



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

Report No. 50-395/82-54

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

Facility Name: V. C. Summer

Docket No. 50-395

License No. NPF-12

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

Inspector: *J. L. Skolds* 11/19/82
 J. L. Skolds Date Signed

Approved by: *V. L. Brownlee* 11/19/82
 V. L. Brownlee, Section Chief, Division of Date Signed
 Project and Resident Programs

SUMMARY

Inspection on October 1-31, 1982

Areas Inspected

This routine, unannounced inspection involved 160 inspector-hours on site in the areas of plant operations, Technical Specification Compliance, Physical Security, maintenance and surveillance, Inspector Followup Item Review, Plant Tours, low power test observation, licensee event report review, IEB followup, TMI Action Plan Item followup, 50.55(e)/Part 21 followup.

Results

Of the 11 areas inspected, no violations or deviations were identified in 9 areas; one apparent violation was found in one area (Paragraph 6 - Inadequate Procedure) one apparent deviation was found in one area (Paragraph 5 - Reactor Vessel Head Vent System Valves).

DETAILS

1. Persons Contacted

Licensee Employees

- *O. S. Bradham, Station Manager
- *J. G. Connelly, Deputy Plant Manager
- *K. Woodward, Operations Supervisor
- *B. G. Croley, Assistant Manager, Technical Support
- *V. Albert, Assistant Manager, Support Services
- M. N. Browne, Director, ISEG
- *A. R. Koon, Technical Services Coordinator
- *M. D. Quinton, Assistant Manager, Maintenance
- D. A. Moore, Manager, Quality Assurance
- L. F. Storg, Assistant Manager, Operations
- *A. B. Harrison, Nuclear Licensing
- D. A. Lavigne, Director, Surveillance Systems

Other licensee employees contacted included technicians, and operators.

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on November 1, 1982, with those persons indicated in paragraph 1 above. The violation and deviation were discussed at this exit interview.

3. Licensee Action on Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Plant Tour

The inspector conducted plant tours periodically during the inspection interval to make independent assessment of equipment conditions, plant conditions, radiological controls, safety and adherence to regulatory requirements. The inspector also verified that monitoring equipment was operating properly, equipment was properly tagged, operations personnel were aware of plant conditions and plant housekeeping efforts were adequate. During tours, the inspector looked for the existence of unusual fluid leaks, piping vibrations, pipe hanger and seismic restraint settings, various valve and breaker positions, adequate of firefighting equipment and instrument

calibration dates. Some tours were conducted on backshifts. Findings were acceptable with the following exceptions:

- a. Numerous effluent radiation monitors (e.g. for blowdown tank, waste holdup, etc.) were in the alarm condition due to low flow. The radiation monitoring system is designed so that if no flow exists in the sampling line a "Trouble" alarm is present. However, in the present condition of this plant, fourteen radiation monitors had "Trouble" alarms present at one time. Due to the low power history of the reactor, this does not present a safety problem. However, the inspector indicated to the licensee that a review of the alarm circuitry should take place or that other means should be established to reduce the number of alarms. Also, while touring the plant the inspector noted two general area radiation monitors with the operation lights extinguished and two radiation monitors (RMA11 and RML8) with recorder problems. The inspector informed the licensee that the radiation monitors need attention prior to ascending in power. This will be tracked as an inspector followup item (82-54-01).

The inspector noted that the "Leak Detection Trouble Auxiliary Building Sump/Floor Drain Level Hi Alarms" have been in the alarm condition for a significant period of time, since an alarm on the satellite annunciator panel in the Relay Room gives the alarm in the Control Room. Also, other alarms on the satellite panel have also existed for a significant period of time. The inspector informed the licensee that this leak detection system needs to be made operable in order that the operators can take appropriate action in the event of a leak. This will be identified as an inspector followup item (82-54-02).

During a plant tour, the inspector noted that flow existed in both samples lines from the RHR system. Since the plant was in Mode 2, these sample lines should not have had flow. The licensee was able to isolate the flow and has generated work requests to identify the leaking valves. This is identified as an inspector followup item (82-54-03).

During plant tours, it was noted that the caps for containment isolation valve test connections were being left off. The inspector brought this to the attention of the licensee and it was corrected.

Section 5.5.15.2.1 of the FSAR states that the Reactor Vessel Head Vent System has two normally deenergized valves in series in each flow path. During a plant tour on October 18, 1982 it was noted by the inspector that the Reactor Head Vent Valves were being operated energized.

System Operating Procedure (SOP)-101, Reactor Coolant System, requires the breakers for the four valves to be closed. This is considered a deviation from the FSAR (82-54-04). After being notified by the inspector the licensee removed power from all four valves.

6. Plant Operations Review

The inspector periodically reviewed shift logs and operations records including surveillance test procedure data sheets, instrument traces and records of equipment malfunctions. The review also included the control room logs, tagout log and the removal and restoration log. The inspector routinely observed operator alertness during plant tours. Shift turnovers were observed to verify that they were conducted in accordance with approved procedures.

During a plant tour on October 12, 1982 the inspector found the breaker for the Reactor Building Cooling Unit Fan, XFN64B, open and the charging spring discharged. The breaker was in the correct position (open), however the charging spring should have been charged. The charging motor switch on the breaker was found turned off. One of the selector switches in the Control Room was selected to start XFN64B in the event of a safeguards initiation. With the charging spring discharged the breaker would not have closed. The other Reactor Building Cooling Unit Fan would have started. Surveillance Test Procedure (STP) 116.001, Reactor Building Cooling Unit Functional Test, was successfully performed on 10/7/82. This STP verified that the Reactor Building Cooling Units could be started from the Control Room. At the completion of the STP the Reactor Building Cooling Units are supposed to be restored to normal in accordance with System Operating Procedure (SOP)-114, Reactor Building Ventilation System. This procedure requires the breaker for XFN-64B to be RACKED IN. The procedure does not indicate either the position of the the charging motor switch or the condition of the closing spring. When the inspector informed the licensee of the condition of the breaker, the charging motor was turned on and the charging spring was charged. Technical Specification 3.6.2.3 requires one cooling unit operable in slow speed in each Reactor Building Cooling Group. The ACTION statement allows 7 days to pass with one unit inoperable before any action must be taken. Since only 5 days had passed, the ACTION statement was not exceeded.

Section 6.8.1 of the Technical Specifications requires that procedures exist for the conduct of surveillance activities. Surveillance Test Procedure (STP) 116.001, Reactor Building Cooling Unit Functional Test, verifies the functional capability of the Reactor Building Cooling Units. However, STP 116.001 does not adequately ensure that the system is returned to normal at the completion of the test. This is considered a violation. (82-54-05).

7. Technical Specification Compliance

During the reporting interval the inspector verified compliance with selected Limiting Conditions of Operation (LCO) and results of selected surveillance tests. The verifications were accomplished by direct observation of monitoring instrumentation, valve positions, switch positions and review of completed logs, records and chemistry results. The licensee's compliance with LCO action statements were reviewed as they happened.

No violations or deviations were identified.

8. Physical Protection

The inspector verified by observation and interviews during the reporting interval that measures taken to assure the physical protection of the facility met current requirements. Areas inspected included the organization of the security force, the establishment and maintenance of gates, doors and isolation zones in the proper condition, that access control and badging were proper, and procedures were followed.

No violations or deviations were identified.

9. Maintenance and Surveillance Review

The inspector witnessed and reviewed the results of selected maintenance and surveillance activities during this inspection interval. The activities were reviewed to ensure that test instrumentation was calibrated, results of surveillance met the acceptance criteria, the test of maintenance was conducted by qualified personnel, and approved procedures were being used. LCO's were met during the activities and the system were restored to normal at the completion of the activity.

No violations or deviations were identified.

10. Inspector Followup Item Review

(Closed) (80-25-09) Reactor Building (RB) Temperature Problem. This item concerned excessive temperatures in the Reactor Building during the Hot Functional Testing. Poor air distribution was a major contributor to the RB Temperature problem. Design modifications were performed to rearrange air flow in the RB. Also additional ducts have been provided in the RB. A CRDM Cooling Water System has also been provided. The inspector reviewed the results of the tests performed after the modifications. No problems were identified.

11. 50.55(e)/Part 21 Report Followup

(Closed) (81-29-01) In a letter dated May 3, 1982 the licensee reported problems with the starting time of the diesel generators. When the diesels would sit idle for the period of time they would not start in the required 10 seconds. The inspector reviewed Modification Test Procedure (MTP's)-56, 62, 85; and Engineering Charge Notice (ECN)-2187.

The documents described in the above procedures were reviewed by the inspector. No problems were identified.

(Closed) (82-49-07) In a letter dated August 20, 1982 the licensee reported a significant deficiency concerning "B" Diesel Generator. The diesel generator experienced a piston seizure during a test run on July 4, 1982. Two items were identified as deficiencies. The items were the fuel rack stop adjustment and the high resistance on the governor control circuit relay contact. The inspector reviewed the vendor's report as well as the

licensee's report on the failure. The fuel rack stop has been properly adjusted and the contacts are included in the regular inspection program. No problems were identified.

(Closed) (82-41-24) In a letter dated June 29, 1982 the licensee reported a substantial safety hazard concerning the 7.2KV Switchgear Anti-Pump Relay. the flexible leads connected to the anti-pump relay moveable contacts were stripped excessively. The inspector reviewed ECN-1888-FM and MTP-72, which were written to correct this problem. No problems were identified.

12. TMI Action Plan Item Followup

(Closed) (II.E.1.1) Auxiliary Feedwater System Evaluation. The inspector reviewed the Emergency Feedwater Reliability Study, the FSAR, the SER, and various letters between NRC and SCE&G concerning the design and operation of the Emergency Feedwater System. Problems identified during the review have been resolved. This item is considered closed.

13. Review of Nonroutine Events Reports by the Licensee (Unit 1)

The following Licensee Event Reports (LERs) were reviewed for potential generic impact, to detect trends, and to determine whether corrective actions appeared appropriate. Events which were reported immediately were reviewed as they occurred to determine if Technical Specifications were satisfied.

All LERs were reviewed in accordance with the current NRC enforcement policy.

<u>LER No.</u>	<u>Title</u>
82-001	Control Room Ventilation
82-002	RHR Suction Isolation
82-004	RHR Suction Isolation

The above LER's are considered closed.

14. IEB Followup

(Closed) IEB 81-02. Failure of Westinghouse Gate Valve. The closeout of this bulletin also closed out items 80-37-10 and 81-05-09, reported to the NRC as substantial safety hazards. The inspector reviewed the following documentation:

SCE&G letter to NRC dated 11/25/80
 SCE&G letter to NRC dated 3/12/81
 SCE&G letter to NRC dated 7/7/81
 SCE&G letter to NRC dated 7/30/81
 SCE&G letter to NRC dated 11/16/81
 Preoperational Test CS-15

Preoperational Test SI-6
Preoperational Test RC-3
Preoperational Test RH-3
Engineering Charge Notice (ECN)-1743-FM
Modification Test Procedure (MTF)-55

The inspector found that the modifications were done satisfactorily, but the retesting was not. The licensee committed to retest all of the modified valves. The testing was completed under the above noted preoperational test. However in reviewing the testing the inspector noted that the test pressure used was not the maximum functional d/p required for the specific valve. The inspector questioned why the maximum functional d/p was not used. In some cases the d/p could not be created, because the only circumstance under which the d/p can be established are accident conditions. In other cases the licensee could have established conditions closer to the maximum operational d/p but did not. However, the difference between the test pressure and the maximum operational d/p was considered by the inspector to be not significant. This bulletin and the associated items are considered closed.

15. Low Power Test Observation

The inspector observed portions of the following low power tests:

ZPT 2.5 - Boron End point Measurement, Control Banks, D, C, B and A fully inserted.

ZPT 5.4 - Control Bank Reactivity Worth Measurement by Boron Dilution, Control Bank A.

ZPT 6 - Worth of Shutdown Bank, Less highest worth stuck rod.

ZPT 8 - Pseudo Rod eject at HZP.

ZPT 9.2 - Core cooling with simulated loss of offsite and onsite power.

ZPT 9.1 - Natural Circulation Demonstration.

The tests were observed to ascertain conformance by the licensee to the license and procedural requirements; to observe operating staff performance; and to determine the adequacy of the test program recorder, which included preliminary evaluation of test results.

The findings were acceptable.