



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

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE USA/0747/S-96, REVISION 3**

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 - Source Production & Equipment Company, Inc. Model M-Series Capsules.
2. Source Description - Cylindrical single encapsulations made of Type 304 stainless steel and plasma welded on one end and either solid or an end cap laser welded on the other end. A Type 301 or 304 stainless steel cable is laser welded to the solid end or end cap. Approximate outer dimensions of the capsules are 0.4 mm (0.02 in.) to 1.3 mm (0.05 in.) in diameter and 1.5 mm (0.06 in.) to 11.0 mm (0.43 in.) in length. Overall length, including cable, is 10 mm (0.39 in.) to 3000 mm (118.11 in.). Construction shall be in accordance with attached Source Production & Equipment Co. Inc. Drawing No. BM1904, Rev. 5.
3. Radioactive Contents - No more than either 1.11 TBq (30 Ci) of Selenium-75, 0.55 TBq (15 Ci) of Iridium-192, or 1.29 TBq (35 Ci) of Ytterbium-169. The Se-75 is in solid elementary form. The Ir-192 is in solid metallic form. The Yb-169 is in the form of a solid metal oxide or solid metal.
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 November 30, 2021.

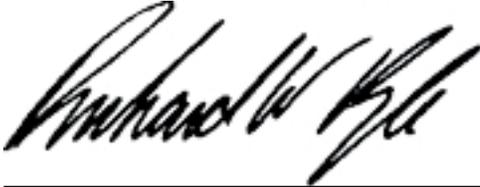
¹ "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency(IAEA), Vienna, Austria.

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

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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 10, 2016 petition by Source Production and Equipment Company, Inc., St. Rose, LA, and in consideration of other information on file in this Office.

Certified By:



Dec 08 2016
(DATE)

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William Schoonover
Acting Associate Administrator for Hazardous Materials Safety

Revision 3 - Issued to extend the expiration date.

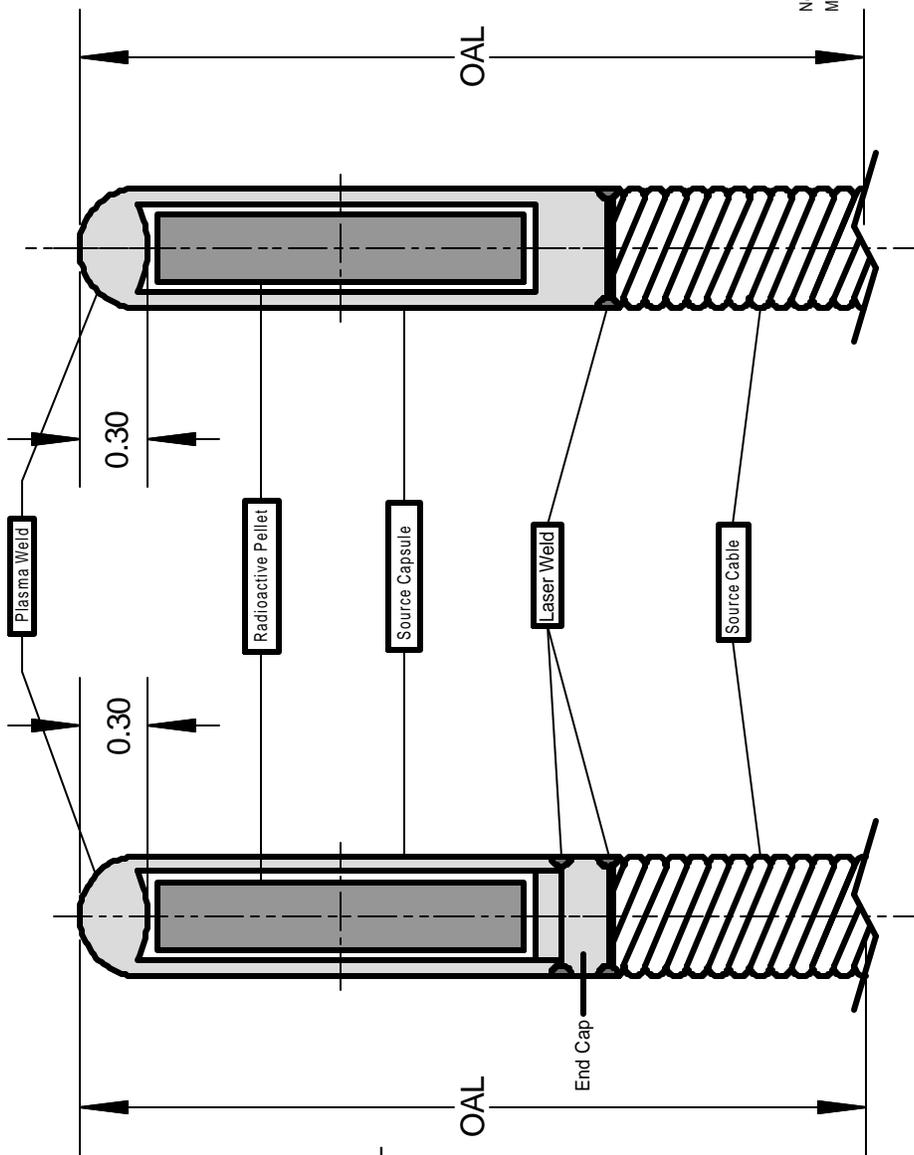
CONTROLLED COPY NO

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
(1)	INCORPORATED ECR#'s 080124-1. 1-24-08 1-25-08	1-24-08 1-25-08	KP KR
(2)	INCORPORATED ECR#'s 080201-3. 2-01-08	2-01-08	KP
(3)	INCORPORATED ECR#'s 080212-2. 2-22-08 2-25-08 2-25-08	2-22-08 2-25-08 2-25-08	KP GCM GCM
(4)	INCORPORATED ECR#'s 080310-1. 3-13-08 3-14-08	3-13-08 3-14-08	KP KR
(5)	INCORPORATED ECR#'s 080324-1. 4-04-08 4-08-08	4-04-08 4-08-08	KP KR

ALTERNATE

ORIGINAL



Dimension	Max	Min
Capsule Length	11.0	1.5
Capsule/End Cap Length	11.0	1.5
Pellet Length	10.1	0.4
Capsule Outside Diameter	1.3	0.4
Capsule Wall Thickness	0.3	0.1
Radioactive Pellet Diameter	1.1	0.2
OAL: Over All Length	3000	10

Component	EN-standard Steel no. k.h.s DIN	EN-standard Steel name	EN-standard Steel type	UNS
Capsule	1.4301	X5CrNi18-10	304	S30400
End Cap	1.4301	X5CrNi18-10	304	S30400
Source Cable	1.4310 or 1.4301	X10CrNi18-8 or X5CrNi18-10	301 or 304	S30100 or S30400

Note:
Maximum Radioactive Contents:
¹³⁷Iridium: 15 Ci
¹³⁷Ytterbium: 35 Ci
⁷⁵Selenium: 30 Ci

UNLESS OTHERWISE SPECIFIED
DIMENSIONS ARE IN MILLIMETERS
TOLERANCES ARE

DO NOT SCALE DRAWING

TREATMENT

NONE

FINISH

NONE

APPROVALS

DATE

DRAWN JIM III

04-09-07

CHECKED GCM

04-25-07

APPROVED GCM

04-25-07

QA CLASS Q-T

SOURCE PRODUCTION & EQUIPMENT CO., INC.
113 TEAL ST. ST. ROSE, LA 70087

MEDICAL SPECIAL FORM

SIZE

B

DWGNO

BM1904

SCALE: NTS

BM190405

REV

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SHEET 1 OF 1