U.S. Department of Transportation
Research and Special Programs Administration

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

IAEA CERTIFICATE OF COMPETENT AUTHORITY

Special Form Radioactive Material Encapsulation

Certificate Number USA/0241/S
Revision 0

This certifies that the encapsulated source, as described, when loaded with the authorized radioactive contents, has been demonstrated to meet the regulatory requirements for special form radioactive material as prescribed in IAEA 1/ and USA 2/ regulations for the transport of radioactive materials.

I. Source Description - The source described by this certificate is identified as Monsanto Research Corporation Model No. 24128 which is a tungsten-inert-gas welded double encapsulation constructed of 304 stainless steel and measures 2.25" in diameter by approximately .37" in height.

II. Radioactive Contents - The authorized radioactive contents of this source consist of not more than 12 curies of Americium-241 or Plutonium-238 as oxide powder mixed with a neutron production target powder.

III. This certificate, unless renewed, expires December 31, 1986.

This certificate is issued in accordance with paragraph 803 of the IAEA Regulations 1/, and in response to the November 23, 1981 petition by Monsanto Research Corporation and in consideration of the associated information therein.

Certified by:

R. R. Rawl — December 28, 1981 (DATE)

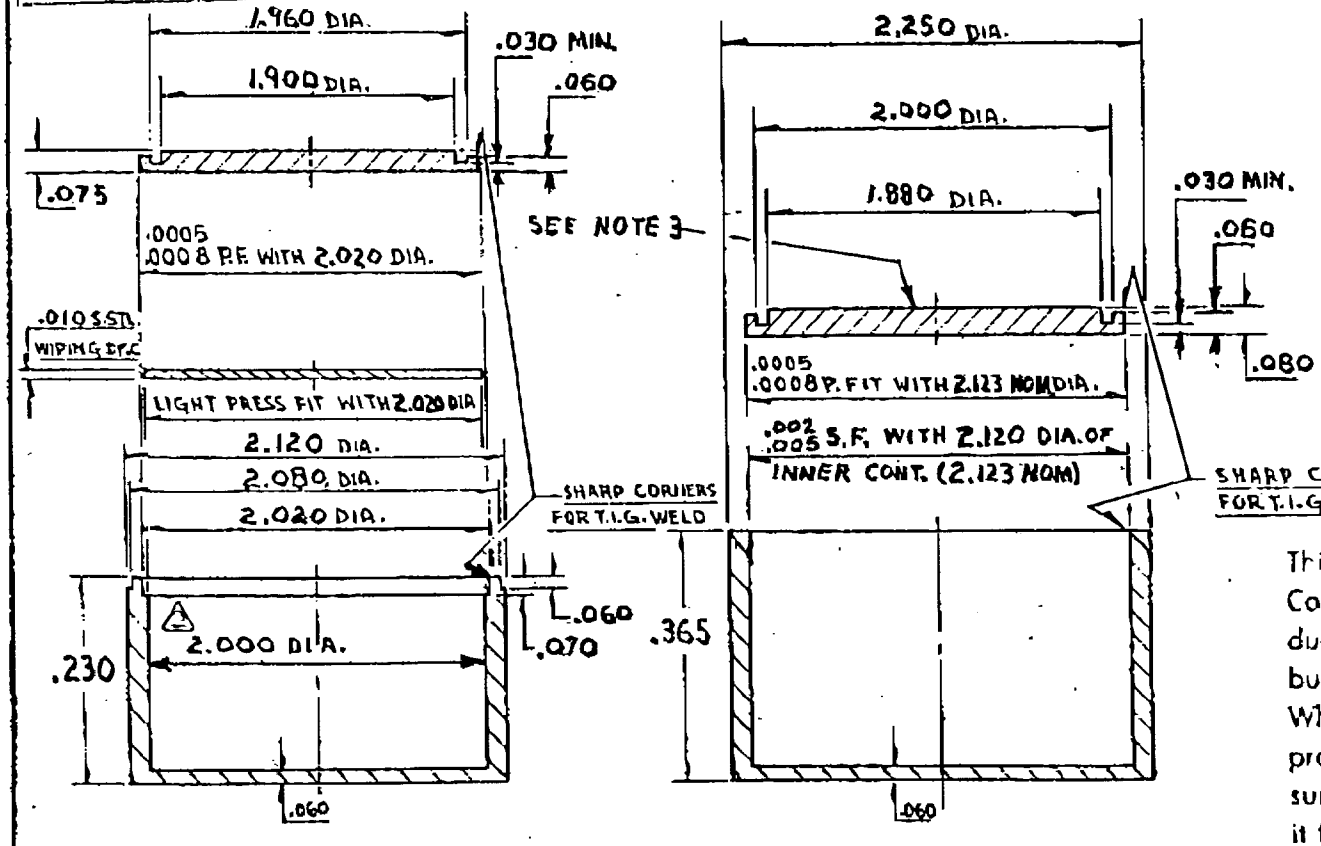
R. R. Rawl
Chief, Radioactive Materials Branch
Office of Hazardous Materials Regulation
Materials Transportation Bureau

1/ "Safety Series No. 6, Regulations for the Safe Transport of Radioactive Materials, 1973 Revised Edition", published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

2/ Title 49, Code of Federal Regulations, Part 170-178, USA.

RELEASED FOR MANUFACTURING
For M. O. NO. 822-90-20
Contract No. —
Date 4-2-81 By [signature]

REVISIONS				DE	MFG	QA
ZONE	SYM	DESCRIPTION	DATE	APPROVAL		
	1	DE, MFG, QA AND MIN WELD PENETRATION ADDED	3-17-76	[signature]	[signature]	[signature]
	2	REMOVE DIMENSIONED LINE	11-9-80	[signature]	[signature]	[signature]



NOTES:

1. DIA. CLEARANCE BETWEEN INNER AND OUTER CONTAINER .002 MIN. .005 MAX.
2. BREAK ALL CORNER .010 – .020 UNLESS OTHERWISE SPECIFIED.
3. ENGRAVE IDENTIFICATION DATA AT LOCATION SHOWN (INCLUDE ISOTOPE, ACTIVITY, & ASSAY DATE AS MIN.)
4. MINIMUM WELD PENETRATION .051"

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES:
DECIMALS: .XX = ± .XXX = ±.005 .XXXX BASIC
FRACTIONS: ±
ANGLES: ± 30'
ALL SURFACES 32

MATERIAL 304 S. STL.
FINISH

APPD		
QA APPD	[signature]	3-17-76
MFG APPD	[signature]	2-4-76
DE APPD	[signature]	2-4-76
CHECKED		
DRAWN	[signature]	2-4-76

MONSANTO RESEARCH CORPORATION
DAYTON LABORATORY
DAYTON, OHIO

RELEASED FOR MANUFACTURING

NEUTRON SOURCE CONTAINER

REPLACES SKETCH BY E.F.I. DATED 1-3-72, REV. 2 (019-3A1-A)

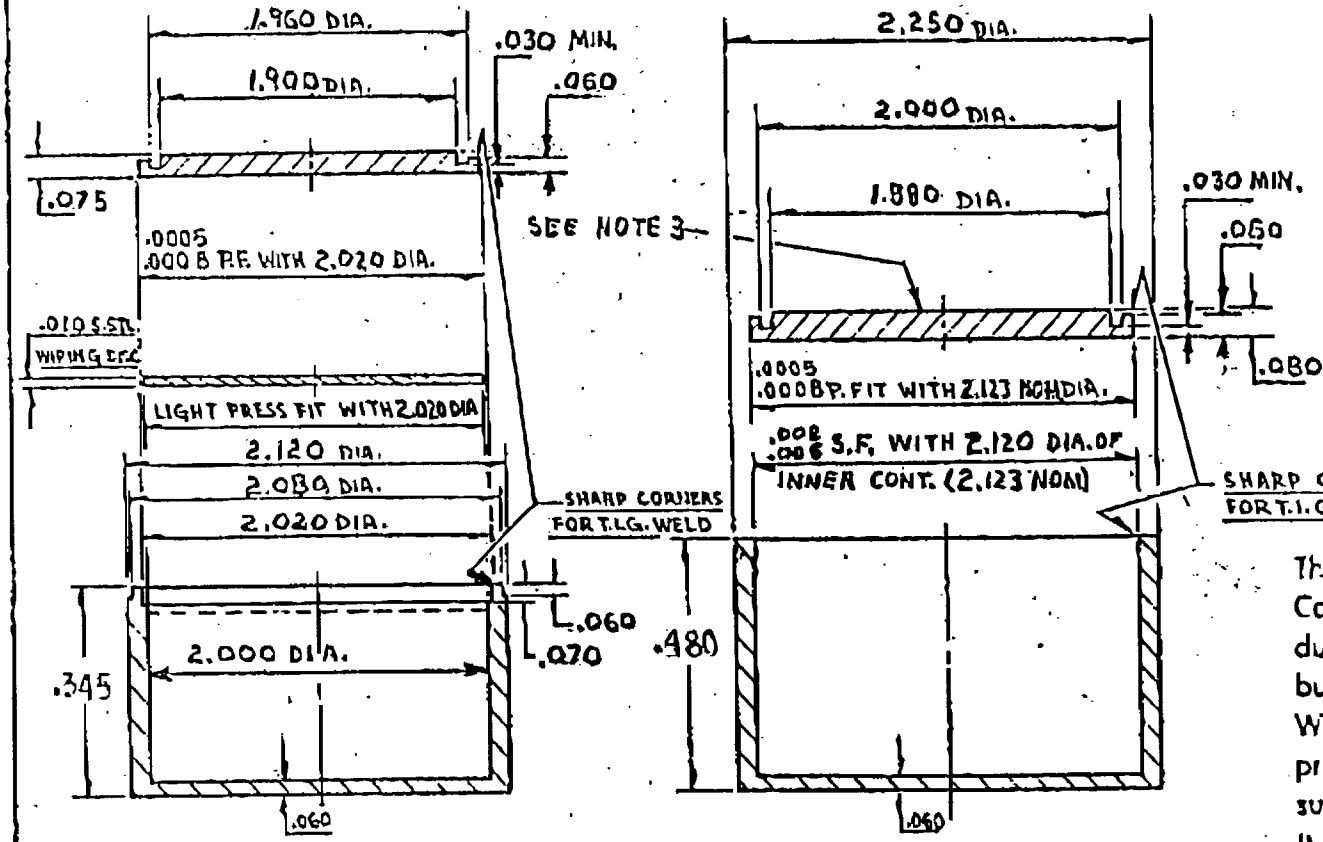
DWG. NO. A24128-AA00 REV. 2

RELEASED FOR MANUFACTURING
For M. O. No. 82.20.20
Contract No. —
Date 4-7-81 By [illegible]

REVISIONS

ZONE	SYM	DESCRIPTION	DATE	DE APPROVAL	MFG APPROVAL	QA APPROVAL
	1	D.E. MFG. QA - ADDED	3-17-76	EJQ	[illegible]	[illegible]

DWG. NO.



NOTES:

1. DIA. CLEARANCE BETWEEN INNER AND OUTER CONTAINER .002 MIN., .005 MAX.
2. BREAK ALL CORNER .010 - .020 UNLESS OTHERWISE SPECIFIED.
3. ENGRAVE IDENTIFICATION DATA AT LOCATION SHOWN (INCLUDE ISOTOPE, ACTIVITY, & ASSAY DATE AS MIN.)
4. MINIMUM WELD PENETRATION 80%.

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES
TOLERANCES:
DECIMALS: .XX = ± ; .XXX = ±.005 ; .XXXX BASIC
FRACTIONS: ±
ANGLES: ± 30'
ALL SURFACES 32

MATERIAL 304 S. STL.
FINISH
NEXT ASSY
USED ON

APPD		
Q.A APPD	[illegible]	3-17-76
MFG APPD	[illegible]	4-30-75
DE APPD	EJQ	4-30-75
CHECKED		
DRAWN	EJQ	4-30-75

MONSANTO RESEARCH CORPORATION
DAYTON LABORATORY
DAYTON, OHIO

RELEASED FOR MANUFACTURING

NEUTRON SOURCE CONTAINER

DWG NO A24143-AA00
REV 1

CALC
CORRESPONDENCE NO.