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

Report No.: 50-395/78-17

Docket No.: 50-395

License No.: CPPR-94

Category: A3

Licensee: South Carolina Electric and Gas Company
P. O. Box 764
Columbia, South Carolina 29202

Facility Name: V. C. Summer

Inspection at: Fairfield County, South Carolina

Inspection conducted: August 29-31, 1978

Inspector: T. D. Gibbons

Reviewed by: R. C. Bryant, Jr. 10/4/78
J. C. Bryant, Chief Date
Engineering Support Section No. 1
Reactor Construction and Engineering Support Branch

Inspection Summary

Inspection on August 29-31, 1978 (Report No. 395/78-17)
Areas Inspected: Electrical components and systems observation of work, quality records; instrumentation QA implementing procedures. The inspection involved 20 inspector-hours on site by one NRC inspector.
Results: There were no items of noncompliance or deviations identified.

DETAILS I Prepared by: T. D. Gibbons 10/4/78
Date

T. D. Gibbons, Electrical Engineer
Engineering Support Section No. 1
Reactor Construction and Engineering
Support Branch

Dates of Inspection: August 29-31, 1978

Reviewed by: R. N. Conte, Jr. 10/4/78
Date

J. C. Bryant, Chief
Engineering Support Section No. 1
Reactor Construction and Engineering
Support Branch

1. Persons Contacted

*H. I. Donnelly, Jr., Site QA Coordinator
*E. Evans, QA Engineer
*K. W. Nettles, QC Manager
*J. Woods, QC Manager
*D. A. Nauman, QA Manager

*Denotes those attending the exit interview.

2. Licensee Action on Previous Inspection Findings

The licensee actions on previous inspection findings were not reviewed during this inspection.

3. Unresolved Items

There were no new unresolved items identified during this inspection.

4. Independent Inspection Effort

At the request of the Atomic Safety and Licensing Board the inspector examined the containment building for reported splices in electrical cables to containment penetrations. Splices were found at the specified locations; however, each spliced cable was identified to be temporary construction wiring. There are no safety-related electrical penetrations installed at this time. The inspector examined Specification SP-559-044461-000 for electrical penetrations. The specification requires use of splicing sleeves on some miscellaneous power circuits. The bill of material has been revised to cancel this usage. The Electrical Construction Guidelines for Cable Installation,

Number 04-4461-5-200-912, dated 7/1/77 has detailed splicing instructions. The cable installation procedures FQCP 7.1.1. states "No splices permitted unless specifically called for on drawings or approval of engineer" by Field Change notice.

The report of splicing has been verified but there are no safety-related cables involved. The licensee does have provision for splicing but only under the control of design engineering.

Within the areas examined there were no items of noncompliance identified.

5. Instrumentation (Cable and Terminations) Review of Quality Assurance Implementing Procedures

The inspector reviewed Work Procedures (WP) and Field QC Procedures (FQCP) listed below.

a.	WP-X11-01	Cable Pulling
b.	WP-X111-01	Cable Terminations
c.	FQCP 7.1.1	Cable Pulling
d.	FQCP 7.1.2	Cable Terminations
e.	FQCP 2.1.4	Nonconformance Control and Procedure
f.	FQCP 7.1.7	Installation of Cable Trays, Supports, Electrical Noise and Fire Barriers
g.	FQCP 3.1.0	Receiving Inspection
h.	FQCP 3.2.0	Storage, Handling and Issue
i.	FQCP 2.2.3	Field and Engineering Change Procedure
j.	Bisco Quality Assurance Procedures (Fire Barrier)	
	1. DM1-1	Damming Instruction
	2. 207-1P	Silicone Foam Installation

The above procedures were reviewed to assure that the requirements of the FSAR were included. The areas reviewed included receiving inspection, special handling and storage, storage inspections, qualification testing and documentation and the handling of nonconforming material. The installation procedures assure proper installation, implementation of special instructions for terminations, qualification of workers and inspectors and the periodic verification of tooling. Procedures require inspections of the installation and termination of instrument cables. The results of aspections are reviewed by QA personnel and management. QC procedures assure that the cable is traceable to the specification requirements and material certifications from receipt to installation. Wireway separation, protection, cable separation and redundancy are required inspection

items. All changes are required to be documented and approved prior to execution.

Within the areas examined there were no items of noncompliance identified.

6. Electrical (Components and Systems I) Observation of Work and Work Activities

The inspector reviewed the installation of the emergency diesel generator (EDG) B to assure that the FSAR requirements were accomplished in the areas of receiving inspection, storage, identification location, protection separation and qualification of the inspection personnel.

The inspector inspected the installation of the 7200 volt switchgear XSW-1DB-ES which is fed from EDG B. The inspection included review of receiving inspection, identification, installation procedures, protection, cleanliness, location, separation and redundancy, and procedure revision control.

The inspector selected the 480V Load Center XSW-1DB2-ES and motor control centers XMC-1DB2X-ES and XMC-1DB2Y-ES which are fed from 7200V switchgear XSW-1DB-ES. These items were inspected to verify that receiving inspection, storage, handling, identification, installation, anchoring, location and inspection were in conformance with the FSAR and site procedures. Nonconformance reports involving the equipment were reviewed to verify their accuracy and disposition. Several inspectors were interviewed to verify their qualifications.

Within the areas examined there were no items of noncompliance identified.

7. Electrical (Components and Systems I) Review of Quality Records

The inspector reviewed the quality records of the equipment inspected in paragraph 6. The records confirm that receiving inspection and source inspection had been conducted. The source inspection contractor conducted the source inspection and issued shipping releases after all inspection and testing at the vendors facility had been completed. Records confirm that the required installation inspections were conducted.

The inspector selected eight nonconformance notices and three deficiency notices for review. In each case the current status was

identified. The notices were complete, reviewed as required and the resolution status was identified.

A review of the qualification records of three QC inspectors and three QA auditors was conducted. The records included training, experience and testing reports which identified them as qualified.

Four QA audits were reviewed to verify that the required audits were conducted and that the deficiencies identified were corrected. Corrective actions included steps to prevent repetition of the deficiency.

Within the areas examined there were no items of noncompliance identified.

8. Exit Interview

The inspector met with licensee representatives (denoted in paragraph 1) at the conclusion of the site inspection. The inspector summarized the scope of the inspection as follows:

a. Electrical (Components and Systems)

(1) Observation of work and work activities
(2) Review of quality records

b. Instrumentation (Cable and Terminations) Review of Quality Assurance Implementing Procedures

There were no items of noncompliance or deviations identified.