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/0331/S, REVISION 5**

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[1] and the United States of America[2] for the transport of radioactive materials.

1. Source Identification - Gammatron Model AN-HP source capsule.

2. Source Description - Cylindrical double encapsulation made of ARMCO 17-4 (USN N05500) stainless steel and inert gas welded. Approximate exterior dimensions are either 12.7 mm (0.5 in.) in diameter and 12.7 mm (0.5 in.) in length; or 12.7 mm (0.5 in.) in diameter and 19.0 mm (0.75 in.) in length; or 15.9 mm (0.625 in.) in diameter and 15.9 mm (0.625 in.) in length; or 19.0 mm (0.75 in.) in diameter and 50.8 mm (2.0 in.) in length; or 26.7 mm (1.05 in.) in diameter and 109.2 mm (4.3 in.) in length. Construction shall be in accordance with attached Gammatron Drawing Nos. A2002, A2004, A2006, A2008, or A2012.

3. Radioactive Contents - No more than either 0.74 TBq (20.0 Ci) of Americium-241 or 0.0185 TBq (0.5 Ci) of Californium-252. The Am-241 is in oxide form and may be mixed with Beryllium. The Cf-252 is in the form of metal pellets or a wire.

4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations[1] 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 December 15, 2004.

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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/0331/S, REVISION 5

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 October 6, 2003 submitted by Gammatron, Houston, TX, and in consideration of other information on file in this Office.

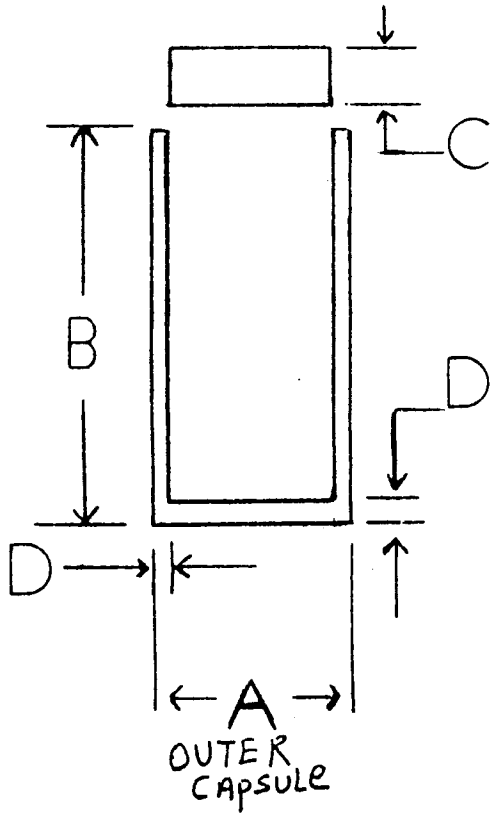
Certified by:

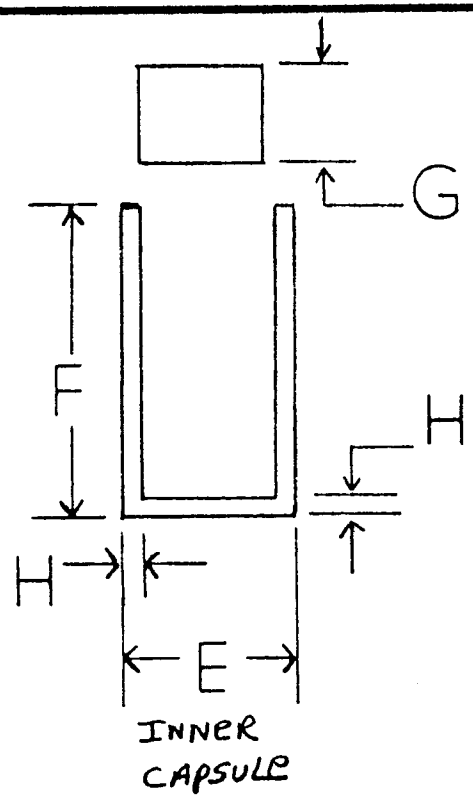
NOV 21 2003

Robert A. McGuire
for Associate Administrator for
Hazardous Materials Safety

(DATE)

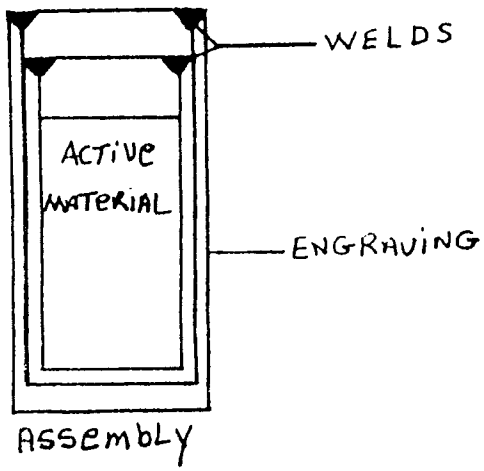
Revision 5 - Issued to extend the expiration date.





A	0.500 ± .005
B	0.500 ± .010
C	0.060 MINIMUM
D	0.040 MINIMUM
E	0.420 MAXIMUM
F	B. MINUS D AND C
G	0.100 MINIMUM
H	0.030 MINIMUM

USE THIS DRAWING WITH SPECIFICATION SHEET SS 2002



GAMMATRON

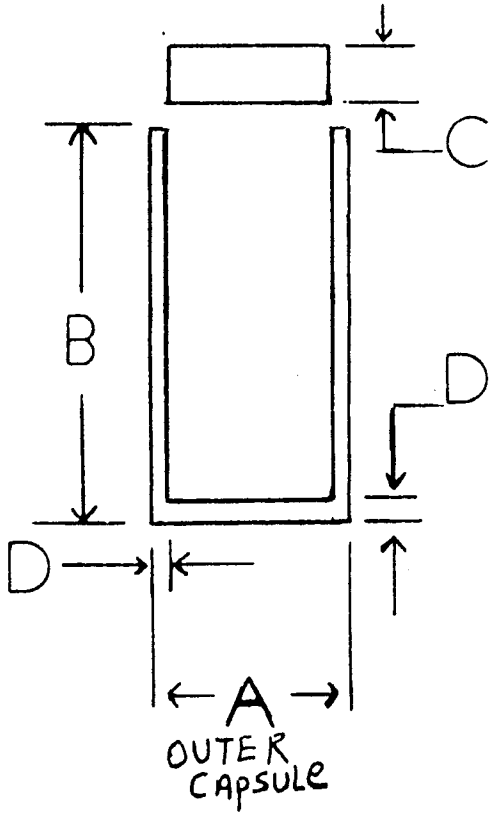
SCALE: NONE	APPROVED BY	DRAWN BY DCJ
DATE: 4/84		

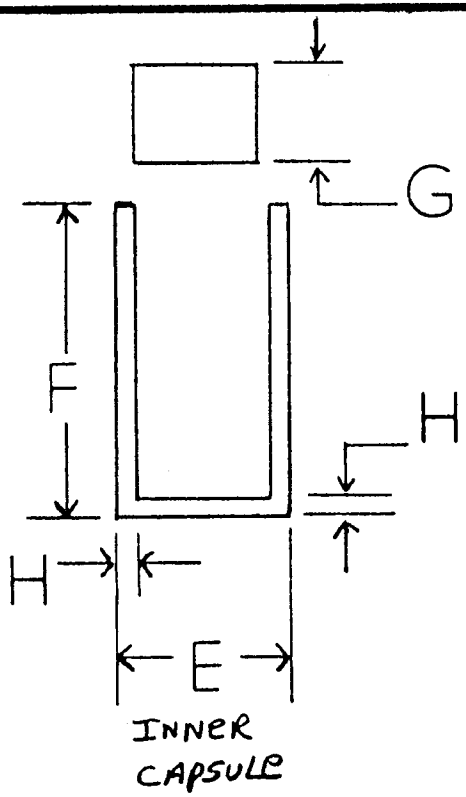
AN-HP

PHYSICAL SIZE — 0.5 X 0.5

DRAWING NUMBER A — 2002

NO. 1088A-8½x11

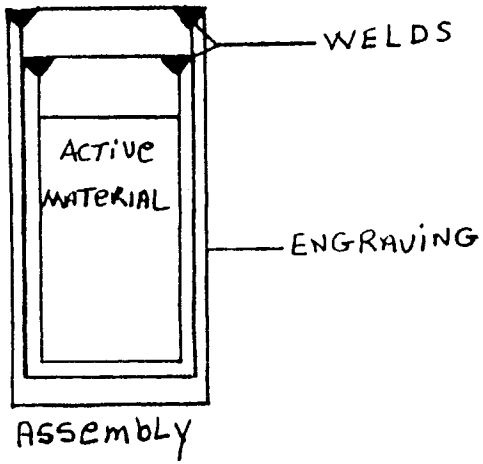




A	0.500 ± .005
B	0.750 ± .010
C	0.060 MINIMUM
D	0.040 MINIMUM
E	0.420 MAXIMUM
F	B MINUS D AND C
G	0.250 MINIMUM
H	0.030 MINIMUM

USE THIS DRAWING WITH SPECIFICATION SHEET SS 2004

Up to .250 may be added to dim. B for threaded extension to aid in handling. ¼-20 Thds Typ.



GAMMATRON

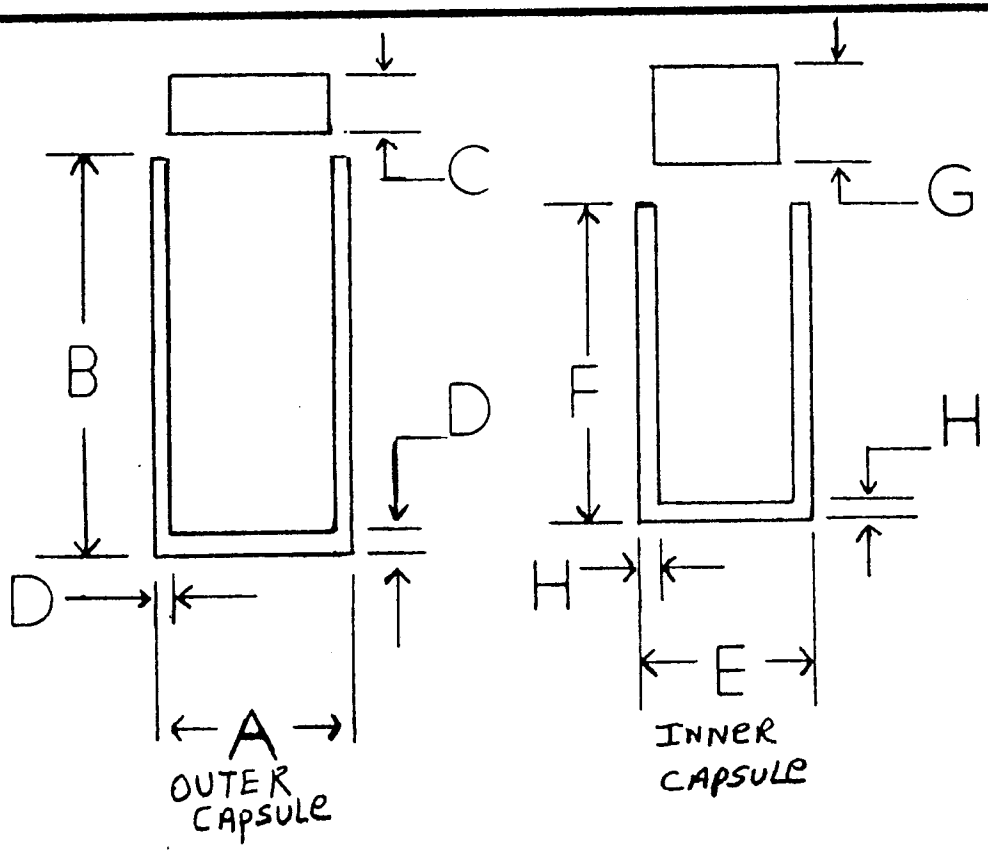
SCALE: NONE	APPROVED BY	DRAWN BY DCJ
DATE: 4/84		

AN-HP

PHYSICAL SIZE — ½"X3/4"

DRAWING NUMBER A — 2004

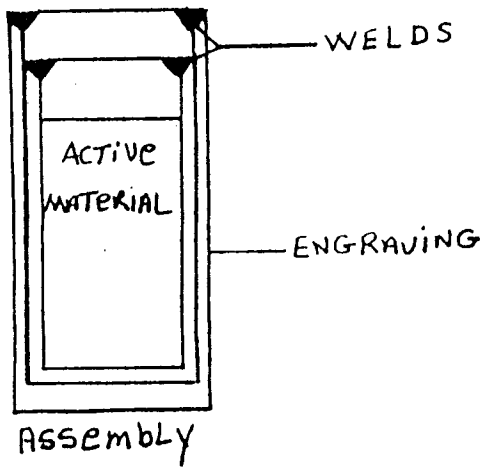
NO. 1854-6½X11



A	0.625 ± .005
B	0.625 ± .010
C	0.080 MINIMUM
D	0.060 MINIMUM
E	0.500 ± .005 / .000
F	B MINUS C AND D .50 Typ.
G	0.150 MINIMUM
H	0.040 MINIMUM

USE THIS DRAWING WITH SPECIFICATION SHEET SS 2006

Up to .800 may be added to Dim B for threaded extension.
3/4 -12 Thd .800 Long Typical



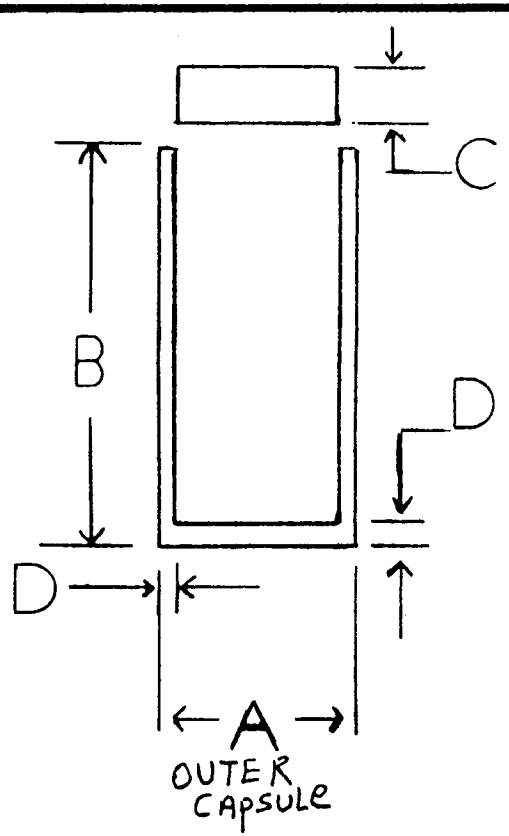
GAMMATRON

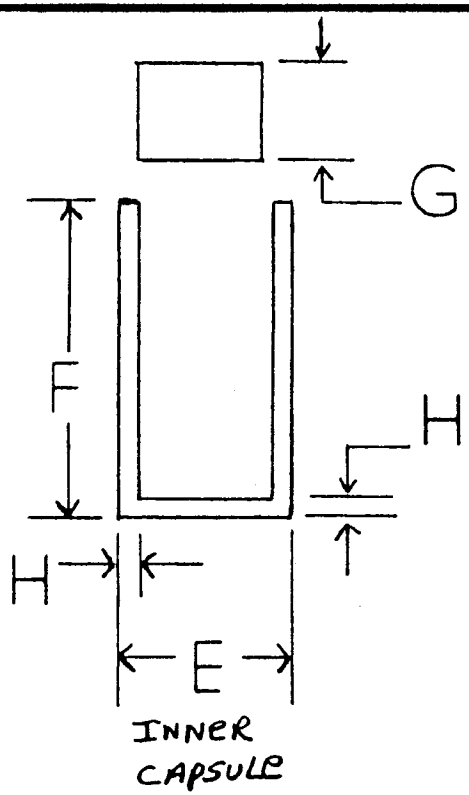
SCALE: NONE	APPROVED BY	DRAWN BY DCJ
DATE: 4/84		

AN-HP

PHYSICAL SIZE — 5/8"X5/8"	DRAWING NUMBER A — 2006

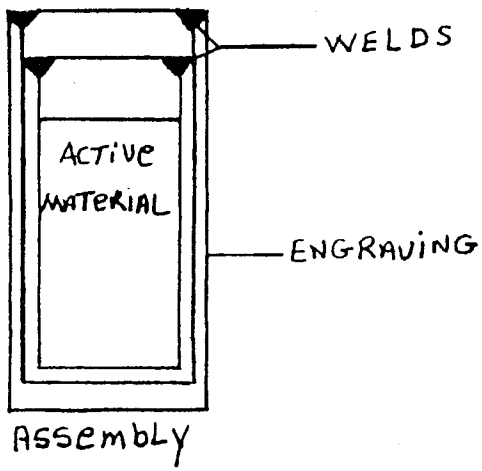
NO. 185A-8½X11





A	.750 ± .005
B	2.00 ± .010
C	0.100 MINIMUM
D	0.060 MINIMUM
E	.630 MAXIMUM
F	B MINUS D AND C
G	0.200 MINIMUM
H	0.050 MINIMUM

USE THIS DRAWING WITH SPECIFICATION SHEET SS 2008



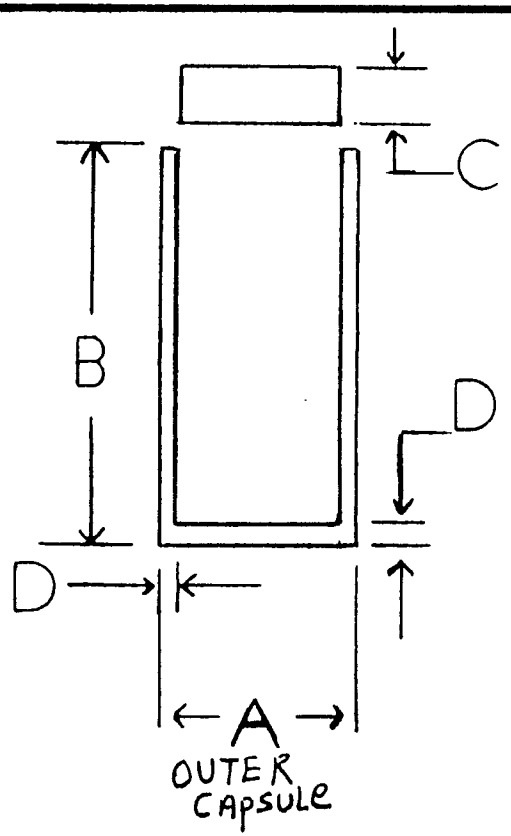
GAMMATRON

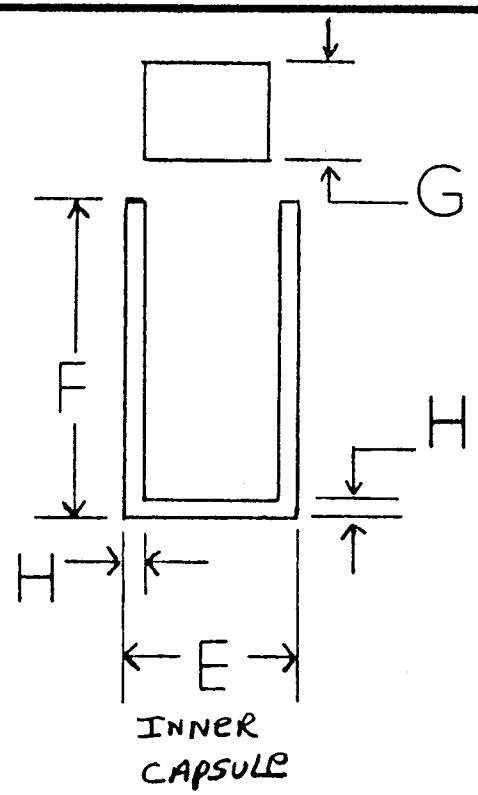
SCALE: NONE	APPROVED BY	DRAWN BY DCJ
DATE: 4/84		

AN-HP

PHYSICAL SIZE — 3/4"X2"	DRAWING NUMBER A — 2008

NO. 1081A-8½X11

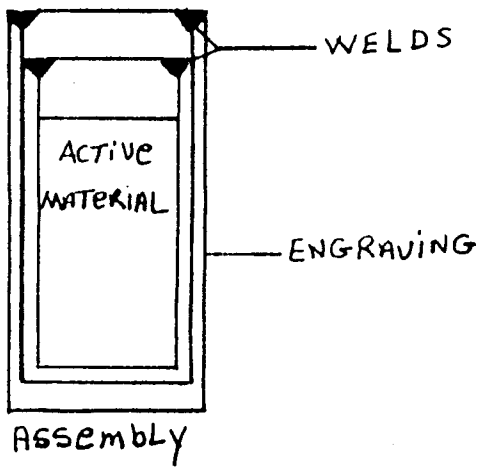




A	1.050 ± .010
B	4.300
C	.200 MINIMUM
D	.100 MINIMUM
E	.850 MAXIMUM
F	B MINUS D AND C
G	0.500 MINIMUM
H	0.060 MINIMUM

USE THIS DRAWING WITH SPECIFICATION SHEET SS 2012

NOTE: Dimension B may b increased by not more than 1.250" to allow for threaded extension, hexs, or flats to aid in handli



GAMMATRON

SCALE: NONE	APPROVED BY	DRAWN BY DCJ
DATE: 4/84		

AN-HP

PHYSICAL SIZE — 1.050 Dia 4.30 Long	DRAWING NUMBER A — 2012

NO. 108A-8½x11