



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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY  
SPECIAL FORM RADIOACTIVE MATERIALS  
CERTIFICATE USA/0074/S-96, REVISION 9**

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

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 material.

1. Source Identification - 3M Model 4F6P. All sources authorized by this certificate shall have been manufactured prior to October 14, 1991.
2. Source Description - The source is a welded stainless steel double encapsulation. The diameter of the outer capsule is 12.7 mm (0.5 in.) and the diameter of the inner capsule is 3.17 mm (0.125 in.). The overall length ranges from 63.5 mm (2.5 in.) to 1867 mm (73.5 in.). The active length of the radioactive contents is 38.1 mm (1.5 in.) less than the overall length. The source shall be manufactured in accordance with attached 3M Drawing No. 12-1921-0855-8.
3. Radioactive Contents - No more than 0.37 TBq (10 Ci) of Cesium-137 in the form of 3M Brand Radiating Ceramic Microspheres. The activity per unit length in the inner capsule is uniform, and ranges from small values up to approximately 1.17 GBq/mm (0.8 Ci/in.).
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 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 November 30, 2021.

---

<sup>1</sup> "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.

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

**CERTIFICATE USA/0074/S-96, REVISION 9**


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 November 09, 2016 petition by J.L. Shepherd & Associates, San Fernando, CA, and in consideration of other information on file in this Office.

Certified By:



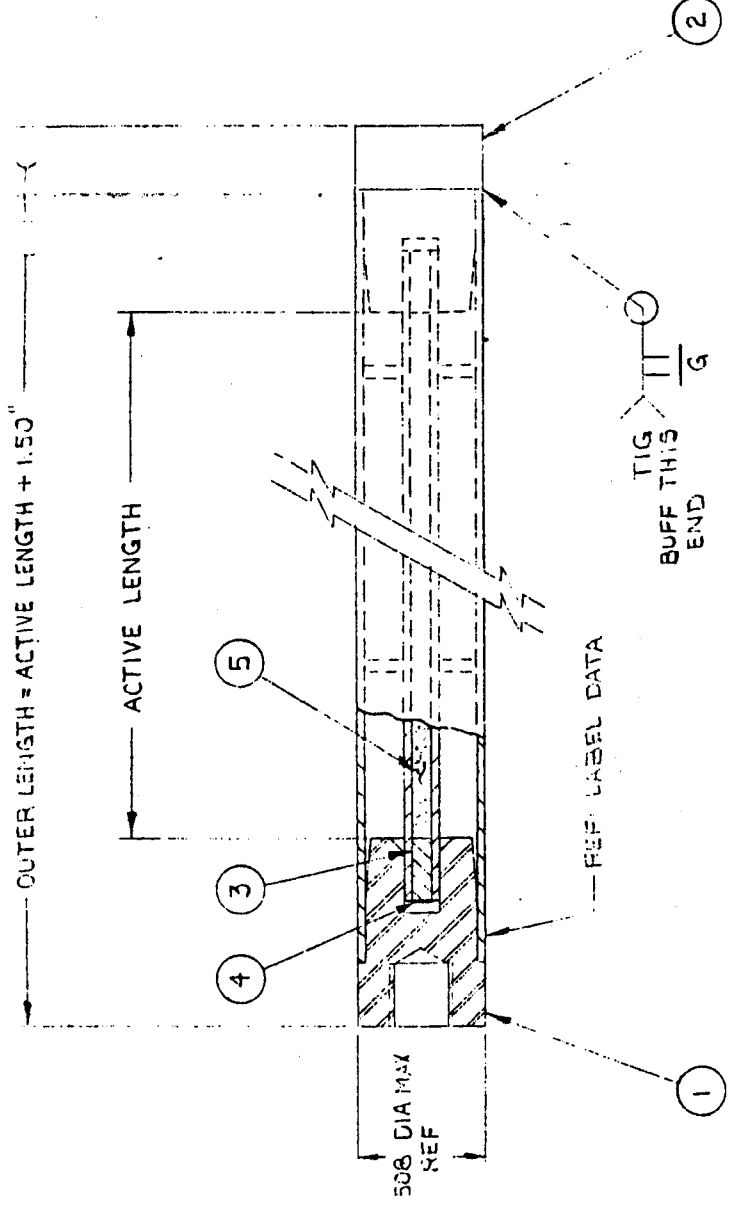
**Dec 08 2016**

(DATE)

 \_\_\_\_\_  
William Schoonover  
Acting Associate Administrator for Hazardous Materials Safety

Revision 9 - Issued to extend the expiration date.

ITEM	QTY	PART NO.	DESCRIPTION
1	1	B-12-1921-3559-3	ASSY OUTER TUBE
2	1	B-12-1921-3558-5	ASSY INNER TUBE
3	1	B-12-1921-3538-7	INNER PLUG
4	AR	26-1004-4253-7	BRAZE: SILVER CAD FREE ALL STATE 155
5	AR		ACTIVITY: 3M BRAND RADIATING MICROSPHERES CONTAINING Cs-137



**USED ON**

© 3M COPYRIGHT 1982  
This document is the copyrighted property of the 3M Company and may not be reproduced without 3M written permission or used for other than 3M authorized purposes.

TOLERANCE AND SURFACE ROUGHNESS UNLESS NOTED	
PLACES IN DIMENSION	MAXIMUM SURFACE ROUGHNESS
OPERATION	.000
MACHINING	±.1 ±.02 ±.008
CUT OFF (SAW, BRAM, SIEVERT)	±.1 ±.04
WELDING	± ± ±
ANGULAR DIM.	± ± ±
SCALE	2X

E	NOV 9, 82	CRZ	GD
	ECO 82-0080		W/P
	DRAWN FROM REV D		
ISSUE	ISSUE DATE AND CHANGE RECORD		
TITLE	ASSEMBLY STRIP SOURCE 4FGP		
PART NO.	12-1921-0355-8		



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/0074/S-96, Revision 9

**ORIGINAL REGISTRANT(S):**

Ms. Mary Shepherd  
Vice President  
J.L. Shepherd & Associates  
1010 Arroyo Ave.  
San Fernando, 91340-1822  
USA

**REGISTERED USER(S):**

Michael Fontenot  
Radiation Safety Officer  
Thermo Fisher Scientific  
1410 Gillingham Lane  
Sugar Land, TX 77478

Mr. Maurits Hartog  
RSO  
VEGA Americas, Inc.  
4241 Allendorf Dr.  
Cincinnati, OH 45209