



U.S. Department
of Transportation
**Pipeline and
Hazardous Materials
Safety Administration**

**COMPETENT AUTHORITY CERTIFICATION
FOR A TYPE B(U)
RADIOACTIVE MATERIALS PACKAGE DESIGN
CERTIFICATE USA/0591/B(U)-96, REVISION 8**

East Building, PHH-23
1200 New Jersey Avenue Southeast
Washington, D.C. 20590

**REVALIDATION OF UNITED KINGDOM COMPETENT AUTHORITY
CERTIFICATE GB/3750A/B(U)-96**

This certifies that the radioactive material package design described is hereby approved for use within the United States for import and export shipments only. Shipments must be made in accordance with the applicable regulations of the International Atomic Energy Agency¹ and the United States of America².

1. Package Identification - Reviss Model No. R7008.
2. Package Description and Authorized Radioactive Contents - as described in United Kingdom Certificate of Competent Authority GB/3750A/B(U)-96, Issue 3 (attached).
3. General Conditions -
 - a. Each user of this certificate must have in his possession a copy of this certificate and all documents necessary to properly prepare the package for transportation. The user shall prepare the package for shipment in accordance with the documentation and applicable regulations.
 - b. Each user of this certificate, other than the original petitioner, shall register his identity in writing to the Office of Hazardous Materials Technology, (PHH-23), Pipeline and Hazardous Materials Safety Administration, U.S. Department of Transportation, Washington D.C. 20590-0001.
 - c. This certificate does not relieve any consignor or carrier from compliance with any requirement of the Government of any country through or into which the package is to be transported.

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.

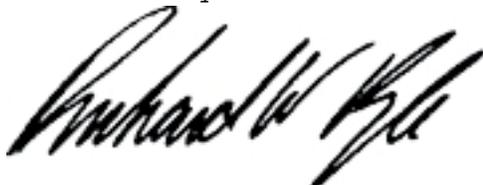
CERTIFICATE USA/0591/B(U)-96, REVISION 8

- d. 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 in the United States exporting shipments under this certificate shall satisfy the applicable requirements of Subpart H of 10 CFR 71.
4. Special Conditions -
 - a. Authorized radioactive contents must be in special form approved under the IAEA Regulations for the Safe Transport of Radioactive Materials.
 - b. The contents must be limited in decay heat such that the maximum source temperature does not exceed 525 degrees centigrade under normal conditions of transport. The assessment of source temperature should be based on air being present in the cask cavity and in the shield region cavity.
 - c. Authorized contents for air transport are restricted in accordance with paragraph 416 of the IAEA regulations cited by this certificate.
 5. Marking and Labeling - The package shall bear the marking USA/0591/B(U)-96 in addition to other required markings and labeling.
 6. Expiration Date - This certificate expires on May 31, 2014.

CERTIFICATE USA/0591/B(U)-96, REVISION 8

This certificate is issued in accordance with paragraph 808 of the IAEA Regulations and Section 173.473 of Title 49 of the Code of Federal Regulations, in response to the July 29, 2011 petition by Reviss Services, Chesham, Buckinghamshire, England, , and in consideration of other information on file in this Office.

Certified By:



Jan 06 2012

(DATE)

Dr. Magdy El-Sibaie

Associate Administrator for Hazardous Materials Safety

Revision 8 - Issued to endorse U.K. Certificate of Approval No. GB/3750A/B(U)-96, Issue 3, with a restricted heat load and requirement that contents be in special form.



Certificate of Approval of Package Design for the Carriage of Radioactive Materials

THIS IS TO CERTIFY that the Secretary of State for Transport being, for the purposes of the Regulations of the International Atomic Energy Agency, the Competent Authority of Great Britain in respect of inland surface transport and of the United Kingdom of Great Britain and Northern Ireland in respect of sea and air transport and the Department of the Environment for Northern Ireland being the Competent Authority of Northern Ireland in respect of inland surface transport, have approved the Package design as specified in section 1 of this certificate, as applied for by REVISS Services (UK) Limited (see section 6)

as Type B(U)

by All modes [See Section 1.2(d)]

Packaging identification: R7008

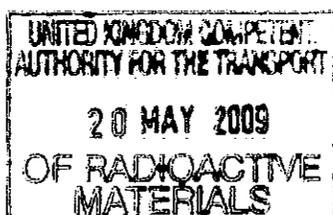
Packages manufactured to this design meet the requirements of the regulations and codes on page 2, relevant to the mode of transport, subject to the following general condition and to the conditions in the succeeding pages of this certificate.

In the event of any alteration in the composition of the package, the package design, the quality assurance programme(s) associated with the package or in any of the facts stated in the application for approval, this certificate will cease to have effect unless the Competent Authority is notified of the alteration and the Competent Authority confirms the certificate notwithstanding the alteration.

Expiry Date: This certificate supersedes any other previous issues and is valid until the end of May 2014 (see section 6)

COMPETENT AUTHORITY IDENTIFICATION MARK:

GB/3750A/B(U)-96



D. Vica
for Transport Radiological Adviser
Department for Transport
Great Minster House
76 Marsham Street
London SW1P 4DR

*On behalf of the Secretary of State for Transport,
and the Department of the Environment for Northern Ireland*

This certificate does not relieve the consignor from compliance with any requirement of the government of any country through or into which the package will be transported.

REGULATIONS AND CODES OF PRACTICE GOVERNING THE TRANSPORT OF RADIOACTIVE MATERIALS

INTERNATIONAL

International Atomic Energy Agency (IAEA)

TS-R-1 Regulations for the Safe Transport of Radioactive Materials 2005 Edition.

International Maritime Organisation (IMO)

International Maritime Dangerous Goods (IMDG) Code Amendment 33-06 or Amendment 34-08.

International Civil Aviation Organisation (ICAO)

Technical Instructions for the Safe Transport of Dangerous Goods by Air 2007-2008 Edition.

United Nations Economic Commission for Europe (UNECE)

European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) 2007 Edition.

Intergovernmental Organisation for International Carriage by Rail (OTIF)

Convention concerning International Carriage by Rail (COTIF) Appendix C. Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) 2007 Edition.

UNITED KINGDOM

ROAD

GREAT BRITAIN ONLY.

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007, SI 2007 No 1573.

NORTHERN IRELAND ONLY.

The Radioactive Substances (Carriage by Road) Regulations (Northern Ireland) 1983, SR 1983 No 344. The Radioactive Substances (Carriage by Road) (Amendment) Regulations (Northern Ireland) 1986, SR 1986 No 61.

RAIL

GREAT BRITAIN ONLY.

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2007, SI 2007 No 1573.

SEA

British registered ships. All other ships whilst in United Kingdom territorial waters. The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997, SI 1997 No 2367; Merchant Shipping Notice No MSN 1806 M, "The Carriage of Dangerous Goods and Marine Pollutants in Packaged Form - Amendment 33-06 to the International Maritime Dangerous Goods (IMDG) Code".

AIR

The Air Navigation Order 2005, SI 2005 No 1970. The Air Navigation (Dangerous Goods) Regulations 2002, SI 2002 No 2786. The Air Navigation (Dangerous Goods) (Amendment) Regulations 2007, SI 2007 No 28.

1. PACKAGE DESIGN SPECIFICATION

The Package Design Specification shall be in accordance with the REVISS Services (UK) Ltd. Safety Report reference R7008BU Issue 5 dated 7th May 2009, and modifications to the package design approved by the authority named on page 1 of this certificate under the established modifications procedure.

1.1 Specification of Design

Design No.	Title (number of components)	Drawing / Drawing List	Issue
3750	Outer - Pallet Cage (one)	P/3750A/004 P/3750A/005 QS 7008	B and C B – E 4
Capsules	Inner - Basket and any IAEA Special Form Material Capsule		

1.2 Authorised Contents

- a) Encapsulated solid radionuclides in metallic or chloride form as detailed in Section 1.2(c) below, with maximum content weight of 27kg
- b) Any of the radionuclides listed below with the maximum activity, as listed, or mixtures of these radionuclides such that sum of the proportions of the activities does not exceed 1.0

Radionuclide	Physical State	Chemical Composition or State	Maximum Activity
⁶⁰ Co	Solid - Special Form	Metal	12.6PBq (340kCi)
¹³⁷ Cs		Chloride	5.55PBq (150kCi)

- c) The total rate of heat generation shall not exceed 5.24 kW
- d) The carriage of ⁶⁰Co by air with an activity above 1.2PBq and up to the maximum specified above is only allowed with permission from the air transport authority of each national air space entered or transited. In the UK, this is the Civil Aviation Authority (CAA).

1.3 Package Dimensions and Weights

a) Nominal Dimensions:

1360mm x 1360mm x 1370mm (see section 5 for package illustration)

b) Maximum authorised gross weight: 3573 kg

2. USE OF PACKAGE

2.1 Use of packaging

- a) The packaging shall be used, handled and maintained in accordance to REVISS Document: Operating Instructions R7008 Transport Container (GB3750A), OP316 Issue 8.

2.2 Supplementary Operational Controls

- a) The package shall not be sheeted over or over-stowed by loose cargo

2.3 Actions prior to shipment

- a) Administrative controls shall ensure that the contents are in accordance with section 1 of this certificate, and that the consignor and consignee hold a copy of the instructions on the use of the packaging.
- b) The container should be operated by personnel suitable trained in the relevant operating procedures
- c) When loaded with more than 10.9PBq (293kCi) ^{60}Co , the R7008 must be transported under "Exclusive Use" conditions

2.4 Emergency Arrangements

- a) Before shipment takes place, the consignor shall have drawn up suitable emergency plans, copies of which shall be supplied to the UK Competent Authority on demand.
- b) If the consignor's own, or other approved emergency plans cannot be initiated, for any reason, then the police shall be informed immediately and in the UK, requested to call the local NAIR (National Arrangements for Incidents involving Radioactivity) establishment.

2.5 Ambient temperature range for package design

- a) -40°C to +38°C

3. QUALITY ASSURANCE

3.1 Quality assurance programmes applicable to this design are:

- a) REVISS Services' Quality Assurance Manual Issue 5 and
- b) Any other quality assurance programmes associated with the design, manufacture, testing, documentation, use, maintenance and inspection, and for transport and in-transit storage operations, that also comply with national or international standards for quality assurance which are acceptable to the authority named on page 1 of this certificate.

3.2 No alterations shall be made to the quality assurance programmes associated with this design and approved by the authority named on page 1 of this certificate unless that alteration has the prior approval of said authority, or it falls within the agreed change control procedures of that programme.

3.3 No quality assurance programme shall be used at any stage of the design, manufacture, testing, documentation, use, maintenance and inspection, and for transport and in-transit storage operations, unless said programme forms part of or is the quality assurance programme approved by the authority named on page 1 of this approval certificate.

4. ADMINISTRATIVE INFORMATION

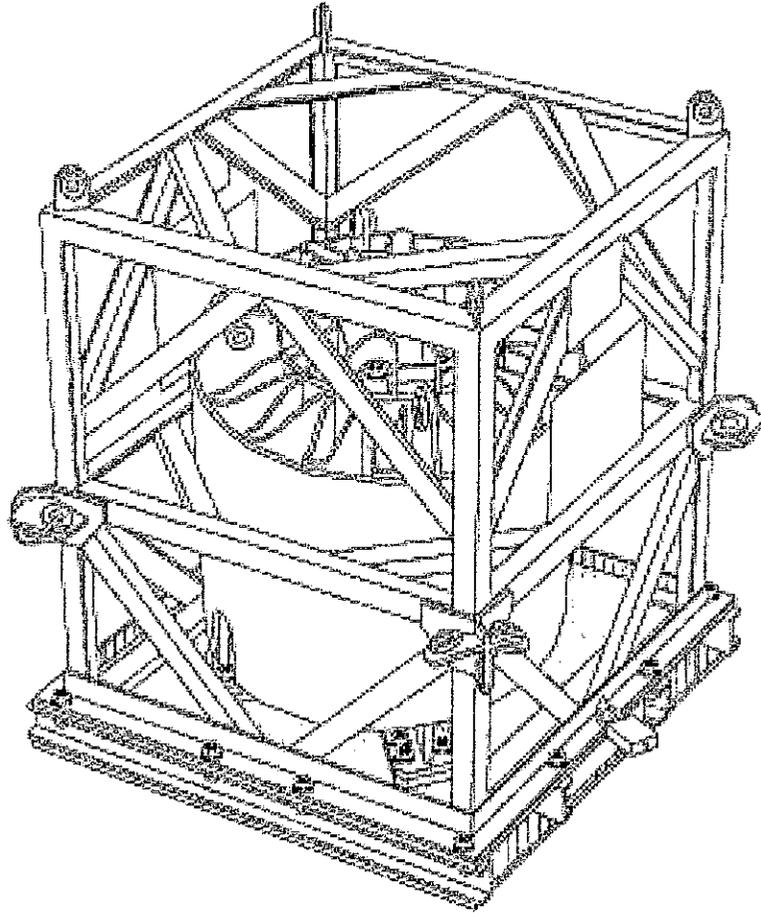
4.1 Other related certificates (alternative radioactive contents)

This certificate forms the base approval of this design. No other related UK certificates based on the 3750 exist at the time of compilation of this design approval certificate

4.2 Additional Technical Data / Information

- a) At the time of compilation of this design approval certificate, The Ionising Radiations Regulations 1999, SI 1999 No 3232 and Approved Code of Practice apply, with regard to radiation protection, to all modes of transport and The Dangerous Substances in Harbour Areas Regulations 1987, SI 1987 No 37, apply in UK Ports

5. PACKAGE ILLUSTRATION



6. CERTIFICATE STATUS

Design Approval issued to:-

REVISS Services (UK) Limited
6, Chiltern Court
Asheridge Road
Chesham,
Buckinghamshire, HP5 2PX

Issue No.	Date of Issue	Date of Expiry	Reason for Revision
1		31 August 2006	Design approval issued under new regulations
2	15 June 2006	31 August 2009	Certificate renewal for a further 3 years
3	See page 1 of this certificate	31 May 2014	Certificate renewal for a further 5 years



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