



UNITED STATES  
 NUCLEAR REGULATORY COMMISSION  
 REGION II  
 101 MARIETTA ST., N.W., SUITE 3100  
 ATLANTA, GEORGIA 30303

Report No. 50-395/80-27

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

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

|              |  |                 |
|--------------|--|-----------------|
| Inspector:   | <u><i>D. J. Perrotti</i></u>               | <u>10/17/80</u> |
|              | D. J. Perrotti                             | Date Signed     |
| Approved by: | <u><i>G. R. Jenkins</i></u>                | <u>10/17/80</u> |
|              | G. R. Jenkins, Section Chief, FF&MS Branch | Date Signed     |

SUMMARY

Dates of inspection: September 15-19, 1980

Areas Inspected

This routine, unannounced preoperational inspection involved 29 inspector-hours onsite in the areas of emergency planning, including: coordination with outside support groups; emergency facilities, equipment and procedures; emergency plan training; means for assessing the magnitude of a release of radioactive material; and follow-up on IE Bulletins.

Results

Of the five areas inspected, no apparent areas of noncompliance or deviations were identified.

## DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*O. S. Bradham, Station Manager
- \*A. Kori, Technical Services Coordinator
- \*S. G. Ch, Maintenance Supervisor
- \*A. Smith, Quality Assurance
- \*L. F. Storz, Operations Supervisor
- \*J. G. Connelly, Assistant Station Manager
- \*B. J. Croley, Technical Support Supervisor
- \*K. E. Beale, Emergency Planning Coordinator
- \*J. B. Bone, Assistant Emergency Planning Coordinator
- L. A. Blue, Health Physics Supervisor
- F. Leach, Chemistry Supervisor
- C. M. Counts, Nuclear Training Assistant
- R. Hinson, I&C Supervisor

#### Other Organizations

- G. J. Douglass, Director, Fairfield County Disaster Preparedness Agency
- O. R. Smith, Sheriff, Fairfield County
- C. L. Talbert, Lieutenant, State Law Enforcement Division
- W. M. M. M. M., Director, Fairfield County Emergency Medical Service
- C. A. Pinner, III, M.D., Medical Consultant
- D. Campbell, Medical Physicist, Richland Memorial Hospital
- K. Kelly, Radiation Physicist, Baptist Medical Center
- R. C. Cunningham, Chairman, Rural Fire Board for Fairfield County
- T. R. Hill, Fairfield County Fire Inspector
- T. Feaster, Chief, Jenkinsville-Monticello Volunteer Fire Department
- F. Rocco, Vice President for Emergency Services, Radiation Management Corporation, Philadelphia, PA

#### NRC Resident Inspector

- \*J. L. Skolds

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on September 19, 1980 with those persons indicated in Paragraph 1 above. The licensee acknowledged the inspector's remarks concerning the emergency planning outstanding items. The inspector informed the licensee that, in general, equipment should be in place, procedures reviewed and approved and emergency plan training completed prior to the full scale exercise.

3. Unresolved Items

Unresolved items were not identified during this inspection.

4. Coordination With Outside Support Groups

- a. The inspector and a licensee representative met with representatives from nine outside support agencies identified in Paragraph 1. The discussions included memoranda of understanding and agreement letters, outside agency involvement in the V. C. Summer Emergency Planning Program, training, and proposed changes to facilities. The following paragraphs are the results of those discussions:

(1) Pinner Clinic

The inspector discussed the medical support provided by the Pinner Clinic located in Peak, South Carolina, with Dr. C. A. Pinner, III, Medical Consultant for South Carolina Electric and Gas Company (SCE&G). The doctor explained that he routinely does physicals for the plant, provided the plant with a list of medical equipment and supplies for the onsite first aid room and routinely provided medical care in the way of minor surgery for non-contaminated patients from SCE&G. The inspector asked about the facilities and equipment for handling contaminated or potentially irradiated patients. The inspector remarked that the letter of agreement between SCE&G and the Pinner Clinic, dated June 5, 1980, states that "the plan will provide for receiving and treatment, on a priority basis, of potentially irradiated and/or contaminated victims." Dr. Pinner stated that this was not the intent of the letter and that the clinic had no facility for decontamination of patients. The doctor further stated that he soon would receive training at Oak Ridge REAC/TS in the handling of contaminated and/or irradiated patients, and that he would act as consultant to SCE&G providing onsite medical support if needed. However, the Pinner Clinic itself would not be involved in these cases. At the exit interview, the inspector informed the Station Manager that the letter of agreement between the Pinner Clinic and SCE&G should be revised to reflect the actual support provided by Dr. Pinner and reference to the clinic receiving or treating irradiated and/or contaminated victims be changed since the clinic could not provide the support required by SCE&G. The Station Manager acknowledged the inspectors remarks and stated that the letter of agreement would be changed.

(2) Richland Memorial Hospital

The inspector met with the hospital Medical Physicist, the primary contact between the hospital and SCE&G. The inspector was informed that contact between Richland Memorial and SCE&G has been good and that special training for the hospital emergency staff would be provided by the licensee, through contract with Radiation

Management Corporation (RMC), Philadelphia, Pennsylvania, during the early part of 1981. This training schedule was verified by the inspector via telecon with the Vice President for Emergency Services of RMC on September 12, 1980. The inspector was also informed by a licensee representative that all emergency equipment, except the radiation detection equipment, was available at the hospital. From a review of the contractual agreement (agreement letter) between Richland Memorial and SCE&G, effective October 1, 1978, the inspector determined that the agreement had no provision for treatment of irradiated or potentially irradiated patients. This was acknowledged by the hospital Medical Physicist who informed the inspector that while he was familiar with the treatment of such patients, the hospital had no provisions in the agreement specifically for handling an individual who had received a high dose of radiation. The inspector informed licensee representatives at the exit interview that this matter should be addressed and that the plan should be revised to provide for outside support for irradiated patients. The licensee stated that this matter would be looked into.

(3) Baptist Medical Center

The inspector met with the hospital Radiation Physicist to discuss the proposed changes to the hospital's emergency room area. The inspector reviewed a blue print of the proposed building modification which would include a new decontamination station and isolation capability for contaminated patients. The Radiation Physicist was unable to give an estimated construction schedule for the new facility. However, the inspector was informed that the hospital would work closely with the licensee on establishing the necessary facilities to meet the needs of V. C. Summer. At the exit meeting, the inspector acknowledged that at the present time no letter of agreement existed between Baptist Medical Center and SCE&G; however, it was pointed out that the Emergency Plan does state that a letter of agreement would be established with Baptist Medical Center for handling of contaminated and/or irradiated patients. The licensee stated that this matter would be looked into, and that Richland Memorial Hospital was the primary medical facility. The inspector stated that since two hospitals and one local clinic are involved in supporting V. C. Summer plans at the present time, it should be clearly established for the Site Emergency Director that Richland Memorial Hospital is the primary facility and contaminated and/or irradiated patients should be sent there. The licensee acknowledged the inspector's comments.

(4) Fairfield County Emergency Medical Service

The inspector met with the Director of the Fairfield County Emergency Medical Service and reviewed the newly constructed Fire Station/Rescue Unit Building at the intersection of Routes 215 and 213, just north of the plant site. The inspector was informed

that the building would be completed and the ambulance would be in place in about one month and would provide approximately a five minute response to the site. The inspector asked about training for the rescue personnel in the handling of contaminated patients and orientation on site procedures for plant access and radiation protection. A licensee representative stated that the training for all offsite groups would begin January-February 1981. The inspector had no further comments.

(5) Fairfield County Sheriff's Office

The inspector met with the Sheriff and discussed the law enforcement aspects in the support of V. C. Summer Emergency Plans. The Sheriff stated that his office had already responded to the V. C. Summer site, with regard to handling of crowds during a demonstration in the vicinity of the site. The Sheriff informed the inspector that he was filling this position only until the end of the year, when the newly elected Sheriff would take office. The inspector determined that the licensee was aware of this and had already made preparations to discuss emergency planning support with the new Sheriff. While at the Sheriff's Office, the inspector also met a representative from the State of South Carolina Law Enforcement Division (SLED).

(6) Fairfield County Disaster Preparedness Agency

The inspector met with the Director of the Fairfield County Disaster Preparedness Agency at the site on September 17, 1980. The inspector was informed that contact has been extremely good between the licensee and the County Disaster Preparedness Agency and that licensee representatives had been regularly attending the meetings held by the Central Midlands Regional Planning Council (CMRPC) for the four counties surrounding the V. C. Summer site. CMRPC is the coordinating body for the development of a comprehensive disaster plan for the counties of Fairfield, Newberry, Lexington, and Richland. A licensee representative assured the inspector that regular attendance at the monthly meetings held by CMRPC would be maintained.

The inspector asked the licensee about the agreement letter with Newberry County Public Safety Department which appeared to have no effective date. The inspector was informed that this would be taken care of. The inspector was also shown a copy of the new agreement letter with Lexington County Public Safety Department, dated July 21, 1980, which had not yet been incorporated into the plan.

(7) Outside Fire Support

The inspector met with representatives from Fairfield County Rural Fire Departments indicated in Paragraph 1. The inspector

was informed that while the licensee had maintained contact with the rural fire departments, no training or site orientation visits had been provided. In addition, it had been approximately one year since the Chairman of the Rural Fire Board had been on site. The Chairman requested a site visit and training for the volunteer firemen. A licensee representative stated that this would be arranged.

- (8) The inspector informed the licensee that coordination with outside support groups would be an outstanding item pending resolution of all concerns stated in the above paragraphs (50-395/80-27-01).

#### 5. Emergency Facilities and Equipment

The inspector discussed with licensee representatives the status of emergency kits, emergency facilities and systems, such as the communication and fire detection systems, which would be used in the event of an emergency. The inspector was informed that only part of the emergency equipment was in place, and that the Technical Support Center (TSC), Operations Support Center (OSC) and the near site Emergency Operations Facility (EOF), were designated but not yet established. The inspector toured the Control Room, TSC, OSC and EOF, observing that the facilities, equipment and systems as described in the Emergency Plan and FSAR were not complete. A review of the Master Tracking Report (MTR) showed that, in general pre-op tests of the systems used in emergencies, such as the communication system, emergency lighting system, etc., had not been started. In some cases, the pre-op test procedures had not yet been approved. At the exit meeting, the inspector informed the licensee that for those systems having pre-op or start-up tests, verification by the inspector that the system is available and operable, and verification that the pre-op tests were satisfactorily completed and approved would demonstrate that the requirements of the Emergency Plan and FSAR were met.

The inspector presented the following list of outstanding items to the licensee at the exit meeting:

- a. Emergency Kits (50-395/80-27-02)
- b. TSC and OSC (50-395/80-27-03)
- c. Near Site EOF (50-395/80-27-04)
- d. News Media Area (50-395/80-27-05)
- e. Main Control Room Habitability - Procedure Numbers I-100.003, I-100.004, P-AH-P06, P-AH-P51, I-100.025 and I-100.026 and Section 6.4 of the FSAR (50-395/80-27-06)
- f. Plant Paging and Communications System - Procedure Numbers P-EE01E01 (50-395/80-27-07)
- g. Emergency Lighting System - Procedure Number P-ED03 (50-395/80-27-08)
- h. Fire/Smoke Detection System - Procedure Number P-FS-005 (50-395/80-27-09)
- i. Control Room Evacuation Panel - Procedure Numbers O-CE-001 and O-CE-002 (50-395/80-27-10)
- j. Medical (First Aid Room) and Decontamination Facilities (50-395/80-27-11).

6. Means for Assessing the Magnitude of a Release of Radioactive Material

From discussions with licensee representatives and review of the control room instrumentation and the MTR, the inspector determined that the facilities and systems used to assess the magnitude of a release and project offsite doses were not completed. At the exit meeting the inspector presented the following list of outstanding items to the licensee:

- a. Process and Area Radiation Monitor Systems - Procedure Numbers P-RM-001, I-360.004, I-360.005 and I-360.006 (50-395-27-12). (Note: Procedure RM-001 includes verification of satisfactory completion of 46 individual process and area monitor tests itemized in the MTR.)
- b. Meteorological System - Procedure Numbers I-285.111, I-300.009 (50-395/80-27-13)
- c. Control Room Readouts for Monitoring Major Systems (Emergency Plan, Table 7.2, 50-395/80-27-14)
- d. Facilities and Equipment for Offsite Monitoring (Emergency Plan Sections 7.6.6 and 7.6.8, 50-395/80-27-15)
- e. Dose Assessment and Measuring System (50-395/80-27-16)
- f. Seismic Instrumentation - Procedure Number P-E101 (50-395/80-27-17)

7. Emergency Plan Training - The inspector discussed the overall emergency plan training program with the Nuclear Training Assistant. Training for the following groups/individuals was discussed:

- a. Emergency Director and Alternates
- b. Operators
- c. Personnel responsible for assessment (HP and TSC personnel)
- d. Security
- e. First Aid
- f. Fire Brigade
- g. Radiation Monitors
- h. Licensee offsite emergency organization personnel
- i. Outside Support Groups (Medical, rescue, fire, law enforcement)
- j. News Media
- k. Educational Information to the Public (Emergency Plan, Section 8.2)

The inspector reviewed the training schedule for site personnel (commencing December 1980), outside support groups (commencing January-February 1981), and licensee offsite support personnel (commencing March 1981). The inspector also reviewed the contract with Radiation Management Corporation (RMC) which included Emergency Plan Training Topics and Training Groups. The inspector was advised that RMC will conduct the training of onsite personnel, and the licensee would conduct the training for all offsite licensee and non-licensee groups. The inspector identified Emergency Plan Training as an outstanding item (50-395/80-27-18).

8. Emergency Plan Procedures (EPP)

The inspector discussed EPP's with the Emergency Planning Coordinator. The inspector was informed that some EPP's had been written; however, they were based on Reg Guide 1.101. The EPPs are to be revised, under contract with RMC, starting in October 1980. This matter was identified by the inspector as an outstanding item (50-395/80-27-19).

9. Review, Updating and Distribution of the Emergency Plan and EPP's

This matter was discussed with licensee representatives. The inspector reviewed the current list of authorized copies of the emergency plan, dated August 4, 1980. The inspector asked about the method used to control these documents. The inspector was informed that the distribution of the plan and procedures would be incorporated in AP 301.1, Administrative Procedure Control. The inspector identified this as an outstanding item (50-395/80-27-20).

10. Follow-up on IE Bulletin 79-18, "Audibility Problem Encountered During Evacuation Alarms in High Noise Areas"

The inspector was informed by the maintenance supervisor that an audibility test of the reactor containment had been done during hot functional test and that some problem areas had been identified but not corrected. Additional testing of the remaining areas of the plant is to be done in order to identify all "dead spots" before final corrective action can be determined. A review of start-up test procedure EE01-E01, Plant Paging and Communication System, Attachment VII, indicated that an audibility test would be performed at approximately 200 locations throughout the plant site. The inspector informed the licensee that this matter would be followed during subsequent inspections (79-BU-18).

11. Follow-up Items Presented to the Licensee Subsequent to the Inspection

Subsequent to the inspection, on September 24, 1980, the inspector informed the licensee via telecon that two additional areas were looked at during the inspection and preliminary analysis indicated that some follow-up inspection action would be required. These two matters, acknowledged by the licensee during the telecon, are described below.

- a. Post Accident Sampling Section 7.6.7 of the Emergency Plan describes special chemistry procedures and equipment that would be used to sample reactor coolant during post accident conditions in order to determine abnormal activity levels indicative of the release of gaseous activity and/or partial fuel MECA conditions. During the inspection, review of the MTR by the inspector revealed a start-up test procedure HP-3, Post Accident Gas Sampling Functional Test, the purpose of which is to demonstrate, using appropriate HP Procedures, the ability to obtain containment atmosphere samples from each sample point. Time did not permit review of the equipment or procedures. The inspector informed the licensee that this matter would be reviewed during a subsequent inspection (50-395/80-27-21).

- b. Chlorine Gas Monitor - From a discussion on September 17, 1980, with the Chemistry Supervisor the inspector determined that 150 lb. Chlorine gas cylinders are used during routine operations at the Water Treatment Building. However, no assessment could be made during the inspection as to the potential hazard to control room personnel in the event of a leaky or ruptured cylinder causing infiltration of chlorine gas into the control room via the control room air intake duct. The inspector was informed that a local chlorine monitor and local alarm were available, however, there was no monitor in the control room air intake duct. The inspector also discussed the availability of respiratory protection equipment, procedures for routine use of the chlorine station, and emergency procedures to be used in the event of a leak.

During the telephone conversation on September 24, 1980, the inspector was informed that the control room air intake duct was on the roof of the Control Building, which was separated from the Water Treatment Building by another structure. The inspector informed the licensee that this matter needed further study and that it would be reviewed during subsequent inspection (50-395/80-27-22).