



April 1, 2022

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-321-A Irradiation Schedule Change Request”

- References:
1. *BWRVIP-321-A: Boiling Water Reactor Vessel and Internals Project: Plan for Extension of the BWR Integrated Surveillance Program (ISP) Through the Second License Renewal (SLR)*. EPRI, Palo Alto, CA: 2021. 3002020504.
  2. *BWRVIP-86, Revision 1-A: BWR Vessel and Internals Project, Updated BWR Integrated Surveillance Program (ISP) Implementation Plan*. EPRI, Palo Alto, CA: 2012. 1025144.
  3. *Safety Evaluation Regarding EPRI Proprietary Reports “BWR Vessel and Internals Project, BWR Integrated Surveillance Program Plan (BWRVIP-78)” and “BWRVIP-86: BWR Vessel and Internals Project, BWR Integrated Surveillance Program Implementation Plan,”* February 1, 2002 (ADAMS Accession Number ML020380691).
  4. M.E. Wylie (USNRC) to A. McGehee (EPRI), *Letter to Andrew McGehee Response to Fee Waiver BWRVIP-321*, April 1, 2019 (ADAMS Accession Number ML19073A238).
  5. C.E. Carpenter (USNRC) to E.J. Sullivan (USNRC), *“Meeting Summary for November 5 and 6, 1997, Meeting with Boiling Water Reactors Vessel and Internals Project Technical Chairs, Regarding BWRVIP-07 Safety Evaluation Report and to Discuss Issues Related to BWR Licensee Vessel Surveillance Programs, Relative to Monitoring Radiation Embrittlement at BWR Facilities,”* December 9, 1997 (ADAMS Accession Number 9712160051).
  6. Meeting between the NRC staff and EPRI, *“Partially Closed Meeting w/EPRI to Discuss the BWRVIP-321 Report Schedule for the Integrated Surveillance Program,”* dated February 3, 2022 (NRC ADAMS Accession No. ML22033A523).

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**CHARLOTTE OFFICE**

The purpose of this letter is to request that the document titled “BWRVIP-321-A Irradiation Schedule Change Request” be exempt from NRC review fees in accordance with 10CFR170.11(a)(1)(ii) and based on past precedent.

The BWRVIP-321-A Irradiation Schedule Change Request was submitted to the NRC by the letter enclosed as Attachment 1 indicating that NRC approval of an alternative irradiation schedule is necessary to implement the overall approach approved by the NRC in BWRVIP-321-A (Reference 1). BWRVIP-321-A provides an extension to the BWRVIP reactor vessel integrated surveillance program (ISP) to address operation through 80 years. The BWRVIP ISP has been relied upon by the NRC and the U.S. boiling water reactor (BWR) fleet since 2002 to satisfy the requirements of 10CFR50 Appendix H. Previous versions of the ISP program plan (References 2 and 3) were reviewed and approved by the NRC on a fee exempt basis. Additionally, BWRVIP-321-A was also reviewed and approved on a fee exempt basis (Reference 4).

As described in Reference 5, the NRC identified a concern in 1997 regarding a lack of unirradiated baseline Charpy V-notch (CVN) data for some plant-specific BWR surveillance programs. This missing baseline data negatively impacted the Staff’s ability to assess radiation embrittlement in BWR environments. Furthermore, the NRC staff felt that sufficient data from a number of BWRs was necessary to continue to support the conclusion that the embrittlement models of Regulatory Guide 1.99, Revision 2 were applicable to BWRs. In response, the BWRVIP initiated the development of the ISP primarily to address these NRC concerns. Surveillance data provided by the ISP has since been used by the NRC staff in assessing the adequacy of the Regulatory Guide 1.99, Revision 2 models for BWRs and eliminated the need for the NRC to develop any additional regulatory guidance to address their concerns for BWRs.

The previously approved ISP program plan (Reference 2) only addressed operation of the U.S. BWR fleet up to 60 years. For several reasons, which are discussed in Section 2.2 of BWRVIP-321-A, the previously approved program is unable to provide a complete set of data to support operation of the U.S. BWR fleet for a second license renewal (80 years). Without the extension to the ISP provided by BWRVIP-321-A, individual BWR plants applying for SLR would have had little choice but to reinstate their previous plant-specific surveillance programs. For many BWR plants, this would have the potential to reintroduce the NRC concerns identified in Reference 5 that were successfully addressed by the ISP. The extension to the ISP provided by BWRVIP-321-A ensures that the NRC concerns discussed above will continue to be addressed through 80 years of operation. Furthermore, the extension to the ISP allows for data to be provided so that the NRC can continue to assess the adequacy of the Regulatory Guide 1.99, Revision 2, or other embrittlement trend models for BWRs.

It has recently been concluded that the irradiation schedules contained in BWRVIP-321-A and approved by the NRC are not adequate for the plant that has been selected to host the supplemental SLR surveillance capsules which are essential to the overall approach defined in BWRVIP-321-A (additional detail can be found in the letter in Attachment 1). A change to the irradiation schedule is needed so that the NRC approved approach described in BWRVIP-321-A

can be successfully implemented and the concerns described above can be addressed. For these reasons, an exemption from review fees for the change in BWRVIP-321 irradiation schedules is requested per 10CFR170.11(a)(1)(ii).

Lastly, it is requested that, if this fee exemption is approved, any fees billed to the BWRVIP associated with the schedule change request pre-submittal meeting (Reference 6) be refunded.

If you have any questions on this subject please contact Nathan Palm, by telephone at 724.288.4043 or by e-mail at [npalm@epri.com](mailto:npalm@epri.com).

Sincerely,

The image shows two handwritten signatures in black ink. The signature on the left is for Nathan Palm, and the signature on the right is for Tim Hanley. Both signatures are cursive and appear to be written on a white background.

Nathan Palm, EPRI, BWRVIP Program Manager  
Tim Hanley, Exelon Corporation, BWRVIP Chairman

- c:     A. Buford, NRC-NRR  
       L. James, NRC-NRR  
       S. Richter, Energy Northwest  
       S. Williams, EPRI  
       J. Hosler, EPRI  
       W. McGruder, EPRI