

Lois James

From: Lois James
Sent: Thursday, July 31, 2025 6:11 PM
To: Kucuk, Aylin
Cc: Jennie Rankin; Lois James; Demetrius Murray; James Delosreyes; Ekaterina Lenning; Chris Van Wert; Brandon Wise; Seung Min; David Rudland; David Dijamco; Eric Palmer; Kristy Bucholtz; Gordon Curran; John Lehning; Scott Krepel; Matthew Mitchell; Angie Buford; Antonios.Zoulis@nrc.gov; Milton Valentin; Brian Smith - RES; Samuel Lee; Bo Pham; Aida Rivera-Varona; Jamie Pelton; Mike Franovich; Meena Khanna; Theresa.Clark@nrc.gov; Vic Cusumano; Shaun Anderson; Scott Burnell; David.McIntyre@nrc.gov; fsmith@epri.com; AKucuk@epri.com; Kucuk, Aylin
Subject: Final RAls – EPRI Report 3002028673, LOCA-Induced Fuel Fragmentation, Relocation and Dispersal (FFRD) with Leak-Before-Break (LBB) Credit - Alternative Licensing Strategy (ALS) (EPID L-2024-NTR-0002)
Attachments: EPRI TR 3002028673, ALS - Final RAls.pdf

Dr. Aylin Kucuk
Program Manager, Nuclear Fuels
Electric Power Research Institute
Palo Alto Office
3420 Hillview Ave.
Palo Alto, CA 94304-133

Dear Dr. Aylin Kucuk:

By letter dated April 26, 2024 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML24121A203), Electric Power Research Institute (EPRI) submitted (1) EPRI Report 3002028673, “Loss-of-Coolant-Accident-Induced Fuel Fragmentation, Relocation, and Dispersal with Leak-Before-Break Credit – Alternative Licensing Strategy [ALS],” and (2) EPRI Report 3002028675 (NP)/3002028674 (P), “LOCA [Loss of Coolant Accident] Analysis of Fuel Fragmentation, Relocation, and Dispersal [FFRD] for Westinghouse 2-Loop, 3-Loop and 4-Loop Plants – Proprietary, Evaluation of Cladding Rupture in High Burnup Fuel Rods Susceptible to Fine Fragmentation” (collectively called ALS for LOCA Analysis of FFRD) to the U.S. Nuclear Regulatory Commission (NRC) for review and approval. The ALS for LOCA Analysis for FFRD topical report demonstrates acceptable performance for LOCA induced FFRD phenomena in high burnup pressurized water reactor (PWR) fuel.

By email dated June 25, 2024 (ADAMS Accession No. ML24170A812), the NRC accepted the EPRI topical reports (TRs) for review and approval. The NRC acceptance package includes completion forms and schedules for three TRs, and the withholding determination for the proprietary TR.

The NRC staff in the Division of Safety Systems (DSS) and New and Renewed Licenses (DNRL) is in the process of reviewing TR 3002028673. Based on our review, the NRC staff has identified the attached final requests for additional information (RAIs).

These requests for additional information were discussed with Kurshad Muftuoglu of your staff, and a mutually agreeable date for the response is within 90 days from the date of this email.

If you have any questions, please contact me by e-mail Lois.James@nrc.gov.

Sincerely,

Lois M. James, Senior Project Manger

Office of Nuclear Reactor Regulation (NRR)
U.S. Nuclear Regulatory Commission
Lois.James@nrc.gov

Docket No. 99902021

Enclosure:
As stated

ADAMS Accession No.: ML25212A244 (pkg); ML25212A246 (email); ML25212A249 (audit plan)