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/0080/S, REVISION 4**

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 capsule identified by MRC Drawing No. SK195-2A0 (a prototype of Model No. 24132).

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 attached Monsanto Research Corporation Drawing No. SK195-2A0.

3. Radioactive Contents - This neutron source consists of not more than 0.395 TBq (10.67 Ci) of Am-241 as americium oxide powder, mixed with lithium hydride 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. Restrictions -

   a. This certificate does not apply to any source manufactured according to MRC Drawing No. SK195-2A0 after January 1, 2000.

   b. This certificate remains valid only insofar as no object is ever inserted in the tap hole at the base of the capsule.

6. Expiration Date - This certificate expires June 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/0080/S, Revision 4

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 December 27, 2004, and February 16, 17, and 23, 2005 submitted by Oak Ridge National Laboratory, Oak Ridge, TN, and in consideration of other information on file in this Office.

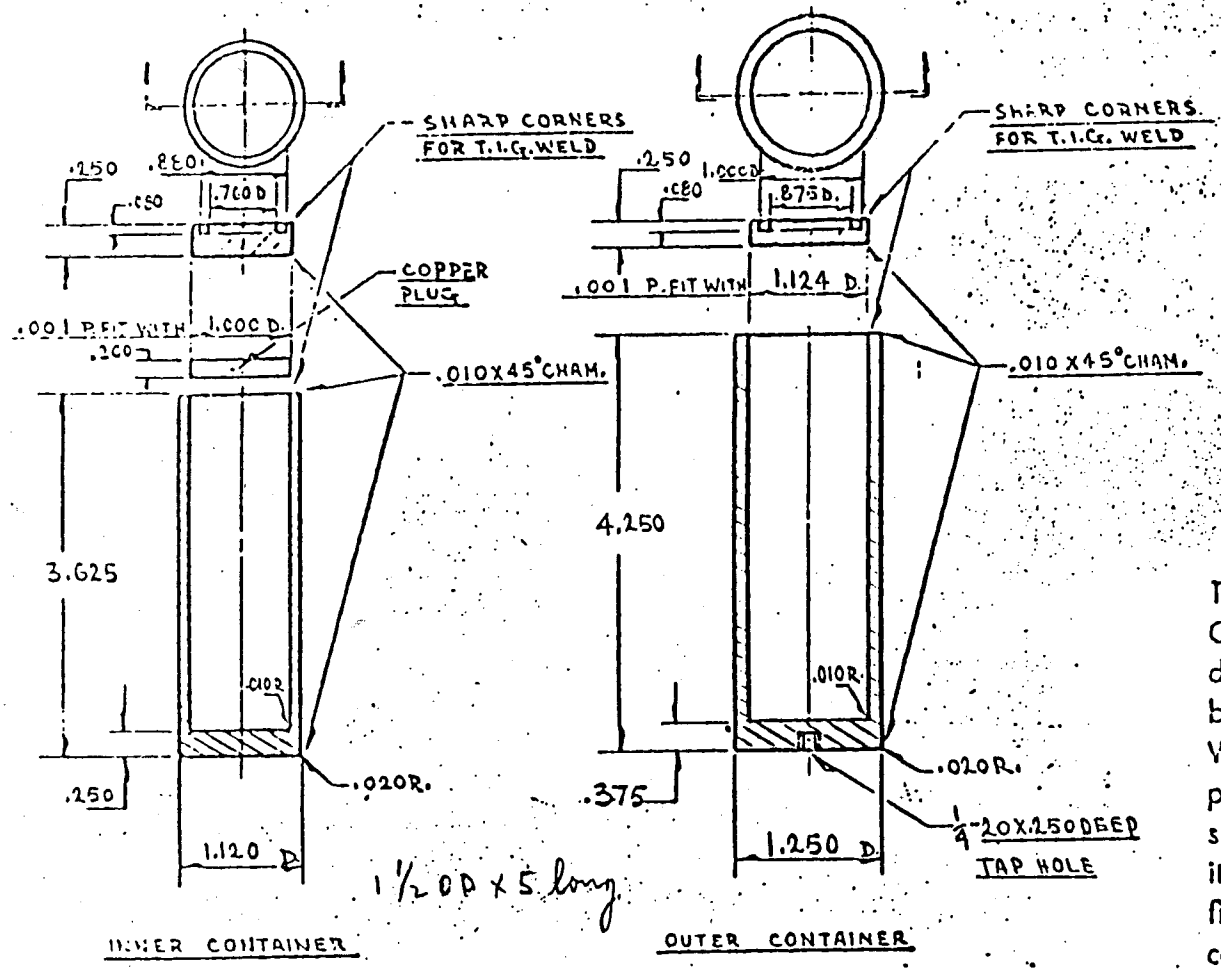
Certified by:

JUN 28 2005

Robert A. McGuire
Acting Associate Administrator for
Hazardous Materials Safety

(DATE)

Revision 4 - Issued to extend the expiration date.



NOTE:

1. DIA. CLEARANCE BETWEEN INNER AND OUTER CONTAINER .004 NOMINAL .002 MINIMUM.
2. WELD PENETRATION .050 DESIR AND .040 MINIMUM.

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 or job. While in the possession of the recipient, it must be properly safeguarded against revelation or disclosure to anyone except those employees who require it for the work or job. The recipient must keep confidential, and require his (its) employees to keep confidential, the information contained hereon.

UNLESS OTHERWISE SPECIFIED.
DIMENSIONS ARE IN INCHES
TOLERANCES:
DECIMALS
.XX = ±.02
.XXX = ±.005
.XXXX BASIC
FRACTIONS ± 1/64
ANGLES ± 30'
ALL SURFACES 32
MATERIAL 304 S.STL. & AS NOTED

APPD		
APPD		
APPD	RBM	8-14-72
APPD	EJO	8-11-72
CHECKED		
DRAWN	A.R.	8-11-72
SIGNATURE		DATE

MONSANTO RESEARCH CORPORATION
DAYTON LABORATORY
DAYTON, OHIO

Am-Li NEUTRON SOURCE (5×10^5 n/s)

STANDARD DRAWING

DWG NO. SK 195-2A0

SCALE | WT CALC ACT. | CODE IDENT NO.

SHEET OF