

**CERTIFICATE OF COMPLIANCE  
FOR RADIOACTIVE MATERIAL PACKAGES**

1. a. CERTIFICATE NUMBER	b. REVISION NUMBER	c. DOCKET NUMBER	d. PACKAGE IDENTIFICATION NUMBER	PAGE	PAGES
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## 2. PREAMBLE

- a. This certificate is issued to certify that the package (packaging and contents) described in Item 5 below meets the applicable safety standards set forth in Title 10, Code of Federal Regulations, Part 71, "Packaging and Transportation of Radioactive Material."
- b. This certificate does not relieve the consignor from compliance with any requirement of the regulations of the U.S. Department of Transportation or other applicable regulatory agencies, including the government of any country through or into which the package will be transported.

## 3. THIS CERTIFICATE IS ISSUED ON THE BASIS OF A SAFETY ANALYSIS REPORT OF THE PACKAGE DESIGN OR APPLICATION

- a. ISSUED TO (*Name and Address*)  
AEA Technology, QSA Inc.  
40 North Avenue  
Burlington, MA 01803
- b. TITLE AND IDENTIFICATION OF REPORT OR APPLICATION  
AEA Technology, QSA Inc., application dated  
July 19, 2001, as supplemented.

## 4. CONDITIONS

This certificate is conditional upon fulfilling the requirements of 10 CFR Part 71, as applicable, and the conditions specified below.

## 5.

## (a) Packaging

- (1) Model No.: 702
- (2) Description

The cask system overall dimensions are 19" x 21" x 20". The cask is a stainless steel weldment containing depleted uranium shielding. The cask has a central cavity which is 2.26 inches in diameter by 3.25 inches long. Closure is accomplished by a neoprene gasket, six, 3/8-inch bolts and a stainless steel stepped plug containing depleted uranium shielding. The closure is equipped with an eye bolt. The cask is mounted on a 19" x 21" rectangular steel skid with four, 1/2-inch bolts and a tie-down system consisting of four, 1/2-inch diameter threaded rods which connect a clamp ring at the top of the cask to channel brackets welded to the skid. A protective cage constructed of 1-1/4-inch square steel tubing and perforated 18 gauge steel sheets tack welded to the tubular frame surrounds the cask and is bolted to the skid by four, 1/2-inch bolts. Maximum gross weight of the packaging is 410 pounds.

## (3) Drawings

The cask and other system components are constructed in accordance with AEA Technology, QSA, Inc., Drawing Nos.: 70290, Sheets 1 to 10, Rev. M.

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## 5. (b) Contents

## (1) Type and form of material

Sources which meet the requirements of special form radioactive material.  
Authorized isotopes include Cs-137, Ir-192, Se-75, and Yb-169.

## (2) Maximum quantity of material per package:

Isotope	Output Curies
Cs-137	500
Ir-192	15,000
Se-75	10,000
Yb-169	10,000

Output curies are determined by measuring the source output at 1 meter from the device and expressing its activity in curies. (Procedure reference: American National Standards Institute N432-1980, "Radiological Safety for the Design and Construction of Apparatus for Gamma Radiography.")

## (3) Maximum decay heat per package:

129 watts.

6. The name plate must be fabricated of materials capable of resisting the fire test of 10 CFR Part 71 and maintaining their legibility.

7. In addition to the requirements of Subpart G of 10 CFR Part 71:

(a) Each package shall be operated and prepared for shipment in accordance with Section 7.0 of the application, as supplemented.

(b) The package must meet the Acceptance Tests and Maintenance Program, Section 8.0 of the application, as supplemented.

8. The package authorized by this certificate is hereby approved for use under the general license provisions of 10 CFR 71.17.

Packages may be marked with Package Identification Number USA/6613/B(U)-85 until September 30, 2006.

9. Expiration date: June 30, 2008.

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REFERENCES

AEA Technology, QSA Inc., application dated July 19, 2001.

Supplements dated: March 12 and July 19, 2002.

AEA Technology, QSA Inc., application dated April 3, 2003.

AEA Technology, QSA Inc., application dated June 24, 2005

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Robert Lewis, Chief  
Licensing Section  
Spent Fuel Project Office  
Office of Nuclear Material Safety  
and Safeguards

Date: September 12, 2005

