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Project Number 99902037

May 17, 2018

OG-18-127

Ms. Maureen Wylie  
Chief Financial Officer  
U.S. Nuclear Regulatory Commission  
Washington, D.C. 20555-0001

Subject: PWR Owners Group  
Request for Exemption from NRC Fees to Review  
= BAW-2192-P, Revision 0, Supplement 1, "Low Upper-Shelf Toughness  
Fracture Mechanics Analysis of Reactor Vessels of B&W Owners Reactor  
Vessel Working Group for Levels A & B Service Loads" – and –  
= BAW-2178-P, Revision 0, Supplement 1, Low Upper-Shelf Toughness  
Fracture Mechanics Analysis of Reactor Vessels of B&W Owners Reactor  
Vessel Working Group for Levels C & D Service Loads

References:

1. Submittal of BAW-2192-P, Revision 0, Supplement 1 and BAW-2178-P, Revision 0, Supplement 1 (PA-MS-1481), OG-17-329 Revision 1, dated December 15, 2017.
2. Generic Aging Lessons Learned for Subsequent License Renewal (GALL-SLR) Report (NUREG-2191)
3. Standard Review Plan for Review of Subsequent License Renewal Applications for Nuclear Power Plants-- Final Report (NUREG-2192)
4. NUREG/CF-5729, Multivariable Modeling of Pressure Vessel and Piping J-R Data, May 1991, E. D. Eason, J. E. Wright, E. E. Nelson.
5. B&W Owner's Group Generic License Renewal Program, BAW-2251A, Demonstration of Management of Aging Effects for the Reactor Vessel, August 1999.

Dear Ms. Wylie:

The Pressurized Water Reactor Owner's Group (PWROG) is requesting an exemption from NRC fees to review the following two Topical Report (TR) Supplements transmitted via letter dated December 15, 2017 (Reference 1):

1. BAW-2192-P, Supplement 1, Revision 0, Low Upper-Shelf Toughness Fracture Mechanics Analysis of Reactor Vessels of B&W Owners Reactor Vessel Working Group for Levels A & B Service Loads
2. BAW-2178-P, Supplement 1, Revision 0, Low Upper-Shelf Toughness Fracture Mechanics Analysis of Reactor Vessels of B&W Owners Reactor Vessel Working Group for Levels C & D Service Loads

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The BAW-2192, Supplement 1, and BAW-2178, Supplement 1, containing 80-year equivalent margins analyses (EMA) for Linde 80 and the applicable Rotterdam welds associated with reactor vessels fabricated by the Babcock & Wilcox Company (B&W), were provided to the NRC to meet the EMA time-limited aging analyses (TLAA) submittal requirements of NUREG-2191 and NUREG/2192 (References 2 and 3). The EMA is reported for all reactor vessel welds that are expected to receive a neutron fluence  $> 1.0E17$  n/cm<sup>2</sup> ( $E > 1.0$  MeV) at 80 years. The EMA supports current and future subsequent license renewal applications. The PWROG is submitting these TR Supplements to the NRC for review and approval so that a common approach will be used to address the low upper-shelf toughness fracture mechanics analyses for B&W fabricated reactor vessels.

A review fee waiver for the NRC review of BAW-2192, Supplement 1, and BAW-2178, Supplement 1 is requested pursuant to the provisions of 10 CFR 170.11(a)(1)(ii). The Topical Report Supplements were submitted to assist the NRC in generic regulatory improvements in the following two areas:

The TR supplements allow the NRC to review an industry first evaluation of time-limited aging analyses (TLAA) in accordance with 54.21 (c)(1)(ii) for subsequent license renewal. Resolution of the TLAA is based on the B&WOG J-R model reported in BAW-2192PA (used for 60 years) and BAW-2192, Supplement, Revision 0 (extension of the J-R model for 80 years). NRC review of these reports provides an opportunity for the staff to develop a consistent approach for review of topical reports that address reactor vessel integrity TLAA for subsequent license renewal.

The B&WOG J-R model has historically been compared to the Linde 80 J-R model reported in NUREG/CR-5729 (Reference 4) by the NRC (see NRC SER of BAW-2192PA). The NUREG/CR-5729 Linde 80 J-R model is based on data that does not cover the subsequent period of operation. The NRC may need to include new J-R test data to update the NUREG/CR-5729 Linde 80 J-R model to cover the subsequent period of extended operation. NRC approval of the TR Supplements will ensure that a common, consistent approach will be used to address the low upper-shelf toughness fracture mechanics analyses of B&W fabricated reactor vessels in subsequent license renewal applications; this is consistent with BAW-2251A (Reference 5), for the period of extended operation. The NRC followed different review approaches for the Linde 80 J-R model for 60-years; the B&W operating plants were evaluated through BAW-2251A and the WEC plants with B&W vessels were reviewed on a plant-specific basis. Since the supplement to BAW-2192 addresses one B&W plant and two WEC plants, there is significant benefit for a generic NRC review of the new J-R model to cover 80-years.

Thank you in advance for consideration of our request for exemption from NRC review fees associated with BAW-2192-P, Supplement 1, Revision 0, and BAW-2178-P, Supplement 1, Revision 0.

If you have any questions, please do not hesitate to contact me at (805) 550-4168 or Mr. W. Anthony Nowinowski, Program Manager of the PWR Owners Group, Program Management Office at (412) 374-6855.

Sincerely yours,



Ken Schrader, Chief Operating Officer and Chairman  
PWR Owners Group

CMH:NJS:am

cc: PWROG Management Committee  
PWROG Materials Committee  
PWROG Steering Committee  
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