September 1, 2010

Mr. David A. Heacock  
President and Chief Nuclear Officer  
Virginia Electric and Power Company  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: MID-CYCLE ASSESSMENT LETTER AND INSPECTION PLAN - NORTH ANNA POWER STATION

Dear Mr. Heacock:

On August 12, 2010, the NRC technical staff completed its performance review of the North Anna Power Station, Units 1 and 2. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results for the period from July 1, 2009, through June 30, 2010. The purpose of this letter is to inform you of our assessment of your safety performance during this period and our plans for future inspections at your facility.

This performance review and the enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only - Security-Related Information" will include the security cornerstone performance review and a resultant inspection plan.

Plant performance for North Anna Unit 1 for the most recent quarter was within the Licensee Response Column of the NRC’s Action Matrix based on all inspection findings being classified as having very low safety significance (Green) and all PIs indicating performance at a level requiring no additional NRC oversight (Green).

Plant performance for North Anna Unit 2 for the most recent quarter was within the Regulatory Response Column of the NRC’s Action Matrix, based on the Unplanned Power Changes per 7000 Critical Hours performance indicator being identified as White due to 4 reactor trips in the last 4 quarters. In accordance with Inspection Manual Chapter 0305, Operating Reactor Assessment Program, we will conduct a supplemental inspection using Inspection Procedure 95001, “Inspection for One or Two Inputs in a Strategic Performance Area” to assess your evaluation of and corrective actions for these issues, when you have notified us of your readiness.

In addition to the normal reactor oversight process (ROP) baseline inspections, we plan to conduct several infrequently performed inspections which include: Temporary Instruction (TI) 2515/172, “Reactor Coolant System Dissimilar Metal Butt Welds,” TI 2515/177, “Managing Gas Accumulation in Emergency Core Cooling, Decay Heat Removal & Containment Spray System;” and TI 2515/179, “National Source Tracking System Verification.”
The enclosed inspection plan details the inspections, less those related to physical protection, scheduled through December 31, 2011. The inspection plan is provided to allow for the resolution of any scheduling conflicts and personnel availability issues well in advance of inspector arrival onsite. Routine resident inspections are not listed due to their ongoing and continuous nature. The inspections in the last nine months of the inspection plan are tentative and may be revised at the end of cycle review.

In accordance with 10 CFR 2.390 of the NRC’s “Rules of Practice,” a copy of this letter and its enclosure will be made available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of NRC’s document system (ADAMS). ADAMS is accessible from the NRC Web site at http://www.nrc.gov/readingrm/adams.html (the Public Electronic Reading Room).

If circumstances arise which cause us to change this inspection plan, we will contact you to discuss the change as soon as possible. Please contact Gerald J. McCoy at (404) 997-4551 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

/RA by Joel Munday Acting For/

Leonard D. Wert, Jr., Director
Division of Reactor Projects

Docket Nos. 50-338, 50-339
License Nos. NPF-4, NPF-7

Enclosure: North Anna Inspection/Activity Plan (09/01/2010 – 12/31/2011)
<table>
<thead>
<tr>
<th>Unit Number</th>
<th>Planned Dates</th>
<th>Inspection Activity</th>
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<td>Start</td>
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<tr>
<td>PSB1-RP</td>
<td>09/13/2010</td>
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**PSB1-RP - RP OCCUPATIONAL BASELINE WEEK1**

1, 2 09/13/2010 09/17/2010 IP 2515/179 Verification of Licensee Responses to NRC Requirement for Inventories of Materials Tracked in NSTS

1, 2 09/13/2010 09/17/2010 IP 71124.01 Radiological Hazard Assessment and Exposure Controls

1, 2 09/13/2010 09/17/2010 IP 71124.02 Occupational ALARA Planning and Controls

1, 2 09/13/2010 09/17/2010 IP 71124.03 In-Plant Airborne Radioactivity Control and Mitigation

1, 2 09/13/2010 09/17/2010 IP 71124.05 Radiation Monitoring Instrumentation

1, 2 09/13/2010 09/17/2010 IP 71151 Performance Indicator Verification

**EB3SI - UNIT 1 INSERVICE INSPECTION**

1 09/20/2010 09/24/2010 IP 7111108P Inservice Inspection Activities - PWR

2 09/20/2010 09/24/2010 IP 2515/172 Reactor Coolant System Dissimilar Metal Butt Welds

**EB3TI172 - EB3 RX COOLANT SYS DM BUTT WELDS**

1 09/27/2010 10/01/2010 IP 71124.01 Radiological Hazard Assessment and Exposure Controls

2 09/27/2010 10/01/2010 IP 71124.02 Occupational ALARA Planning and Controls

1, 2 09/27/2010 10/01/2010 IP 71124.03 In-Plant Airborne Radioactivity Control and Mitigation

1, 2 09/27/2010 10/01/2010 IP 71124.05 Radiation Monitoring Instrumentation

1, 2 09/27/2010 10/01/2010 IP 71151 Performance Indicator Verification

**PSB1-RP - RP OCCUPATIONAL BASELINE WEEK2**

1, 2 09/27/2010 10/01/2010 IP 71124.01 Radiological Hazard Assessment and Exposure Controls

1, 2 09/27/2010 10/01/2010 IP 71124.02 Occupational ALARA Planning and Controls

1, 2 09/27/2010 10/01/2010 IP 71124.03 In-Plant Airborne Radioactivity Control and Mitigation

1, 2 09/27/2010 10/01/2010 IP 71124.05 Radiation Monitoring Instrumentation

1, 2 09/27/2010 10/01/2010 IP 71151 Performance Indicator Verification

**PSB1-TI - TI-179 NSTS VERIFICATION**

1, 2 09/27/2010 10/01/2010 IP 2515/179 Verification of Licensee Responses to NRC Requirement for Inventories of Materials Tracked in NSTS

1, 2 09/27/2010 10/01/2010 IP 7111107T Heat Sink Performance

**EB3HS - HEAT SINK**

1, 2 02/14/2011 02/18/2011 IP 7111107T Heat Sink Performance

**PI&R - PROBLEM IDENTIFICATION AND RESOLUTION**

1, 2 04/11/2011 04/15/2011 IP 71152B Identification and Resolution of Problems

1, 2 04/25/2011 04/29/2011 IP 71152B Identification and Resolution of Problems

**MODS - MODS/50.59 INSPECTION**

1, 2 05/09/2011 05/13/2011 IP 7111117T Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications

1, 2 05/23/2011 05/27/2011 IP 7111117T Evaluations of Changes, Tests, or Experiments and Permanent Plant Modifications

**PSB1EP - EMERGENCY PREPAREDNESS INSPECTION**

1, 2 07/11/2011 07/15/2011 IP 7111402 Alert and Notification System Testing

1, 2 07/11/2011 07/15/2011 IP 7111403 Emergency Preparedness Organization Staffing and Augmentation System

1, 2 07/11/2011 07/15/2011 IP 7111404 Emergency Action Level and Emergency Plan Changes

1, 2 07/11/2011 07/15/2011 IP 7111405 Correction of Emergency Preparedness Weaknesses and Deficiencies

1, 2 07/11/2011 07/15/2011 IP 711151 Performance Indicator Verification

**PSB1-RP - RP PUBLIC RADIATION PROTECTION INSPECTION**

1, 2 07/25/2011 07/29/2011 IP 71124.01 Radiological Hazard Assessment and Exposure Controls

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This report does not include INPO and OUTAGE activities.
This report shows only on-site and announced inspection procedures.
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<thead>
<tr>
<th>Unit Number</th>
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