



UNITED STATES
NUCLEAR REGULATORY COMMISSION
 REGION II
 101 MARIETTA ST., N.W.
 ATLANTA, GEORGIA 30323

Reports Nos.: 50-338/88-30 and 50-339/88-30

Licensee: Virginia Electric and Power Company
 Richmond, VA 23261

Docket Nos.: 50-338 and 50-339

License Nos.: NPF-4 and NPF-7

Facility Name: North Anna 1 and 2

Inspection Conducted: September 12-16, 1988

Inspector: *J. J. Blake* 10/7/88
 Date Signed
 Approved By: *J. J. Blake* 10/7/88
 Date Signed
 J. J. Blake, Chief
 Materials Processes Section
 Engineering Branch
 Division of Reactor Safety

Scope: This routine, announced inspection was in the areas of requested actions on NRC bulletins, Temporary Instruction 2500/26, licensee action on previous enforcement matters and Inspector Followup Items (IFIs).

Results: The licensee's response to the above mentioned items was indicative of a concerted effort by management and plant supervision to resolve issues of a technical nature which could have impacted safety if left uncorrected

No violations or deviations were identified.

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REPORT DETAILS

1. Persons Contacted

Licensee Employees:

- *M. L. Brownling, Jr., Assistant Station Manager
- L. Carter, Quality Specialist
- *R. F. Droscoil, Manager Quality Assurance
- D. Fortin, Supervisor of Inservice Inspection (ISI), Programs
- R. Hurd, Lead Procurement Engineer
- *M. R. Kansler, Superintendent Maintenance
- *J. Leberstein, Licensing Engineer
- *D. Quarz, Licensing Coordinator
- *J. E. Wroniewicz, Supervisor, Site Engineer Office
- *C. A. Zalesiak, Senior Engineer, Engineering Mechanics, (SEO)

Other licensee employees contacted included QC/QA inspectors, engineers, security force members, technicians.

NRC Resident Inspectors

- J. Caldwell, Senior Resident Inspector
- *L. King, Resident Inspector

*Attended Exit Interview

2. Unresolved Items

Unresolved items were not identified during this inspection.

3. Licensee Action on Previous Enforcement Matter (92702)

(Closed) Violation 338,339/87-12-01: Failure to Maintain Control of Safety-Related Materials

The licensee's letter of response dated August 26, 1987, has been reviewed and determined acceptable by the Region II staff. The inspector held discussions with the cognizant Senior Engineer and examined the corrective actions as stated in the letters of response. The inspector concluded that the licensee had determined the full extent of the subject noncompliance, performed the necessary followup actions to correct the present conditions and developed the necessary corrective actions to preclude conditions of this problem. The corrective actions identified in the letters of response have been implemented.

4. Inspector Followup Items (IFI) and Unresolved Items (UNR), (92701)

- a. (Closed) UNR 338,339/87-18-01: Specification for System and/or Component Cleanliness Following Maintenance

This item was identified when the inspector noted that the licensee had not issued a procedure specification to outline specific cleanliness requirements following system/component maintenance.

On August 18, 1988, the licensee issued Maintenance Department Administration procedure, ADM 6.0 which addresses the area of concern.

- b. (Closed) IFI 338,339/85-37-01: Review of Computer Aided Drafting Program (CAD)

This item was identified because at the time of the inspection, documented in report 85-37, the inspector determined that isometric drawings used to develop the station's inservice inspection plan, did not necessarily reflect existing as-built plant conditions. To correct the problem, the licensee contracted NUTECH to investigate the problem and develop a program for updating the ISI drawings as necessary. Discussions with cognizant personnel disclosed the program was operational and drawings to support the upcoming Unit 2 refueling outage would be issued for use during the outage.

- c. (Closed) IFI 338/87-12-02: Apparent Base Metal Indication, Hanger Weld Number SHP-R-305

This item was identified when a field inspection of Line 3"-SHP-531-601-Q2 found an apparent weld deposit on a pipe near Support 1-SHP-R-305. The weld measured approximately 1/32"x3.8"x3/4". The licensee's report indicated that the deposit had been ground almost flush to match the contour of the pipe, but could not state the specific reason for it (weld deposit) being there. The inspector reviewed Action Report, AR-N-87-256 and related engineering evaluation/documents issued to address this item and held discussions with the cognizant engineer, in charge of the investigation. Following this work effort the inspector concluded that the action taken and the results achieved were sufficient to close the item.

- d. (Closed) IFI 338,339/87-07-01: Field Changes and Revision to DC 84-31

This item was identified to allow for a review of revisions to field drawings generated during the installations of the new service water spray array support system and to assure that field changes were included in the as-built control drawings. By memorandum from J. E. Wroniewicz and M. L. Browling dated July 2, 1987, the licensee

provided a status of the on-going work effort and the target dates for completion of the revisions. Completed drawings were selected at random and reviewed to verify that subject field changes and revisions had been incorporated as appropriate.

5. Followup on IE Bulletins (92703) (Units 1 and 2)

- a. (Closed) Temporary Instruction (TI) 2500/26, Inspection Requirements for NRC Compliance Bulletin 87-02, Fastener Testing Determine Conformance with Applicable Material Specifications.

Prior to issue of NRC Bulletin 87-02, some NRC procurement inspections have included the collection and testing of a small sample of fasteners. This limited program was initiated in response to a concern by Industrial Fastener Institute over the potential use of inferior fasteners in military and industrial applications, including nuclear power plants. The results indicated that 11 out of 32 fasteners tested did not meet specification requirements for mechanical and/or chemical properties. In a separate effort, one utility tested 1539 fasteners following discovery that commercial grade fasteners had been used in safety-related applications. The test results indicated that 339 failed to meet specification requirements for mechanical and/or chemical properties. Based on evaluations performed by the utility, the fasteners which did not meet specification would have fulfilled their safety function.

Based on the testing described above, the NRC issued NRC Bulletin 87-02 on November 6, 1987. The Bulletin requested that licensees perform independent testing on a sample of fasteners and provide information to the NRC as follows:

- Describe characteristic examined during Receipt Inspection (RI) of fasteners and controls of storage and issue.
- Select ten safety-related and ten nonsafety-related fasteners from current stock and perform mechanical and chemical testing in accordance with specification requirements - the NRC is to participate in selection of the fasteners for test.
- Forward test results and supporting information to the NRC.
- For any fastener found out specification, provide an evaluation of the safety significance.
- Based on the results of the testing and review of current procedures, describe any further actions being taken to assure fasteners meet specification requirements.

The licensee's letter of response is dated January 18, 1988. Supplemental responses are dated February 29, and July 21, 1988. In summary, the January 18, 1988, submittal provided description of: (a) characteristics currently examined during receipt inspection of fasteners; (b) internal controls utilized during storage and issuance of stock to assure the appropriate use of fasteners; (c) completed fastener testing data sheets, and (d) technical evaluations for the out-of-specification of fasteners requested by Item 6. During the inspection, the inspector reviewed the licensee's procedures for control of fasteners and compared the procedures with descriptions in the licensee's response; and reviewed the licensee's further action being taken as required by Paragraph 6 of the Bulletin. Specifically, documents reviewed for this purpose included:

NAS-2094 Rev. 0 Boundary	Specification for Pressure Threaded Fasteners
ADM-8.0	Identification and Control of Materials, Parts, Components
ADM-7.0	Control of Purchased Materials, Equipment and Service - Receipt Place
ADM-4.2	Repeating Purchase Requisitions
ADM-13.0	Handling Storage and Shipping
SOP-8.12.8N	Material Shipping/Receiving
NDCM-4.1	Procurement
NASEO-013	SEO Review of Procurement Requisition Documents - North Anna Power Station
AR-N-38-5	Material Storage, Quality Control Activity Report

In addition to the above, the inspector reviewed elements of the Storekeeper Enhancement Training Program, discussed the procurement, receiving, storage and issuance program with the lead procurement engineer. A tour of the licensee's warehouse receiving, storage and plant storeroom facilities was conducted to ascertain whether approved procedural requirements were being enforced.

Within the areas inspected, no violations or deviations were identified.

b. (Open) 88-BU-02, Rapidly Propagating Fatigue Cracks in Steam Generator Tubes

On February 5, 1988, the Commission issued the subject bulletin requesting that licensees having Westinghouse designed nuclear power reactors with steam generators having carbon steel support plates implement certain specified actions to minimize the potential for a steam generator tube rupture event caused by a rapidly propagating crack such as that which occurred at North Anna Unit 1 on July 15, 1987. The licensee's submittal, dated March 24, 1988, referenced an earlier letter of the Commission on this subject, dated July 29, 1987. The present submittal describes the current status of Unit 1 steam generator, and delineates those measures which have been taken to assure continued safe operation of the plant. With regards to the "Action Requested" section of the subject bulletin, the licensee references applicable sections of Westinghouse published WCAP-11601, "North Anna Unit 1 Steam Generator Tube Rupture and Remedial Actions Technical Evaluation." With reference to Unit 2, the licensee's submittal states that steam generator tube fatigue evaluations have been performed and the results submitted to the Commission for review. The subject of "Tube Denting" discussed in the bulletin and the actions requested are addressed in the licensee's report entitled "North Anna 2 Steam Generator Evaluation and Remedial Actions Report" which has also been submitted for review.

6. Exit Interview

The inspection scope and results were summarized on September 16, 1988, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection results listed below. Although reviewed during this inspection, proprietary information is not contained in this report. Proprietary information is not contained in this report. Dissenting comments were not received from the licensee.