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

**400 Seventh Street, S.W.
Washington, D.C. 20590**

**IAEA CERTIFICATE OF COMPETENT AUTHORITY
SPECIAL FORM RADIOACTIVE MATERIALS
CERTIFICATE NUMBER USA/0044/S, REVISION 3**

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 - Monsanto Research Corporation (MRC) Model 2322, Serial Number MRC-AmBe-3519.

2. Source Description - The source described by this certificate is a TIG-welded, doubly encapsulation constructed of Type 304 stainless steel, and measures 3.175 cm (1.25 in) in diameter by 10.80 cm (4.25 in) in length. Construction shall be in accordance with Monsanto Research Corporation Drawing No. A2322-AA00, Rev. 2 (attached).

3. Radioactive Contents - This neutron source consists of not more than 0.11 TBq (3.0 Ci) of Am-241 as americium oxide and beryllium powder.

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 November 30, 2010.

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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/0044/S, Revision 3

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 July 28, 2005, and subsequent data submitted by General Atomics, San Diego, CA, and in consideration of other information on file in this Office.

Certified by:

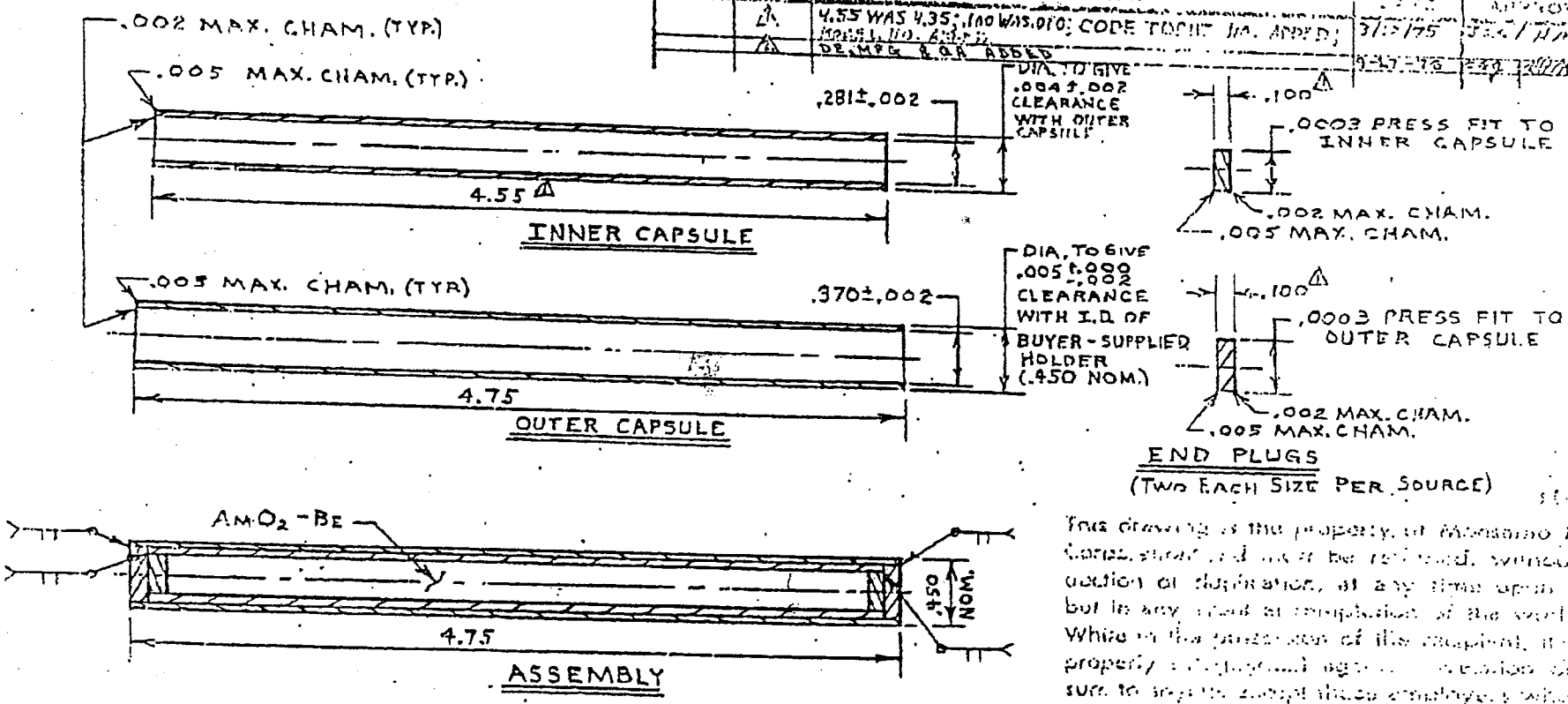
NOV 21 2005

Robert A. McGuire
Acting Associate Administrator for
Hazardous Materials Safety

(DATE)

Revision 3 - Issued to extend the expiration date.

REVISIONS						
ZONE	SYM	DESCRIPTION	DATE	APPROVAL		
	1	4.55 WAS 4.35; .100 WAS .010; CODE TOPIC NO. ADDED; MODEL NO. ADDED	3/12/75	[illegible]		
	2	DE, MFG & QA ADDED	9-27-76	[illegible]		



NOTICE

This drawing is the property of Monsanto Research Corporation and must be returned, without reproduction or duplication, at any time upon request, but in any event at completion of the work for which [illegible]. While in the possession of the recipient, it must be properly [illegible] [illegible] sure to [illegible] [illegible] employees who require it for the [illegible] [illegible] [illegible] [illegible] confidential [illegible]

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES:
DECIMALS
.XX ± .02
.XXX ± .005
.XXXX BASIC
ALL SURFACES
FRACTIONS ±
ANGLES ± 30'

MATERIAL 304 STL. STEEL

FINISH

APPD		
QA APPD	[illegible]	9/27/76
MFG APPD	[illegible]	9-23-71
DE APPD	EFG	9-20-71
CHECKED		
DRAWN	EFG	9-20-71

MONSANTO RESEARCH CORPORATION

FOR ENGINEERING DESIGN

NEUTRON SOURCE, MODEL 2322

SCALE FULL | WT CALC | CODE IDENT NO.

DWG NO. A2322-AA00 | REV 2