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November 8, 2021
FS-21-0122

U. S. Nuclear Regulatory Commission
ATTN: Nishka Devaser
Document Control Desk
Director, Division of Fuel Management
Office of Nuclear Material Safety and Safeguards
11555 Rockville Pike
One White Flint North
Rockville, MD 20852

SUBJECT: BRR Package Amendment Request, Docket No. 71-9341

Dear Mr. Devaser:

Orano Federal Services LLC (Orano FS) hereby submits Revision 17 of the Safety Analysis Report (SAR) for the BRR Package, Docket No. 71-9341. The purpose of this amendment is to add two payload types to the list of approved contents.

The new payloads are in two categories: one, a small number of commercial high burnup fuel rods, and two, irradiated metal from reactor decommissioning. Both payload types are in support of materials research.

The revised SAR includes structural, thermal, shielding, and criticality evaluations for the new payloads. All changes are marked with a revision bar in the right margin. There are no changes to any SAR drawings, except the addition of a new canister as shown on sheet 1 and sheet 5 of drawing 1910-01-03-SAR. The BRR package complies with all of the applicable requirements of 10 CFR 71.

To assist you in evaluating the revised SAR, a change summary is included below. In order to coordinate with the cask's user schedules, we request that the certificate of compliance be issued no later than September 30, 2022.

Should you have any questions regarding this submittal, please contact me at (233) 552-1321 or via email (phil.noss@orano.group).

Yours Truly,

Philip Noss
Licensing Manager
Orano Federal Services LLC

Chapter or Section	Change Summary (all changes marked with a change bar)
Chapter 1	Add description of new payloads and new canister. No changes to existing approved payloads or to package design.
Section 1.2.2.5	Corrected typo in third paragraph, where U_3O_2 should be U_3Si_2 .
Section 1.3.1	Update ANSI N14.5 to 2014.
SAR drawing 1910-01-03-SAR, Rev. 7	Include new canister. Added materials and notes to sheet 1, added sheet 5. No changes to any existing approved baskets or to any other SAR drawings.
Sections 2.1.1, 2.1.2, and 2.1.2.1	Add new canister to discussion.
Table 2.1-2 and Table 2.1-3	Update tables for new canister and payload.
Section 2.3.2	Add new canister to discussion.
Section 2.6.1.1	Include temperature of new canister payload.
Section 2.6.1.2	Include discussion of differential thermal expansion.
Section 2.7.1.5.3	Discuss stress analysis of new canister.
Section 3.1.2	Include decay heat of new payloads.
Section 3.1.3	Include justifications why no explicit evaluation of temperature with new payloads is needed.
Section 3.1.4	Correct typo: Reference to Section 3.6.4 should be Section 3.6.1.4.
Section 4.5.1	Update ANSI N14.5 to 2014.
Section 5.0	Include discussion of new payloads.
Section 5.5	Add references.
Section 5.7	Add shielding evaluation for the irradiated fuel rod payload.
Section 5.8	Add shielding evaluation for the irradiated metal payload.
Section 6.0	Include discussion of new payloads.
Section 6.9.1	Add references.
Section 6.10	Add criticality evaluation for the irradiated fuel rod payload.
Section 7.1.2	Include instructions for loading the new payloads.
Section 7.2.2	Include instructions for removing the new payloads.
Section 8.1.2	Include discussion of new canister.
Section 8.3.1	Update ANSI N14.5 to 2014.



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