

October 14, 2015

Tim Hanley
Senior Vice President West Operations, Exelon
Chairman, BWR Vessel and Internals Project
3420 Hillview Avenue
Palo Alto, CA 94304-1395

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION ON BWRVIP-241, APPENDIX A, "BWR NOZZLE RADII AND NOZZLE-TO-VESSEL WELDS DEMONSTRATION OF COMPLIANCE WITH THE TECHNICAL INFORMATION REQUIREMENTS OF THE LICENSE RENEWAL RULE (10 CFR 54.21)" (TAC NO. MF4638)

Dear Mr. Hanley:

By letter dated October 10, 2012 (Agencywide Documents Access and Management System Accession No. ML12290A017), the Boiling Water Reactor (BWR) Vessel and Internals Project (BWRVIP) submitted Topical Report Appendix A, BWRVIP-241, "BWR Nozzle Radii and Nozzle-to-Vessel Welds Demonstration of Compliance with the Technical Information Requirements of the License Renewal Rule (10 CFR 54.21)," for U.S. Nuclear Regulatory Commission (NRC) staff review. Appendix A is a companion document to report BWRVIP-241-A, "Probabilistic Fracture Mechanics Evaluation for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii," and to report BWRVIP-108-A, "Technical Basis for the Boiling Water Reactor Nozzle-to-Vessel Shell Welds and Nozzle Blend Radii." Upon review of the information provided, the NRC staff has determined that additional information is needed to complete the review. The request for additional information (RAI) questions are in the enclosure to this letter.

In an email exchange between Mr. Chuck Wirtz, representing the BWRVIP, and myself, we agreed that the NRC staff will receive your response to the enclosed RAI questions by March 30, 2016. If you have any questions regarding the enclosed RAI questions, please contact me at 301-415-7297 or Joseph.Holonich@nrc.gov.

Sincerely,

/RA/

Joseph J. Holonich, Senior Project Manager
Licensing Processes Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Project No. 704

Enclosure: RAI questions

Tim Hanley
Senior Vice President West Operations, Exelon
Chairman, BWR Vessel and Internals Project
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ADAMS Accession No.: ML15245A009

*via email

NRR-106

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Request for Additional Information for BWRVIP-241, Appendix A

**“BWR [Boiling Water Reactor] Nozzle Radii and Nozzle-to-Vessel Weld Demonstration
of Compliance with the Technical Information Requirements of the
License Renewal Rule (10 CFR 54.21)”**

Background:

Section A.2 of Appendix A states:

Paragraph 54.21 (a)(1) of the rule provides the requirements for identifying if the nozzles are subject to aging management review. To satisfy the requirements of 54.21 (a)(1), the guidance provided in the NEI [Nuclear Energy Institute] industry guideline (Reference A2) was used to identify passive components and then to identify those that are long-lived. For nozzles greater than 2 inches, a screening methodology was not needed to make this determination. All of these nozzles are passive and long-lived. Therefore, the nozzles having a diameter greater than 2 inches are subject to an aging management review.

Reference A2, of Appendix A, refers to NEI Report 95-10, “Industry Guidelines for Implementing the Requirements of 10 CFR Part 54 - License Renewal Rule,” Revision 0, dated March 1996. The NRC staff noted that NEI issued Report 95-10, Revision 6, on June of 2005, while Appendix A is referencing the older version of the same document (Revision 0, March 1996). The NRC staff also noted that Section A2, of Appendix A, infers that nozzles having a diameter equal or less than 2 inches are not subject to an aging management review.

RAI-1

Explain why Appendix A is referencing an old guidance document which has been revised since it was first issued.

RAI-2

If it is the intent of Appendix A to state that nozzles 2 inches and smaller are not subject to aging management review, explain why these nozzles should not be subject to aging management review.

RAI-3

Identify nozzle(s), 2 inches and smaller, that will rely on BWRVIP-108-A and BWRVIP-241-A results for future licensing applications.

ENCLOSURE