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

Report Nos. 50-280/80-35 and 50-281/80-38

Licensee: Virginia Electric and Power Company
Richmond, VA 23261

Facility Name: Surry

Docket Nos. 50-280 and 50-281

License Nos. DPR-32 and DPR-37

Inspection at Surry site near Williamsburg, Virginia

Inspector: N. Economos — 10-9-80 Date Signed

Approved by: A. R. Herdt, Section Chief, RCES Branch — 10-15-80 Date Signed

SUMMARY

Inspection on September 9-10, 1980

Areas Inspected

This routine unannounced inspection involved 9 inspector-hours on site in areas of previous inspection findings (Units 1 and 2), IE Bulletin 79-17 Rev. 1, record review, (Units 1 and 2).

Results

Of the two areas inspected, no items of noncompliance or deviations were identified in one area. Two items of noncompliance were found in one area (Deficiency - Failure to document QA surveillance activities, paragraph 6; Infraction - Visual inspection of welds without documented procedure, paragraph 7).

DETAILS

1. Persons Contacted

Licensee Employees

*J. L. Wilson, Station Manager
*L. A. Johnson, Maintenance Superintendent
*F. L. Rentz, Resident QC Engineer
*D. Rickeard, Engineering Supervisor
*T. Bromback, Engineering Supervisor (NDT)
*O. J. Castello, Staff Assistant
J. Maciejewski, Planning Supervisor

Other licensee employees contacted included technicians and office personnel.

NRC Resident Inspector

*M. Davis

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on September 10, 1980 with those persons indicated in Paragraph 1 above. The two noncompliances discussed in paragraphs 5 and 6 were discussed in detail. The licensee had no dissenting comments.

3. Licensee Action on PreviousInspection Findings

(Closed) Unresolved Item 280/79-52-01, NDE Procedure for Visual Acceptance of welds. The inspector reviewed the licensee's corrective action on this item and discussed the subject matter with cognizant personnel. In essence the corrective action was a revision of procedure NDT-15.1 "Visual Examination of Nuclear components", which was generated to satisfy ASME Section XI visual inspection requirements of welds during preservice and inservice activities. The revision did not change the scope of the procedure. Failure to provide a documented instruction/procedure with specific acceptance/rejection criteria for the initial inspection of site fabricated welds is identified as a noncompliance which is discussed in the body of this report.

4. Unresolved Item

Unresolved items were not identified during this inspection.

5. LER Review

a. (Closed) Inspector Followup Item 281/80-23-01, Crack in recirculation spray piping LER 79-08 (Unit - 2)

Inspection Report Number RII:BRC 50-281/80-32 paragraph 5.a requested the licensee to provide additional information on this problem including the cause and extent of pipe deterioration, the method used to determine sound and rejectable pipe material and, any planned permanent fix. The licensee provided and the inspector reviewed the supplemental report on this subject dated August 25, 1980. The areas of concern have been addressed and the corrective action and the measures to prevent reccurence of this event appear to be adequate.

b. (Closed)Inspector Followup Item 280/80-28-01, Violation of Minimum Wall thickness in piping reducers, LER 79-29 (Unit 1)

The inspector reviewed VEPCO's event report No. 79-029/0IT-0, 10/11/79 which described the cause and subsequent corrective actions. In addition the inspector reviewed results of UT thickness measurements performed on the reducers of a similar valve MOV-2842 in Unit 2. This showed that material thickness met minimum wall requirements.

6. IE Bulletin 79-17 Rev. 1 - Record Review (Units 1 and 2)

Volumetric and surface examinations of selected welds in designated stagnant oxygenated borated water systems have been performed. The ultrasonic and associated visual examinations of full penetration butt welds were conducted by Westinghouse Nuclear Service Division (W) with QA surveillance performed by the station's NDT group. Welds earmarked for penetrant inspections were examined by VEPCO.

Line drawings of the designated pipe systems were randomly selected by the inspector for a review of weld identification and selection - these were as follows:

Unit 1	Unit 2
10"-SI-10G-153	10"-SI-352-1502
10"-SI-150-153	10"-SI-350-153
12"-SI-5-153	6"-SI-249-1502
6"-SI-49-1502	12-SI-205-153
3"-SI-57-1503	3-SI-270-1503
3"-SI-70-1503	
4"-CH-112-152	
6"-CH-201-152	
8"-CH-79-1503	
3"-CH-79-1503	
4"-CS-36-153	
8"-CS-33-153	

Records of welds examined from these lines were reviewed for completeness and accuracy. Personnel and material certifications were reviewed for compliance with codes and/or standards as applicable. In response to a request for the licensee's reports of surveillances conducted to monitor work performance, the cognizant supervisor stated that although surveillances were performed while the activity was in progress no reports were generated by the staff. In the discussion that followed the supervisor further stated that, as a rule, the staff has not been documenting surveillances of activities they monitor/observe. The inspector stated that records of surveillance of activities affecting quality must be maintained and be retrievable. The inspector stated that failure to provide objective evidence of surveillance activities performed to monitor activities affecting quality was in noncompliance, in the deficiency catageory, with Criterion XVII of Appendix B to 10 CFR 50. This finding was identified as item 280/80-35-02, 281/80-38-02, Failure to document QA surveillance activities.

7. Visual Weld Inspection Procedure

Part of the inspector's work effort towards resolving unresolved item 280/79-52-01 "NDE procedure for visual acceptance of welds", was to review VEPCO's procedure NDT-15.1 Rev. 2 "Visual Examination of Nuclear Components." As discussed in Inspection Report No. 50-280/79-52, this procedure was generated to satisfy ASME Section XI visual inspection requirements during preservice and/or inservice activities. As written the procedure does not contain specific acceptance criteria for initial inspections of welds fabricated to construction codes, (e.g. B31.1, B31.7 or AWS D1.1) nor does it reference these codes. Therefore, the inspector stated that the subject procedure as written was inadequate for these type of inspections. In response the licensee representative stated that visual weld inspection requirements were contained in the general section of the site welding procedure manual which is the responsibility of mechanical maintenance. However the inspector stated that since QC is responsible for the inspection and acceptance of newly fabricated welds, steps would have to be taken to either change the scope and contents of procedure NDT 15.1 so that it contains specific acceptance criteria or issue a separate QC procedure that would be applicable to this activity. Failure to include appropriate quantitative acceptance criteria in documented procedures used to determine whether activities important to safety have been satisfactorily accomplished is in noncompliance, in the infraction catagory, with Criterion V of Appendix B to 10 CFR 50. This finding was identified as item 280/80-35-01, 281/80-38-01, Visual Weld Inspection Procedure.