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

Report Nos. 50-338/81-31 and 50-339/81-28

Licensee: Virginia Electric and Power Company
P. O. Box 26666
Richmond, VA 23261

Facility Name: North Anna Units 1 and 2

Docket Nos. 50-338 and 50-339

License Nos. NPF-4 and NPF-7

Inspection at North Anna site near Mineral, Virginia

Inspectors: H C Dance/for — 1/29/82
D. F. Johnson — Date Signed

H C Dance/for — 1/29/82
M. B. Shymlock — Date Signed

Approved by: H C Dance — 1/29/82
H. C. Dance, Section Chief, Division of Resident and Reactor Project Inspection — Date Signed

SUMMARY

Inspection on December 6, 1981 - January 5, 1982

Areas Inspected

This routine inspection by the resident inspector involved 112 inspector-hours on site in the areas of followup of previous inspection findings, licensee event reports, previously identified items, surveillance and maintenance activities, and plant operations.

Findings

Of the five areas inspected, no violations or deviations were identified in four areas. One apparent violation was identified in one area (Unit 2 changing operational mode without meeting limiting conditions for operation - paragraph 8).

DETAILS

1. Persons Contacted

Licensee Employees

*W. R. Cartwright, Station Manager
*E. W. Harrell, Assistant Station Manager
*J. A. Hanson, Superintendent - Technical Services
J. R. Harper, Superintendent - Maintenance
*S. L. Harvey, Superintendent - Operations
J. M. Mosticone, Operations Coordinator
*T. R. Johnson, QC Engineer
F. Terminella, Engineering Supervisor
R. Q. Bergquist, Instrument Supervisor
D. E. Thomas, Electrical Supervisor
*M. E. Fellows, Staff Assistant
*K. A. Huffman, Clerk

Other licensee employees contacted included 6 technicians, 10 operators, 5 mechanics, and several office personnel.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on January 5, 1982 with those persons indicated in paragraph 1 above. The apparent violation identified in paragraph 8 was discussed with station management at that time and acknowledged.

3. Licensee Action on Previous Inspection Findings

a. (Closed) Violation 338/81-25-01, Failure to take an initial sample of vent stack A while in an alarm condition and failure to recalculate release rates for the affected system prior to restoring the discharge path to the environment. This violation is closed based on review of steps taken by the licensee to prevent recurrence.

b. (Closed) Deviation (338/81-07-07 and 339/81-08-07), Failure to correctly grade examinations. The inspector verified by review of applicable records and by discussions held with licensee personnel that all required station personnel were retrained and reexamination in mitigating core damage with scores of 80% or more.

c. (Closed) Deviation (338, 339/81-08-08), Failure to perform required training. All licensed personnel, managers of licensed personnel, and shift technical advisors were retrained and re-examined on reactor core parameters and core damage mitigation during the annual requalification program conducted on December 22, 1981. In addition during the

emergency preparedness program all required station personnel were trained in mitigating core damage completed on January 7, 1982

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Plant Status

Unit 1

During this inspection period the unit operated at or near capacity load.

Unit 2

During this inspection period the unit operated at or near capacity load except for the following: Unit trip on December 9 due to apparent failure of P-4 interlock contact in 'B' reactor trip bypass breaker, unit rampdown to 30% power for steam generator chemistry cleanup on December 24, unit rampdown on December 26 to check for reactor coolant leak, and unit shutdown on January 1 due to packing leak on an RHR valve.

6. Followup of Previously Identified Item

(Closed) IFI 338/81-20-01 and 339/81-17-01, Deficiencies noted in radiograph inspection records for the control rod drive penetration tubes. Westinghouse Electric Corporation has submitted a report to NRR discussing this problem. This item is closed based on this submittal.

7. Licensee Event Report (LER) Followup

The following LER's were reviewed and closed. The inspector verified 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 asterick, a more detailed review was performed to verify that the licensee had reviewed the event, corrective action had been taken, no unreviewed safety questions were involved, and violations of regulations or Technical Specification conditions had been identified.

*338-81-30	Fuel oil level in emergency diesel generator storage tank dropped below minimum level
338-81-39	Fj(z) limit was exceeded during surveillance
338-81-40	Periodic test identified pressurizer safety valves setpoint had drifted in conservative direction
338-81-41	One alarm on the spectrum recorder (16Hz) accelograph illuminated

338-81-43	C steam generator feedwater flow channel IV dropped to approximately 85% of previous value
338-81-44	One safeguards area ventilation system inoperable due to a failure of a rubber joint
*338/81-52	Battery room exhaust fire dampers non-functional
*338-81-53	Dose equivalent I-131 level greater than specified limit following reactor trip
*338-81-64	Train A low head safety injection pump failed to start during test
338-81-68	Emergency Diesel generator inoperable
338-81-71	Service water supply header isolated to repair pinhole leak
339-81-03	Casing cooling tank level indicator transmitter froze due to heat tracing failure
339-81-26	Each train of the Quench Spray Subsystem removed from service for maintenance

8. Plant Startup Following a Reactor Trip

On December 9, 1981 Unit 2 was taken critical, from Mode 3 (Hot Standby) to Mode 2 (startup), with solid state protection (SSP) train "B" trip functions defeated. Prior to the trip the licensee was conducting PT-36.1 "Reactor Protection and ESF Logic Test" that required the bypass trip breaker "B" to be racked in and closed and SSP "B" train input error inhibit switch in the inhibit position. This defeated all trip functions of the "B" train of the SSP system. SSP train "A" was operational during this event to provide plant protection. The above condition is allowable during operation by Technical Specification 3.3.1.1. and Table 3.3.1 "Reactor Trip system Instrumentation which states that one channel may be bypassed for up to 2 hours for surveillance testing.

However, during the restart, requirement of Technical Specifications 3.0.4 was not met in that an operational mode change was made without satisfying Table 3.3.1 action statement requirement of returning the bypass trip breakers to normal. The cause of this event was personnel error in that the requirements of Technical Specification 3.0.4 were initially overlooked. After identification by the licensee, the surveillance test was stopped, bypass breaker "B" was opened and racked out and the inhibit switch returned to normal within two hours of the mode change.

The licensee reported this event in accordance with Technical Specification 6.9.2.8.b. This is a violation 339/81-28-01.

9. Plant Operations

The inspector kept informed on a daily basis of overall status of the plants and of any significant safety matters related to plant operations. Discussions were held with plant management and various members of the operations staff on a regular basis. Selected portions of daily operating logs and operating data sheets were reviewed daily during this report period.

The inspector conducted various plant tours and made frequent visits to the control room. Observation included: witnessing work activities in progress, status of operating and standby safety systems, confirming valve positions, instrument readings, and recordings, annunciator alarms, housekeeping and vital area controls.

Informal discussions were held with operators and other personnel on work activities in progress and the status of safety-related equipment or systems.

No violations or deviations were identified.