070			
REV			
AA			

NOTES: 1

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

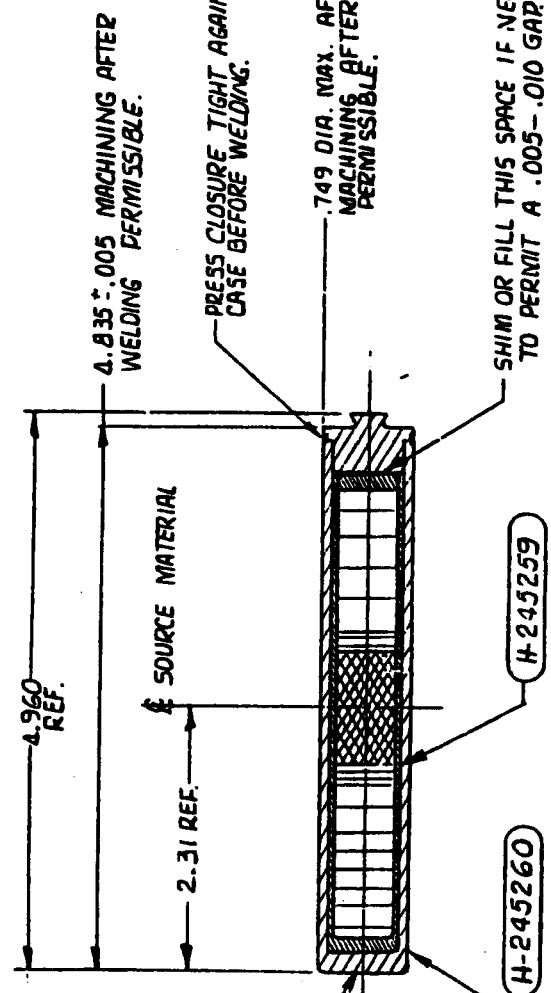
2. CONSTRUCTION & INSPECTION PER H-209986.

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

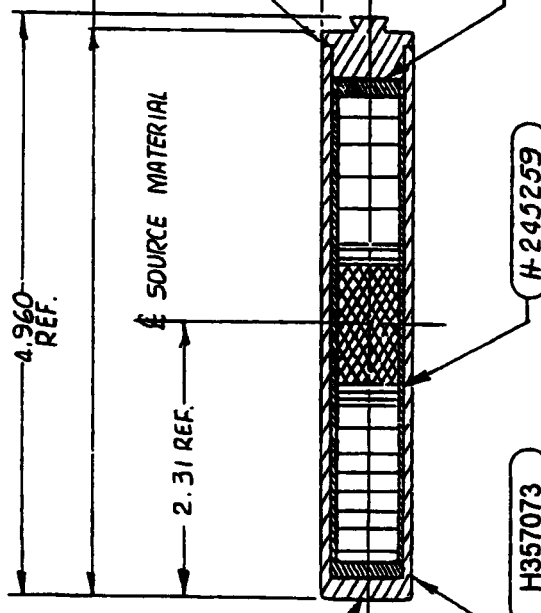
H-245258

FINISH OR TREATMENT		DET.	QTY.	MATERIAL
PROJECTS	NSA-M			SCHLUMBERGER WELL SERVICES A Division of HOUSTON, TEXAS
DO NOT COPY, DISPLAY, OR USE DRAWING WITHOUT AUTHORIZATION - DO NOT SCALE DRAWING				
UNLESS OTHERWISE SPECIFIED	DESIGNER	V.H. ADAMS	6-8-76	NEUTRON SOURCE RADIOACTIVE
TOLERANCES UNLESS OTHERWISE SPECIFIED	DRAWER	GORSKY	6-8-76	Am Be SOURCE
ASSEMBLER	DATE	J. J. K.	1/13/78	10 CURIE
	APP. ENGINEER	GORSKY	6-8-76	SEPARATE BILL MATL. <input checked="" type="checkbox"/>
	REV. DATE	K.E. Boyd	1/13/78	H-245258
	SCALE	H.B. Boyd	1/13/78	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.



4.835 ± .005 MACHINING AFTER
 WELDING PERMISSIBLE.

PRESS CLOSURE TIGHT AGAINST
 CASE BEFORE WELDING.

.749 DIA. MAX. AFTER WELDING.
 MACHINING AFTER WELDING
 PERMISSIBLE.

SHIM OR FILL THIS SPACE IF NECESSARY
 TO PERMIT A .005-.010 GAP.

REVISIONS

LTR	DESCRIPTION	DATE	BY
A	ECN# N18950	2-9-98	JTM

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 <small>A Division of Schlumberger Technology Corporation HOUSTON, TEXAS</small>
DO NOT COPY, DISPLAY, OR USE DRAWING WITHOUT AUTHORIZATION—DO NOT SCALE DRAWING			
UNLESS SPECIFIED OTHERWISE	DRN. J T MORRISON	2-9-98	NEUTRON SOURCE RADIOACTIVE Am Be SOURCE (RECYCLED) 10 CURIE
TOLERANCES UNLESS OTHERWISE SPECIFIED	DES. J M BATES	2-9-98	
APPROVALS	CHKD. J M BATES	2-9-98	
	ENGR. J M BATES	2-9-98	
WHERE USED		SCALLS	REV
H329768		1/1	AA
		RELEASED	H357072
		DATE	BY
		1/1	J

CHEST SIZE 8

10-1987



U.S. Department of
Transportation

**Pipeline and
Hazardous Materials
Safety Administration**

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

CERTIFICATE NUMBER: USA/0135/S-96

ORIGINAL REGISTRANT(S) :

Schlumberger
300 Schlumberger Drive
MD-121
Sugar Land, TX, 77478
USA