



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**
WASHINGTON, D.C. 20555-0001

August 17, 2022

Mr. Richard W. Boyle
Radioactive Materials Branch
U.S. Department of Transportation
1200 New Jersey Avenue SE
Washington, D.C. 20590

**SUBJECT: REQUEST FOR REVALIDATION OF UNITED KINGDOM CERTIFICATE OF
APPROVAL GB/4120/B(U) FOR THE DPR 200 PACKAGE – REQUEST FOR
SUPPLEMENTARY INFORMATION, DOCKET 71-3102**

Dear Rick Boyle:

By letter dated May 4, 2022 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML22203A069), the U.S. Department of Transportation (DOT) requested that the U.S. Nuclear Regulatory Commission (NRC) staff perform a review of the United Kingdom Certificate of Approval GB/4120/B(U), for the Model No. DPR 200 transport package and make a recommendation concerning the revalidation of the package for import and export use.

The NRC staff performed an acceptance review of the application to determine if it contained sufficient technical information in scope and depth to allow the staff to complete a detailed technical review. This letter is to advise you that the information needed to continue our review is described as request for supplemental information (RSI) in the enclosure to this letter. Addressing the RSI does not preclude the staff from issuing further requests for additional information during the course of the detailed technical review of this application.

In order to schedule our technical review, your response should be provided by August 22, 2022. If the response is not received by this date, the application may not be accepted for review and the staff may discontinue any further review. If you have any questions regarding this matter, I may be contacted at (301) 415-5196.

Sincerely,

A handwritten signature in black ink, appearing to read "Nishka Devaser", is written over a horizontal line.

Signed by Devaser, Nishka
on 08/17/22

Nishka Devaser, Project Manager
Storage and Transportation Licensing Branch
Division of Fuel Management
Office of Nuclear Material Safety
and Safeguards

Docket No. 71-3102
EPID L-2022-DOT-0003

Enclosure:
Request for Supplemental Information

SUBJECT: REQUEST FOR REVALIDATION OF UNITED KINGDOM CERTIFICATE OF APPROVAL GB/4120/B(U) FOR THE DPR 200 PACKAGE – REQUEST FOR SUPPLEMENTARY INFORMATION, DOCKET 71-3102, DOCUMENT DATE:

August 17, 2022

DISTRIBUTION:

ADimitriadis, RI
MKunowski, RIII
GWarnick, RIV

Request for Supplemental Information
Docket No. 71-3102
Model No. DPR 200 Package
United Kingdom Certificate GB/4120/B(U)

By letter dated May 4, 2022 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML22203A069), the U.S. Department of Transportation (DOT) requested that the U.S. Nuclear Regulatory Commission (NRC) staff perform a review of the United Kingdom Certificate of Approval GB/4120/B(U), for the Model No. DPR 200 transport package and make a recommendation concerning the revalidation of the package for import and export use.

This request for supplemental information identifies information needed by the NRC staff (the staff) in connection with its acceptance review of the Model No. DPR 200 package application to confirm whether the applicant has submitted a complete application in compliance with regulatory requirements in the International Atomic Energy Agency (IAEA) Specific Safety Requirements 6, 2018 Edition (IAEA SSR-6).

Chapter 2 – Structural Evaluation

- RSI 2-1. Provide an analysis to demonstrate that the tie-down devices are capable of withstanding the static forces associated with the acceleration factors specified in the U.S for safe transport (i.e., 10 g longitudinal, 5 g lateral and 2 g vertical).

Per Sections 5.3 and 6.1 of SR-026, “DRP 200 Tiedown Safety Assessment,” the maximum resultant loads due to accelerations were evaluated using the following acceleration factors: 5 g longitudinal, 2 g lateral and 2 g vertical. These values correspond to the acceleration factors defined in Table IV.1 of IAEA SSG-26, which can be used for the design of retention systems during rail transport. Paragraph IV.9 of IAEA SSG-26, also states that these values would be in accordance with most national and international regulations (e.g., the United Kingdom), but it is incumbent upon the package designer and user to ensure that the package retention system was designed in compliance with those values specified by the relevant competent authorities and transport modal organizations. For the United States, these acceleration factors are provided in Table IV.2 and are defined for tie-down devices as: 2 g in the vertical direction, 10 g horizontally in the direction of travel, and 5 g in the transverse direction. Therefore, additional evaluation is necessary to demonstrate that the tie-down devices are adequately designed for and in compliance with the requirements based on those acceleration factors specified in the U.S for safe transport.

This information is necessary to demonstrate compliance with the IAEA SSR-6 requirement in paragraphs 607 and 638.

- RSI 2-2. Provide an analysis to demonstrate that the lifting devices are capable of withstanding the lifting stresses with a minimum safety factor of three (3) against yielding.

Per Sections 7 of SR-025, “DRP 200 Lifting Safety Assessment,” the minimum resultant safety factor obtained for the lifting design is 1.73. In the United States, for lifting attachments, the design must provide a minimum safety factor of three (3)

Enclosure

against yielding. Therefore, an assessment demonstrating how this requirement was met for the U.S. is necessary and was not included with the application.

This information is necessary to demonstrate compliance with the IAEA SSR-6 requirement in paragraphs 608 and 609.

Chapter 10 – Quality Assurance Evaluation

RSI 10-1. Verify conformance to a quality assurance program and appropriate consensus standards for fabrication and testing.

SR-033: DPR 200 Type B(U) Design Safety Report, Section 7. Quality Assurance, Subsection 7.1.1. Applicant's Quality Assurance programme [640], states in part, "The design, manufacture and inspection of the DPR 200 is within the scope of the Synergy Health Isotope Services [SHIS] quality assurance system, which complies with the requirements of current edition of BS EN ISO 9001." Contrary to DPR 200, staff is unable to verify conformance to a quality assurance program and appropriate consensus standards for fabrication and testing. As such, Staff is requesting submittal of SHIS's latest QA system (QA Program Manual).

This information is necessary to demonstrate compliance with the IAEA SSR-6 requirement in paragraph 306.

Request for Revalidation of United Kingdom Certificate of Approval GB 4120 B U for the DPR 200
Package – Request for Supplementary Information, Docket 71-3102 DATE August 17, 2022

DISTRIBUTION:

ADimitriadis, R-I/DNMS/DIRHB

MKunowski, R-III/DNMS/MIB

GWarnick, R-IV/DNMS/RIB

ADAMS Accession No.: Ltr ML22203A081

OFFICE	NMSS/DFM/STLB	NMSS/DFM/STLB	NMSS/DFM/IOB	NRR/DEX/ESEB
NAME	NDevaser <i>ND</i>	SFigueroa <i>SF</i>	ELove <i>EL</i>	JLopez <i>JL</i>
DATE	Jul 25, 2022	Jul 25, 2022	Jul 25, 2022	Jul 31, 2022
OFFICE	OEDO	NRR/DEX/ESEB	NMSS/DFM/STLB	NMSS/DFM/STLB
NAME	ARivera-Varona <i>AR</i>	JColaccino <i>JC</i>	YDiaz-Sanabria <i>YD</i>	NDevaser <i>ND</i>
DATE	Aug 4, 2022	Aug 1, 2022	Aug 5, 2022	Aug 17, 2022

OFFICIAL RECORD COPY