



**UNITED STATES  
NUCLEAR REGULATORY COMMISSION**  
REGION II  
245 PEACHTREE CENTER AVENUE N.E., SUITE 1200  
ATLANTA, GEORGIA 30303-1200

July 27, 2021

Mr. Daniel G Stoddard  
Senior Vice President and Chief Nuclear Officer  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060

SUBJECT: NORTH ANNA POWER STATION – INTEGRATED INSPECTION REPORT  
05000338/2021002 AND 05000339/2021002

Dear Mr. Stoddard:

On June 30, 2021, the U.S. Nuclear Regulatory Commission (NRC) completed an inspection at North Anna Power Station. On July 15, 2021, the NRC inspectors discussed the results of this inspection with Fred Mladen and other members of your staff. The results of this inspection are documented in the enclosed report.

One Severity Level IV violation without an associated finding is documented in this report. We are treating this violation as a non-cited violation (NCV) consistent with Section 2.3.2 of the Enforcement Policy.

No NRC-identified or self-revealing findings were identified during this inspection.

If you contest the violation or the significance or severity of the violation documented in this inspection report, you should provide a response within 30 days of the date of this inspection report, with the basis for your denial, to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001; with copies to the Regional Administrator, Region II; the Director, Office of Enforcement; and the NRC Resident Inspector at North Anna Power Station.

This letter, its enclosure, and your response (if any) will be made available for public inspection and copying at <http://www.nrc.gov/reading-rm/adams.html> and at the NRC Public Document Room in accordance with Title 10 of the *Code of Federal Regulations* 2.390, "Public Inspections, Exemptions, Requests for Withholding."

Sincerely,

*/RA/*

Stewart N. Bailey, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Docket Nos. 05000338 and 05000339  
License Nos. NPF-4 and NPF-7

Enclosure:  
As stated

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SUBJECT: NORTH ANNA POWER STATION – INTEGRATED INSPECTION REPORT  
05000338/2021002 AND 05000339/2021002 dated July 27, 2021

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ADAMS ACCESSION NUMBER: ML21208A018

<input checked="" type="checkbox"/> SUNSI Review		<input checked="" type="checkbox"/> Non-Sensitive <input type="checkbox"/> Sensitive		<input checked="" type="checkbox"/> Publicly Available <input type="checkbox"/> Non-Publicly Available	
OFFICE	RII:DRP	RII:DRP	RII:DRP	RII:DRP	
NAME	D. Jackson	K. Carrington	M. Tobin	J. Seat for S. Bailey	
DATE	7/21/2021	7/21/2021	7/21/2021	7/27/2021	

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**U.S. NUCLEAR REGULATORY COMMISSION  
Inspection Report**

Docket Numbers: 05000338 and 05000339

License Numbers: NPF-4 and NPF-7

Report Numbers: 05000338/2021002 and 05000339/2021002

Enterprise Identifier: I-2021-002-0026

Licensee: Virginia Electric & Power Co.

Facility: North Anna Power Station

Location: Mineral, VA

Inspection Dates: April 1, 2021 to June 30, 2021

Inspectors: M. Tobin, Senior Resident Inspector  
K. Carrington, Resident Inspector  
B. Towne, Resident Inspector  
B. Tindell, Reactor Engineer  
B. Collins, Senior Reactor Inspector  
C. Fontana, Emergency Preparedness Inspector  
S. Sanchez, Senior Emergency Preparedness Insp  
J. Walker, Emergency Response Inspector

Approved By: Stewart N. Bailey, Chief  
Reactor Projects Branch 4  
Division of Reactor Projects

Enclosure

## SUMMARY

The U.S. Nuclear Regulatory Commission (NRC) continued monitoring the licensee’s performance by conducting an integrated inspection at North Anna Power Station, in accordance with the Reactor Oversight Process. The Reactor Oversight Process is the NRC’s program for overseeing the safe operation of commercial nuclear power reactors. Refer to <https://www.nrc.gov/reactors/operating/oversight.html> for more information.

### List of Findings and Violations

RCS Pressure Boundary Leakage Results in Condition Prohibited by Technical Specifications (TS)			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000339/2021002-01 Open/Closed	Not Applicable	71153
A self-revealed SL IV NCV of TS 3.4.13, “RCS Operational Leakage” and TS 3.4.4, “RCS Loops – Mode 1 and 2” was identified for reactor coolant system pressure boundary leakage due to a cracked weld on the reactor coolant pump (RCP) seal injection piping for longer than the allowed completion time.			

### Additional Tracking Items

Type	Issue Number	Title	Report Section	Status
LER	05000339/2020-001-00	LER 2020-001-00 for North Anna Power Station, Unit 2, Technical Specification Required Shutdown due to Reactor Coolant System Pressure Boundary Leakage	71153	Closed

## PLANT STATUS

Unit 1 began the inspection period shutdown for refueling outage 1R28. The unit was restarted on April 22, 2021, and the turbine generator was synchronized to the grid on April 24, 2021. The unit was returned to operating at or near rated thermal power on April 27, 2021. On May 6, 2021, the unit was shut down due to degrading condenser vacuum as a result of a leak inside the main condenser. The leak was repaired, and the unit was restarted on May 17, 2021. The turbine generator was synchronized to the grid on May 17, 2021, and the unit was returned to operating at or near rated thermal power on May 19, 2021, where it remained through the end of the inspection period.

Unit 2 operated at or near rated thermal power for the entire inspection period.

## INSPECTION SCOPES

Inspections were conducted using the appropriate portions of the inspection procedures (IPs) in effect at the beginning of the inspection unless otherwise noted. Currently approved IPs with their attached revision histories are located on the public website at <http://www.nrc.gov/reading-rm/doc-collections/insp-manual/inspection-procedure/index.html>. Samples were declared complete when the IP requirements most appropriate to the inspection activity were met consistent with Inspection Manual Chapter (IMC) 2515, "Light-Water Reactor Inspection Program - Operations Phase." The inspectors reviewed selected procedures and records, observed activities, and interviewed personnel to assess licensee performance and compliance with Commission rules and regulations, license conditions, site procedures, and standards. Starting on March 20, 2020, in response to the National Emergency declared by the President of the United States on the public health risks of the coronavirus (COVID-19), resident and regional inspectors were directed to begin telework and to remotely access licensee information using available technology. During this time, the resident inspectors performed periodic site visits each week, increasing the amount of time on site as local COVID-19 conditions permitted. As part of their onsite activities, resident inspectors conducted plant status activities as described in IMC 2515, Appendix D; observed risk significant activities; and completed on site portions of IPs. In addition, resident and regional baseline inspections were evaluated to determine if all or a portion of the objectives and requirements stated in the IP could be performed remotely. If the inspections could be performed remotely, they were conducted per the applicable IP. In some cases, portions of an IP were completed remotely and on site. The inspections documented below met the objectives and requirements for completion of the IP.

## REACTOR SAFETY

### 71111.01 - Adverse Weather Protection

#### Seasonal Extreme Weather Sample (IP Section 03.01) (1 Sample)

- (1) The inspectors evaluated readiness for seasonal extreme weather conditions prior to the onset of seasonal hot temperatures for the following systems:

Emergency diesel generators (EDGs), heat trace systems, and ventilation systems on June 25, 2021.

#### 71111.04 - Equipment Alignment

##### Partial Walkdown Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated system configurations during partial walkdowns of the following systems/trains:

- (1) Unit 1 high head safety injection system, on May 25, 2021;
- (2) Unit 1 and Unit 2 fire loop, on May 24, 2021;
- (3) Unit 2 'A' and 'B' motor-driven auxiliary feedwater (MDAFW) pump systems, on May 5, 2021;
- (4) Unit 1 reactor coolant pump (RCP) oil seal collection system, on April 14, 2021; and
- (5) Unit 1 hot-leg vent path, on April 14, 2021.

#### 71111.05 - Fire Protection

##### Fire Area Walkdown and Inspection Sample (IP Section 03.01) (5 Samples)

The inspectors evaluated the implementation of the fire protection program by conducting a walkdown and performing a review to verify program compliance, equipment functionality, material condition, and operational readiness of the following fire areas:

- (1) Unit 1 turbine building basement on June 15, 2021;
- (2) Unit 1 safeguards alley building on June 7, 2021;
- (3) Unit 1 and Unit 2 auxiliary service water pump rooms on April 25, 2021;
- (4) Unit 1 quench spray building on April 18, 2021; and
- (5) Unit 1 containment area on April 14, 2021.

#### 71111.06 - Flood Protection Measures

##### Inspection Activities - Internal Flooding (IP Section 03.01) (1 Sample)

The inspectors evaluated internal flooding mitigation protections in the:

- (1) Unit 1 'A' charging pump cubicle on April 15, 2021.

#### 71111.08P - Inservice Inspection Activities (PWR)

##### PWR Inservice Inspection Activities Sample (IP Section 03.01) (1 Sample)

The inspectors evaluated pressurized-water reactor non-destructive testing by reviewing the following examinations from April 5 - 9, 2021:

- (1) 03.01.a - Nondestructive Examination and Welding Activities.
  1. Ultrasonic Examination (UT)
    - a. 14" reactor coolant system weld (14-RC-10 / 38B), ASME Class 1 (reviewed)
  2. Liquid Penetrant Examination (PT)
    - a. two 2" chemical & volume control system welds (welds 14 and 15; 01-CH-382-VALVE), ASME Class 1 (reviewed, including weld documentation)

- b. 6" safety injection system integral attachment (6-SI-133 / 19H), ASME Class 1 (reviewed)
- 3. Magnetic Particle Testing (MT)
  - a. 6" feedwater system weld (6-WFPD-18 / SW-42), Augmented ISI Item
- 4. Visual Testing (VT)
  - a. pressurizer manway bolting (1-RC-E-2 / MANWAY), ASME Class 1 (reviewed)

03.01.b - Pressurized-Water Reactor Vessel Upper Head Penetration Examination Activities.

- 1. Bare Metal Visual Examination
  - a. reactor vessel head (all visible surfaces under insulation package), ASME Class 1 (reviewed)

03.01.c – Pressurized-Water Reactor Boric Acid Corrosion Control Activities.

The inspectors reviewed the licensee's boric acid corrosion control program performance.

03.01.d – Pressurized-Water Reactor Steam Generator Tube Examination Activities.

The inspectors reviewed the licensee's justification for skip-cycle approach on steam generator ISI activities.

71111.11Q - Licensed Operator Requalification Program and Licensed Operator Performance

Licensed Operator Performance in the Actual Plant/Main Control Room (IP Section 03.01) (2 Samples)

- (1) The inspectors observed and evaluated licensed operator performance in the control room during Unit 1 refueling outage (RFO) 1R28 startup activities on April 22, 2021.
- (2) The inspectors observed and evaluated licensed operator performance in the control room during shutdown and manual reactor trip of the Unit 1 reactor due to elevated chemistry parameters and loss of condenser vacuum associated with a main condenser leak on May 6, 2021.

Licensed Operator Requalification Training/Examinations (IP Section 03.02) (1 Sample)

- (1) The inspectors observed and evaluated operator just-in-time training in the simulator associated with restart of the Unit 1 reactor from a forced outage on May 13, 2021.

71111.13 - Maintenance Risk Assessments and Emergent Work Control

Risk Assessment and Management Sample (IP Section 03.01) (4 Samples)

The inspectors evaluated the accuracy and completeness of risk assessments for the following planned and emergent work activities to ensure configuration changes and appropriate work controls were addressed:



- (1) Unit 2 risk associated with the June 16, 2021, testing of the turbine-drive auxiliary feedwater (TDAFW) pump during overhaul of Unit 2 'C' main feed pump, on June 29, 2021;
- (2) Emergent risk associated with Unit 1 down power due to increased sodium levels in the steam generators, on May 17, 2021;
- (3) Unit 1 loss of containment air cooling with B RSST supplied from its alternate feed and impending severe weather during the week of May 5, 2021; and
- (4) Unit 1 heavy lift of the low pressure turbine rotor and contact with piping that occurred on March 29, 2021.

#### 71111.15 - Operability Determinations and Functionality Assessments

##### Operability Determination or Functionality Assessment (IP Section 03.01) (7 Samples)

The inspectors evaluated the licensee's justifications and actions associated with the following operability determinations and functionality assessments:

- (1) CR 1168035, Quench spray pump thrust bearing installed backwards, on June 25, 2021;
- (2) CRs 1168069, 1168094; 1163599, Hot-leg and cold-leg recirculation MOV issues, on June 15, 2021;
- (3) CR 1173238, Shutdown bank 'B' rod E5 IRPI indication issues, on May 19, 2021;
- (4) CR 1168848, Unit 1 MS-TV-101A check valve anti-rotation pin wear, on May 18, 2021;
- (5) CR 1172779, Steam dump 'A' only able to open to 85% travel, on May 16, 2021;
- (6) CR 1167510, 1 FW-68 AFW check valve failed its backseat leakage test, on May 10, 2021; and
- (7) CR 1167419, 2H EDG output breaker opened under full load during a surveillance test on March 11, 2021.

#### 71111.18 - Plant Modifications

##### Temporary Modifications and/or Permanent Modifications (IP Section 03.01 and/or 03.02) (1 Sample)

The inspectors evaluated the following temporary or permanent modifications:

- (1) Design Change (DC) NA-17-00236, Unit 2 125 VDC Battery Charger Replacements (02-BY-BC-2-III)

#### 71111.19 - Post-Maintenance Testing

##### Post-Maintenance Test Sample (IP Section 03.01) (7 Samples)

The inspectors evaluated the following post-maintenance test (PMT) activities to verify system operability and functionality:

- (1) 1J emergency diesel generator restoration following troubleshooting, on June 30, 2021;
- (2) Unit 1 service water to recirculation spray heat exchanger MOVs following replacement, on June 25, 2021;

- (3) Unit 1 main steam dump 1408A PMT (WO 59203365619) following removal of temporary modification, on May 25, 2021;
- (4) Unit 1 turbine overspeed trip test following maintenance on April 23, 2021;
- (5) Unit 1 TDAFW system PMT following turbine replacement, on April 14, 2021;
- (6) Unit 1 MOV motor control center breaker bucket PMTs for valves 1-SI-MOV-1860A, 1-SI-MOV-1885A, and 1-SI-1885C following replacement, on April 14, 2021; and
- (7) Unit 1 fuel transfer cart PMT following overload alarm on April 13, 2021.

#### 71111.20 - Refueling and Other Outage Activities

##### Refueling/Other Outage Sample (IP Section 03.01) (2 Samples)

- (1) The inspectors evaluated refueling outage 1R28 activities from March 14 to April 24, 2021.
- (2) The inspectors evaluated unplanned outage activities from May 6-19, 2021.

#### 71111.22 - Surveillance Testing

The inspectors evaluated the following surveillance tests:

##### Surveillance Tests (other) (IP Section 03.01) (3 Samples)

- (1) Unit 1 containment purge valve (penetration 90) leakage test, 1-PT-33.1, on June 15, 2021;
- (2) Unit 1 service water flow balance test, 1-PT-75.6, on May 17, 2021; and
- (3) Unit 2 motor-driven auxiliary feedwater pump (2-FW-P-3B) and valve test, 2-PT-71.3Q, on May 5, 2021.

##### RCS Leakage Detection Testing (IP Section 03.01) (1 Sample)

- (1) Unit 1 RCS leakage detection test 1-PT-52.2A, for reactor vessel flange leakage concurrent with 1B RCP #2 seal degradation on May 20, 2021.

##### Containment Isolation Valve Testing (IP Section 03.01) (1 Sample)

- (1) Unit 1 containment isolation valve (penetration 56A) test, 1-PT-61.3, on April 14, 2021.

#### 71114.02 - Alert and Notification System Testing

##### Inspection Review (IP Section 02.01-02.04) (1 Sample)

- (1) The inspectors evaluated the maintenance and testing of the alert and notification system during the week of May 3, 2021.

#### 71114.03 - Emergency Response Organization Staffing and Augmentation System

##### Inspection Review (IP Section 02.01-02.02) (1 Sample)

- (1) The inspectors evaluated the readiness of the emergency response organization during the week of May 3, 2021.

71114.04 - Emergency Action Level and Emergency Plan Changes

Inspection Review (IP Section 02.01-02.03) (1 Sample)

- (1) The inspectors evaluated submitted Emergency Action Level, Emergency Plan, and Emergency Plan Implementing Procedure changes during the week of May 3, 2021. This evaluation does not constitute NRC approval.

71114.05 - Maintenance of Emergency Preparedness

Inspection Review (IP Section 02.01 - 02.11) (1 Sample)

- (1) The inspectors evaluated the maintenance of the emergency preparedness program during the week of May 3, 2021.

71114.06 - Drill Evaluation

Drill/Training Evolution Observation (IP Section 03.02) (1 Sample)

The inspectors evaluated:

- (1) "D" team emergency preparedness drill on June 1, 2021

**OTHER ACTIVITIES – BASELINE**

71151 - Performance Indicator Verification

The inspectors verified submittals for licensee performance indicators listed below:

MS07: High Pressure Injection Systems (IP Section 03.06) (2 Samples)

- (1) Unit 1 (April 1, 2020 – March 31, 2021)
- (2) Unit 2 (April 1, 2020 – March 31, 2021)

MS10: Cooling Water Support Systems (IP Section 03.09) (2 Samples)

- (1) Unit 1 (April 1, 2020 – March 31, 2021)
- (2) Unit 2 (April 1, 2020 – March 31, 2021)

BI02: RCS Leak Rate Sample (IP Section 03.11) (2 Samples)

- (1) Unit 1 (April 1, 2020 – March 31, 2021)
- (2) Unit 2 (April 1, 2020 – March 31, 2021)

EP01: Drill/Exercise Performance (IP Section 03.12) (1 Sample)

- (1) Unit 1 (July 1, 2020, through March 31, 2021)  
Unit 2 (July 1, 2020, through March 31, 2021)

EP02: ERO Drill Participation (IP Section 03.13) (1 Sample)

- (1) Unit 1 (July 1, 2020, through March 31, 2021)  
Unit 2 (July 1, 2020, through March 31, 2021)

EP03: Alert & Notification System Reliability (IP Section 03.14) (1 Sample)

- (1) Unit 1 (July 1, 2020, through March 31, 2021)  
Unit 2 (July 1, 2020, through March 31, 2021)

71152 - Problem Identification and Resolution

Annual Follow-up of Selected Issues (IP Section 02.03) (1 Sample)

The inspectors reviewed the licensee's implementation of its corrective action program related to the following issues:

- (1) CR1165766, "Westinghouse Identified Potential Suspect NCD Cards." The inspectors selected this issue for annual follow-up since it was associated with a Part 21 report related to a potential defect in capacitor network cards procured by the site. The inspectors reviewed the site's corrective actions which included: a review of inventory, identification of affected cards, verification the defect was not present on cards installed in the plant; removal of any potentially affected cards from storage, and return of defected cards to the vendor for repair. The site performed additional follow-up actions as recommended by the vendor.

71153 - Followup of Events and Notices of Enforcement Discretion

Event Report (IP Section 03.02) (1 Sample)

The inspectors evaluated the following licensee event report (LER):

- (1) LER 2020-001-00 for North Anna Power Station, Unit 2, Technical Specification Required Shutdown due to Reactor Coolant System Pressure Boundary Leakage (ADAMS Accession No. ML20164A134). The inspection conclusions associated with this LER are documented in this report under Inspection Results Section 71153.

Personnel Performance (IP Section 03.03) (1 Sample)

- (1) The inspectors evaluated a manual trip on Unit 1 in response to a leak in the Unit 1 condenser and the licensee's performance, on May 6, 2021.

**INSPECTION RESULTS**

RCS Pressure Boundary Leakage Results in Condition Prohibited by Technical Specifications			
Cornerstone	Severity	Cross-Cutting Aspect	Report Section
Not Applicable	Severity Level IV NCV 05000339/2021002-01 Open/Closed	Not Applicable	71153

A self-revealed SL IV non-cited violation (NCV) of Technical Specification (TS) 3.4.13, "RCS Operational Leakage" and TS 3.4.4, "RCS Loops – Mode 1 and 2" was identified for reactor coolant system pressure boundary leakage due to a cracked weld on the reactor coolant pump (RCP) seal injection piping for longer than the allowed completion time.

Description: On April 6, 2020, at 0037, the station identified an increase in the unidentified leak rate as part of their normal monitoring, and entered licensee procedure 2-AP-16, "Increasing Primary Plant Leakage" due to an increase in unidentified leakage from 0.0247 gallons per minute (gpm) to 0.1081 gpm. At that time, the station immediately began taking appropriate actions to identify the source of the unidentified leakage. On April 9, 2020, at 0100, the station identified that a weld on the "A" RCP seal injection piping to the thermal barrier was leaking, which was defined as pressure boundary leakage, and was prohibited by TS 3.4.13. The station then began a controlled shutdown in accordance with the TS action statement to be in Mode 3 within 6 hours, and Mode 5 within 36 hours.

The licensee submitted licensee event report 05000339-2020-001-00.

Corrective Actions: The licensee repaired the weld by grinding out the defect and completing a repair weld. The station also implemented a non-destructive examination program on the similar welds for both North Anna Units 1 and 2, to be used until the welds are modified permanently.

Corrective Action References: CR1144530

Performance Assessment: The NRC determined this violation was not reasonably foreseeable and preventable by the licensee and therefore is not a performance deficiency. Specifically, the equipment failure could not have been avoided or detected by the licensee's quality assurance program or other related control measures. The weld in question was original from the equipment manufacturer, and had been in service for nearly 40 years. The station took prompt and reasonable actions to identify the location of the unidentified leakage and shut down within the required limiting condition for operation (LCO) completion time after identification.

Enforcement: Reactor violations without a performance deficiency are dispositioned using the traditional enforcement process. Specifically, Enforcement Policy Section 2.2.4 states, in part, that "violations dispositioned using traditional enforcement includes...violations not associated with ROP findings."

Severity: The inspectors reviewed Section 6.1.d.1 of the Enforcement Policy and determined this violation was characterized as a Severity Level IV because it was a failure to comply with a TS-required action for an LCO in Section 3.0.

Violation: North Anna Power Station, Unit 2 TS Subsection 3.4.13, "RCS Operational Leakage," Condition B requires, in part, that if pressure boundary leakage exists, the unit must be in Mode 3 within 6 hours, and Mode 5 within 36 hours. Additionally, TS Subsection 3.4.4, "RCS Loops – Modes 1 and 2," requires that the unit must be in Mode 3 within 6 hours if there are not three operable RCS loops. Contrary to the above, between April 6, and April 9, 2020, three RCS loops were not operable due to pressure boundary leakage, and the unit was not placed in Mode 3 within 6 hours or Mode 5 within 36 hours.

Enforcement Action: This violation is being treated as a NCV, consistent with Section 2.3.2 of the Enforcement Policy.

## **EXIT MEETINGS AND DEBRIEFS**

The inspectors verified no proprietary information was retained or documented in this report.

- On July 15, 2021, the inspectors presented the integrated inspection results to Mr. Fred Mladen and other members of the licensee staff.
- On May 6, 2021, the inspectors presented the Emergency Preparedness Program inspection results to Ms. Lisa Hilbert and other members of the licensee staff.
- On April 9, 2021, the inspectors presented the Unit 1 In-Service Inspection results to Mr. Fred Mladen and other members of the licensee staff.

**DOCUMENTS REVIEWED**

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
71111.01	Corrective Action Documents	CRs 1171958, 1172022, 1171961, 1171918		
	Miscellaneous		National Weather Service- Watches, Warnings, and Advisories for Mineral, Virginia	
	Procedures	0-AP-41	Severe Weather Conditions	78
		0-GOP-4.1	Hot Weather Operations	39
0-GOP-5.5		EDG Hot Weather Operations	14	
71111.04	Corrective Action Documents Resulting from Inspection	CR1174226		
		CR1174227		
		CR1174228		
		CR1174229		
		CR1174230		
		CR1174231		
		CR1174233		
		CR1174236		
		CR1174238		
		CR1174239		
	CR1174240			
	CR1174241			
	Drawings	2000019-11715-FM-074A, Sheet 1	Flow/Valve Operating Numbers Diagram Feedwater System	0
CS8820		Plant Fire Loop		
Procedures	2-PT-71.3Q	2-FW-P-3B Motor-Driven AFW Pump, and Valve Test	48	
71111.05	Fire Plans	1-FS-QS-1	Loss Prevention Fire Strategy for Quench Spray Building (SG-74) Unit 1	5
	Procedures	0-FS-TB-1	Turbine Building Fire Fighting Strategy	3
1-FS-ASWP-1		Auxiliary Service Water Pumphouse Fire Strategy	1	
71111.06	Corrective Action Documents	CA	8359916	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Drawings	11715-FB-090S, sheet 1	Flow/Valve Operating Numbers Diagram Vent & Drain System	24
	Procedures	0-GOP-3.9	Weekly Check of Charging Pumps	6
		0-MPM-1910-01	Flood Protection Floor Drain Backflow Preventer Replacement	3
71111.08P	Corrective Action Documents	CA8328174	1-CH-337 Pipe Cap Leaking	01/09/2021
		CA8328175	1-CH-337 Pipe Cap Leak – Boric Acid Review	01/09/2021
		CA8376965	Boric Acid Deposits downstream of 1-SI-79	03/14/2021
	Engineering Evaluations		BACCP Evaluation Form: 1-CH-P-1B, 1B Charging Pump	12.30.2019
			BACCP Evaluation Form: 1-RS-P-3B, Casing Cooling Pump	01.19.2021
			BACCP Evaluation Form: 1-SI-P-1A, Low-Head SI Pump	03.05.2020
	Miscellaneous		Curtiss-Wright Personnel Certification Statement: PT-III (Van Ruler)	01/08/2021
			Curtiss-Wright Certification of Visual Acuity and Color Vision per LMT Procedure PVE-1 (Van Ruler)	6/11/2020
			Magnaflux Certification: Spotcheck Penetrant, SKL-SP2 (Batch #17J16K)	09/25/2017
			2020004041, Calibration Certificate: Digital Thermometer (S/N 1074BGCY)	7/30/2020
			Magnaflux Certification: Spotcheck Developer, SKD-S2 (Batch #18H12K)	08/23/2018
			Curtiss-Wright Personnel Certification Statement: UT-II (Kunze)	01/21/2021
			Curtiss-Wright Certification of Visual Acuity and Color Vision per LMT Procedure PVE-1 (Kunze)	6/3/2020
		Magnaflux Certification: Ultragel II Couplant (Batch #17F087)	06/30/2017	
		Curtiss-Wright Personnel Certification Statement: VT-1-II (Van Ruler)	01/08/2021	
		Curtiss-Wright Personnel Certification Statement: MT-II (Kunze)	01/21/2021	
	Magnaflux Certification: No. 2 Yellow Powder (Batch #18H017)	08/06/2018		



Inspection Procedure	Type	Designation	Description or Title	Revision or Date
			Dominion Energy Personnel Qualification and Certification Record: VT (Eustice)	09/11/2020
			Dominion Certification of Vision Examination (Eustice)	3/10/2021
			Eastern NDT Certificate of Calibration: Light Meter (S/N 1044JGCY)	2/6/2021
			Dominion ASME Section IX – Welder Performance Qualification PQM 508 (Dods)	02/04/2019
			Dominion ASME Section IX – Welder Performance Qualification PQM801A (Dods)	04/26/2017
			Curtiss-Wright Personnel Certification Statement: PT-III (Cordes)	03/04/2021
			Curtiss-Wright Certification of Visual Acuity and Color Vision per LMT Procedure PVE-1 (Cordes)	7/20/2020
			Curtiss-Wright Personnel Certification Statement: PT-II (Grell)	02/04/2021
			Curtiss-Wright Certification of Visual Acuity and Color Vision per LMT Procedure PVE-1 (Grell)	6-1-2020
		801	Procedure Qualification Record	12/20/01
		805	Procedure Qualification Record	12/27/01
		809	Procedure Qualification Record	12/21/01
		830	Procedure Qualification Record	7/20/01
		831	Procedure Qualification Record	7/20/01
		BOP-PT-21-030	Liquid Penetrant Examination: 1-CH-382/Weld #15	3/9/2021
	NDE Reports	BOP-PT-21-081	Liquid Penetrant Examination: 1-CH-382/Weld #14	4/1/2021
		MT-21-002	Magnetic Particle Examination: 6-WFPD-18/SW-42	3/14/2021
		PT-21-020	Liquid Penetrant Examination: 6-SI-133/19H	3/19/2021
		UT-21-016	UT Calibration/Examination Record: 14-RC-10/38B	3/18/2021
		VE-21-021	Visual Examination: 1-RC-R-1/RPVH and Nozzles	3/23/2021
		VT-21-065	Visual Examination of Pressure Retaining Bolting (VT-1): 1-RC-E-2/MANWAY	4/5/2021
	Procedures	803	Welding Technique Sheet	9
		CM-AA-NWP-102	Control of Welding Materials	2
		ER-AA-NDE-MT-	Dry Magnetic Particle Examination Procedure Using Yokes	8

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		200		
		ER-AA-NDE-PT-300	Visible Solvent Removable Liquid Penetrant Examination Procedure	10
		ER-AA-NDE-UT-802	Ultrasonic Examination of Austenitic Piping Welds in accordance with ASME Section XI, Appendix VIII	8
		ER-AA-NDE-VT-601	VT-1 Visual Examination Procedure	5
		ER-AA-NDE-VT-604	Visual Examination (VE) for Leakage of PWR Reactor Head Penetrations	4
	Work Orders	WO59203297018	2" Rockwell Edwards Valve Replacement: 1-CH-382 Valve	0
71111.11Q	Corrective Action Documents	CR1167501		
71111.13	Corrective Action Documents	CR1172015		
		CR116886		
		CR1168886		
	Engineering Evaluations	ER-20210330-1100	L-0 Blades Contact with MSR Pipe During Critical Pick	03/30/2021
	Procedures	CH-99.600	Secondary Chemistry Specifications and Action Levels	19
71111.15	Corrective Action Documents	CA8376988		
		CA8376332	Level of Effort Evaluation for CR 1167419	4/14/2021
		CA8390883	1J EDG unable to accept load of 3000 KW 1-PT-83-12J	
		CA8381657		
		CA8381674		
		CR	1167510	
		CR 1163149	2H EDG output breaker tripped during a surveillance test	12/30/2020
		CR1139164	1H EDG crankcase vacuum pressure trip 01/08/2020 PT-82H (slow start)	
		CR1145061	1H EDG crankcase vacuum pressure trip 04/19/2020 PT-82.2A (simulated LOOP)	
		CR1147420		
		CR1151019	1H EDG crankcase vacuum pressure trip 07/06/2020 PT-82H (slow start)	
CR1151058	1H EDG oil in the sensing line 07/07/2020			

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR1159712	2H EDG oil in the sensing line and pressure switch contacts closed 10/29/2020	
		CR1168035		
		CR1168559	1J EDG crankcase vacuum pressure trip diesel 3/25/2021	
		CR1170953		
	Drawings	11714-FM-074, Sheet 3	Flow/Valve Operating Numbers Diagram Feedwater System	48
		11715-FM-074, Sheet 1	Flow/Valve Operating Numbers Diagram Feedwater System	57
	Miscellaneous	59-C432-00006	Vendor Technical Manual for Copes Vulcan Type D-100 Valves	10
		RE502574	PM/Surveillance Detail Report	
	Procedures	1-DRP-02	Air Operated Valve Setpoints	15
		ER-AA-IST-CKV-104	ASME IST Program - Check Valve Condition Monitoring Program Implementation	6
Work Orders	WO5903311344			
71111.18	Corrective Action Documents	CR1162213		
	Engineering Changes	DC-NA-17-00236	Station Battery Chargers 2-III, 2-IV, 2C-III Replacement	1
	Engineering Evaluations	ETE-NA-2020-0003	Documentation of Online Testing Method of a Third Station Battery Charger	1
	Miscellaneous	EE-0019	Station Battery Charger Specification for North Anna Power Station	06/10/2016
		EN 54520	Part 21 Report- Ametek 85- RP2675-01 Power Supply Mounting Hardware	
		VTM-59-A705-00001	Ametek Solid State Controls 250A Battery Charger Instruction & Operating Manual with Drawings	11/26/2018
71111.19	Corrective Action Documents	CR1172933		
		CR1167573	1J EDG minor speed oscillations when in Isochronous Mode	
		CR1168675	1J EDG load cannot be raised above 2800KW	
		CR1168720	1J EDG limited fuel rack movement	
		CR1168905	1J EDG discrepancies identified	
		CR1168968	1J EDG overspeed switch linkage noted with lock nut loose	

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
		CR1169140	1J EDG discrepancies identified with the 1J EDG #1 CS and OCS injection pumps	
		CR1170249	1 EDG failed load reject time response for voltage during 1-PT-83.12J	
		CR1167499		
		CR1167505		
		CR1168354		
		CR1168451		
		CR1168471		
		CR1168472		
		CR1168518		
		CR1168564		
		CR1168840		
		CR1169179		
		CR1169302		
		CR1169991		
	Drawings	02--C	North Anna FTS Carriage Wheel Study	000
		CS9281	Wheel Bushing Data	
	Procedures	1-GEP-18	Stroking Service Water RSHZ MOVs Against Design Condition Differential Pressure	01
		1-PT-213.11	Valve Inservice Inspection (Service Water)	04/14/2021
		1-PT-96.1	Refueling Systems Operability and Checkout	29-OTO2
		DNES-AA-MOV-1001	Dynamic Test Evaluation Review Checklist; Quarter Turn Valve	04/10/2021
Work Orders	WO59203365619			
	WO59102915312			
	WO59203356018			
71111.20	Corrective Action Documents	CR1168434		
		CR1168601		
	Procedures	1-OP-1C.1	Estimated Critical Position Calculation Following Refueling	7
71111.22	Corrective Action Documents	CR1171862		
		CR1168466		
		CR1169959		

Inspection Procedure	Type	Designation	Description or Title	Revision or Date
	Drawings	11715-FM-074A, Sheet 1	Flow/Valve Operating Numbers Diagram Feedwater System	57
		11715-FM-074A, Sheet 2	Flow/Valve Operating Numbers Diagram Feedwater System	52
		11715-FM-074A,, Sheet 3	Flow/Valve Operating Numbers Diagram Feedwater System	48
		11715-FM-078A	Flow/Valve Operating Numbers Diagram Service Water System	61
		11715-FM-078B	Flow/Valve Operating Numbers Diagram Service Water System	37
	Engineering Evaluations	ETE-CEP-2019-0005	Summary of Design Basis Accident Flow Rates for Pumps in the North Anna IST Program	1
	Procedures	1-PT-61.3 Attachment 40	Valve Penetration Diagram - Penetration 56A	42
		1-PT-75.2A.1	Service Water Pump (1-SW-P-1A) Head Curve Verification	36
		1-PT-75.2B.1	Service Water Pump (1-SW-P-1B) Head Curve Verification	38
		1-PT-75.6	Service Water Flow Balance	32
		2-PT-71.3Q	2-FW-P-3B Motor-Driven AFW Pump and Valve Test	48
		2-PT-75.2A.1	Service Water Pump (2-SW-P-1A) Head Curve Verification	38
		2-PT-75.2B.1	Service Water Pump (2-SW-P-1B) Head Curve Verification	36
71114.06	Corrective Action Documents	CR1174321		
		CR1174323		
		CR1174330		
		CR1174467		
		CR1174468		
		CR1174469		
71152	Corrective Action Documents	CR1165766		
		CA8355323		
		CA8355877		
		CA8357163		
	Miscellaneous		List of Installed NCD Cards at North Anna with Serial numbers C2008-041. -042, -043, -044, -045, and C1948-005	
	PO 4500565887			10/25/2019

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		SAP-N-200214159		03/12/2021
71153	Miscellaneous		North Anna Unit 1 Post Trip Review Report	05/09/2021