

Lois James

From: Lois James
Sent: Friday, July 18, 2025 1:28 PM
To: martin.bonifanti@constellation.com; npalm@epri.com
Cc: RidsNrrOd Resource; RidsNrrDnrI Resource; RidsNrrLADHarrison Resource; RidsNrrDorI Resource; RidsNrrDorILlpb Resource; RidsACRS_MailCTR Resource; Lois James; Gerond George; Angie Buford; Scott Krepel; David Rudland; Michael Benson; John Tsao; Steven Levitus; Joseph Messina; Christopher Brown; wmcgruder@epri.com; npalm@epri.com; bcarter@epri.com
Subject: Transmittal of Final Safety Evaluation for EPRI Technical Report BWRVIP-100, "BWR Vessel and Internals Project, Updated Assessment of the Fracture Toughness of Irradiated Stainless Steel for BWR Internal Components," Revision 2 (EPID L-2023-NTR-0005)

Martin Bonifanti, Constellation, BWRVIP Chairman
Nathan Palm, EPRI, BWRVIP Program Manager
Electric Power Research Institute
1300 West W.T. Harris Blvd
Charlotte, NC 28262-8550

Dear Martin Bonifanti and Nathan Palm:

By letter dated July 11, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23198A333), Electric Power Research Institute (EPRI) submitted BWRVIP-100, "BWR Vessel and Internals Project, Updated Assessment of the Fracture Toughness of Irradiated Stainless Steel for BWR Internal Components," Revision 2, to the U.S. Nuclear Regulatory Commission (NRC) for review and approval. Revision 2 of BWRVIP-100 incorporates newly acquired test data from harvested reactor internals materials which may indicate a potential non-conservatism in BWRVIP-100, Revision 1-A, and reassess the relationship between fracture toughness and fluence. The NRC staff reviewed and accepted the technical report on September 14, 2023 (ADAMS Accession No. ML23214A047).

By e-mail dated March 21, 2025, the NRC staff issued its draft safety evaluation (SE) (ADAMS Accession No. ML25023A090) for proprietary review.

By letter June 18, 2025 (ADAMS Accession No. ML25169A331), EPRI provided proprietary comments on the SE to the NRC staff. All comments are addressed and identified in Appendix A.

The NRC staff has found that BWRVIP-100, Revision 2, is acceptable for referencing in licensing applications for nuclear power plants to the extent specified and under the limitations delineated in the TR and in the referenced final SE. The final SE defines the basis for our acceptance of the TR. The e-mail and the nonproprietary SE will be publicly on July 25, 2025, available via ADAMS Accession Nos. ML25168A091 and ML25168A095. The proprietary SE is also in ADAMS but is designated as nonpublic due to the proprietary information. Copies of both versions of the SE have been placed into the NRC External Sharing Box and Nathan Palm and Wynter McGruder have been given access to the files.

Our acceptance applies only to material provided in the subject TR. We do not intend to repeat our review of the acceptable material described in the TR. When the TR appears as a reference in license applications, our review will ensure that the material presented applies to the specific plant involved. License amendment requests that deviate from this TR will be subject to a plant-specific review in accordance with applicable review standards.

In accordance with the guidance provided on the NRC website, we request that EPRI publish an accepted version of BWRVIP-100, Revision 2, within three months of receipt of this e-mail. The approved versions shall incorporate this letter and the enclosed final SE after the title page. The accepted version shall include an "A" (designating accepted) following the TR identification symbol.

If future changes to the NRC's regulatory requirements affect the acceptability of this TR, EPRI will be expected to revise the TR appropriately. Licensees referencing this TR would be expected to justify its continued applicability or evaluate their plant using the revised TR.

If you have any questions or require any additional information, please feel free to contact me via Lois.James@nrc.gov.

Sincerely,

Lois M. James, Senior Project Manager
 Licensing Project Branch
 Division of Operating Reactor Licensing
 Office of Nuclear Reactor Regulation

Docket No. 99902016

Enclosures:

Final Safety Evaluation

ADAMS Accession Nos.: ML25168A091 (Pkg); ML25168A093 (E-mail); ML25168A094 (Proprietary SE); - ML25168A095 (NonProp SE)

^via
 eConcurrence
 *via e-mail

OFFICE	DORL/LLPB/PM	DORL/LLPB/LA	DNRL/NVIB/BC	DSS/SFNB/BC
NAME	LJames^	DHarrison^	ABuford^	SKrepel*
DATE	02/04/2025	03/04/2025	03/06/2025	02/03/2025
OFFICE	OGC (NLO)	DORL/LLPB/BC	DORL/LLPB/PM	
NAME	MCarpentier	JRankin (A)	LJames	
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