



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

Report No.: 50-395/88-10

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

Docket No.: 50-395

License No.: NPF-12

Facility Name: V. C. Summer

Inspection Conducted: April 1-30, 1988

Inspectors:	<u>Leo P. Modenos</u>	<u>5/13/88</u>
	for Richard L. Prevatte	Date Signed
	<u>Leo P. Modenos</u>	<u>5/13/88</u>
	for Perry C. Hopkins	Date Signed
	<u>Leo P. Modenos</u>	<u>5/13/88</u>
	Leo P. Modenos (April 25-29, 1988)	Date Signed
Approved by:	<u>Hugh C. Dance</u>	<u>5/13/88</u>
	Hugh C. Dance, Section Chief	Date Signed
	Division of Reactor Projects	

SUMMARY

Scope: This routine, announced inspection was conducted on site by the resident inspectors in the areas of licensee action on previous inspection findings, monthly surveillance observations, monthly maintenance observation, operational safety verification, engineered safety features system walkdown, onsite followup of events and subsequent written reports, onsite review committee, and other areas.

Results: One violation was identified in the area of inadequate compensatory action for inoperable fire protection equipment.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

D. Nauman, Vice President, Nuclear Operations  
\*O. Bradham, Director, Nuclear Plant Operations  
D. Moore, General Manager, Engineering Services  
\*M. Williams, General Manager, Nuclear Services  
\*K. Nettles, General Manager, Nuclear Safety  
J. Skolds, General Manager, Station Operations  
\*M. Browne, General Manager, Station Support  
G. Moffatt, Manager, Maintenance Services  
\*G. Soult, Manager, Operations  
\*A. Koon, Manager, Nuclear Licensing  
C. Bowman, Manager, Scheduling and Modifications  
K. Woodward, Manager, Nuclear Operations Education and Training  
\*W. Baehr, Manager, Chemistry and Health Physics  
S. Hunt, Manager, Quality Systems  
\*K. Beale, Manager, Nuclear Protection Services  
C. Price, Manager, Technical Oversight  
D. Warner, Manager, Core Engineering and Nuclear Computer Services  
J. Shepp, Associate Manager, Operations  
W. Higgins, Supervisor, Regulatory Compliance

#### NRC Resident Inspectors

\*R. Prevotte, Senior Resident Inspector  
\*P. Hopkins, Resident Inspector

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

\*Attended exit interview

### 2. Exit Interview (30703)

The inspection scope and findings were summarized on May 2, 1988, with those persons indicated in paragraph 1 above. The inspectors described the areas inspected and discussed the inspection findings. The licensee acknowledged the violation described in paragraph 6.c. and the licensee identified violation in paragraph 6.b. The licensee did not identify as proprietary any of the materials provided to or reviewed by the inspectors during the inspection.

### 3. Licensee Action on Previous Inspection Findings (92701, 92702)

(Closed) Violation 87-20-01, Failure to provide design input for modifications. The licensee provided a written response to this violation in a letter to Region II, dated October 21, 1987. The inspector reviewed the licensee's responses and the corrective actions taken to prevent

recurrence. These actions included training for the engineers, responsible for the design inputs, to ensure that they can more effectively implement the requirements contained in the established procedures. The inspector verified the training records. This item is closed.

(Closed) Violation 87-20-02, Inadequate design analysis which lead to exceeding a Technical Specification (TS) room temperature limit. The licensee has made a change to the modification program which provides for a more thorough justification and implementation of design changes. The licensee has also requested a TS change to raise the maximum allowable pump room temperature to a value which more realistically reflects the equipment qualification requirements for that room. This item is closed.

(Closed) Violation 87-20-03, Failure to operate in accordance with procedures in that flow was not maintained as required and the procedures did not contain manufacturers precautions. The licensee reviewed and verified the values designated in System Operating Procedures (SOP) 117 to be correct. However, the operating trend logs had to be changed to reflect the values of SOP 117. The licensee revised SOP 117 to include the motor restart requirements in the precaution section of the procedure. The inspector verified the changes to SOP 117 and operating logs. This item is closed.

(Closed) Violation 87-20-04, Inadequate review of previous audit findings for adequacy of corrective action implementation. The licensee revised Quality Assurance Procedures to describe the necessary evaluations and documentation which will be required to assure that previous audit findings are given proper attention. The inspector reviewed Quality and Procurement Services Procedures (QPS-10) audit/surveillance report preparation and confirmed the changes have been made. This item is closed.

(Closed) Unresolved Item 86-18-01, VT-2 eye examination. This item concerns the eye examinations given to operations personnel performing VT-2 examinations in accordance with ASME Boiler and Pressure Vessel (ASME B & PV) Code Section XI. The item concerned the equivalency of the SCE&G eye test with that specified in ASME B & PV Section XI. To avoid any questions, the licensee has committed to retesting all operations VT-2 examination personnel with a test identical to that specified by ASME B & PV Section XI. As a follow up to Inspection Report 50-395/87-25, all but 14 examiners had been tested and found optically qualified to perform VT-2 examinations. Since then, the licensee has completed testing the remaining 14 VT-2 examiners and all were found to be optically qualified to perform VT-2 examinations. This item is closed.

#### 4. Monthly Surveillance Observation (61726)

The inspectors observed surveillance activities of safety related systems and components to ascertain that these activities were conducted in accordance with license requirements. The inspectors observed portions of

41 selected surveillance tests including all aspects of Solid State Protection System Actuation Logic and Master Relay Test for train "B", (STP 345.074). The inspectors also verified that required administrative approvals were obtained prior to initiating the test, testing was accomplished by qualified personnel, required test instrumentation was properly calibrated, data met TS requirements, test discrepancies were rectified, and the systems were properly returned to service.

No violations or deviations were identified.

5. Monthly Maintenance Observation (62703)

The inspectors observed maintenance activities of safety related systems and components to ascertain that these activities were conducted in accordance with approved procedures, TS and appropriate industry codes and standards. The inspectors also determined that the procedures used were adequate to control the activity, and that these activities were accomplished by qualified personnel. The inspectors independently verified that equipment was properly tested before being returned to service. Additionally, the inspectors reviewed several outstanding job orders to determine that the licensee was giving priority to safety related maintenance and a backlog which might affect its performance was not developing on a given system. The following specific maintenance activities were observed:

MWR 213690002 Fabricate and install supports for MRF 21369

MWR 8610456 Repair subpanel X26F so that it can be tested from test push buttons

MWR 880442 Investigate/repair digital rod position indication cooling water malfunction

MWR 88044 Repair ruptured diaphragm on reactor make up water valve XUD01914B

MWR 317450015 Determine, remove and reinstall "B" component cooling water pump motor for MRF 31745

PMTS P0101925 Lubricate valve XVG01037B-0-EF service water header "B" cross current isolation valve

MWR 214100002 Terminate cables and perform post modification testing for temporary MRF 21410

MWR 8800453 Investigate and repair oil leak on inboard bearing for "A" reactor building spray pump

PMTS 101743 Inspect 7.2 kV switchgear breaker

MWR 88I0095 Inspect and repair reactor trip breaker XSW1001-RTA

- PMTS P009601 Perform inspection and operational test on the HVAC system water chiller (XHC001C)
- MWR 8800465 Trouble shoot and repair valve operator/operating circuit for steam generator "A" blow down control valves
- MWR 8800497 Investigate and repair chilled water system valve XVT 06384-A
- MWR 8800506 Investigate and repair service water valve (3110A)
- PMTS P0101797 Engineered safety features switchgear room ambient temperature switch verification
- MWR 8800510 Repair service water valve for the "A" diesel
- MWR 88E0062 Perform individual cell charging on cells 16 thru 30 of battery 1A
- MWR 88I0115 Relug "A" train lamp wiring - HVAC
- MWR 213720001 Fabricate and install supports

No violations or deviations were identified.

6. Operational Safety Verification (71707)

- a. The inspectors toured the control room, reviewed plant logs, records and held discussions with plant staff personnel to verify that the plant was being operated safely and in conformance with applicable requirements. Specific items inspected in the control room included: adequacy of staffing and attentiveness of control room personnel, TS and procedural adherence, operability of equipment and indicated control room status, control room logs, tagout books, operating orders, jumper/bypass controls, computer printouts and annunciators. Tours of other plant areas were conducted to verify equipment operability, control of ignition sources and combustible materials, the condition of fire detection and extinguishing equipment, the control of maintenance and surveillance activities in progress, the implementation of radiation protective controls and the physical security plan. Tours were conducted during normal and random off hour periods.
- b. On April 8, 1988 at 2:00 p.m., with the plant in mode 1, 100% power, the licensee identified two unsealed core drills. The unsealed 2" core drills contained 1 1/2" diameter lighting conduit that penetrated the north wall of the control building at the 422 foot elevation. The two core drills were installed under field change

request B-13, 855C on October 8, 1981, were inspected by Quality Control, and are listed on the E412 plant drawings. These penetrations should have been sealed under the Bisco Program when the conduits were installed.

The modifications group identified this problem on April 8, 1988. They notified operations who immediately initiated a priority 1 maintenance work request. Non-conformance notice 2946 was written and the penetrations were sealed with 5" of foam on April 18, 1988, in accordance with detail "A" in drawing E-201-240 and approved site procedures. Further inspections identified no other unsealed penetrations. The failure to identify this problem is contrary to the requirements of Quality Control inspection procedures and the licensee fire protection program. The NRC wishes to encourage and support licensee initiatives for self-identification and prompt correction of problems. Since this item meets the applicable guidance of NRC enforcement policies for licensee identified items, contained in 10 CFR 2, Appendix "C", no violation will be issued.

The licensee is currently preparing a LER for submission on this item.

- c. On April 26, 1988, at approximately 5:35 a.m. with the plant in Mode 1, operations personnel tagged out the Fire Service CO<sub>2</sub> System in The Relay Room, in order to perform a Surveillance Test Procedure (STP) 128.331. TS 3.7.9.3, relay room, requires that with the low pressure CO<sub>2</sub> system inoperable, within one hour establish a continuous fire watch with backup fire suppression equipment. The licensee discovered the discrepancy at 7:28 a.m. and then established the continuous fire watch with backup fire suppression equipment. The failure to establish a continuous fire watch within the hour as described above is a violation, "Failure to take adequate compensatory action for inoperable fire protection equipment", 50-395/88-10-01. Although, the licensee identified the violation and took prompt corrective action, this is a repetitive event. A similar violation was identified in Inspection Report No. 50-395/87-24.

One violation was identified as discussed in paragraph c. above.

#### 7. ESF System Walkdown (71710)

The inspectors performed a walkdown of the Emergency Operating Procedure for Control Room Evacuation (EOP-8) and the General Operating Procedure for plant shutdown from hot standby to cold shutdown with the control room inaccessible (GOP-8). All emergency tool kits were inventoried and all local station procedures were verified to be control copies of the latest revision. The inspectors verified that equipment listed in the procedures were identified with labels and that a licensed operator was able to locate all components and equipment. A listing of minor procedural

deficiencies, missing tags and labels, and suggested human factors improvements were provided to the licensee for correction. The inspectors will verify in subsequent inspections that these items are corrected. The inspectors noted that these were lengthy procedures that require good coordination and team work to successfully accomplish under actual conditions. These procedures are covered in classroom as part of the requalification training program, however, no actual plant walk thru's are scheduled or required for these events. In view of the above it was suggested that the licensee evaluate the present training conducted in this area.

No violations or deviations were identified.

8. Onsite Followup of Events and Subsequent Written Reports (92700, 93702)

The inspectors reviewed the following Licensee Event Report (LER) to ascertain whether the licensee's review, corrective action and report of the identified event or deficiency was in conformance with regulatory requirements, TS, license conditions, and licensee procedures and controls. Based upon this review the following items are closed.

LER 87-18        Fire protection surveillance non-compliance; personnel error and lack of procedural guidance

No violations or deviations were identified.

9. Onsite Review Committee (40700)

The inspectors reviewed the licensee's program for the Onsite Review Committee to verify that it met the requirements of TS Section 6.5, the Final Safety Analysis Report (FSAR) and the licensee's Quality Assurance Plan. The requirements of the above are implemented by the licensee in Station Administrative Procedure, Plant Safety Review Committee (SAP 120).

In addition, to the above, the inspectors reviewed the minutes of the last 6 Plant Safety Review Committee (PSRC) meetings, 10 recent off-normal occurrences, 15 plant administrative procedures, a sampling of TS violations for the past year, the lifted lead jumper and bypass authorization log, and attended the PSRC meeting conducted on April 20, 1988 to verify that this committee was fulfilling the requirements of TS and other stated commitments. Their review indicated that plant off-normal events which have safety significance are reviewed by the PSRC to insure that immediate corrective action is implemented to place the plant in a safe condition, that the root cause is determined, the event is reported if required and that long term corrective action is taken to prevent recurrence. Attendance of the PSRC meeting and a review of the minutes of past meetings indicate that a quorum is present at meetings and that the PSRC reviews changes to the security and emergency plan, plant modifications, non-conformances, off-normal occurrences, and procedural

changes, which involve an unreviewed safety question, are reviewed by this committee. This review also noted that although TS requires this committee to meet once per calendar month, it routinely meets at least once per week and after the occurrence of a plant trip or significant event.

No violations or deviations were identified.

10. Other Areas

- a. The inspectors attended the licensee's annual presentation for the V. C. Summer Plant to the Board of Directors for South Carolina Electric and Gas Company (SCE&G) and the South Carolina Public Service Authority on April 15, 1988 at the SCE&G corporate office in Columbia, S.C.
- b. The senior resident inspector served as the backup resident inspector at the H. B. Robinson Plant while the assigned resident inspectors were absent during the week of April 25, 1988.
- c. The Region II Project Engineer for the V. C. Summer Plant served as the backup resident inspector for the week of April 25, 1988 during the absence of the assigned resident inspectors.