VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

May 8, 2012

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

Serial No. 12-326
NLOS/ETS R0
Docket No. 50-338
License No. NPF-4

VIRGINIA ELECTRIC AND POWER COMPANY (DOMINION)
NORTH ANNA POWER STATION UNIT 1 – RELIEF REQUEST N1-I4-CMP-001
NONDESTRUCTIVE EXAMINATION RESULTS FOR
THE STEAM GENERATOR HOT LEG INLET NOZZLES
FULL STRUCTURAL WELD OVERLAY CONFIGURATION

By letter dated March 30, 2011 (Serial No. 11-120), Dominion requested NRC approval for a proposed alternative to certain ASME Code Section XI – 2004 Edition requirements associated with the Steam Generator hot leg nozzle repairs. The proposed alternative permitted the application of full structural weld overlays (FSWOLs) to mitigate the potential for primary water stress corrosion cracking (PWSCC) susceptibility at North Anna Unit 1. By letter dated March 13, 2012, the NRC approved Relief Request N1-I4-CMP-001.

Dominion installed FSWOLs on the Steam Generator hot leg nozzle dissimilar metal welds (DMWs) during the North Anna Unit 1 spring 2012 refueling outage. As a condition of the alternative, Dominion committed to provide a listing of indications detected and the disposition of all indications using the standards of ASME Code Section XI, IWB-3514-2 and/or IWB-3514-3 criteria and, if possible, the type and nature of the indications. The attachment to this letter provides a summary of the indications and the disposition of each indication for the three Steam Generator hot leg weld overlays. In addition, examination results for the seal weld on the B Steam generator hot leg are included in the attachment.

As a result of the ultrasonic (UT) examinations there were no repairs required to the base metal, DM weld, or butter for the A and C Steam Generator hot leg nozzles. However, prior to deposition of the FSWOL for the B hot leg nozzle, unacceptable indications were identified in the alloy 82/182 DM weld and butter. The unacceptable indications present at the surface where the overlay was to be installed were partially excavated, seal welded, and then the FSWOL was completed as a repair in accordance with the approved relief request. The completed FSWOLs for all three hot leg nozzles had no rejectable indications.

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NRR

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

Sincerely,

J. Alan Price
Vice President – Nuclear Engineering

Attachment: NDE Results for Steam Generator Hot Leg Nozzle FSWOLs

Commitments made in this letter: None

cc: U.S. Nuclear Regulatory Commission
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