UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

Report Nos. 50-338/79-30 and 50-339/79-38

Licensee: Virginia Electric and Power Company
Post Office Box 26666
Richmond, Virginia 23261

Facility Name: North Anna, Units 1 and 2

Docket Nos. 50-338 and 50-339

License Nos. NPF-4 and CPPR-78

Inspection at North Anna Site, Mineral, Virginia

Inspector: E. H. Webster for P. J. Kellogg — Date Signed 7/30/79

Approved by: P. J. Kellogg, Section Chief, RONS Branch — Date Signed 7/30/79

SUMMARY

Inspected on July 9-11, 1979

Unit 1 Areas Inspected

This routine, unannounced inspection involved 15 inspector-hours on-site in the areas of licensee event reports and followup of previously identified items.

Unit 1 Findings

No items of noncompliance or deviations were identified.

Unit 2 Areas Inspected

This routine, unannounced inspection involved 10 inspector-hours on-site in the areas of comparison of as-built systems to FSAR.

Unit 2 Findings

No items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

   Licensee Employees

   *W. R. Cartwright, Station Manager
   *J. D. Kellams, Superintendent, Operations
   *E. R. Smith, Superintendent, Technical Services
   *C. R. Swope, Senior QC Inspector
   *W. R. Madison, NRC Coordinator
   J. M. Mosticone, Jr., Shift Supervisor

   NRC Resident Inspector

   M. S. Kidd

   *Attended exit interview

2. Exit Interview

   The inspection scope and findings were summarized on July 11, 1979 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

   (Closed) Unresolved Item (338/79-25-04): Control room emergency ventilation charcoal test results appear to violate Technical Specification 4.7.7.1b. NRC internal correspondence dated June 11, 1979 confirmed the intent of Technical Specification 4.6.4.3, 4.7.7.1, and 4.7.8.1 to allow a maximum of 1.0% freon leakage during tests, not 0.05%, the leakage allowable in specification 4.7.7.1. A separate open item is hereby initiated to ensure that a change to the above listed Technical Specifications is made to clarify this issue (338/79-30-01).

4. Unresolved Items

   Unresolved items were not identified during this inspection.

5. Facility Status

   At the time of this inspection, North Anna Unit 1 was at 100% power in commercial operation and Unit 2 in final preoperational testing and construction.

6. Licensee Event Reports Review (Unit 1)

   The following LER's were reviewed to verify that reporting requirements had been met, causes had been identified, corrective actions appeared appropriate, generic applicability had been considered, and the LER forms were

complete. Additionally, for those reports identified by asterisk, a more detailed review was performed to verify that the licensee had reviewed the events, corrective actions had been taken, no unreviewed safety questions were involved, and violations of regulations or licensee/Technical Specification conditions had been identified.

a. LER 79-033/03L-0 dated April 13, 1979: "C" steam generator narrow range level indicator erratic.

b. LER 79-034/03L-0 dated May 7, 1979: Snubber reservoir empty due to O ring seal leak

c. LER 79-036/03L-0 dated April 19, 1979: Control room ventilation filter failed 18 month periodic test

d. LER 79-037/03L-0 dated April 19, 1979: Reactor coolant system leakage greater than 1gpm due to packing leak

e. LER 79-038/03L-0 dated April 19, 1979: Axial Flux Difference (AFD) outside target band during power reduction.

f. LER 79-039/03L-0 dated April 19, 1979 Hydrogen recombiner inoperable during electrical system modification.

g. LER 79-042 *dated April 27, 1979: Auxiliary feedwater pump P-2 tripped during operation. This event occurred on March 30, following a reactor trip when the auxiliary feedwater system was initiated, the steam driven pump P-2 tripped apparently on overspeed. Maintenance report (MR) N1-79-0330-1535 reported completion of a retest of the pump, and MRs N1-79-0330-1844 and -1848 tested the opening speeds of steam inlet isolation valves TV-MS-111A and B, which required adjustments.

h. LER 79-045/03L-0 dated May 3, 1979: Pressurizer level transmitter found out of calibration on routine check.

i. LER 79-046/03L-0 *dated May 3, 1979: All three charging pumps inoperable during maintenance in cold shutdown. This event occurred when charging pumps 1A and 1B had been removed from service for a design change to their cooling water supplies on April 8, 1979. When pump 1B was removed from service, pump 1C, the only remaining pump not affected by maintenance was also deenergized due to the electrical configuration of the 1C pump breaker to the H bus. The inspector verified operator action had occurred to transfer the 1C pump to the J bus at the time of the event and verified licensee controls for removing charging pumps from operation in Maintenance Operating Procedures 8.01 and 8.02 . Final review of this event remains open pending review of procedure deviations used to place two charging pumps out of service at once.

j. LER 79-049/03L-0 dated May 11, 1979: "1B" steam generator narrow range level indication found out of calibration on routine check.

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k. LER 79-050/03L-0 dated May 11, 1979: Containment Hi-Hi pressure channel found out of calibration on routine check.

l. LER 79-051/03L-0 dated May 7, 1979: Isolation valve MOV-1701 failed to close on routine check.

m. LER 79-053/03L-0 *dated May 18, 1979: 20 valves found to leak excessively during type "C" leak testing. A review of the results of Periodic Test (PT) 1-PT-61.3 conducted in April, 1979 revealed overall "as-found" valve leakage was eight times the allowable specification of 10CFR 50 Appendix J of 0.6La. Prior to retesting, a total of 31 valves were worked resulting in a final total leakage rate of 60.3 SCFH or .23La. It was noted that the licensee has been granted an exemption by NRC from the ASME Code Section XI valve leak rate limits of IWV Table 1320-2 for the first 20 months of commerical operation. As a result, the LER reports leakage only from the 20 worst leaking valves of the 31 that were repaired which accounts for 90% of the total valve leakage recorded. One other valve, TV-LM-101C was found to leak 19.77 SCFH on April 28, but was not repaired. The inspector shall followup on licensee repair to this valve in future inspections (338/79-30-02).

n. LER 79-054/03L-0 dated June 13, 1979: Charging pump 1A inlet piping cracked.

o. LER 79-055/03L-0 *dated May 11, 1979: Rod position indication drifted high on 3 control rods while reactor shutdown. A review of the Maintenance Report (MR) file for the date of this event, showed that between 4:45 p.m. and 11:59 p.m. on March 30, 15 MRs were written on 9 different control rod position indications (RPI). Each report indicated that the RPI reading was high while the control rod was actually at zero steps. Since the LER only indicated problems with three RPIs which were corrected by simple alignment procedures, the inspector indicated that a supplemental LER is necessary to portray the increased complexity of the problem that occurrred (338/79-30-03).

p. LER 79-058/03L-0 *dated May 25, 1979: Valve MOV-1865B failed to open during operation. A review of the MR file revealed that valve MOV-1865B was repacked on April 8 as documented on MR N1-79-0401-1728. On April 30 the valve did not respond to an electric open signal. Subsequently MR N1-79-0430-1355 documents successfully manually cycling this valve with no other corrective action necessary. The licensee committed in the LER to evaluate the mechanism responsible for this failure, which will be reviewed in a future inspection.

q. LER 79-059/03L-0 *dated May 31, 1979: Auxiliary building fire hose stations inoperable for 10 hours without backup systems available. After reviewing MR N1-79-0330-0943

and discussing the event with licensee management, the inspector had no further questions on this event.

r. LER 79-060/03L-0 dated May 31, 1979: AFD outside target band during reactor startup

s. LER 79-061/03L-0 dated May 25, 1979: Casing cooling tank temperature high due to refrigeration unit malfunction.

t. LER 79-063/03L-0 *dated May 31, 1979: Eight control rod RPIs out of alignment during reactor startup. This event was investigated in conjunction with LER 79-55, discussed in o. above. The inspector had no further questions on this event.

u. LER 79-064/03L-0 dated June 1, 1979: Diesel 1H inoperable due to cooling water fitting leak.

v. LER 79-066/03L-0 dated June 5, 1979: "C" steam generator narrow range level indication erratic.

w. LER 79-067/03L-0 dated June 1, 1979: Radiation monitor RM-RMS-159 inoperable due to filter drive failure.

x. LER 79-068/03L-0 *dated June 6, 1979: Radiation monitors RM-RMS-159 and 160 inoperable due to failure of a common solenoid valve coil. MR N1-79-0508-1600 confirmed restoration of the monitors to operation within 2 days, however, the inspector was not able to review any design change information, as indicated on the LER as scheduled corrective action. This LER remains open pending inspector review of the design change.

y. LER 79-069/03L-0 dated June 6, 1979: AFD outside target band during a load transient.

z. LER 79-070/03L-0 dated June 6, 1979: Hose station AB-H-24 isolated for less than 1 hour for maintenance.

aa. LER 79-071/03L-0 dated June 6, 1979: Valve MOV-1863A failed to open within required time during a test.

bb. LER 79-072/03L-0 dated May 25, 1979: Auxiliary feedwater pump P-2 inoperable due to maintenance on valve TV-MS-111B.

cc. LER 79-074/03L-0 dated June 5, 1979: Pressurized level indicator L-1460 failed during testing.

No items of noncompliance or deviations were identified.

7. Comparison of as-Built Systems to FSAR (Unit 2)

The inspector compared FSAR figures to licensees prints as noted below for the Reactor Control System (RCS) and the Chemical and Volume Control System (CVCS), except for Safety Injection components, which were verified and documented in IE Reports 339/79-13 and 339/79-22.

Documentation used:

System	FSAR Figure No.	Drawing No.
RCS	5.1-1	12050-F-93A-10
	5.1-2	12050-FM-93B-10
	5.5.9-3	12050-FV-86A-3
CVCS	9.3.4-4	12050-FM-95A-7
	9.3.4-5	12050-FM-95B-10
	9.3.4-6	12050-FM-95C-9

The FSAR figures appeared to match the respective prints noted above. Accuracy of vent and drain valve and tapoffs were not checked as this detail is not required in FSAR drawings.

The inspector then walked down the RCS and CVCS systems using the prints verified above. With one exception, the as-built systems appeared to correspond to the prints. The exception was on the pressuirezer relief tank level sensing piping, three capped vent taps were installed on the differential pressure detector side of valves 2-RC-166 and 2-RC-167 not shown on drawing FM-93B-10. The drawing documented an outstanding design change, E&DCR-22047-B which might document a drawing change to correct this error. However, the E&DCR could not be obtained to verify this and therefore will be checked on future inspections (339/79-38-01).

No items of noncompliance or deviations were identified.

8. Previously Identified Items

(Closed) Open item (79-06-03) Replacement of fire door S-54-5. The inspector observed that the subject door has been replaced by a new 3 hour rated fire door.