POWERING PROGRESS THROUGH SCIENCE AND TECHNOLOGY





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

Attention: C. E. Carpenter

Response to NRC Request for Additional Information on BWRVIP-59 Subject:

Reference: Letter from C. E. Carpenter, Jr., (NRC) to Carl Terry (BWRVIP Chairman), "Proprietary Request for Additional Information - on EPRI TR-108710, Evaluation of Crack Growth In BWR Nickel Base Austenitic Alloys in RPV Internals (BWRVIP-59) (TAC NO. MA4467)," dated November 29, 1999

Enclosed as Attachment I to this letter is the BWRVIP response to the NRC Request for Additional Information (RAI) on the BWRVIP-59 report transmitted by the letter referenced above.. For convenience, each item identified in the RAI is stated first followed by the BWRVIP response.

During the preparation of responses to the RAI, an alternate weld sequence, which appears to have been used in the fabrication of the BWR shroud support structure for some BWRs, was identified. In the initial evaluation of the shroud support structure, which is contained in the BWRVIP-59 report, a fabrication sequence which was available at that time was used. It was subsequently discovered that a number of reactor vessels manufactured by Chicago Bridge and Iron (CBI), including River Bend, had their shroud support structures assembled in a significantly different sequence.

Extensive analysis was performed comparing the residual stress distributions produced with this new weld sequence to the one originally used in BWRVIP-59. It was established that the analysis results as presented in BWRVIP-59 with the original sequence bound those obtained using this alternate welding sequence. The affected pages of the BWRVIP-59 report, which have changed as a result of these new analyses, are provided in Attachment II of this letter. Details of the stress analyses of this alternate weld sequence are provided in a new Appendix E (to be incorporated into BWRVIP-59).

As indicated in the NRC letter referenced above, the enclosed information concerns a report that the NRC staff has found to be proprietary in nature. Therefore, the enclosed information is also proprietary and should be withheld from public disclosure. G004

If you have questions on this subject please contact Rich Ciemiewicz of Exelon Corporation (BWRVIP Assessment Committee Technical Chairman) at 610.765.5963.

Sincerely,

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Carl Terry Niagara Mohawk Power Corporation Chairman, BWR Vessel and Internals Project