



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
SAM NUNN ATLANTA FEDERAL CENTER  
61 FORSYTH STREET, SW, SUITE 23T85  
ATLANTA, GEORGIA 30303-8931

September 2, 2008

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

**SUBJECT: MID-CYCLE PERFORMANCE REVIEW AND INSPECTION PLAN - NORTH ANNA  
POWER STATION**

Dear Mr. Christian:

On August 14, 2008, the NRC staff completed its performance review of North Anna Power Station Units 1 and 2 for the first half of the calendar year 2008 assessment cycle. Our technical staff reviewed performance indicators (PIs) for the most recent quarter and inspection results over the previous twelve months. 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 enclosed inspection plan do not include security information. A separate letter designated and marked as "Official Use Only—Security-Related Information" will include the Physical Protection/Security cornerstone review and resultant inspection plan.

Plant performance for the most recent quarter at North Anna Power Station Units 1 and 2 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). Therefore, we plan to conduct reactor oversight process (ROP) baseline inspections at your facility. We also plan on conducting several non-ROP inspections which include: TI 2515/171 Verification of Site Specific Implementation Of B.5.b Phase 2 & 3 Mitigating Strategies; TI 2515/172 Reactor Coolant System Dissimilar Metal Butt Welds; TI 2515/173 Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative; and TI 2515/176 Emergency Diesel Generator Technical Specification Surveillance Requirements Regarding Endurance and Margin Testing.

Additionally, the staff has identified a substantive cross-cutting issue, using the criteria in MC 0305, in the area of human performance with a cross-cutting theme in the aspect of resources, complete, accurate and up-to-date design documentation, procedures, work packages, and correct labeling of components (H.2.c). This was the result of four findings in the twelve month assessment period with the same cross-cutting aspect of H.2.c. On April 18, 2008, North Anna Power Station initiated condition report (CR) 96021 due to the potential identification of three findings in the area of human performance, resources (H.2.c) that were debriefed by the Resident Inspectors during the first quarter 2008 exit meeting. We understand that corrective

actions are in progress, as discussed with NRC Region II Management during a public meeting held July 16, 2008. Additional corrective actions are scheduled for completion by the end of 2008. The substantive cross-cutting issue can be cleared, if your corrective actions in this area are effective as demonstrated by no new findings with the same cross-cutting aspect for the remainder of 2008. We will continue to monitor the progress of your corrective actions, and evaluate this issue during the end of cycle assessment.

The enclosed inspection plan details the inspections, less those related to physical protection scheduled through December 31, 2009. 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/reading-rm/adams.html> (the Public Electronic Reading Room).

If circumstances arise which cause us to change the inspection plan, we will contact you to discuss the change as soon as possible. Please contact me at 404-562-4612 with any questions you may have regarding this letter or the inspection plan.

Sincerely,

**/RA/**

Mark A. Bates, Acting Chief  
Reactor Projects Branch 5  
Division of Reactor Projects

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

Enclosure: North Anna Inspection / Activity Plan

cc w/encl: (See next page)

VEPCO

3

cc w/encl:

Daniel G. Stoddard  
Site Vice President  
Virginia Electric and Power Company  
Electronic Mail Distribution

Eric Hendrixson  
Director, Nuclear Safety and Licensing  
Virginia Electric and Power Company  
Electronic Mail Distribution

Chris L. Funderburk  
Director, Nuclear Licensing & Operations  
Support  
Virginia Electric and Power Company  
Electronic Mail Distribution

Lillian M. Cuoco, Esq.  
Senior Counsel  
Dominion Resources Services, Inc.  
Electronic Mail Distribution

Executive Vice President  
Old Dominion Electric Cooperative  
Electronic Mail Distribution

Attorney General  
Supreme Court Building  
900 East Main Street  
Richmond, VA 23219

Senior Resident Inspector  
North Anna Power Station  
U.S. Nuclear Regulatory Commission  
P.O. Box 490  
Mineral, VA 23117

**North Anna**  
**Inspection / Activity Plan**  
**09/02/2008 - 12/31/2009**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>PSB1-RP - RADIATION PROTECTION OCCUPATIONAL WK1</b>		<b>2</b>			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		09/15/2008	09/19/2008	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		09/15/2008	09/19/2008	Baseline Inspections
1, 2	IP 7112202	Radioactive Material Processing and Transportation		09/15/2008	09/19/2008	Baseline Inspections
1, 2	IP 71151-OR01	Occupational Exposure Control Effectiveness		09/15/2008	09/19/2008	Baseline Inspections
1	IP 71151-PR01	RETS/ODCM Radiological Effluent		09/15/2008	09/19/2008	Baseline Inspections
	<b>EB3-ISI - UNIT 2 INSERVICE INSPECTION</b>		<b>2</b>			
2	IP 7111108P	Inservice Inspection Activities - PWR		09/22/2008	09/26/2008	Baseline Inspections
	<b>PSB1-RP - RADIATION PROTECTION OCCUPATIONAL WK2</b>		<b>2</b>			
1, 2	IP 7112101	Access Control to Radiologically Significant Areas		09/29/2008	10/03/2008	Baseline Inspections
1, 2	IP 7112102	ALARA Planning and Controls		09/29/2008	10/03/2008	Baseline Inspections
1, 2	IP 7112202	Radioactive Material Processing and Transportation		09/29/2008	10/03/2008	Baseline Inspections
1, 2	IP 71151-OR01	Occupational Exposure Control Effectiveness		09/29/2008	10/03/2008	Baseline Inspections
2	IP 71151-PR01	RETS/ODCM Radiological Effluent		09/29/2008	10/03/2008	Baseline Inspections
	<b>EB3TI172 - TI-172</b>		<b>1</b>			
1, 2	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds		12/08/2008	12/12/2008	Generic Safety Inspectio
	<b>TI-171 - B.5.B PHASE 2&amp;3</b>		<b>3</b>			
1, 2	IP 2515/171	Verification of Site Specific Implementation Of B.5.b Phase 2 & 3 Mitigating Strategies		12/08/2008	12/12/2008	Generic Safety Inspectio
	<b>PI&amp;R - PROBLEM IDENTIFICATION AND RESOLUTION</b>		<b>5</b>			
1	IP 71152B	Identification and Resolution of Problems		01/12/2009	01/16/2009	Baseline Inspections
1	IP 71152B	Identification and Resolution of Problems		02/02/2009	02/06/2009	Baseline Inspections
	<b>EB3ISI - UNIT 1 INSERVICE INSPECTION</b>		<b>2</b>			
1	IP 7111108P	Inservice Inspection Activities - PWR		03/16/2009	03/20/2009	Baseline Inspections
	<b>EB3TI172 - TI-172 RCS DM BUTT WELD</b>		<b>2</b>			
1	IP 2515/172	Reactor Coolant System Dissimilar Metal Butt Welds		03/16/2009	03/20/2009	Generic Safety Inspectio
	<b>EB3SGISI - UNIT 1 STEAM GENERATOR INSERVICE INSP</b>		<b>1</b>			
1	IP 7111108P	Inservice Inspection Activities - PWR		03/23/2009	03/27/2009	Baseline Inspections
	<b>PSB1-RP - TI2515/173 AND ISFSI</b>		<b>1</b>			
1, 2	IP 2515/173	Review of the Implementation of the Industry Ground Water Protection Voluntary Initiative		05/25/2009	05/29/2009	Generic Safety Inspectio
1, 2	IP 60855.1	Operation of an Independent Spent Fuel Storage Installation at Operating Plants		05/25/2009	05/29/2009	Other Routine
	<b>PSB1-RP - RADIATION PROTECTION PUBLIC BASELINE</b>		<b>3</b>			
1, 2	IP 7112103	Radiation Monitoring Instrumentation and Protective Equipment		06/22/2009	06/26/2009	Baseline Inspections
1, 2	IP 7112201	Radioactive Gaseous and Liquid Effluent Treatment and Monitoring Systems		06/22/2009	06/26/2009	Baseline Inspections
1, 2	IP 7112203	Radiological Environmental Monitoring Program (REMP) And Radioactive Material Control Program		06/22/2009	06/26/2009	Baseline Inspections
1, 2	IP 71151-OR01	Occupational Exposure Control Effectiveness		06/22/2009	06/26/2009	Baseline Inspections

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

**North Anna**  
**Inspection / Activity Plan**  
**09/02/2008 - 12/31/2009**

Unit Number	Inspection Activity	Title	No. of Staff on Site	Planned Dates Start	Planned Dates End	Inspection Type
	<b>PSB1-RP - RADIATION PROTECTION PUBLIC BASELINE</b>		<b>3</b>			
1, 2	IP 71151-PR01	RETS/ODCM Radiological Effluent		06/22/2009	06/26/2009	Baseline Inspections
	<b>PSB1EP - EMERGENCY PREPAREDNESS INSPECTION</b>		<b>1</b>			
1, 2	IP 2515/175	Emergency Response Organization, Drill/Exercise Performance Indicator, Program Review		07/06/2009	07/10/2009	Baseline Inspections
1, 2	IP 7111402	Alert and Notification System Testing		07/06/2009	07/10/2009	EP Baseline Inspection
1, 2	IP 7111403	Emergency Response Organization Augmentation Testing		07/06/2009	07/10/2009	EP Baseline Inspection
1, 2	IP 7111404	Emergency Action Level and Emergency Plan Changes		07/06/2009	07/10/2009	EP Baseline Inspection
1, 2	IP 7111405	Correction of Emergency Preparedness Weaknesses and Deficiencies		07/06/2009	07/10/2009	EP Baseline Inspection
1, 2	IP 71151	Performance Indicator Verification		07/06/2009	07/10/2009	Baseline Inspections
	<b>TFPI - TRIENNIEL FIRE PROTECTION INSPECTION</b>		<b>5</b>			
1, 2	IP 7111105T	Fire Protection [Triennial]		08/03/2009	08/07/2009	Baseline Inspections
1, 2	IP 7111105T	Fire Protection [Triennial]		08/17/2009	08/21/2009	Baseline Inspections
	<b>EB1-CDBI - COMPONENT DESIGN BASIS INSPECTION</b>		<b>6</b>			
1, 2	IP 7111121	Component Design Bases Inspection		10/19/2009	10/23/2009	Baseline Inspections
1, 2	IP 7111121	Component Design Bases Inspection		11/02/2009	11/06/2009	Baseline Inspections
1, 2	IP 7111121	Component Design Bases Inspection		11/16/2009	11/20/2009	Baseline Inspections
1, 2	IP 7111121	Component Design Bases Inspection		12/07/2009	12/11/2009	Baseline Inspections

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