VIRGINIA ELECTRIC AND POWER COMPANY
RICHMOND, VIRGINIA 23261

Re: 10 CFR 2.202

March 21, 2003

U.S. Nuclear Regulatory Commission
Attention: Document Control Desk
Washington, D.C. 20555-0001

Serial No.: 03-143A
NL&OS/ETS
Docket No.: 50-339
License No.: NPF-7

Gentlemen:

VIRGINIA ELECTRIC AND POWER COMPANY
NORTH ANNA POWER STATION UNIT 2
ORDER FOR INTERIM INSPECTION REQUIREMENTS FOR REACTOR PRESSURE VESSEL HEADS AT PRESSURIZED WATER REACTORS
PRESERVICE INSPECTION OF REPLACEMENT REACTOR PRESSURE VESSEL HEAD AND PRESSURE RETAINING COMPONENTS ABOVE THE RPV HEAD

On February 11, 2003, the Nuclear Regulatory Commission (NRC) issued an Order for Interim Inspection Requirements for Reactor Pressure Vessel Heads at Pressurized Water Reactors. The Order requires specific inspection of the reactor pressure vessel (RPV) head and associated penetration nozzles at pressurized water reactors (PWRs). The Commission stated that the actions in the Order are interim measures that are necessary to ensure that licensees implement and maintain appropriate measures to inspect and, as necessary, repair RPV heads and associated penetration nozzles. The Order required that licensees immediately start implementation of the requirements of the Order and report the results of the required inspections. As required by Section IV.E of the Order, Virginia Electric and Power Company (Dominion) is providing the results of the preservice inspection of the North Anna Unit 2 replacement RPV head and pressure retaining components above the RPV head.

During the recently completed North Anna Unit 2 outage to replace the reactor vessel head, the new head was inspected to satisfy ASME Section XI requirements for pre-service inspection and to establish a baseline for future anticipated inspections required by ASME Code or that might be required by future regulation. The inspections conducted for the ASME Code preservice requirement included ultrasonic (UT) and magnetic particle (MT) examination of the head dome to flange weld and liquid penetrant (LP) examination of the control rod drive mechanism (CRDM) housing to CRDM adapter welds. In addition, non-Code required examinations were performed on the RPV head as follows: 1) the CRDM housing-to-head welds and the RCS vent-to-head weld were LP inspected, and 2) the CRDM housings and the head vent were UT inspected from the bottom of the housing or vent to above the top surface of the head

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(at least 2 inches above the nozzle to head weld). Furthermore, each CRDM housing to CRDM adapter weld was UT inspected. No relevant indications were noted. These examinations comply with and exceed the requirements of the NRC Order (EA-03-009).

Although a formal documented bare-metal visual examination was not performed on the North Anna Unit 2 replacement RPV head, it was observed during the above referenced NDE examinations, cleaning and packaging activities, as well as during subsequent activities associated with head installation (e.g., CRDM canopy seal and RCS vent line welding and installation of the new insulation package). During these activities, it was noted that the replacement head and the pressure-retaining components above the RPV head were clean and free of any evidence of corrosion, boric acid residue, or any other condition that could either interfere with any future bare-metal visual examination or complicate the interpretation of the results of a future bare-metal visual examination. These observations included 100% of the surface of the head including 360° around each head penetration. Consequently, we have concluded that we are in compliance with the Order (EA-03-009) relative to the initial bare-metal visual inspections.

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

Very truly yours,

Leslie N. Hartz
Vice President – Nuclear Engineering

Commitments made in this letter: None

cc:

U. S. Nuclear Regulatory Commission
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NRC Project Manager
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North Anna Power Station

SN: 03-143A
Docket No.: 50-339
Subject: Response to RPV Head & Penetration
Nozzles Inspection Order

COMMONWEALTH OF VIRGINIA)
)
COUNTY OF HENRICO)

The foregoing document was acknowledged before me, in and for the County and Commonwealth aforesaid, today by Leslie N. Hartz, who is Vice President - Nuclear Engineering, of Virginia Electric and Power Company. She has affirmed before me that she is duly authorized to execute and file the foregoing document in behalf of that Company, and that the statements in the document are true to the best of her knowledge and belief.

Acknowledged before me this 21st day of March, 2003.

My Commission Expires: March 31, 2004.

Maggie McClure
Notary Public

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