



MRP Materials Reliability Program _____ MRP 2021-018
(via email)

Date: October 21, 2021

To: Document Control Desk
U.S. Nuclear Regulatory Commission
Washington, DC 20555-001

Subject: Request for Exemption of NRC Review Fees for MRP-227, Revision 2 (Ref. EPRI Docket Number 99902021)

References:

1. MRP Letter 2021-019, Report Transmittal: *Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluations Guideline (MRP-227 Revision 2)*, EPRI, Palo Alto, CA, 2021, 3002005349. Ref.: EPRI Docket Number 99902021
2. *Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation Guidelines (MRP-227 Rev.2)*. EPRI, Palo Alto, CA: 2021. 3002020105.
3. *NRC letter from J.E.Dyer-CFO to C.B.Larsen-EPRI* dated 2/20/2009 (ML090510035)
4. *NRC letter from M.E.Wylie-CFO to D.Czufin-EPRI* dated 5/24/2016 (ML16098A264)

The purpose of this letter is to request that the document entitled “Materials Reliability Program: Pressurized Water Reactor Internals Inspection and Evaluation (I&E) Guidelines (MRP-227 Rev.2)”, EPRI Palo Alto, CA: 2021. 3002020105, be exempt from NRC review fees in accordance with 10CFR170.11(a)(1)(iii)(A)(1).

The most recent version of MRP-227, Rev.1, was previously submitted to NRC for review in 2015 and approved via Safety Evaluation Report (SER) as MRP-227-Revision-1-A in 2019 (ref. NRC letter ML11308A770). The industry’s fee-waiver requests for both MRP-227 Rev.0 and MRP-227 Rev.1 was approved by NRC (ref. 3 and 4). The current rationale for requesting a fee-waiver for MRP-227 Rev.2 remains consistent with that for MRP-227 Rev.1, as detailed below.

MRP-227 Rev.2 was submitted to the NRC for review by the referenced MRP letter. The review requested is for the incremental changes made to MRP-227-Rev.1-A, and not a re-review of the entire document. The submittal also indicates that the document was provided as a means of exchanging information for the purpose of supporting generic regulatory improvements related to methodologies for demonstrating pressurized water reactor (PWR) safety-related internals integrity throughout the life of the plant, including the extended period authorized by license renewal in accordance with 10CFR Part 54. In addition, many licensees have made commitments as part of power up-rate and license renewal submittals to incorporate the applicable program elements of an industry reactor vessel internals inspection program.

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The guidelines in the MRP-227 series of documents serve as an effective means to address the aging of reactor internals components and meet or exceed NRC guidance provided in the Generic Aging Lessons Learned (GALL) Report (both NUREG-1801, Revision 2 and NUREG-2191). The subject I&E guideline is applicable to reactor internal structural components for Babcock & Wilcox (B&W), Combustion Engineering (CE) and Westinghouse designed PWRs.

The major intent of this Revision 2 is to incorporate lessons learned and to address subsequent license renewal (SLR) periods of extended operation (beyond 60-calendar years of PWR operation) concerns related to managing the aging effects of PWR reactor internals. Another intent is to ensure that continued generic fleet-wide applicability of the I&E guideline is maintained. Given the overall thrust of changes to this generically applicable I&E guideline, we believe the staff effort for review of the revision would be limited and small compared to the repetitive efforts of addressing them individually for each licensee.

It remains industry's understanding through numerous meetings with NRC staff that this I&E guideline is an important document for the NRC staff in support of agency review of licensee activities. As noted during these meetings, the industry considers that this is a "living and evolving" guidance document of which this is the most recent version. Industry intends to continue revising the document based on operating experience, improved state of knowledge of aging mechanisms and processes, and utility needs such as extended licenses (SLR). As such, NRC review and acceptance of the MRP-227 Rev.2 document is the most efficient use of industry and NRC resources to support the agency's generic regulatory improvements in an area that is not fully addressed by current NRC regulations.

In conclusion, all PWR utility owners are expected to use (and reference) MRP-227 in developing or updating plant-specific aging management programs for their safety-related reactor internals. MRP-227, Rev.2 represents a generic standard that addresses operating experience to date and resolves NRC SER issues with the original document. The NRC's one-time review of MRP-227 Rev.2 document should substantially increase the efficiency and reduce the staff effort required for individual plant reviews, thereby enhancing agency regulatory effectiveness.

If you have any questions about this project, please contact Bob McGill at EPRI (rmcgill@epri.com, 650-855-2026) or Kyle Amberge (kamberge@epri.com, 704-595-2039).

Sincerely,



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