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

Report No.: 50-395/84-23

Licensee: South Carolina Electric and Gas Company
Columbia, SC 29218

Docket No.: 50-395

License No.: NPF-12

Facility Name: V. C. Summer

Inspection Dates: July 1 - 31, 1984

Inspection at V. C. Summer site near Jenkinsville, South Carolina

Inspectors: Ross Butcher for
C. Hehl — 8/23/84 Date Signed

Ross Butcher for
W. Bradford — 8/23/84 Date Signed

Approved by:
Floyd Cantrell, Section Chief
Division of Reactor Projects — 8/27/84 Date Signed

SUMMARY

Scope: This routine, resident inspection entailed 114 inspector-hours onsite in the areas of plant tours; operational safety verification; monthly surveillance observations; monthly maintenance observation; review of inspector followup items and non-routine event reports; followup of operating reactor events.

Results: One violation was identified-failure to adequately implement the locked valve program.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*O. Bradham, Director, Nuclear Plant Operations
*J. Connelly, Deputy Director, Operations and Maintenance
*H. Babb, Group Manager, Nuclear Education and Training
*D. Moore, Group Manager, Quality Services
*B. Croley, Group Manager, Technical and Support Services
*F. Leach, Manager, Quality Assurance
*M. Quinton, Manager, Maintenance Services
*G. Putt, Manager, Scheduling and Material Management
*F. Zander, Manager, Nuclear Technical Education and Training
*J. Heilman, Associate Manager, Nuclear Operations Training
*A. Koon, Associate Manager, Regulatory Compliance
*D. Lauiqne, Associate Manager, Quality Assurance
*J. Sefick, Associate Manager, Station Security
*H. Donnelly, Senior Licensing Engineer
*R. Campbell, Jr., ISEG Engineer
*M. Counts, Emergency Coordinator
*H. Fields, Regulatory Interface Engineer

Other licensee employees contacted included engineers, technicians, operators, mechanics, security force members, and office personnel.

Other Organizations

*G. Belisle, NRC RII
*R. Marston, NRC RII
*H. Whitcomb, NRC RII
*L. Foster, NRC RII
*H. Crawford, U. S. General Accounting Office

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on July 13, 1984, with those persons indicated in paragraph 1 above. The violation, failure to adequately implement the locked valve program, was discussed with the licensee. The licensee acknowledged this inspection finding and took no exception.

3. Licensee Action on Previous Enforcement Matters

Not Inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Operational Safety Verification (71707, 71710)

The inspector observed control room operations, reviewed applicable logs and conducted discussions with control room operators during the report period. The inspector verified the operability of selected emergency systems, reviewed removal and restoration logs, and tagout records and verified proper return to service of affected components. Tours of the control, auxiliary, intermediate, diesel generation, service water and turbine buildings were conducted to observe plant equipment conditions including potential fire hazards, fluid leaks, and excessive vibrations, and to verify that maintenance requests had been initiated for equipment in need of maintenance. The inspector, by observation and direct interview, verified that the physical security plan was being implemented in accordance with the station security plan.

On July 6, 1984 during a routine walkdown of the Reactor Building (RB) spray system, the inspector noted that there was no lock installed on the sodium hydroxide tank sample isolation valve XVT-3016-SP. The valve was in the correct (closed) position. This valve is required to be "locked" closed by two different procedures, Special Instruction (SI) 84-05, locked valve control, and System Operating Procedure (SOP) 116, Rev. 6, RB spray system. SI 84-05 paragraph 1.1, states: "All locked valves will be secured in their required positions using the appropriate combination of the following locking devices-chain, serialized plastic seals, serialized padlocks." Absence of the required valve locking device on valve XVT-3016-SP constitutes a violation: Failure to implement a procedure as required by Paragraph 6.8 of the Technical Specifications (50-395/84-23-01).

An inspection of other locked valves in this system revealed no other discrepancies. An investigation could not accurately determine when this locking device was removed. A licensee audit of the locked valve program conducted on March 15, 1984 identified this valve as locked closed. The licensee has speculated that the locking device may have been removed and not replaced during the taking of chemistry samples which occurred on April 15, 1984.

6. Surveillance Observation (61726)

During the inspection period, the inspector verified by observation/review that selected surveillances of safety-related systems or components were conducted in accordance with license requirements. The inspector verified that testing was performed in accordance with adequate procedures, test instrumentation was calibrated, limiting conditions for operation were met, removal and restoration of the affected components were accomplished, test results met requirements and were reviewed by personnel other than the individual directing the test, and that any test deficiencies identified

during the testing were properly reviewed and resolved by appropriate management personnel.

No violations or deviations were identified.

7. Maintenance Observation (62703)

Station maintenance activities of selected safety-related systems and components were observed/reviewed to ascertain that they were conducted in accordance with regulatory requirements. The following items were considered in this review: the limiting conditions for operations were met; activities were accomplished using approved procedures; functional testing and/or calibrations were performed prior to returning components or systems to service; quality control records were maintained; activities were accomplished by qualified personnel; parts and materials used were properly certified; and radiological controls were implemented as required. Maintenance work requests were reviewed to determine status of outstanding jobs to assure that priority was assigned to safety-related equipment which might affect system performance.

No violations or deviations were identified.

8. Onsite Followup of Written Reports of Non-Routine Events (92700)

The inspectors reviewed the following Licensee Event Reports (LERs) to ascertain whether the licensee's review, corrective action, and report of the identified event and associated conditions were adequate and in conformance with regulatory requirements, Technical Specifications, license conditions, and licensee procedures and controls.

(Closed) LER 83-104, Hourly Fire Watch Surveillance Not Established.

(Closed) LER 83-117, Inoperable Fire Detection Instrumentation.

(Closed) LER 83-121, Missed Surveillance on Fire Related Assemblies.

(Closed) LER 83-128, Damaged Fire Barrier.

(Closed) LER 83-129, Inoperable CO_2 Fire Protection System.

(Closed) Special Reports dated:
November 3, 1983 - Fire Related Assemblies
September 19, 1983 - Fire Related Assemblies

9. Inspector Followup Items Review

(Closed) Inspector followup Item 83-27-02, Management Directive "Statement of Responsibilities. Nuclear Safety Review Committee" has been revised to include a review of safety evaluations and to identify the minimum quorum of

the Nuclear Safety Review Committee including the designated alternative chairman.

10. Followup of Operating Events (93702)

On July 14, 1984 the unit was brought to cold shutdown for a planned twelve day outage. The outage was precipitated by tube leakage in the "B" steam generator. Steam generator primary to secondary leakage at the time of plant shutdown was calculated to be approximately 150 gallons per day, the Technical Specification limit on steam generator tube leakage is 500 gallons per day through any one steam generator or one gallon per minute through all three steam generators. In addition to finding and plugging the leaking tube, a modification to the "A" reactor coolant pump seals was performed.

The subject leaking steam generator tube was found to be tube one hundred and one of row one which is one of one hundred and fourteen short radius tubes. Eddy current examination techniques identified a through wall crack at the U-Bend target point on the hot leg portion of the tube. (It is noted that IE Report 84-21 previously reported that the leak "could not be detected during eddy current examination." This statement was in error.) Westinghouse preliminary evaluation attributed the tube failure mechanism to inner diameter stress corrosion induced cracking. Helium leak detection technique surveillance of tubes adjacent to the leaking tube identified no additional leakage. Eddy current examination of adjacent tubes was not performed although the licensee has indicated that this examination is planned for accomplishment during the refueling outage scheduled for September 1984.

Following this outage, the unit was returned to criticality on July 26, 1984.

At 4:59 a.m. on July 29, 1984, the unit experienced a reactor trip from 60% power due to low low level in the "B" steam generator. The low low steam generator level occurred as a result of erratic operation of "B" feedwater regulating valve experienced while placing "C" feedwater pump in operation. During and subsequent to the reactor trip, all safety systems functioned as required. Adjustment of the "B" feedwater regulating valve positioner was accomplished and the unit was returned to criticality.