



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303
MAY - 8 1980

Report Nos. 50-338/80-17, 50-404/80-02 and 50-405/80-02

Licensee: Virginia Electric and Power Company
Richmond, VA 23261

Facility Name: North Anna Power Station

Docket Nos. 50-338, 50-404 and 50-405

License Nos. NPF-4, CPPR-114 and CPPR-115

Inspection at North Anna site near Mineral, Virginia

Inspector:

N. Economos

Approved by:

A. R. Herdt, Section Chief, RC&ES Branch

5/7/80
Date Signed
5/7/80
Date Signed

SUMMARY

Inspection on April 9-10, 1980

Areas Inspected

This routine, announced inspection involved 14 inspector-hours on-site in the areas of inspection activities relative to IE Bulletin 79-17, "Pipe Cracks in Stagnant Borated Water Systems at PWR Plants"; and IE Bulletin 80-08, "Examination of Containment Liner Penetration Welds".

Results

No items of noncompliance or deviations were identified.

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DETAILS

1. Persons Contacted

Licensee Employees

*W. R. Cartwright, Station Manager
*H. L. Travis, Mechanical Foreman - NDT
K. W. Outten, NDT Technician
P. A. Slater, Resident QA Engineer (Construction)
J. E. Wroniewicz, QC Engineer (Construction)

Other licensee employees contacted during this inspection included

Other Organizations

Nuclear Energy Services, Inc. (CONAM)

E. Anderson, Site Supervisor
J. Robinson, Level II UT Examiner

Stone and Webster Engineering Corporation (S&W)

R. S. Jennings, Assistant Resident Engineer

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on April 10, 1980 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. IE Bulletin No. 79-17, Pipe Cracks in Stagnant Borated Water Systems at PWR Plants

This inspection effort was performed in order to review programmatic and work procedures relative to IE Bulletin 79-17 and to observe work activities in this area. The ultrasonic examinations were being performed by Nuclear Energy Services, Inc. (NES) under contract with VEPCO.

The ultrasonic examination procedure used for this program was developed and demonstrated to be capable of detecting intergranular stress corrosion cracking (ISCC) during an Electric Power Research Institute (EPRI) round

robin and at Nine Mile Point Unit 1. The procedure had been written to comply with ASME Section XI, Appendix III (74W75) and had been approved by the NES Level III UT examiner. The procedure under discussion was entitled, "Ultrasonic Examination Procedure for the Detection of Intergranular Stress Corrosion Cracking", No. 80A3592 R/2. Weld selection was made from the following systems: safety injection (SI), quench spray (QS), chemical volume control (CH), recirculation spray (RS), residual heat (RH), and refueling purification (RP). Program coordination and support was provided by VEPCO's NDT group while VEPCO QC performed receipt inspection and verified the vendor was included on VEPCO's approved vendor list.

Welds selected for observation by the inspector during volumetric examination were as follows:

<u>Weld No.</u>	<u>Size</u>	<u>Type</u>	<u>System</u>	<u>Condition</u>
FW-3	6" x Sch. 40	Pipe to El	RS	NRI
FW-15	6" x Sch. 40	Pipe to El	RS	NRI
FW-4	6" x Sch. 40	Pipe to El	RS	NRI
FW-11	6" x Sch. 40	Pipe to El	RS	NRI
FW-2	8" to 6" reducer	Pipe to El	RS	NRI

NRI - No recordable indications

These examinations were performed in accordance with procedural requirements by personnel who appeared to be adequately qualified to perform their assigned tasks. Equipment, material and personnel certifications were found to be in order. Records of completed examinations were reviewed for completeness and accuracy.

Visual Examination:

Part 2(a) of IE Bulletin 79-17, Revision 1, requires that a visual examination be conducted on all normally accessible welds of the engineered safety systems. This examination was to be performed on a monthly basis until the UT examination required by 2(b) had been completed. Article 1WA-2000 of ASME Section XI and Article 9 of ASME Section V are referenced in the bulletin as being acceptable for this examination. The licensee's procedure used to perform the visual inspection was NDT-VT-15.1 R/2, "Visual Examination of Nuclear Components". The procedure was reviewed for technical content, compliance with code requirements, and approved by a qualified NDE examiner. Visual examination of designated welds was performed from December through March 1980. The inspector reviewed records of completed visual inspections and personnel qualifications for completeness and accuracy.

No items of noncompliance or deviations were identified.

6. Radiography of Containment Liner Flued Head Piping Penetration Welds for North Anna Units 3 and 4

The inspector met with VEPCO's cognizant QA engineer and S&W's representative in order to discuss the subject matter and review the applicable specification and drawing(s). In addition, the inspector took the opportunity to advise the VEPCO representative that IE Bulletin No. 80-08, "Examination of Containment Liner Penetration Welds" had been issued which required them to address this area and report within a specified time. The controlling document for NA Units 3 and 4 is S&W's specification number NAS-3048, Revision 1, May 2, 1977, "Shop Fabrication and Field Erection of Reactor Containment Steel Plate Liner". The penetration under discussion and the required nondestructive requirement appear on Chicago Bridge and Iron Company's drawing numbers 73-5224 and 345, Revision 3. According to this drawing, flued head piping penetration welds for NA 3 and 4 require radiography and liquid penetrant examination. The aforementioned specification lists ASME Section III (71S72) as the applicable code and requires that "all welds between penetration and flued fitting be fully examined in accordance with examination methods of NE-5200 of ASME III...".

Fabrication records and radiographs were in storage at the vendor's plant; therefore, a review of these items was not possible at the time.

No items of noncompliance or deviations were identified.