



UNITED STATES  
NUCLEAR REGULATORY COMMISSION

REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30303

AUG 09 1984

Report No.: 50-395/84-17

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

Docket No.: 50-395

License No.: NPF-12

Facility Name: Summer

Inspection Dates: July 9-13, 1984

Inspection at Summer site near Jenkinsville, South Carolina

Inspector: R. R. Marston  
R. R. Marston

8/7/84  
Date Signed

Accompanying Personnel: G. T. Lonergan (PNL)

Approved by: Douglas M. Collins  
for W. E. Cline, Chief  
Emergency Preparedness Section, EPRP Branch  
Division of Radiation Safety and Safeguards

8/8/84  
Date Signed

Areas Inspected

This routine unannounced inspection involved 82 inspector-hours on site in the area of emergency preparedness.

Results

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

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## REPORT DETAILS

## 1. Persons Contacted

## Licensee Employees

\*O. S. Bradham, Director, Nuclear Operations  
 \*J. Connelly, Deputy Director, Operations and Maintenance  
 \*B. G. Croley, Group Manager, Technical and Support Services  
 \*D. R. Moore, Group Manager, Quality Services  
 \*D. A. Lavignie, Associate Manager, QA  
 \*F. Zander, Associate Manager, Nuclear Technical Education and Training  
 \*H. T. Babb, Group Manager, Nuclear Education and Training  
 \*A. R. Koon, Associate Manager, Regulatory Compliance  
 \*J. F. Heilman, Associate Manager, Nuclear Operations Training  
 J. Cox, Associate Manager, Health Physics  
 \*H. J. Sefick, Associate Manager, Station Security  
 \*G. G. Putt, Manager, Scheduling and Material Management  
 \*M. D. Quinton, Manager, Maintenance Services  
 \*F. J. Leach, Manager, Quality Assurance  
 J. Shepp, Shift Supervisor  
 D. Goldstan, Shift Supervisor  
 G. Williams, Shift Supervisor  
 \*H. O'Quinn, Shift Supervisor  
 R. Whitman, Supervisor, Software Projects - HP  
 \*C. M. Counts, Emergency Coordinator  
 \*H. I. Donnelly, Senior Licensing Engineer  
 \*H. C. Fields, Regulatory Interface Engineer  
 \*R. M. Campbell, Jr., Engineer, ISEG  
 G. Higginbotham, Associate Staff Health Physicist  
 M. Chen, Computer Specialist

Other licensee employees contacted included several office personnel.

## NRC Resident Inspector

\*C. W. Hehl

\*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.

## 3. Emergency Detection and Classification (82201)

This program area was inspected to determine that the licensee has and understands a standard emergency classification and action level scheme.

The inspector reviewed the licensee's classification procedure (EPP-001). The event classification in the procedure is consistent with the event classification in 10 CFR 50, Appendix E, Part IV.C. The classification

procedure did not appear to contain impediments or errors which could lead to incorrect or untimely classification.

Selected emergency action levels (EALs) specified in the licensee's emergency plan and in the classification procedure (EPP-001) were reviewed. The EALs reviewed appeared to be consistent with the initiating events specified in Appendix 1 of NUREG-0654. The inspector noted that some of the EALs were based on parameters obtainable from control room instrumentation.

EPP-001 directs the use of EPP-002 which delineates the specific notification required by each emergency classification. EPP-002 includes criteria, based on EALs, for the initiation of offsite notification and for making protective action recommendations. The notification procedure required that offsite notifications be made promptly after declaration of an emergency.

EPP-001, Section 4.5, Site Emergency, provided for an announcement for all nonessential onsite personnel to evacuate the site and proceed to the predesignated evacuation assembly area.

A licensee representative stated that State and local agencies are in agreement with the current EALs. These agencies participate in annual training and are reported to have an opportunity to review the EALs which are used in a table top exercise.

Interviews were held with four Shift Supervisors to verify that they understood the use of post-TMI instrumentation for core damage assessment. The pertinent instrumentation has been identified in the control room with yellow tags.

The Shift Supervisors showed that they understood their responsibilities and authorities when acting as Interim Emergency Director, particularly their responsibilities for making the initial classification, protective action recommendations, and notifications.

The Shift Supervisors who were interviewed promptly and properly classified the hypothetical accident situations presented to them, and appeared to be familiar with the procedures and decisional aids available to them. The Shift Supervisors were presented with hypothetical dose assessment problems which required the use of a graphical method presented in EPP-005. The Shift Supervisors demonstrated their ability to use this method. This method requires that a source term for noble gas or iodine be input in units of microcuries per milliliter. The control room instrumentation presents release information in units of counts per minute. Health Physics Procedure HPP-904 includes methodology for making this conversion; however, this procedure was not maintained in the control room or Shift Supervisor's office. A licensee representative stated that the procedure is kept in the Technical Support Center (TSC) which is adjacent to the Shift Supervisor's office. The two individuals who were asked to make the conversion were not aware of the availability of the procedure, and sent to the Health Physics office for a copy. The inspector stated that this was an Inspector Followup Item (395/84-17-01). During the inspection the Plant Emergency Coordinator issued a letter to Nuclear Operations requesting that control room personnel

be informed of the resources available in the TSC, especially HPP-904. This area will be evaluated during a subsequent inspection.

No violations or deviations were identified in this program area.

4. Protective Action Decisionmaking (82202)

This area was inspected to determine that the licensee has 24-hour-per day capability to assess and to analyze emergency conditions, to make recommendations to protect the public and onsite workers, and to demonstrate that offsite officials are authorized and capable of initiating prompt corrective action for the public.

The inspector discussed responsibility and authority for protective action decisionmaking with licensee representatives and reviewed pertinent parts of the licensee's emergency procedures and emergency plan. The plan and procedures clearly assign responsibility and authority for accident assessment and protective action decisionmaking. Interviews with members of the licensee emergency organization showed that these personnel understood their authorities and responsibilities with respect to accident assessment and protective action decisionmaking.

Interviews involving protective action decisionmaking were conducted with certain members of the licensee's emergency organization. Personnel interviewed appeared to be knowledgeable of appropriate onsite protective measures and aware of the range of protective action recommendations appropriate to offsite protection. Personnel interviewed were aware of the need for timeliness in making initial protective action recommendations to offsite individuals. Interviewees demonstrated to the inspector that they understood that protective action recommendations must also be based on core and containment status even if no release is in progress.

The capability of offsite officials to make protective action decisions and prompt notification of the public was discussed with licensee representatives. Licensee procedures make provisions for contacting responsible offsite authorities on a 24-hour basis. Backup communication links are provided to offsite authorities.

No violations or deviations were identified in this program area.

5. Notifications and Communications (82203)

This area was reviewed to determine whether the licensee was maintaining a capability for notifying and communicating among licensee personnel, offsite supporting agencies and authorities, and the population within the EPZ in the event of an emergency.

The licensee notification procedure, EPP-002, Communication and Notifications, was reviewed by the inspector. The procedure was consistent with the emergency classification and emergency action level scheme used by the licensee. The inspector determined that the procedure made provisions for message verification.

The inspector determined by review of licensee procedures and by discussion with licensee representatives that adequate procedural means exist for alerting, notifying, and activating emergency response personnel. The procedures (EPP-001 and -002) specify when to notify and activate the onsite emergency organization, corporate support organization, and offsite agencies. Activation of the EOF is specified in Corporate Emergency Procedure CEP-001. Selected telephone numbers listed in the licensee's procedures for emergency response support organizations were checked in order to determine whether the listed numbers were current and correct. No problems were noted.

The content of emergency notification messages were reviewed and discussed with licensee representatives. The messages appeared to meet the guidance of NUREG-0654, Sections II.E.3 and 4. Licensee representatives stated that the format and content of the emergency messages had been reviewed by State and local government authorities.

The licensee management control program for the prompt notification system was reviewed. According to licensee documentation and discussions with licensee representatives the system consists of 106 fixed sirens, speakers and lights at the recreation areas near Monticello reservoir, Voice Command Radios at schools, and the Emergency Broadcast System. The system is operated in accordance with EPP-021, Activation of the Early Warning Siren System, and tested in accordance with EPP-022, Verification of Communications Operability. The inspector reviewed siren test records for calendar year 1984. The test records showed that silent tests were conducted every week, growl tests were conducted quarterly, and complete cycle tests were conducted annually.

Communications equipment in the Control Room, Technical Support Center (TSC), Operations Support Center (OSC), and Emergency Operations Facility (EOF) were inspected. Provisions exist for prompt communications among emergency response organizations, to emergency response personnel, and to the public. The installed communications systems at the emergency response facilities are consistent with system descriptions in the licensee emergency plan and emergency procedures.

The inspector conducted operability checks on selected communications equipment in the Control Room. It was determined that the dedicated lines to State and County centers were not all operational. In some cases the line was dead, and in some cases contact could be initiated in only one direction. These problems had been discovered originally in June 1984 and reported to the telephone company. Licensee representatives stated that the telephone company had reported the problems as repaired several times, but subsequent checks revealed that the problems continued. A licensee representative stated that the system would be monitored until repaired. Control Room personnel were aware of the problem and stated that State and local agencies would be contacted by alternate means, if required. A review of the communications test records for calendar year 1984 showed that tests were conducted at frequencies as specified in the emergency plan and emergency procedures.

Redundancy of offsite and onsite communications was discussed with licensee representatives. Regular telephone, microwave links, and radio were available as backup.

No violations or deviations were identified in this program area.

6. Training (82206)

This area was inspected to determine that emergency response personnel understand their emergency response roles and can perform their assigned function.

The inspectors reviewed licensee training program descriptions in the emergency plan, reviewed selected lesson plans, and interviewed members of the training program staff. Based on the reviews and interviews, the inspector determined that the licensee has established a formal emergency training program.

The training records of Shift Supervisors and certain other licensed operators were reviewed by the inspectors. The records indicated that these individuals had attended annual Radiation Emergency Plan and Emergency Plan Procedure requalification training within the first half of 1984. The lesson plan, the test, and the individual test results were reviewed by the inspector.

Training records for the remainder of the emergency response organization were reviewed by the inspector. Lesson plans and outlines for training provided to plant, corporate, and offsite support personnel were reviewed. Individual training records were also examined. Individual records for plant and corporate personnel are maintained on a computer while records for offsite agencies are maintained as lesson plans and attendance sheets. The individual records show participation in drills and exercises as well as classroom training.

The training records showed that personnel designated as alternates in the emergency response organization had been provided with appropriate training. According to the training records the type, amount, and frequency of training was consistent with approved procedures and the requirements of 10 CFR 50.47(b)(15) and 10 CFR 50, Appendix E, Part IV.F.

The licensee's records showed that all required drills and exercises were held at the required frequencies.

No violations or deviations were identified in this program area.

7. Licensee Audits (82210)

This area was inspected to determine that the licensee had performed annual independent reviews or audits of the emergency preparedness program.

Records of audits of the licensee emergency preparedness program pursuant to 10 CFR 50.54(t) were reviewed. The records showed that independent audits

of the program were conducted by Quality Assurance in March 1983 and March 1984. These audits met the 12 month frequency requirements for such audits as specified in 10 CFR 50.54(t) and in licensee procedures. The audit records showed that the State and local government interface was evaluated. Audit report findings and recommendations were presented to plant and corporate management.

The licensee program for followup action on audits, drills and exercise findings was reviewed. Licensee procedures require followup on deficient areas identified during audits, drills, and exercises. The inspector reviewed licensee records which indicated that appropriate corrective action was taken on problems identified. The licensee has established tracking systems to follow up on actions taken in deficient areas.

Licensee emergency plans and procedures require critiques following exercises and drills. Licensee documentation showed that critiques were held following drills and the annual exercise. The records showed that deficiencies were discussed in the critiques and recommendations for corrective actions were made.

No violations or deviations were identified in this program area.

8. Inspector Followup (92701)

- a. (Closed) Inspector Followup Item (IFI) 83-19-01: Shift Supervisors need training in use of nomogram for initial dose assessment. The inspector noted that the four Shift Supervisors interviewed were able to correctly use the nomogram for initial dose assessment.
- b. (Closed) IFI 84-02-01: Need to ensure that complete emergency procedures are posted. The inspector verified that SAP-139 now requires complete procedures to be issued rather than only changed pages.