

VIRGINIA ELECTRIC AND POWER COMPANY  
RICHMOND, VIRGINIA 23261

May 16, 2007

U.S. Nuclear Regulatory Commission  
Attention: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738

Serial No. 06-1007B  
NLOS /ETS  
Docket No. 50-339  
License No. NPF-7

**VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION)**  
**NORTH ANNA POWER STATION UNIT 2**  
**SUBMITTAL OF STRESS EVALUATION, PRELIMINARY ENGINEERING**  
**EVALUATION OF INSURGE/OUTSURGE TRANSIENTS AND EXAMINATION**  
**RESULTS FOR THE COMPLETED ALLOY 600 PRESSURIZER NOZZLE**  
**ALTERNATIVE WELD REPAIR CMP-023R1**

In a letter, dated January 3, 2007 (Serial No. 06-1007), as supplemented on March 13, 2007 (Serial No. 06-1007A), Dominion requested approval to use a proposed alternative to apply dissimilar metal weld overlays for repair/replacement activities associated with Alloy 600 materials. That request contained alternative requirements for the North Anna Units 1 and 2 Inservice Inspection (ISI) programs to perform full structural preemptive weld overlays (PWOLs) to mitigate the potential for primary water stress corrosion cracking (PWSCC) susceptibility for those pressurizer nozzles containing Alloy 600.

As stated in our Relief Request, Dominion committed to provide: (1) the final stress analysis for five of the weld overlays and the preliminary engineering evaluation of insurge/outsurge transients for the surge line prior to entry into Mode 4; (2) the examination results of the weld overlays; and, (3) a discussion of any repairs to the overlay material and/or base material and the reason for the repair; within 14 days after the completion of the ultrasonic examination of weld overlay installations.

The examination results of the six completed PWOLs and the proprietary version of the stress analysis for the mitigated nozzles and the preliminary engineering evaluation of insurge/outsurge transients were submitted directly to Mr. S. P. Lingam of your staff on April 11, 2007. This letter documents the submittal of the above information and provides: 1) the non-proprietary version of the stress analysis and the insurge/outsurge evaluation for public disclosure (Attachment 1); 2) a proprietary version of revision 2 to calculation 32-9035736-002 (Attachment 2); 3) the required affidavit to support the classification of the information previously submitted to Mr. S. P. Lingam, as well as, the revised calculation in Attachment 2 (Attachment 3); and, 4) the following restatement of the examination results of the mitigated pressurizer nozzles.

A110  
A047

Six full structural mitigative PWOLs for the North Anna Unit 2 pressurizer safety, spray, relief, and surge nozzles were performed during the spring 2007 refueling outage (N2R18) in accordance with relief request CMP-023R1. The surface and volumetric examinations of the weld and base material were completed with no recordable indications. The examinations resulted in 100% coverage in accordance with relief request CMP-023R1 for both the preservice and inservice examination volumes. There were no repairs necessary to the weld overlay material or base metal during the installation of the PWOLs.

This letter also satisfies the 60-day notification commitments made in Dominion letter dated February 26, 2007 (Serial No. 07-0035B) and the NRC Confirmatory Action Letter dated March 29, 2007 for North Anna Unit 2.

If you have any questions regarding this submittal, please contact Mr. Thomas Shaub at (804) 273-2763.

Very truly yours,



Gerald T. Bischof  
Vice President – Nuclear Engineering

Attachments

1. Non-proprietary - PWOL Stress Analysis Calculations For Alloy 600 Pressurizer Nozzle Repair.
2. Proprietary - PWOL Stress Analysis Calculation 32-9035736-002.
3. Affidavit - PWOL Stress Analysis Results For Alloy 600 Pressurizer Nozzle Repair.

Commitments made in this letter:

None

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