



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

Report Nos. 50-338/80-18 and 50-339/80-19

Licensee: Virginia Electric and Power Company
Richmond, VA 23261

Facility: North Anna

Docket Nos. 50-338 and 50-339

License Nos. NPF-4 and NPF-7

Inspection at North Anna Station near Mineral, Virginia

Inspectors: *P. T. Burnett* 4/25/80
P. T. Burnett Date Signed

T. J. Donat 4/28/80
T. J. Donat Date Signed

Approved by: *C. M. Upright* 5/1/80
C. M. Upright, Acting Section Chief, RONS Branch Date Signed

SUMMARY

Inspection on April 13-16, 1980

Areas Inspected

This routine, unannounced inspection involved 43 inspector hours on site. The inspection focused on the initial fuel loading of Unit 2. Licensee actions on an earlier inspection finding on Unit 1 and inspector-identified issues were also addressed.

Results

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 of Operations
*D. L. Benson, Superintendent of Technical Services
J. P. Smith, Startup Supervisor
*J. H. Horton, Chemistry Supervisor
G. A. Kahn, Engineering Supervisor
D. Hopper, Health Physics Supervisor
A. G. Neuffer, Fueling Coordinator
J. R. Eastwood, Senior Engineer Technician-Maintenance
*C. R. Swope, Senior QC Inspector

Other licensee employees contacted included four shift supervisors, two technicians, four operators and five office personnel.

Other Organizations

Four Babcock and Wilcox employees assisting in fueling operations. Two Westinghouse employees assisting in fueling operations.

NRC Resident Inspectors

M. S. Kidd
A. Tattersall

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 16, 1980, with those persons indicated in paragraph 1 above. The licensee made a commitment to review Unit 2 primary and secondary coolant sampling procedures to assure that the valves are properly tagged and correctly addressed in the procedures. This work is to be completed and procedures appropriately revised prior to initial criticality (see paragraph 6). The inspector noted that the corrective action of revising procedure 1-PT-11 in response to item of noncompliance 238/80-05-01 had not been extended to Unit 2 (procedure 2-PT-11). The licensee indicated his intent to change the procedure prior needing it (see paragraph 3).

The inspector reiterated the position that in accord with ANSI-B30.2 the fuel assembly gripper of the fuel handling machine should be subjected to nondestructive as well as visual examination. The licensee agreed to pursue the issue further (see paragraph 5.a).

3. Licensee Action on Previous Inspection Findings

(Closed) Item of noncompliance 338/80-05-01 was addressed to the failure of 1-PT-11, as written and applied, to provide an adequate record of surveillance of the reactivity anomaly. (This surveillance is required by Technical Specification 4.1.1.1.2.) The procedure was revised on 2/25/80. The inspector reviewed the copy completed on 3/24/80. All input data were compared with the applicable plant curves and logs and confirmed to be correct. Acceptable results were obtained.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Initial Fuel Loading of Unit 2

a. Preparatory Activities

Pre-operational procedure 2-PO-30A was performed in late March and early April, 1980. This procedure to check out fuel handling equipment differed from the one performed earlier in that a step was added to confirm that the fuel handling bridge could be moved from the hand wheel stations. This closes inspector followup item 50-339/79-15-01. Further, a section was added to the procedure to provide for visual inspection of the wire ropes on all fuel handling equipment and visual inspection of the fuel bundle gripper on the fuel handling bridge. Inspector followup item 339/80-11-01 will remain open because nondestructive examination of the gripper was not included in the augmented procedure.

The inspector confirmed that load tests of fueling handling equipment required by Technical Specifications 4.9.6.1 and 4.9.6.2 had been performed in a timely manner by performance of procedure 2-PT-92 within 100 hours of initiating fuel handling.

b. Fuel Handling

Handling of fuel in the fuel building and in Unit 2 containment was witnessed on three different occasions in each location. The SRO for fuel handling was stationed on the refueling level in containment adjacent to personnel monitoring the three incore neutron detectors and plotting inverse multiplication curves for the incore and two excore, source-range nuclear instruments. He was in constant communication with the control rooms and the licensed operator on the fuel handling bridge. Work in the fuel building was supervised by another SRO under the direction of the fueling SRO.

Inspector surveys of accessible areas of the containment building confirmed that refueling containment integrity requirements were being met. These surveys coupled with observations in the control rooms, review of operator logs, coolant system boron concentration records

and the procedure in progress, 2-SU-6 Initial Core Loading, confirmed that the licensee was in compliance with the applicable provisions of section 3.9 of Technical Specifications.

c. Boron Analysis

The inspectors witnessed the collection of a reactor coolant sample from the Unit 2 RHR system and subsequent analysis for boron concentration and for fluoride and chloride ion concentration. No questions arose from observation of any of the chemistry procedures performed. However, certain questions were raised with respect to the sample collection procedure. They are addressed in paragraph 6.

6. Unit 2 Sampling Periodic Test Procedure Review

The inspectors monitored the licensee's performance on Unit 2 of PT-53.1, Reactor Coolant System Chemistry and Gross Activity, which obtained an RCS sample via the RHR system and analyzed it for boron content. It was noted that two valves, different from those listed in the PT, were operated in order to obtain the sample. According to the licensee's technician this was due to a procedure error in specifying the valves and the procedure was to be corrected. The inspectors discussed this with the station chemist, who stated that a deficiency had been written against the procedure to have it corrected.

The inspectors performed a review of fifteen Unit 2 periodic tests, PT's which involve sampling various technical specification related systems and noted several discrepancies. The review was a comparison of the issued procedure against the system's valve-operating-number drawing and its flow-diagram drawing.

- a. PT-53.1 and PT-53.5, Section 4.1, Alternate Method 2 operates valve 2-SS-130 for obtaining an RCS sample via the RHR system and is in agreement with drawing 12050-FM 89B6. The licensee technician operated a valve marked 2-SS-123 which according to the drawing should have resulted in a pressurizer water sample. It appears that the valves associated with the RHR sample and the pressurizer water and steam samples may be mislabeled.
- b. 2-PT-72.1 and 2-PT-72.3 in step 4.1.1 open valve 2-SS-69 while attempting to obtain a loop B steam generator bottom blowdown sample. According to drawing 12050-FM-89A9 the correct valve should be 2-SS-66.
- c. 2-PT-72.1, 72.2, and 72.3 in step 4.1.1 and 4.1.8 close valve 2-SS-91 and reopen valve 2-SS-91 respectively and leave the valve in that condition. According to the drawing this valve should be normally closed since it cross ties the steam generator bottom blowdown and downcomer sample lines.

The inspector identified these discrepancies to the licensee. In response the licensee made a commitment to review all primary and secondary coolant

system sampling procedures to assure that the proper valves are identified in each and that each valve is correctly labeled. This review and any necessary corrective actions are to be completed prior to initial criticality. This commitment is identified as inspector followup item 339/80-19-01.

7. Unit 1 Operations

Units 1 and 2 share a control room. In the course of observing Unit 2 fueling operations, the performance of Unit 1 operators was also observed. They appeared to be undistracted by the Unit 2 activities and were giving all necessary attention to the operating unit.