



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

May 15, 2013

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

SUBJECT: ERRATA - NORTH ANNA POWER STATION – NRC PROBLEM
IDENTIFICATION AND RESOLUTION INSPECTION REPORT
05000338/2013007 AND 05000339/2013007

Dear Mr. Heacock:

On May 9, 2013, the US Nuclear Regulatory Commission (NRC) issued the subject inspection report for North Anna Power Plant, ADAMS ML13129A204. In reviewing this report, it was noted that we inadvertently issued it with report number 05000338, 339/2013008. The correct report number is 05000338, 339/2013007. Accordingly, we are enclosing the corrected pages to this report 05000338, 339/2013007 that documents the above change.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be 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).

I apologize for any inconvenience this error may have caused. If you have any questions, please contact me at 404-997-4674.

Sincerely,

/RA/

Curtis W. Rapp, Chief
Reactor Projects Branch 7
Division of Reactor Projects

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

Enclosure: As stated

May 15, 2013

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

SUBJECT: ERRATA - NORTH ANNA POWER STATION – NRC PROBLEM
IDENTIFICATION AND RESOLUTION INSPECTION REPORT
05000338/2013007 AND 05000339/2013007

Dear Mr. Heacock:

On May 9, 2013, the US Nuclear Regulatory Commission (NRC) issued the subject inspection report for North Anna Power Plant, ADAMS ML13129A204. In reviewing this report, it was noted that we inadvertently issued it with report number 05000338, 339/2013008. The correct report number is 05000338, 339/2013007. Accordingly, we are enclosing the corrected pages to this report 05000338, 339/2013007 that documents the above change.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be 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).

I apologize for any inconvenience this error may have caused. If you have any questions, please contact me at 404-997-4674.

Sincerely,
/RA/
Curtis W. Rapp, Chief
Reactor Projects Branch 7
Division of Reactor Projects

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

Enclosure: As stated

X PUBLICLY AVAILABLE

☐ NON-PUBLICLY AVAILABLE

☐ SENSITIVE

X NON-SENSITIVE

ADAMS: X Yes

ACCESSION NUMBER: _____

X SUNSI REVIEW COMPLETE X FORM 665 ATTACHED

OFFICE	RII:DRP						
SIGNATURE	/RA/						
NAME	CRapp						
DATE	5/16/2013						
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY DOCUMENT NAME: S:\DRP\RPB7\PI&R\INSPECTION REPORTS\NORTH ANNA\ERRATA-NORTH ANNA 2013007.DOCX

D. Heacock

2

cc w/encl:

Mr. Gerald T. Bischof
Site Vice President
North Anna Power Station
Virginia Electric & Power Company
Electronic Mail Distribution

Donald R. Taylor
Licensing Supervisor
North Anna Power Station
P. O. Box 402
Mineral, VA 23117-0402

Fred Mladen
Director, Station Safety & Licensing
Virginia Electric and Power Company
Electronic Mail Distribution

Michael M. Cline
Director
Virginia Department of Emergency Services
Management

Michael Crist
Plant Manager
North Anna Power Station
Virginia Electric & Power Company
Electronic Mail Distribution

Electronic Mail Distribution
Executive Vice President
Old Dominion Electric Cooperative
Electronic Mail Distribution

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

County Administrator
Louisa County
P.O. Box 160
Louisa, VA 23093

Tom Huber
Director, Nuclear Licensing & Operations
Support
Inssbrook Technical Center
Electronic Mail Distribution

Doug Smith
President
(Public Correspondence Only)
Lake Anna Civil Association
Electronic Mail Distribution

Virginia State Corporation Commission
Division of Energy Regulation
P.O. Box 1197
Richmond, VA 23209

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

D. Heacock

3

Letter to David A. Heacock from Curtis W. Rapp dated May 15, 2013.

SUBJECT: NORTH ANNA POWER STATION – NRC PROBLEM IDENTIFICATION AND
RESOLUTION INSPECTION REPORT 05000337/2013007 AND
05000339/2013007

Distribution w/encl:

C. Evans, EICS

L. Douglas, EICS

L. Regner, NRR

OE Mail

RIDSNRRDIRS

PUBLIC

RidsNrrPMNorthAnna Resource



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

May 9, 2013

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

SUBJECT: NORTH ANNA POWER STATION – NRC PROBLEM IDENTIFICATION AND
RESOLUTION INSPECTION REPORT 05000338/2013007 AND
05000339/2013007

Dear Mr. Heacock:

On March 28, 2013, the U. S. Nuclear Regulatory Commission (NRC) completed an inspection at your North Anna Power Station Units 1 and 2. The enclosed report documents the inspection findings, which were discussed on March 28, 2013, with Mr. G. Bischof and other members of your staff.

The inspection was an examination of activities conducted under your license as they relate to the identification and resolution of problems, and compliance with the Commission's rules and regulations and with the conditions of your operating license. Within these areas, the inspection involved examination of selected procedures and representative records, observations of plant equipment and activities, and interviews with personnel.

Based on the inspection sample, the inspection team concluded that the implementation of the corrective action program and overall performance related to identifying, evaluating, and resolving problems at North Anna Power Station Units 1 and 2 was adequate. Licensee identified problems were entered into the corrective action program at a low threshold. Problems were generally prioritized and evaluated commensurate with the safety significance of the problems. Corrective actions were generally implemented in a timely manner commensurate with their importance to safety and addressed the identified causes of problems. Lessons learned from the industry operating experience were generally reviewed and applied when appropriate. Audits and self-assessments were effectively used to identify problems and appropriate actions. One self-revealing finding was identified which did not involve a violation of NRC requirements.

Enclosure

D. Heacock

2

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the 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).

Sincerely,

/RA/

Curtis W. Rapp, Chief
Reactor Projects Branch 7
Division of Reactor Projects

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

Enclosure: INSPECTION REPORT 05000338/2013007 AND 05000339/2013007
w/Attachment: Supplemental Information
cc w/encl. (see page 3)

Enclosure

D. Heacock

2

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the Publicly Available Records (PARS) component of the 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).

Sincerely,

/RA/

Curtis W. Rapp, Chief
Reactor Projects Branch 7
Division of Reactor Projects

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

Enclosure: INSPECTION REPORT 05000338/2013007 AND 05000339/2013007
w/Attachment: Supplemental Information
cc w/encl. (see page 3)

☒ PUBLICLY AVAILABLE

NON-PUBLICLY AVAILABLE SENSITIVE

☒ NON-SENSITIVE

ADAMS: ☒ Yes ACCESSION NUMBER: ML13129A204 ☒ SUNSI REVIEW COMPLETE ☒ FORM 665 ATTACHED

OFFICE	RII:DRP	RII:DRP	RII:DRP	RII:DRP	RII:DRP	RII:DRP	
SIGNATURE	/RA/	/RA/	/VIA E-mail/	/VIA E-mail/	/VIA E-mail/	/RA/	
NAME	RTaylor	RCIagg	SNinh	J Quinones	CScott	CRapp	
DATE	5/9/2013	5/9/2013	4/29/2013	5/6/2013	5/9/2013	5/9/2013	
E-MAIL COPY?	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO	YES NO

OFFICIAL RECORD COPY

DOCUMENT NAME: DOCUMENT6

Enclosure

D. Heacock

3

Letter to David A. Heacock from Curtis W. Rapp dated May 9, 2013.

SUBJECT: NORTH ANNA POWER STATION – NRC PROBLEM IDENTIFICATION AND
RESOLUTION INSPECTION REPORT 05000338/2013007 AND
05000339/2013007

Distribution w/encl:

C. Evans, EICS

L. Douglas, EICS

L. Regner, NRR

OE Mail

RIDSNRRDIRS

PUBLIC

RidsNrrPMNorthAnna Resource

Enclosure

U.S. NUCLEAR REGULATORY COMMISSION

REGION II

Docket Nos.: 05000338, 05000339

License Nos.: NPF-4, NPF-7

Report Nos.: 05000338/2013007 and 05000339/2013007

Licensee: Virginia Electric and Power Company

Facility: North Anna Power Station, Units 1 and 2

Location: Mineral, VA

Dates: March 11 – 15, 2013
March 25 – 29, 2013

Inspectors: R. Taylor, Senior Project Inspector, Team Leader
R. Clagg, Resident Inspector, North Anna
S. Ninh, Senior Project Engineer
J. Quinones, Project Engineer
C. Scott, Resident Inspector, Robinson

Approved by: C. Rapp, Chief,
Reactor Projects Branch 7
Division of Reactor Projects

Enclosure

SUMMARY OF FINDINGS

IR 05000338/2013-007 and 05000339/2013-007; March 11, 2013 – March 25, 2013; North Anna Power Station Units 1 and 2; Biennial Inspection of the Problem Identification and Resolution Program.

The inspection was conducted by a senior project inspector, senior project engineer, project engineer, and two resident inspectors. One Green Finding was identified. The significance of inspection findings are identified by their color i.e. (greater than Green, or Green, White, Yellow, or Red) and determined using Inspection Manual Chapter (IMC) 0609, "Significance Determination Process" (SDP) dated June 2, 2011. All violations of NRC requirements are dispositioned in accordance with the NRC's Enforcement Policy dated June 7, 2012. The NRC's program for overseeing the safe operation of commercial nuclear power reactors is described in NUREG-1649, "Reactor Oversight Process," Revision 4.

Identification and Resolution of Problems

The inspectors concluded that, in general, problems were properly identified, evaluated, prioritized, and corrected. The licensee was effective at identifying problems and entering them into the corrective action program (CAP) for resolution, as evidenced by the relatively few number of deficiencies identified by external organizations (including the NRC) that had not been previously identified by the licensee, during the review period. Generally, prioritization and evaluation of issues were adequate, formal root cause evaluations for significant problems were adequate, and corrective actions specified for problems were acceptable. Overall, corrective actions developed and implemented for issues were generally effective and implemented in a timely manner.

The inspectors determined that overall, audits and self-assessments were adequate in identifying deficiencies and areas for improvement in the CAP, and appropriate corrective actions were developed to address the issues identified. Operating experience usage was found to be generally acceptable and integrated into the licensee's processes for performing and managing work, and plant operations.

Based on discussions and interviews conducted with plant employees from various departments, the inspectors determined that personnel at the site felt free to raise safety concerns to management and use the CAP to resolve those concerns.

Cornerstone: Initiating Events

Green: A self-revealing finding was identified for failure to establish and implement appropriate periodic preventive maintenance for replacement frequency of the C4 capacitor on the Speed Error Amplifier card B (1A08D) in accordance with VPAP-803, Preventive Maintenance Program. Consequently, the C4 capacitor failed due to age related degradation and caused an automatic reactor trip from 100 percent reactor power.

The licensee's failure to establish and implement appropriate periodic preventive maintenance for replacement frequency of the C4 was a performance deficiency. The finding was more than minor because it was associated with the Initiating Events cornerstone attribute of equipment performance and adversely affected the associated cornerstone in that a reactor trip occurred

Enclosure

corrective action to prevent recurrence was to revise VPAP-803 to ensure that component level replacement recommendations are obtained from component manufacturer guidance.

Analysis: The inspectors determined that the licensee's failure to establish and implement appropriate periodic preventive maintenance for replacement frequency of the C4 capacitor on the Speed Error Amplifier card B (1A08D) in accordance with the vendor's recommendations was a performance deficiency. The PD was more than minor because it was associated with the Initiating Events cornerstone attribute of equipment performance and adversely affected the associated cornerstone objective in that age-related failure of the C4 capacitor resulted in a reactor trip. Using NRC Manual Chapter 0609.04, SDP – Phase 1 screening dated June 19, 2012, the finding was determined to be of very low safety significance (Green) because it was a transient initiator, but did not contribute to both the likelihood of a reactor trip and the likelihood that mitigation equipment or functions would not be available. The finding did not have a cross-cutting aspect because the performance deficiency was not indicative of current plant performance.

Enforcement: This finding did not involve enforcement action. This finding was determined to be of very low safety significance (Green) and was entered into the licensee's CAP as CR493091. This finding is identified as FIN 05000339/2013007-01, Failure to Implement Vendor Recommendations Causes an Automatic Reactor Trip.

4OA6 Exit

Exit Meeting Summary

On March 28, 2013, the inspectors presented the inspection results to Mr. G. Bischof and other members of the site staff. The inspectors confirmed that all proprietary information examined during the inspection had been returned to the licensee.

ATTACHMENT: SUPPLEMENTAL INFORMATION

Enclosure

KEY POINTS OF CONTACT

Licensee personnel:

G. Bischof, Site Vice President
F. Mladen, Plant Manager
B. Anhold, Component Engineer
J. Daugherty, Manager Maintenance
F. Errico, CAP Supervisor
P. Harper, CAP Coordinator
E. Hendrixson, Site Engineering Director
P. Kemp, Licensing Supervisor
J. Leberstien, Licensing
S. Morris, Engineering Programs Manager
J. Schleser, Organizational Effectiveness Manager

NRC personnel:

G. Kolcum, Senior Resident Inspector
G. Hopper, Chief, Branch 7, Division of Reactor Projects

LIST OF REPORT ITEMS

Opened and Closed

05000339/2013-007-01	FIN	05000339/2013007-01 Failure to Implement Vendor Recommendations Causes an Automatic Reactor Trip
----------------------	-----	--

Closed

05000339/2012-001-00	LER	Automatic Reactor Trip Resulting From A Card Failure (Section 4OA3)
----------------------	-----	---

LIST OF DOCUMENTS REVIEWED

Procedures

ER-AA-MRL-10, Maintenance Rule Program, Revision 4
ER-AA-PRS-1002, Equipment Reliability Health Report, Revision 7
ER-AA-SYS-1002, System Engineering Walkdowns, Revision 4
ER-AA-SYS-1001, System Health Report, Revision 6
ER-AA-SYS-1003, System Performance Monitoring, Revision 3
OP-AA-101, Operational Decision Making, Revision 10
PI-AA-10, Performance Improvement Process, Revision 0
PI-AA-100-1007, Operating Experience Program, Revision 3
PI-AA-200-2001, Trending, Revision 3
PI-AA-300-3004, Cause Evaluation Methods, Revision 2
PI-AA-300-3003, Common Cause Evaluation, Revision 0
PI-AA-200-2002, Effectiveness Reviews, Revision 5
PI-AA-300-3001, Root Cause Evaluation, Revision 3
OP-AA-102, Operability Determination, Revision 9
PI-AA-100, Performance Monitoring, Revision 4
PI-AA-200, Corrective Action, Revision 20