



Program Management Office
20 International Drive
Windsor, Connecticut 06095

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OG-18-55

Document Control Desk
U.S. Nuclear Regulatory Commission
11555 Rockville Pike
Rockville, MD 20852-2738

Subject: PWR Owners Group
Transmittal of PWROG-15109-NP, Revision 0, "PWR Pressure Vessel Nozzle Appendix G Evaluation," PA-MSC-1091R4

Reference: **NRC Regulatory Issue Summary 2014-11, "Information on Licensing Applications for Fracture Toughness Requirements for Ferritic Reactor Coolant Pressure Boundary Components," October 2014**

The purpose of this letter is to transmit Pressurized Water Reactor Owners Group (PWROG) Topical Report (TR), PWROG-15109-NP, Revision 0, "PWR Pressure Vessel Nozzle Appendix G Evaluation," in accordance with the Nuclear Regulatory Commission (NRC) TR program for review and acceptance for referencing in regulatory actions (Enclosure 1).

Background

The NRC has issued Requests for Additional Information (RAIs) on License Amendment Requests (LARs) on proposed revisions to the 10 CFR Part 50 Appendix G P-T limit curves. The RAIs asked whether the submitted P-T limit curves based on the beltline region of the Reactor Pressure Vessel (RPV) and the closure head flange bound the RPV inlet and outlet nozzles.

Additionally, NRC Regulatory Information Summary (RIS) 2014-11 was issued to clarify what information should be included in submittals associated with reactor vessel fracture toughness and associated pressure-temperature limits. Specifically, the RIS clarifies that ASME Section XI, Appendix G evaluations should address structural discontinuities such as the RPV nozzles. PWROG-15109-NP contains generic PWR fracture mechanics analyses of the RPV inlet and outlet nozzle corners in accordance with the requirements of 10 CFR Part 50 Appendix G to generically address the issue discussed in RIS 2014-11.

Topical Report Summary

PWROG-15109-NP contains generic PWR nozzle Appendix G P-T limit curves that were developed and compared to the existing NRC approved Appendix G P-T limit curves for

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all the operating U.S. PWRs. The comparison confirms that the nozzle P-T limit curves are bounded in every case by the existing U.S. PWR P-T limit curves.

Licensees will reference PWROG-15109-NP to demonstrate compliance with 10 CFR Part 50 Appendix G and RIS 2014-11 for RPV nozzles in future LARs.

Limits of Applicability

PWROG-15109-NP is applicable to all U.S. PWRs.

Intended Application

PWROG-15109-NP is being submitted for NRC review and approval. Licensees will utilize the TR to demonstrate that P-T limits derived using the existing approved methodologies (WCAP-14040-A, Rev. 4, CE NPSD-683-A, Rev. 06 and BAW-10046A, Rev. 2) bound RPV inlet and outlet nozzle corners P-T limits.

Industry Implementation

WCAP-15109-NP may be implemented by all U. S. PWRs.

Specialized Resource Availability

This TR is being submitted to the NRC for review and approval so that the NRC approved version can be utilized by licensees to demonstrate existing NRC approved P-T limits and future LARs using existing approved methodologies (WCAP-14040-A, Rev. 4, CE NPSD-683-A, Rev. 06 and BAW-10046A, Rev. 2) bound RPV inlet and outlet nozzle corner P-T limits which is the issue identified in RIS 2014-11. NRC approval of the generic TR will reduce the impact on both licensee and NRC resources by eliminating the need for the preparation of and NRC review of plant specific evaluations to confirm that the traditional P-T limits bound RPV inlet and outlet nozzle corners P-T limits.

NRC Review Schedule

The PWROG requests that the NRC complete their review of the TR by February 2019.

Request for Review Fee Waiver

The PWROG will be requesting that a fee waiver for the NRC review of PWROG-15109-NP, Revision 0 pursuant to the provisions of 10 CFR 170.11(a)(1)(ii). PWROG-15109-NP contains a generic evaluation that can be utilized by all U. S. PWR licensees to confirm compliance with 10 CFR 50 Appendix G. NRC approval of the generic TR will reduce the impact on both licensee and NRC resources by eliminating licensee specific RPV nozzle evaluations and the NRC review associated with those evaluations. Therefore, the review of this TR will support ongoing NRC generic regulatory improvements/efforts associated with RIS 2014-11.

During the fee waiver decision period, the PWROG respectfully requests the NRC Staff to perform its acceptance review of PWROG-15109-NP. The PWROG will assume the responsibility of payment of the NRC review fees accrued both during the acceptance review, and during the review, if the fee waiver is not approved.

This letter transmits one copy of PWROG-15109-NP, Revision 0 (Enclosure 1).

Correspondence related to this transmittal should be addressed to:

Mr. W. Anthony Nowinowski, Program Manager
PWR Owners Group, Program Management Office
Westinghouse Electric Company
1000 Westinghouse Drive
Suite 380
Cranberry Township, Pennsylvania, 16066

If you have any questions, please do not hesitate to contact me at (205) 992-7037 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

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Enclosure 1: One copy of PWROG-15109-NP, Revision 0

cc: PWROG Management Committee
PWROG Analysis Committee
PWROG Steering Committee
PWROG Licensing Committee
PWROG PMO
J. Andrachek, Westinghouse
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J. Chen, Westinghouse
D. Love, Westinghouse
S. Rigby, Westinghouse
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M. DeVan, Framatome
A. Nana, Framatome