GB/420/S (Rev.5)

**CERTIFICATE OF APPROVAL FOR**

**SPECIAL FORM RADIOACTIVE MATERIAL**

This is to certify that for the purposes of the Regulations of the International Atomic Energy Agency

* The Competent Authority of Great Britain in respect of inland surface transport, being the Office for Nuclear Regulation;
* The Competent Authority of the United Kingdom of Great Britain and Northern Ireland in respect of sea transport, being the Secretary of State for Transport;
* The Competent Authority of the United Kingdom of Great Britain and Northern Ireland in respect of air transport, being the Civil Aviation Authority; and
* The Competent Authority of Northern Ireland in respect of road transport, being the Department of Agriculture, Environment and Rural Affairs - Northern Ireland

approve the design specified in Section 1 of this certificate, as submitted for approval by REVISS Services (UK) Ltd (see Section 4)

as: Special Form Radioactive Material.

Design identification: Capsule code R1850

Special Form Radioactive Material manufactured to this design meets the requirements of the regulations and codes on pages 3 and 4 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 design of the Special Form Radioactive Material, the relevant management system(s) 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 cancels all previous issues and is valid until the end of November 2028 (see Section 4).

COMPETENT AUTHORITY IDENTIFICATION MARK: GB/420/S

Signature: A signature on a white background

Description automatically generated

Ian Barlow, Head of Transport Competent Authority

Date of Issue: 28 November 2023

Office for Nuclear Regulation

Redgrave Court, Merton Road

Bootle, Merseyside

L20 7HS

on behalf of the Office for Nuclear Regulation; the Secretary of State for Transport; the Civil Aviation Authority; and the Department of Agriculture, Environment and Rural Affairs - Northern Ireland.

**REGULATIONS GOVERNING THE TRANSPORT OF RADIOACTIVE MATERIALS**

**INTERNATIONAL**

International Atomic Energy Agency (IAEA)

SSR-6 Regulations for the Safe Transport of Radioactive Material 2018 Edition

United Nations Economic Commission for Europe (UNECE)

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR) 2023 Edition

Intergovernmental Organisation for International Carriage by Rail (OTIF)

Regulations concerning the International Carriage of Dangerous Goods by Rail (RID) 2023 Edition

International Maritime Organization (IMO)

International Maritime Dangerous Goods (IMDG) Code 2020 Edition incorporating Amendment 40-20

International Civil Aviation Organization (ICAO)

Technical Instructions for the Safe Transport of Dangerous Goods by Air 2023-2024 Edition

**UNITED KINGDOM**

***ROAD***

GREAT BRITAIN ONLY:

The Energy Act 2013 (2013 c. 32); The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348); The Energy Act 2013 (Office for Nuclear Regulation) (Consequential Amendments, Transitional Provisions and Savings) Order 2014 (SI 2014 No. 469)

NORTHERN IRELAND ONLY:

The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations (Northern Ireland) 2010, (SR 2010 No 160)

***RAIL***

GREAT BRITAIN ONLY:

The Energy Act 2013 (2013 c. 32); The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 (SI 2009 No. 1348); The Energy Act 2013 (Office for Nuclear Regulation) (Consequential Amendments, Transitional Provisions and Savings) Order 2014 (SI 2014 No. 469)

***SEA***

British registered ships and all other ships whilst in United Kingdom territorial waters:

The Merchant Shipping Act 1995 (1995 c. 21); The Merchant Shipping (Dangerous Goods and Marine Pollutants) Regulations 1997 (SI 1997 No. 2367); Merchant Shipping Notice MSN 1906 (M) The carriage of dangerous goods and marine pollutants: Amendments to international standards

***AIR***

The Air Navigation Order 2016 (SI 2016 No. 765); The Air Navigation (Dangerous Goods) Regulations 2002 (SI 2002 No.2786)

1. DESIGN SPECIFICATION
   1. Material Design
      * 1. The design of the Special Form Radioactive Material shall be in accordance with Application for Approval of a Capsule as Special Form Material, R1850SFA Issue 6 dated 22 August 2023, and modifications to the design approved by the authorities named on page 1 of this certificate under the established modifications procedure.
   2. Design Drawings
      * 1. The design is specified in the following drawings.

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| --- | --- | --- | --- |
| **Title** | **Drawing / Drawing List** | **Issue** | **Date** |
| Approved Drawing List For R1850 Capsule | QS1850 | 2 | 10 June 2005 |
| Assembly of Capsule R1850 | GA18500 | B | 03 June 2005 |

* 1. Material Specification
     + 1. Assemblies of stainless steel, zircalloy and cobalt inside a special form capsule assembly.
       2. The inner components of the special form capsule assembly must satisfy the criteria stated in sections 2.4 to 2.6 of ‘Supply Specification for REVISS Services’ Product Code RSL1850’, SS1850 Issue 5 dated 18 January 2012.
       3. The radioactive content is Co-60 with a maximum activity of 2.4 PBq (65 kCi). The emitted radiations are gamma photons at 1.173 MeV and 1.332 MeV.

1. use of Material
   1. Actions Prior to Shipment
      * 1. None specified.
2. management systems
   * + 1. The management system(s) assessed as adequate in relation to this design by the authorities named on page 1 of this certificate, at the date of issue, are as specified in ‘Application for Approval of a Capsule as Special Form Material’, R1850SFA referred to in Section 1 above, and comprise the following:

* REVISS Quality Manual, QM issue 12, 28 July 2022
  + - 1. No alteration may be made to any management system confirmed as adequate in relation to this design, unless:
         1. the authorities named on page 1 of this certificate have confirmed the amended management system is adequate prior to implementation or use; or
         2. the alteration falls within the agreed change control procedures set out in the management system(s).
      2. Other management systems for design, testing, manufacture, documentation, use, maintenance, inspection, transport and in-transit storage operations may be used providing they comply with international, national or other standards for management systems agreed as acceptable by the authorities named on page 1 of this certificate.

1. CERTIFICATE STATUS
   1. Design approval issued to:

REVISS Services (UK) Limited

179 Brook Drive

Milton Park

Abingdon

Oxfordshire

OX14 4SD

UK

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| --- | --- | --- | --- |
| **Issue / Revision Number** | **Date of Issue** | **Date of Expiry** | **Reason for Revision** |
| 2 | 22 May 2009 | 31 May 2014 | Renewal |
| 3 | 11 March 2014 | 31 March 2019 | Renewal |
| 4 | 26 March 2019 | 31 March 2024 | Renewal |
| 5 | 28 November 2023 | 28 November 2028 | Renewal |