



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/0657/S, REVISION 1**

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 Agency¹ and the United States of America² for the transport of radioactive materials.

1. Source Identification - AEA Technology QSA, Inc. Model X.103.
2. Source Description - Cylindrical single encapsulation made of Type 316 stainless steel and tungsten inert gas seal welded. Approximate exterior dimensions are 2.9 mm (0.11 in.) in diameter and 30.4 mm (1.2 in.) in length. Minimum wall thickness is 0.225 mm (0.009 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA62475, Rev. A.
3. Radioactive Contents - No more than 5.18 GBq (140.0 mCi) Americium-241. The Am-241 is in oxide form and combined with molten glass and cooled to form a glass bead.
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 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 31, 2008. On February 28, 2004, this certificate supersedes, in its entirety, all previously issued revisions of USA/0657/S.

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.

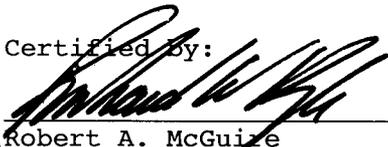
2 Title 49, Code of Federal Regulations, Parts 100 - 199, United States of America.

CERTIFICATE USA/0657/S, REVISION 1

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 January 5, 2004 submitted by AEA Technology QSA, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified by:

JAN 29 2004



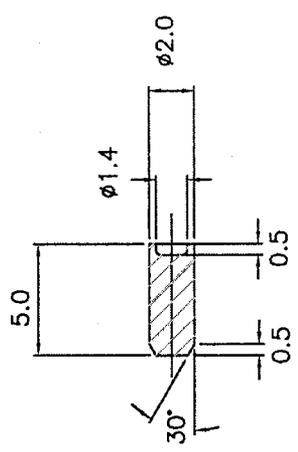
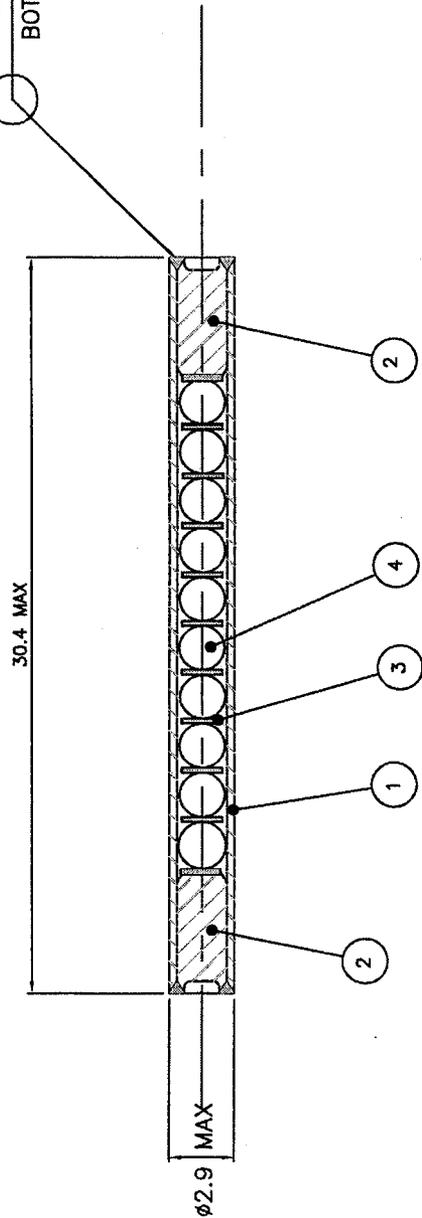
Robert A. McGuize
Associate Administrator for
Hazardous Materials Safety

(DATE)

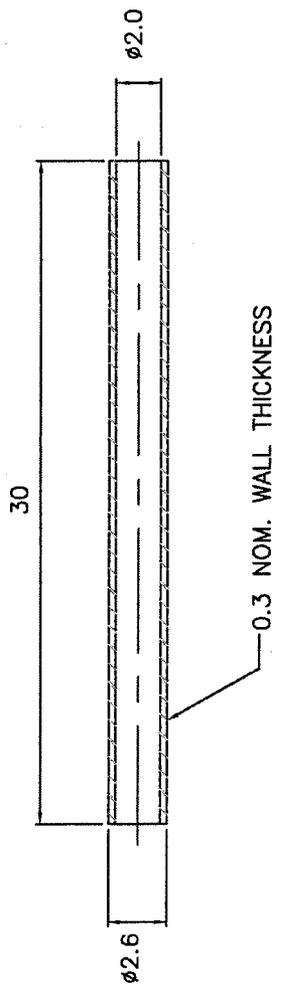
Revision 1 - Issued to increase activity and correct wall thickness.

ITEM No.	DESCRIPTION	No. OFF
1	BODY	1
2	PLUG	2
3	CERAMIC FIBRE PACKING	A/R
4	Am24T GLASS BEADS ϕ 1.9 MM	A/R

TIG WELD
BOTH ENDS



PLUG
MATERIAL - 316/316L STAINLESS STEEL



BODY
MATERIAL - 316/316L STAINLESS STEEL



APPROVALS	
<i>R. J. Moran</i>	18 NOV 03
<i>S. P. ...</i>	21 NOV 03

DIMENSIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES:	
X	± 0.5
X.X	± 0.1
X.XX	± 0.05
ANGULAR	$\pm 5'$
INTERNAL	$M7$
EXTERNAL	$N7$

TITLE X103 CAPSULE ASSEMBLY

DESCRIPTIVE
DRAWING

SIZE	DWG. NO.	REV
A	RBA62475	A

ERF # 710

SCALE: NONE SHEET 1 OF 1