2023-055 BWR Vessel & Internals Project (BWRVIP)

July 19, 2023

Chief Financial Officer
U. S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852

BWRVIP Docket No. 99902016

Subject: Request for Exemption of NRC Review Fees for "BWRVIP-100, Revision 2: BWR Vessel and Internals Project, Updated Assessment of the Fracture Toughness of Irradiated Stainless Steel for BWR Internal Components"

References:

1. *BWRVIP-100, Revision 2, BWR Vessel and Internals Project, Updated Assessment of the Fracture Toughness of Irradiated Stainless Steel for BWR Internal Components*. EPRI, Palo Alto, CA: 2023. 3002023756.
2. *BWRVIP-100, Revision 1-A: BWR Vessel and Internals Project, Updated Assessment of the Fracture Toughness of Irradiated Stainless Steel for BWR Core Shrouds.* EPRI, Palo Alto, CA: 2016. 3002008388.
3. NUREG-2191, "Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report," Volumes 1 and 2, U.S. Nuclear Regulatory Commission, 2017. ADAMS Accession Number ML17187A204.
4. *BWRVIP-100-A: BWR Vessel and Internals Project, Updated Assessment of the Fracture Toughness of Irradiated Stainless Steel for BWR Core Shrouds.* EPRI, Palo Alto, CA: 2006.1013396.
5. "Final Proprietary Safety Evaluation for Electric Power Research Institute Topical Report BWRVIP-100, Revision 1, "BWRVIP Vessel and Internals Project: Updated Assessment of the Fracture Toughness of Irradiated Stainless Steel for BWR Core Shrouds" (TAC No. ME8329)," U.S. Nuclear Regulatory Commission, April 12, 2016.
6. BWRVIP Letter 2023-049, *BWRVIP-100, Revision 2: BWR Vessel and Internals Project, Updated Assessment of the Fracture Toughness of Irradiated Stainless Steel for BWR Internal Components*, July 11, 2023.

The purpose of this letter is to request that the document titled "BWRVIP-100, Revision 2: BWR Vessel and Internals Project, Updated Assessment of the Fracture Toughness of Irradiated

Stainless Steel for BWR Internal Components" (Reference 1) be exempt from NRC review fees in accordance with 10CFR170.11(a)(1)(ii).

BWRVIP-100, Revision 2, provides fracture toughness correlations and evaluation methodologies that should be used to evaluate flaws in irradiated stainless steel boiling water reactor (BWR) internal components. The correlations and methodologies contained in BWRVIP-100, Revision 2, and prior revisions, are used to assure continued integrity of safety-related BWR reactor internals components subject to aging degradation. There are no NRC regulations or regulatory guidance that provide accepted correlations or methodologies equivalent to those in BWRVIP-100. The prior revision of BWRVIP-100 (Reference 2) was reviewed and approved by the NRC in 2016. This revision (Revision 1) was being reviewed by the NRC at the same time the Generic Aging Lessons Learned (GALL) report for Subsequent License Renewal (SLR), NUREG-2191 (Reference 3) was being prepared by the NRC staff. NUREG-2191 identifies the original revision of BWRVIP-100 (Reference 4) as part of the aging management program for BWR vessel internals. The fact that NUREG-2191 references BWRVIP-100-A as opposed to BWRVIP-100, Revision 1-A was purely an issue of timing, and it is expected that a future revision to NUREG-2191 will reference the most current version of BWRVIP-100.

In the safety evaluation (SE) for BWRVIP-100, Revision 1 (Reference 5), the NRC recommended that the BWRVIP should continue to seek additional austenitic stainless steel weld materials to better characterize the toughness of weld materials affected by both irradiation and thermal aging. In response to that recommendation, the BWRVIP obtained and tested irradiated austenitic stainless steel weld materials from two different sources. The results of that testing necessitated Revision 2 to BWRVIP-100.

Consistent with prior revisions of BWRVIP-100, Revision 2 will be submitted to the NRC for review and approval. Because the guidelines in BWRVIP-100 are part of the NRC's accepted aging management approach for BWR reactor internals in the GALL for SLR (Reference 3) and the updates being made in Revision 2 are in direct response to a recommendation made by the NRC in their safety evaluation for Revision 1 (Reference 5), the BWRVIP is requesting a waiver of review fees per 10CF170.11(a)(1)(ii).

A pre-submittal meeting was held with the NRC staff on February 27, 2023. The report was recently submitted for NRC review and approval (Reference 6). If this request for exemption of review fees is granted, EPRI respectfully requests that the fees associated with the pre-submittal meeting also be reimbursed.

Sincerely,

Nathan Palm, EPRI, BWRVIP Program Manager
Martin Bonifanti, Constellation, BWRVIP Executive Committee Chairman

c: L. James, NRC-NRR
W. McGruder, EPRI
D. Sommerville, EPRI