



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

Report No.: 50-395/84-20

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

Docket No.: 50-395

License No.: NPF-12

Facility Name: Summer

Inspection Dates: June 1-30, 1984

Inspection at Summer site near Jenkinsville, South Carolina

Inspectors: *Kantrell* 7/20/84  
 C. Hehl Date Signed

*Kantrell* 7/20/84  
 P. Bemis Date Signed

Approved by: *Kantrell* 7/20/84  
 F. S. Cantrell, Section Chief Date Signed  
 Division of Reactor Safety

SUMMARY

Scope: This routine, resident inspection entailed 136 inspector-hours on site in the areas of plant tours; operational safety verification; monthly surveillance observations; monthly maintenance observations; review of inspector followup items; design changes and modifications; training and requalification training; licensee action on previous enforcement matters.

Results: No violations or deviations were identified.

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## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*O. W. Dixon, Vice President, Nuclear Operations
- \*T. C. Nichols, Executive Vice President, Operations
- \*O. S. Bradham, Director, Nuclear Plant Operations
- \*J. G. Connelly, Dupty Director, Operations and Maintenance
- \*M. D. Quinton, Manager, Maintenance Services
- \*M. B. Williams, Nuclear Operations Education and Training
- \*F. H. Zander, Manager, Nuclear Technical Education and Training
- \*B. G. Croley, Group Manager, Technical and Support Services
- \*M. H. Browne, Manager, Technical Support
- \*H. I. Donnelly, Nuclear Licensing Engineer
- \*A. R. Koon, Associate Manager, Regulatory Compliance
- \*H. J. SeFick, Associate Manager, Station Security
- \*D. A. Lavigne, Associate Manager, QA Surveillance
- \*R. M. Campbell, ISEG Engineer
- \*J. A. Wactor, Associate Manager, Nuclear Engineer
- \*C. J. McKinney, Regulatory Compliance
- \*H. C. Fields, Regulatory Interface Engineer

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

\*Attended exit interview.

### 2. Exit Interview

The inspection scope and findings were summarized on June 29, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the inspection findings.

### 3. 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 generator, 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. No violations or deviations were identified.

4. Surveillance Observation (61726)

During the inspection period, the inspector verified by observation/review that selected surveillances of safety-related systems or components was 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.

5. 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.

6. Inspector Followup

(Closed) Inspector Followup Item 395/83-08-07, Documentation of Visitor/Contractor Qualifications. The Nuclear Education and Training Group Manual, procedure III.B.1.A.9, Visitor and Contractor Personnel, was revised to delete the requirement for certain forms to be kept and in its place, the licensee requires each individual's manager/associate manager/supervisor meet minimum qualifications and verified on NTE&T Form 10.

(Closed) Inspector Followup Item 395/83-08-08, Requalification program implementing procedure discrepancies. The Nuclear Education and Training Group Manual implementing procedure III.A.4, Requalification Program for Licensed Operators, was revised to include the reactivity manipulations required by the FSAR which were previously missing. In addition, the procedure was revised to delete the blanket allowance for individuals who pass the USNRC examination within 6 months of the annual requalification examination to be excused from the annual requalification examination. The licensee is looking on a case by case basis at who will be excused. Pending further guidance from the NRC the licensee's general policy will be to excuse no one from the annual requalification examination except those who have either taken an NRC examination within three months of the annual requalification examination; or the individual who makes up the annual

requalification examination, making sure the same person is not excused two years in a row.

(Closed) Inspector Followup Item 395/83-08-09, Programmatic requirements for 10 CFR 55.31(e). Nuclear Education and Training Group Manual Procedure III.A.4.8, Inactive License Training, has been revised to ensure individuals who have not been actively performing functions of a licensed person are not allowed to resume license duties until he has satisfactorily demonstrated his knowledge and understanding of facility operation and administration.

(Closed) Inspector Followup Item 395/83-08-11, Failure to take all required requalification tests. Nuclear Education and Training Group Manual, Procedure III.A.4.7, Annual Examinations, which implements FSAR Section 13.2.2.6.4 was revised to allow for a waiver program whereby an individual who makes 80% or better on the previous annual requalification examination in a given area is not required to attend the lectures or take the quiz in that area, but he must read the material. If an individual makes less than 80%, but at least 70%, then he must take a quiz. A review of the previous requalification period showed very few waivers issued and the program was being followed. The criteria being implemented by the licensee follows the NRC guidelines and intent that few waivers be issued.

(Closed) Inspector Followup Item 395/82-41-06, Steam generator inspection port installation, Operating License Condition 2.c.(13). In a letter to the licensee dated June 7, 1984, NRR approved the licensee's request to not install steam generator upper inspection ports and concluded that license condition 2.c.(13) had been met.

#### 7. Licensee Action on Previous Enforcement Matters

(Closed) Violation 395/83-08-03, Failure to meet all operator training requirements of 10 CFR 55 Appendix A. The licensee revised the Nuclear Education and Training Group Manual, procedure III.A.4, Section 6, Requalification Program for USNRC Licensed Operators and Senior Operators, requiring documentation of the cognizance of licensed operators of significant changes. This documentation is primarily by means of sign-off sheets in the operators required reading book. Documentation is also required when dissemination of information is by other means. A review of this documentation did not identify any violations.

(Closed) Unresolved Item 395/83-08-05, Annual operator requalification examination grading criteria. The Nuclear Education and Training Group Manual, procedure III.A.4, Requalification Program for USNRC Licensed Operators and Senior Operators, was revised to reflect the NRC's clarification of grading criteria. The procedure now allows a maximum of two sections to be reexamined, if overall score is greater than 80, and the entire exam must be retaken if an overall 80% is not achieved. A review of the annual requalification examinations found this policy being followed.

(Closed) Violation 395/83-08-04, Failure to perform all required reading. The Nuclear Education and Training Group Manual, procedure III.B.1.i, Required Reading, was revised in the publications on the required reading list and the licensee implemented a tracking system which alerts Nuclear Education and Training when a new employee is nearing his or her target date for reading compliance. A review of records did not identify any violations.

8. Design Changes and Modifications (37700, 37702, 35744)

- References:
- a. 10 CFR 50 Appendix B, Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants
  - b. Regulatory Guide 1.64, Quality Assurance Requirements for the Design of Nuclear Power Plants, Revision 2
  - c. ANSI N45.2.11-1974, Quality Assurance Requirements for the Design of Nuclear Power Plants
  - d. Regulatory Guide 1.33, Quality Assurance Program Requirements (Operation), Revision 1
  - e. ANSI N18.7-1976, Administrative Controls and Quality Assurance for the Operational Phase of Nuclear Power Plants
  - f. Regulatory Guide 1.28, Quality Assurance Program Requirements (Design and Construction), Revision 0
  - g. ANSI N45.2-1971, Quality Assurance Program Requirements for Nuclear Power Plants
  - h. Technical Specifications, Section 6, Administrative Controls

The inspector reviewed the licensee's Design Change/Modification (DC/M) program required by References a. through h. and verified that modification activities were conducted in accordance with regulatory requirements, industry guides or standards, and Technical Specifications. The following criteria were used during this review:

- Procedures have been established for control of Modification Request Forms (MRF).
- Procedures and responsibilities for MRF have been established.
- Administrative controls for MRF document control have been established.
- Administrative controls assure that MRF are incorporated into plant procedures, operator training, and the updating of drawings.

- Controls have been developed that define channels of communication between design and responsible organizations.
- Administrative controls require MRF documentation and records be collected and stored.
- Controls require implementation of approved MRF be in accordance with approved procedures.
- Controls require post-modification testing be performed per approved test procedures and the results evaluated.
- Responsibility has been assigned for identifying post-modification testing requirements.
- Responsibility and method for reporting MRF to the NRC in accordance with 10 CFR 50.59 has been identified.

Similar methods and controls were also verified for use of temporary modifications (jumpers and disconnected leads).

The documents listed below were reviewed to verify that these criteria had been incorporated into MRF activities.

MD 7, Design Change Program Process,  
 OQAP 6, Design Control,  
 QAP 3, Review of Design Change Documents,  
 OQAP 7, Modification and Maintenance Control,  
 SAP-133, Design Control/Implementation Control,  
 SAP-301, Maintenance Work Request,  
 EMP-300.007, General Electrical Maintenance and Troubleshooting,  
 NE-128, Initiation Evaluation, and Approval of Design/Modification Request,  
 NE-129, Design Development/Design Package,  
 NE-130, Design Analyses and Calculations,  
 NE-131, Design Verification,  
 NE-132, Nuclear Engineering Disposition of Modification Change Notices,  
 NE-133, Preparation of Drawings,  
 NE-134, Preparation of Specifications,  
 NE-135, Station Design Change Interface and Implementation

To verify implementation of these criteria, the inspector reviewed four DC/M Packages (10140, 10009, 10092, 10229)

There appeared to be numerous areas where problems could arise at the time the above modifications were performed - two areas in particular were in the update of the FSAR and in drawing change verification. Even though errors were found under the program in existence at the time of the modification these errors were not under a new program put into place in January 1984. A followup review to insure modifications performed under the new DC/M program is functioning correctly will be performed at a later date.

Within the areas reviewed, no violations or deviations were identified.

9. Training (41700)

- References:
- a. Technical Specifications, Section 6.4, Training
  - b. ANSI N18.1-1971, Selection and Training of Nuclear Power Plant Personnel
  - c. Regulatory Guide 1.8, Personnel Selection and Training, Revision 1-R
  - d. Regulatory Guide 8.13, Instruction Concerning Prenatal Radiation Exposure
  - e. Regulatory Guide 8.27, Radiation Protection Training for Personnel at Light-Water Cooled Nuclear Power Plants
  - f. Regulatory Guide 1.58, Qualification of Nuclear Power Plant Inspection, Examination and Testing Personnel, Revision 1
  - g. Regulatory Guide 1.146, Qualification of Quality Assurance Program Audit Personnel for Nuclear Power Plants, Revision 0

The inspector reviewed the licensee's training programs required by References a. through g. to verify that activities were conducted in accordance with regulatory requirements, industry guides or standards, and Technical Specifications. The following criteria were used during this review:

- The program complies with regulatory requirements and licensee commitments.
- The program covers training in the areas of administrative controls and procedures, radiological health and safety, industrial safety, security procedures, the emergency plan, quality assurance, firefighting, and prenatal radiation exposure.
- The QA/QC personnel training program includes indoctrination in company policies, Quality Assurance Manuals, Technical Specifications, the Emergency Plan, and appropriate codes and standards.

The documents listed below were reviewed to verify that previously listed criteria had been incorporated into licensee training activities:

QAP2, Indoctrination Training and Certification.  
The Nuclear Education and Training Group Manual.

The inspector reviewed training records of approximately 60 contractors and plant staff members who had been qualified for unescorted access to the site area. In addition, the inspector attended the General Employee Training (GET) program.

One area of concern was noted, in that the licensee was interpreting the annual requirement for GET to mean 12 months  $\pm$  3 months. The licensee changed their procedure and interpretation to clarify the training frequency prior to the issuance of this report. Even though the licensee had misinterpreted the annual requirement they had a program in place to attempt to meet a 12 month cycle and only a few isolated instances occurred where 12 months was exceeded.

Within the area inspected, no violations or deviations were identified.

#### 10. Requalification Training (41701)

- References:
- a. 10 CFR 55, Appendix A, Requalification Programs for Licensed Operators of Production and Utilization Facilities.
  - b. NUREG 0737, Clarification of TMI Action Plan Requirements
  - c. Technical Specifications, Section 6.4, Training
  - d. Regulatory Guide 1.8, Personnel Selection and Training, Revision 1-R
  - e. ANSI N18.1-1971, Section and Training of Nuclear Power Plant Personnel
  - f. FSAR, Chapter 13.2.2, Retraining Program
  - g. Letter dated March 28, 1980, from H. R. Denton, Director NRR, to All Power Reactor Applicants and Licensee. Subject: Qualifications of Reactor Operators

The inspector reviewed the licensee's operator requalification training program required by References a. through g. to verify that activities were conducted in accordance with regulatory requirements and Technical Specifications. The following criteria were used during this review:

- Determination that changes made to the requalification training program were in conformance with NRC requirements.
- Documentation that required procedure reviews were performed.
- Lesson plans are prepared for subject matter presented during the requalification program.



- Determination that all aspects of the requalification program were being adequately addressed.

The Nuclear Education and Training Group Manual, Section III.A.4, Requalification Program for USNRC Licensed Operators and Senior Operators, implements the licensee's requalification program as submitted by Reference f. The inspector reviewed the requalification program to determine adherence to requirements. The inspector reviewed the following areas: retraining conducted in 1983, annual written examinations and the individuals' responses; documentation of required control manipulations; schedule for conducting lectures and prepared lesson plans; and participation in an accelerated training program when applicable. The training records of twenty licensed operators were reviewed. The inspector attended two simulator sessions and found the program to be administered in an enthusiastic manner that exceeded requirements.

Within the areas inspected, no violations or deviations were identified.