

September 29, 2016

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

**Subject:** Request for Exemption of NRC Review Fees for “BWRVIP-25, Revision 1: BWR Vessel and Internals Project, BWR Core Plate Inspection and Flaw Evaluation Guidelines”

**Reference 1:** Letter from Jack Strosnider (NRC) to Carl Terry (BWRVIP Chairman), Final Safety Evaluation of BWR Vessel and Internals Project, “BWR Vessel and Internals Project, BWR Core Plate Inspection and Flaw Evaluation Guideline (BWRVIP-25),” EPRI Report TR-107284, December 1996 (TAC No. M97802), dated December 19, 1999

**Reference 2:** Letter from Tim Hanley (BWRVIP Chairman) to Chief Financial Officer (NRC), “Request for Exemption of NRC Review Fees for “BWRVIP-25, Revision 1: BWR Vessel and Internals Project, BWR Core Plate Inspection and Flaw Evaluation Guidelines,” dated September 26, 2016

The purpose of this letter is to request that the document titled “BWRVIP-25, Revision 1: BWR Vessel and Internals Project, BWR Core Plate Inspection and Flaw Evaluation Guidelines” be exempt from NRC review fees in accordance with 10 CFR 170.11(a)(1)(ii). Note that this letter supersedes Reference 2, which did not reflect the correct regulation under the recent FY 2016 fee rule.

BWRVIP-25, Revision 1 was submitted to the NRC by the letter enclosed as Attachment 1, which indicates that the document was submitted as a means of exchanging information for the purpose of supporting generic regulatory improvements related to core plate inspection and flaw evaluations. The report is an update to the original (BWRVIP-25), which was previously reviewed by the NRC on a fee exempt basis.

The guidelines in BWRVIP-25, Revision 1 serve as an effective means to address possible BWR core plate degradation issues that are not addressed by the ASME Code or by NRC regulations. NRC review and acceptance of the BWRVIP-25, Revision 1 is the most efficient use of industry and NRC resources to ensure protection of the health and safety of the public. In accordance with the requirements of Nuclear Energy Institute (NEI) 03-08, Guideline for the Management of Materials Issues, the guidelines in this document will be implemented by all

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U.S. BWR utilities and where applicable the inspection results will be periodically submitted to the NRC to keep the NRC informed of service-related inspection issues related to BWR internals. By reviewing BWRVIP-25, Revision 1, the NRC will have an opportunity to make generic regulatory improvements in an area which is not addressed by current NRC regulations.

Also, the following open issue was identified in the NRC's final safety evaluation of BWRVIP-25 (reference 1):

**Issue 3.1.8 Location 8 - Aligner Pin Socket to Rim Welds**

The staff's April 28, 1999, initial SE stated:

The BWRVIP-25 report states that "[m]ovement of the core plate during a seismic event in such a way as to interfere with control rod insertion ... requires multiple failures of the rim hold-down bolts...." and "...as long as the critical number of bolts remain intact, lateral support for the core plate assembly is assured. ... Therefore, there is no safety consequences of failure at Location 8."

The BWRVIP's assumption for no safety consequences of failure at Location 8, that a critical number of rim hold-down bolts remains intact, is not adequately justified. The BWRVIP needs to either (a) expand its technical basis for this assumption, (b) expedite confirmatory inspections of the hold-down bolts, or (c) expedite replacement of the hold-down bolts with restraining wedges, as described in the "Top Guide / Core Plate Repair Design Criteria (BWRVIP-50)" report, dated May 14, 1998 (presently under staff review).

BWRVIP's October 6, 1999, Response:

The BWRVIP will provide a response to the staff's comment at a later date.

Staff's Evaluation:

The staff understands from discussions with the BWRVIP that an expanded technical basis for this assumption is being developed, and will be provided in the near future for staff review. Based on this, until such time as an adequate, expanded technical basis for not inspecting is approved by the staff, licensees should continue to perform inspections of the hold-down bolts, except for those plants that have installed core plate wedges to structurally replace the lateral load resistance provided by the rim hold-down bolts, in which case no inspections are required. Per the staff's discussions with the BWRVIP, the staff understands that the BWRVIP agrees to incorporate inspections of the hold-down bolts into a revised BWRVIP-25 report. This issue will be re-considered when the BWRVIP provides an expanded technical basis for the assumption in the BWRVIP-25 report.

As stated in the Staff's evaluation, except for those plants that have installed core plate wedges, licensees should continue to perform inspections of their core plate hold down bolts. However, plants found that they could not fully implement the core plate bolt inspection requirements of BWRVIP-25 as originally written due to NDE limitations that the BWRVIP was unable to resolve. Thus, all the U.S. BWR plants without core plate wedges currently have NEI -03-08 Deviation Dispositions in place to justify not meeting BWRVIP-25's core plate bolt inspection requirements. BWRVIP-25, Revision 1 includes an expanded technical basis that addresses the inspectability issue and the open issue described in the SE.

In addition, BWRs applying for license renewal for an extended period will reference BWRVIP-25, Revision 1 as a means of implementing the recommendations in NUREG-1801 and ultimately meeting the requirements of 10 CFR Part 54 for license renewal. The NRC staff will likely use BWRVIP-25, Revision 1 when updating NUREG-1801 and other associated NRC documents such as NUREG-1800, "Standard Review Plan for Review of License Renewal Applications for Nuclear Power Plants" and NUREG-1833, "Technical Basis for Revision to the License Renewal Guidance Documents."

In summary, NRC review and acceptance of BWRVIP-25, Revision 1 would provide for a generic regulatory improvement since there are no current regulatory or ASME Code requirements to inspect or evaluate these internal components for either the original license term or an extended license term.

If you have any questions on this subject please contact Drew Odell (Exelon), BWRVIP Integration Committee Technical Chairman, by telephone at 610.212.1155 or by e-mail at [andrew.odell@exeloncorp.com](mailto:andrew.odell@exeloncorp.com).

Sincerely,

The image shows two handwritten signatures in black ink. The signature on the left is "A. D. McGehee" and the signature on the right is "Tim Hanley".

Andrew McGehee, EPRI, BWRVIP Program Manager  
Tim Hanley, Exelon, BWRVIP Chairman

c: John McHale, NRC  
Joseph Holonich, NRC  
Drew Odell, Exelon  
Andy McGehee, EPRI