



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

June 10, 2022

Philip Noss
Licensing Manager
AREVA Federal Services LLC
505 S. 336th Street, Suite 400
Federal Way, WA 98003

SUBJECT: APPLICATION FOR AMENDMENT REQUEST OF CERTIFICATE OF COMPLIANCE NO. 9341 FOR THE MODEL NO. BRR – REQUEST FOR ADDITIONAL INFORMATION

Dear Philip Noss:

By letter dated November 8, 2021 (Agencywide Documents Access and Management System {ADAMS} Accession No. ML21313A229), Orano Federal Services, LLC submitted an application in accordance with Title 10 of the *Code of Federal Regulations* Part 71 to amend Certificate of Compliance No. 9341 for the Model No. BEA Research Reactor (BRR) package per the details of the submitted revision of the safety analysis report, Revision 17. In connection with the U.S. Nuclear Regulatory Commission staff review, we need the information identified in the enclosure to this letter. Additional information requested by this letter should be submitted in the form of revised pages.

In order to complete our technical review on schedule, please provide your response within one month of the date of this letter. 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".

Signed by Devaser, Nishka
on 06/10/22

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

Docket No. 71-9341
EPID L-2021-LLA-0215

Enclosure:
Request for Additional Information

SUBJECT: APPLICATION FOR AMENDMENT REQUEST OF CERTIFICATE OF COMPLIANCE NO. 9341 FOR THE MODEL NO. BRR – REQUEST FOR ADDITIONAL INFORMATION DOCUMENT DATE: June 10, 2022

DISTRIBUTION:

ADimitriadis, RI
MKunowski, RIII
GWarnick, RIV

* by email

ADAMS Memo Accession No.: ML22146A341

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DATE	06/6/2022	06/10/2022	

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Request for Additional Information
Orano Federal Services, LLC
Docket No. 71-9341
Certificate of Compliance No. 9341
BRR Transportation Package

By letter dated November 8, 2021 (Agencywide Documents Access and Management System [ADAMS] Accession No. ML21313A229), Orano Federal Services, LLC submitted an application in accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) Part 71 to amend Certificate of Compliance (CoC) No. 9341 for the Model No. BEA Research Reactor (BRR) package per the details of the submitted revision of the safety analysis report (SAR or the application), Revision 17. This request for additional information identifies information needed by the U.S. Nuclear Regulatory Commission staff in connection with its review of the SAR. The staff used guidance provided in NUREG-2216, "Standard Review Plan for Transportation Packages for Spent Fuel and Radioactive Material," in its review of the application.

The question describes information needed by the staff for it to complete its review of the application and to determine whether the applicant has demonstrated compliance with regulatory requirements.

Chapter 5: Shielding Analysis

RAI 5-1. Provide an explanation for the source of the isotopic composition of the irradiated fuel rod segments used in the ORIGEN source term calculations.

The sample inputs provided in SAR Section 5.7.5.1 convert an existing isotopic inventory into a radiation source spectrum. The applicant mentions that the ORIGEN module of SCALE 6.2.4 was used for its calculations for irradiated fuel rod segments but did not describe any depletion calculations or other source of isotope inventory. Since the applicant did not provide any details on how the irradiated fuel isotope inventory was determined in SAR Section 5.7.2, staff is unable to determine how the applicant determined the irradiated fuel rod segment isotope inventory.

This information is required to determine compliance with 10 CFR 71.47.

RAI 5-2. Provide an explanation for the source of the radioactive isotopic compositions of the three irradiated metal materials described in SAR Tables 5.8-3, 5.8-4, and 5.8-5 on which the ORIGEN source term calculations are based.

The sample inputs provided in SAR Section 5.8.5.1 convert an existing isotopic inventory into a radiation source spectrum. The applicant mentions that the ORIGEN module of SCALE 6.2.4 was used for its calculations for irradiated metal but did not describe nor provide sample input for activation calculations or other source of isotope inventory. Since the applicant did not provide any details on how the irradiated fuel isotope inventory was determined in SAR Section 5.8.2, staff is unable to determine how the applicant determined the irradiated metal source isotope inventory.

This information is required to determine compliance with 10 CFR 71.47.

Enclosure

Letter to P. Noss re: Application for Amendment Request of Certificate of Compliance No. 9341 for the Model No. BRR - Request for Additional Information with Enclosure DATE June 10, 2022

DISTRIBUTION:

ADimitriadis, R-I/DNMS/DIRHB

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ADAMS Accession No.: Ltr ML22146A341

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DATE	Jun 10, 2022	Jun 10, 2022		

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