50-338

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 23, 1999

Mr. J. P. O'Hanlon
Senior Vice President - Nuclear
Virginia Electric and Power Company
5000 Dominion Blvd.
Glen Allen, Virginia 23060

SUBJECT: CLOSURE OF THE REVIEW OF THE RESPONSE TO GENERIC LETTER 92-01, REVISION 1, SUPPLEMENT 1, "REACTOR VESSEL STRUCTURAL INTEGRITY," THE NORTH ANNA NUCLEAR POWER PLANT, UNITS 1 AND 2 (TAC NOS. MA0555 AND MA0556)

Dear Mr. O'Hanlon:

On May 19, 1995, the U.S. Nuclear Regulatory Commission (NRC) issued Generic Letter 92-01, Revision 1, Supplement 1 (GL 92-01, Rev. 1, Supp. 1), "Reactor Vessel Structural Integrity," to holders of nuclear operating licenses. In issuing the GL, the staff required addressees of the GL to:

(1) identify, collect and report any new data pertinent to the analysis of structural integrity of the reactor pressure vessels (RPVs) at their nuclear plants; and

(2) assess the impact of that data on their RPV integrity analyses relative to the requirements of Sections 50.60 and 50.61 to Part 50 of Title 10 of the *Code of Federal Regulations* (10 CFR 50.60 and 10 CFR 50.61), and to the requirements of Appendices G and H to Part 50 of Title 10 of the *Code of Federal Regulations* (Appendices G and H to 10 CFR Part 50).

On August 10, 1995, you submitted your initial response to GL 92-01, Rev. 1, Supp. 1, and provided the requested information relative to the structural integrity assessments for North Anna Units 1 and 2. The staff evaluated your response to GL 92-01, Rev. 1, Supp. 1, and provided its conclusion relative to your response on August 9, 1996. In your August 10, 1995 letter, you also committed to "conduct confirmatory searches of known data sources for these reactor vessel beltline materials to ensure that relevant chemical and mechanical test data have been identified." By letter dated November 20, 1995, you submitted Babcock & Wilcox Company Report BAW-2260, which contained updated information regarding North Anna Units 1 and 2 Rotterdam Dockyard beltline materials. The staff reviewed the information in your updated submittal for North Anna Units 1 and 2 and found some variations in the data reported by you in your responses to GL 92-01, Rev. 1, Supp. 1, and the corresponding values input by the staff in the Reactor Vessel Integrity Database (RVID). Please note that the deviations between the data are explained in the "notes" section of the RVID. The variations between your data and the staff's data in the RVID are explained below.

DF01

North Anna Unit 1

In your submittals of August 10 and November 29, 1995, for North Anna Unit 1, you considered the surveillance data for the lower shell forging 03 to be credible and calculated a chemistry factor (CF) from the surveillance data. The staff determined that two of the four surveillance data points are not credible; however, all are within the 2-sigma limits using Regulatory Guide (RG) Position 1.1. Since two of the data points are not credible, the staff used the surveillance data to calculate the CF with a full margin value of 34°F to calculate the RT_{PTS} (a second option would have been to use the RG Tables to calculate the CF). Since lower shell forging 03 is not the limiting material, the reactor vessel integrity evaluations are not affected.

North Anna Unit 2

In your submittals of August 10 and November 29, 1995, for North Anna Unit 2, you reported a CF value of 47.9°F for forging 04 in BAW-2224. This value was based on data from WCAP-12497 (Capsule U data). The staff entered the licensee's CF value as an override to the RVID because this value is conservative. However, if the other available surveillance data are used (Capsule V data), the resulting CF and RT_{PTS} values are 35.1°F and 157.5°F, respectively. It should be noted that this RT_{PTS} value results from using the full margin value of 34 °F. The full margin value is applicable since one out of the four surveillance data points for forging 04 is not credible, but all are within the 2-sigma limits using RG Position 1.1. (As stated above for North Anna Unit 1, a second option would have been to use the RG Tables to calculate the CF.) Since forging 04 is not the limiting material, the reactor vessel integrity evaluations are not affected.

As a result of the staff's review of your responses to GL 92-01, Rev. 1 and GL 92-01, Rev. 1, Supp. 1, the staff has revised the information in the RVID and is releasing it as RVID Version 2. The new database diskettes are posted on the World-Wide Web at a location which is linked to the NRC home page (http://www.nrc.gov/NRR/RVID/index.html). The staff recommends that you review this information. If the staff does not receive comments by September 1, 1999, we will assume that the data entered into the RVID are acceptable for your plant. No additional information is necessary with regard to the structural integrity assessments. Future submittals on pressure-temperature limits, pressurized thermal shock, or upper shelf energy should reference the most current information.

This closes the staff's efforts in regard to TAC numbers MA0555 and MA0556. The staff appreciates your efforts on this matter.

Sincerely,

original signed by:
N. Kalyanam, Project Manager, Section 1
Project Directorate II
Division of Licensing Project Management
Office of Nuclear Reactor Regulation

Docket Nos.: 50-338 and 50-339

cc: See next page

Distribution:

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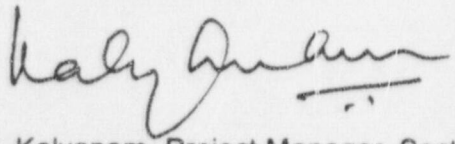

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Project Directorate II
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