



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

Report No. 50-395/80-33

Licensee: South Carolina Electric and Gas

Facility Name: Virgil C. Summer

License No. CPPR-94

Inspection at: Jenkinsville, South Carolina

Inspector:

John W. Puckett (for)
D. J. Wray

12/16/80
Date Signed

Approved by:

A. F. Gibson
A. F. Gibson, Section Chief

12/23/80
Date Signed

SUMMARY

Inspection on November 4-6, 1980

Areas Inspected

This routine, unannounced inspection involved 27 inspector-hours onsite in the areas of postings and notices to workers; H. P. organization, staff and qualifications; training and retraining; facilities; H. P. procedures; instruments and equipment; Respiratory Protection Program.

Results

Of the 7 areas inspected, no items of noncompliance or deviation were identified in 6 areas; 1 item of noncompliance was found in 1 area (Failure to post 10CFR19.11 documents as prescribed).

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DETAILS

1. Persons Contacted

- *O. S. Bradham, Plant Manager
- *L. A. Blue, Health Physics Supervisor
- J. Orr, Assistant H. P. Supervisor

Other licensee employees contacted included 5 technicians, 3 operators, 4 security force members, and 2 office personnel

NRC Resident Inspector

- *J. Skolds

- *Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on November 6, 1980 with those persons indicated in Paragraph 1 above. The inspector notified the Plant Manager that the corrective action to the item of noncompliance taken during the inspection was adequate and no written response will be necessary.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Postings and Notices to Workers

- a. In part, 10CFR19, paragraph 19.11, requires that current copies of specified documents be posted by NRC licensees or that a notice be posted describing the documents and where they may be examined. The location of the posted documents is specified to be wherever individuals work in or frequent any portion of a restricted area. At the time of the inspection, the licensee possessed unirradiated licensed fuel under NRC license SNM-1834. The inspector determined that although the documents were posted on a bulletin board in the service building, the documents were not posted at the construction workers' entrance to the restricted area nor in the Fuel Handling Building in which the licensed fuel is being stored. Therefore, the documents were not posted in an accessible manner for review by all individuals working in the Fuel Handling Building. The inspector informed licensee management that failure to post the required documents or notices was in noncompliance (50-395/80-33-10) with 10 CFR 19.11.

During the inspection the licensee posted the required notices. After discussing the regulations with licensee representatives, the inspector notified licensee management that no written response to this item of noncompliance would be required and that, based upon the corrective action taken, this item was considered closed.

- b. During plant tours and inspection of on-site instrumentation and plant facilities, the inspector reviewed licensee labeling and posting practices as required by 10CFR20.203. The licensee possesses many sources licensed by the State of South Carolina including Cs-137 calibration sources and an Am:Be neutron source. All sources appeared to meet the posting and labeling requirements set forth in the regulations.

6. Organization, Staffing and Qualifications

The inspector reviewed the present organization of the health physics department and compared it to the organizational structure discussed in FSAR section 13.1.2. A licensee representative stated that the Health Physics Supervisor now reports directly to the Plant Manager, or his assistant, whichever contact is appropriate. The inspector noted that this policy is in line with similar licensee organizational structures in Region II.

The inspector was informed of a proposal to alter the working organization and enlarge the staff of the health physics department. The inspector stated that individual job responsibilities and functions should be delineated in writing as well as the interrelations with the Emergency Planning and Environmental groups specified in FSAR Table 13.1.-3, located in the corporate office. A licensee representative stated that work is in progress to meet this end.

The reorganization proposal includes the addition of two assistant health physics supervisor positions to supplement the three currently authorized. All five assistant positions would be responsible for a particular functional area and report directly to the H. P. Supervisor.

Eleven additional H. P. specialist (technician) positions would also be opened to increase the department to 22 health physics specialists. Plans are for seven of the 22 specialists to be senior H. P. specialist (technicians in a responsible position as defined by ANSI 18.1-1971, Selection and Training of Nuclear Power Plant Personnel). The assistant H. P. supervisors will also meet the requirements for technicians in a responsible position. The inspector stated that the present staff of eleven technicians, of which only three appear to meet the qualifications specified in the ANSI standard, and two assistant health physics supervisors appeared to be less than adequate to ensure proper coverage of health physics activities but commented that the proposed reorganization would be more in agreement with that expected for a one unit plant. A licensee representative emphasized that the proposal had not

yet been approved. The staffing and organization will be reviewed during subsequent inspections (50-395/80-33-01)

7. Training and Retraining

The inspector discussed with licensee representatives the station program for health physics training and retraining. The licensee has an onsite General Employee Training department which, at the time of the inspection, was responsible for health physics training of individuals with vital access security badges. Records indicate that no retraining has been conducted. No other level of health physics training has been conducted. The inspector noted that the licensee has no apparent requirement for a functioning training/retraining program prior to issuance of a operating license. A licensee representative stated that the station training and retraining program is being developed and is expected to begin operation early next year.

The proposed training program is expected to consist of at least three levels of health physics training with annual retraining of regular employees. The inspector was informed that the levels will be 1) general employee training-individuals not permanently employed at the site requiring unescorted access to restricted areas or site employees not requiring access to the radiation control area, 2) regular site employees requiring frequent unescorted access to the radiation control area, and 3) health physics personnel training. A licensee representative stated that the General Employee Training department will be responsible for developing the general employee training. The health physics staff will be responsible for developing adequate health physics training programs for the latter two categories.

The inspector examined a preliminary, unapproved copy of the health physics department's program and discussed several comments with a member of the staff. The comments were acknowledged by the license representative. The inspector expressed concern about the interrelation between the health physics staff and the General Employee Training department. A license representative stated that the entire site health physics training policy is being examined at this time. The inspector stated that the health physics training and retraining programs will be reviewed in detail following final approval and initial implementation (50-395/80-33-02).

8. Facilities

- a. FSAR section 12.3.2 describes the facilities which will be available for health physics work and for access control to the radiation control area. The inspector toured the plant with licensee representatives and observed the areas and associated systems and equipment. Emphasis was placed on observing the adequacy of the facilities for the control of personnel exposure and control of radioactive contamination. Several potential problems were observed and discussed with a licensee represen-

tative. The licensee representative acknowledged these comments and, in some cases, stated that they had previously recognized the problem and it was under study for correction. Some of the potential problems observed by the inspector were:

- (1) Radiation Control Area Access - a licensee representative informed the inspector that traffic flow into and out of the radiation control area (RCA) is being studied. The licensee plans to install new doorways and barriers to ensure adequate controls. The inspector expressed the following concerns:
 - (a) location of hot shower in relation to RCA control point
 - (b) function of laundry room and its location to the RCA control point if potential for handling contaminated clothing
 - (c) location of counting room entrance to RCA
 - (d) location of all toilets to RCA

The licensee representative acknowledged the comments. The rearrangement of RCA access control point and traffic flow will be examined during future inspections (50-395/80-33-03).

- (2) The hot machine shop has three doors which open to the outside. Also, the potential for creating airborne radioactivity indicates that exhaust ventilation should be provided at or near the various machines. The installed ventilation system exhausts from the ceiling area. A licensee representative stated that the doors in the hot machine shop to the outside will be locked and a fence will enclose the outside area in the restricted area. The licensee representative also stated that portable ventilation units or extendible ducts will be considered for adequate shop ventilation (50-395/80-33-C4)
- (3) Tool Decon Room and Equipment - the inspector noted the presence of two ultrasonic sinks and a turbulator in the tool decontamination room adjacent to the hot machine shop in the Auxiliary Building. The installation of these units, with an eye toward adequate contamination control will be examined in subsequent inspections. (50-395/80-33-05)
- (4) Whole Body Counting/Respirator Fit Booth - The licensee possesses a whole body counter and a quantitative respirator fit booth both of which do not appear to have been provided adequate permanent space.

The whole body counter is in the department secretary's office; the test booth is presently in a locked area of a warehouse. A licensee representative stated that adequate space is being considered and will be decided upon after further study. (50-395/80-33-06)

9. Health Physics Procedures

FSAR section 12.3.2.3 states, in part, "health physics procedures... will conform with 10CFR20 and follow the recommendations contained in Regulatory Guide 8.7, 8.8, 8.9 and 8.10." A licensee representative informed the inspector that the station's health physics procedures were being revised and that no procedure has been completed and approved. The inspector stated that many of these procedures need to be approved as early as possible so that the plant staff can become familiar with the requirements and that they can be used for training purposes. A licensee representative stated that approved health physics procedures will be available in a few months.

10. Instruments and Equipment

The inspector reviewed with a licensee representative the present and ordered inventory of portable radiation detection equipment and noted that the inventory met the requirements for portable instruments listed in FSAR Table 12.3-3. The inspector noted that 15 pocket alarm dosimeters and 6 personnel air samplers have been ordered but have not arrived onsite. A licensee representative stated that 10 tritium samplers are presently available but the ice method for tritium sampling may be adopted in the near future. A licensee representative informed the inspector that portable instrumentation capable of detecting radiation fields in excess of 1000 R is on order as suggested by NUREG 0578. The inspector had no further questions concerning this matter.

The inspector discussed with a licensee representative the present inventory of fixed laboratory instrumentation. The inventory meets the requirements listed in FSAR Table 12.3-2. A licensee representative stated that more computer capacity as well as an additional GeLi system has been ordered. The health physics department will run the counting lab and have access to all counting instrumentation at all times. The inspector had no further questions.

The inspector discussed with a licensee representative certain aspects of the personnel dosimetry system. The present inventory of pocket dosimeters and TLD's appear to be adequate. The licensee has a contract with Eberline for TLD processing. The inspector was informed that a TLD spike program is planned to check the adequacy of the contractors services. A TLD annealing oven and reader is available in the counting lab for special exposure studies. The inspector had no further questions.

The inspector discussed with a licensee representative the instrument calibration program. At the time of the inspection portable instruments were being calibrated by Eberline Corporation. The licensee has acquired calibration and check sources (under State of South Carolina licensee 181-04) and is developing procedures for onsite calibration.

FSAR Table 12.1-19 lists the area radiation monitors to be installed throughout the plant, their function, and their sensitivity. The

inspector toured the facility with a licensee representative to determine the status of area radiation monitor installation. A licensee representative informed the inspector that all installed monitors have not yet been tested. The following is the status of the area radiation monitoring system at the time of the inspection:

<u>MONITOR</u>	<u>LOCATION</u>	<u>STATUS</u>
RM-G1	Control Room	Installed
RM-G2	Radiochem Lab	Installed-down for repair
RM-G3	Sampling Room	Installed-down for repair
RM-G4	Hot Machine Shop	Installed-down for repair
RM-G5	Reactor Bldg. Personnel Access	Installed
RM-G6	Reactor Bldg. Refueling Bridge	Not installed
RM-G7	Reactor Bldg. High Range	Not installed
RM-G8	FHA-Fuel Handling Bridge	Not installed
RM-G9	Aux Bldg. Demineralizer Area	Installed
RM-G10	Aux Bldg. Waste Gas Decay Tk Area	Installed
RM-G11	Aux Bldg. Drumming Area	Installed
RM-G12	Aux Bldg. Waste Holdup Tk Area	Not installed
RM-G13	Aux Bldg. Charging Pump Area	Installed
RM-G14	Reactor Incore Instrmntn. Area	Installed
RM-G15	Movable Unit	In Fuel Handling Bldg.
RM-G16	Turbine Bldg.	Installed
RM-G17a,b	Reactor Bldg. Manipulator Crane	Not installed
RM-G18	Reactor Bldg. High Range	Not installed
RM-G19a,b,c	Main Steam Lines	Not installed

The inspector informed a licensee representative that the installation status will be examined during subsequent inspections (50-395/80-33-07).

11. Respiratory Protection Program

The inspector discussed with a licensee representative his respiratory protection program and compared it to the guidance provided in Regulatory Guide 8.15 and the following:

- . Written policy statement
- . Air sampling procedures
- . Bioassay program (whole body counting)
- . Training, fitting and testing procedures
- . Maintenance procedure
- . Control issuance, use and return of equipment
- . Equipment on hand
- . Equipment selection and use criteria

A licensee representative stated that the respiratory protection procedures are being reworked and should be approved in a few months. Plant management will approve the respiratory protection procedures providing the station policy statement.

A whole body counter is onsite but was not fully operational at the time of the inspection. A quantitative mask fit test booth was also available. Space has been obtained for respirator cleaning and repair but the area was not complete during the inspection (50-395/80-33-08). Respiratory equipment met or exceeded the amounts specified in FSAR Table 12.3-4. In addition three portable breathing air systems (capable of supplying Class E air) are on site as well as the plant breathing air compressor and a compressor for refilling Scott Air Pacs.

The inspector had no further questions regarding volume and type of respiratory equipment onsite but stated that the bioassay system and respiratory protection procedures will be reviewed during future inspections. (50-295/80-33-09).