



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/0652/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 Agency<sup>1</sup> and the United States of America<sup>2</sup> for the transport of radioactive materials.

1. Source Identification - AEA Technology QSA, Inc. Model XN.214.
2. Source Description - Cylindrical single encapsulation made of stainless steel and tungsten inert gas or laser seal welded. Approximate exterior dimensions are 20.5 mm (0.81 in.) in diameter and 100.6 mm (3.96 in.) in length. Minimum wall thickness is 1.4 mm (0.05 in.). Construction shall be in accordance with attached AEA Technology QSA, Inc. Drawing No. RBA61016, Rev. B.
3. Radioactive Contents - No more than 925 GBq (25.0 Ci) of Americium-241 in the form of an oxide mixed with a Beryllium powder and pressed into a solid pellet.
4. Quality Assurance - Records of Quality Assurance activities required by Paragraph 310 of the IAEA regulations<sup>1</sup> 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 August 15, 2008. On December 31, 2003, this certificate supersedes, in its entirety, all previously issued revisions of USA/0652/S.

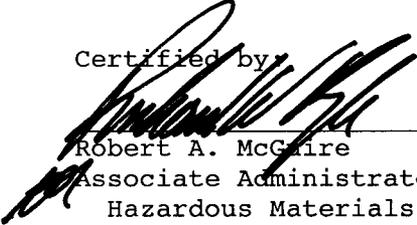
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1 "Regulations for the Safe Transport of Radioactive Material, 1996 Edition (Revised), No. TS-R-1 (ST-1, Revised)," published by the International Atomic Energy Agency (IAEA), Vienna, Austria.

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

**CERTIFICATE USA/0652/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 November 18, 2003 submitted by AEA Technology QSA, Inc., Burlington, MA, and in consideration of other information on file in this Office.

Certified by:

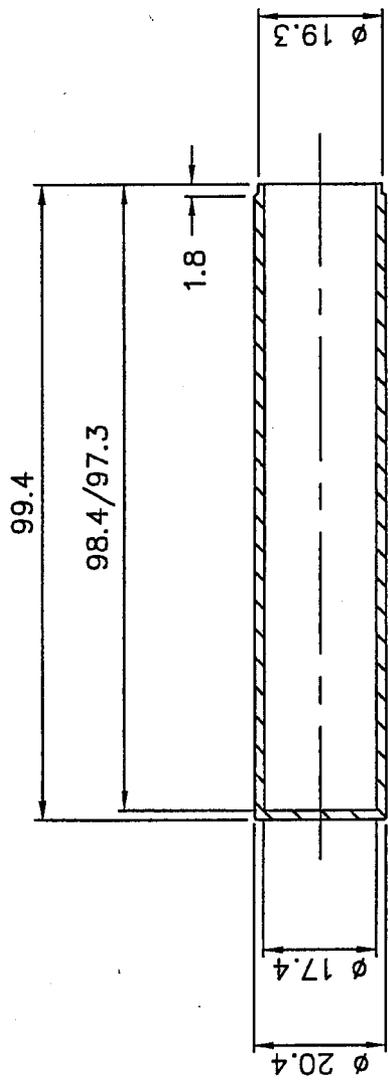
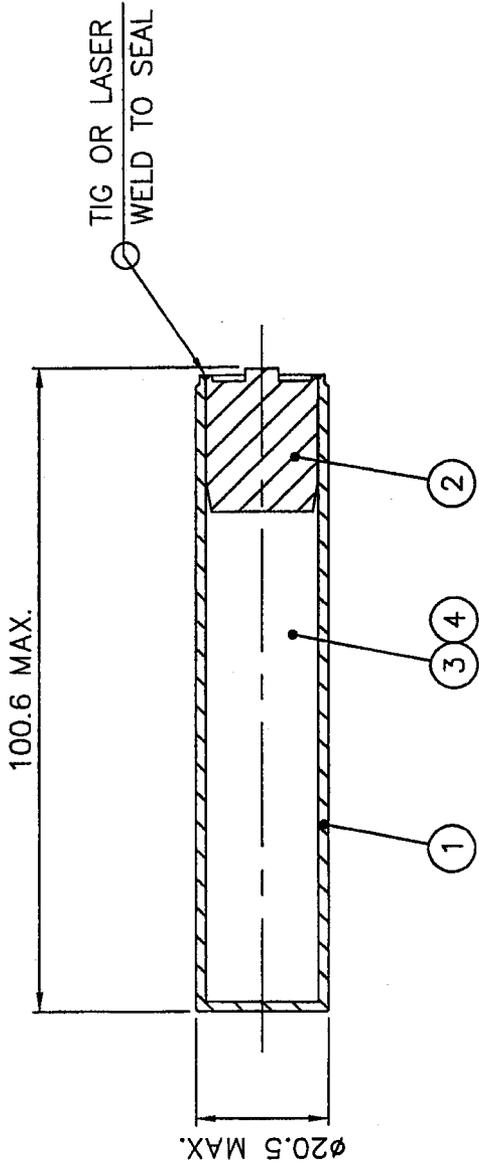
  
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Robert A. McGuire  
Associate Administrator for  
Hazardous Materials Safety

NOV 20 2003

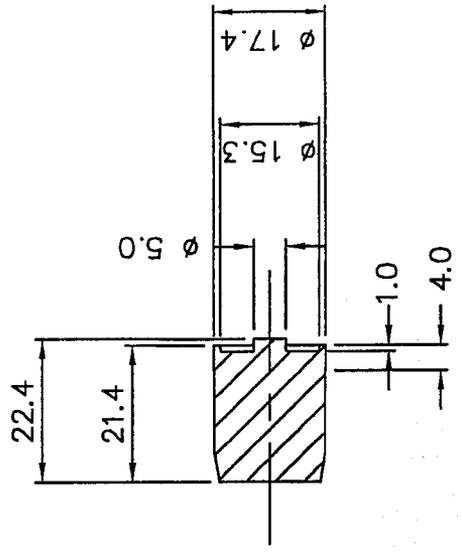
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(DATE)

Revision 1 - Issued to allow use of optional ceramic fiber packing material and modify precision of capsule cavity depth.

ITEM No.	DESCRIPTION	QTY.
1	SHEATH BODY STAIN.STL.	1
2	SHEATH LID STAIN.STL.	1
3	ACTIVE MATERIAL	AR
4	CERAMIC FIBER (OPTIONAL)	AR



ITEM 1



ITEM 2



APPROVALS	
<i>R. J. [Signature]</i>	17 Nov 03
<i>[Signature]</i>	18 Nov 03

DESIGNATIONS IN MILLIMETERS UNLESS OTHERWISE STATED TOLERANCES:  
 X ±0.5  
 XX ±0.1  
 XXX ±0.05  
 ANGULAR ±5°  
 INTERNAL  $\frac{M}{N}$   
 EXTERNAL  $\frac{N}{M}$

TITLE		REVISIONS	
XN214 CAPSULE ASSEMBLY		REV	B
SIZE	DWG. NO. RBA61016	SHEET 1 OF 1	
A	SCALE: NONE		

ERF # 716