



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
245 PEACHTREE CENTER AVENUE NE, SUITE 1200  
ATLANTA, GEORGIA 30303-1257

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)

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**North Anna**  
**Inspection / Activity Plan**  
**09/01/2010 - 12/31/2011**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
<b>PSB1-RP - RP OCCUPATIONAL BASELINE WEEK1</b>					<b>3</b>
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	
<b>EB3ISI - UNIT 1 INSERVICE INSPECTION</b>					<b>1</b>
1	09/20/2010	09/24/2010	IP 7111108P	Inservice Inspection Activities - PWR	
<b>EB3TI172 - EB3 RX COOLANT SYS DM BUTT WELDS</b>					<b>1</b>
2	09/20/2010	09/24/2010	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds	
<b>PSB1-RP - RP OCCUPATIONAL BASELINE WEEK2</b>					<b>2</b>
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	
<b>PSB1-TI - TI-179 NSTS VERIFICATION</b>					<b>1</b>
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	
<b>EB3HS - HEAT SINK</b>					<b>1</b>
1,2	02/14/2011	02/18/2011	IP 7111107T	Heat Sink Performance	
<b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b>					<b>4</b>
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	
<b>MODS - MODS/50.59 INSPECTION</b>					<b>6</b>
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	
<b>PSB1EP - EMERGENCY PREPAREDNESS INSPECTION</b>					<b>1</b>
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 71151	Performance Indicator Verification	
<b>PSB1-RP - RP PUBLIC RADIATION PROTECTION INSP</b>					<b>4</b>
1,2	07/25/2011	07/29/2011	IP 71124.01	Radiological Hazard Assessment and Exposure Controls	

This report does not include INPO and OUTAGE activities.  
This report shows only on-site and announced inspection procedures.

Enclosure

**North Anna**  
**Inspection / Activity Plan**  
**09/01/2010 - 12/31/2011**

Unit Number	Planned Dates		Inspection Activity	Title	No. of Staff on Site
	Start	End			
<b>PSB1-RP - RP PUBLIC RADIATION PROTECTION INSP</b>					<b>4</b>
1,2	07/25/2011	07/29/2011	IP 71124.04	Occupational Dose Assessment	
1,2	07/25/2011	07/29/2011	IP 71124.06	Radioactive Gaseous and Liquid Effluent Treatment	
1,2	07/25/2011	07/29/2011	IP 71124.07	Radiological Environmental Monitoring Program	
1,2	07/25/2011	07/29/2011	IP 71124.08	Radioactive Solid Waste Processing and Radioactive Material Handling, Storage, and Transportation	
1,2	07/25/2011	07/29/2011	IP 71151	Performance Indicator Verification	
<b>EB3 ISI - UNIT 2 IN-SERVICE INSPECTION</b>					<b>1</b>
2	09/19/2011	09/23/2011	IP 7111108P	Inservice Inspection Activities - PWR	
<b>EB3SGISI - UNIT 2 SG INSERVICE INSPECTION</b>					<b>1</b>
2	09/26/2011	09/30/2011	IP 7111108P	Inservice Inspection Activities - PWR	

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Enclosure