



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

Report No.: 50-395/78-24

Docket No.: 50-395

License No.: CPPR-94

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

Facility Name: Virgil C. Summer Nuclear Station, Unit 1

Inspection at: V. C. Summer Nuclear Station, Jenkinsville, South Carolina

Inspection conducted: October 17-19, 1978

Inspectors: T. C. MacArthur
W. W. Peery

Reviewed by:

J. W. Hufham
J. W. Hufham, Chief
Environmental and Special Projects Section
Fuel Facility and Materials Safety Branch

11/30/78
Date

Inspection Summary

Inspection on October 17-19, 1978 (Report No. 50-395/78-24)

Areas Inspected: Radiological environmental monitoring program including: management control, quality control of analytical measurements, inspection of environmental monitoring stations, review of environmental monitoring data, review of radiological environmental monitoring procedures, and implementation of the monitoring program. The inspection involved 44 inspector-hours onsite by two NRC inspectors.

Results: No items of noncompliance or deviations were identified in the six areas inspected.

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DETAILS I

Prepared by:

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11/29/78
 Date

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Dates of Inspection: October 17-19, 1978

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1. Persons Contacted

- *H. T. Babb, General Manager, Nuclear Operations
- *O. S. Bradham, Maintenance Supervisor
- *W. R. Baehr, Health Physicist and Environmental Coordinator
- *K. Beale, Health Physics Supervisor
- *H. Donnelly, Site Quality Assurance Coordinator
- C. J. Zimmerman, Dames & Moore

*Denotes those present during the exit interview.

2. Licensee Action on Previous Inspection Findings

This was the initial inspection of the radiological environmental monitoring program, therefore, no previous inspection findings in this area were pending.

3. Unresolved Items

No unresolved items were identified during this inspection.

4. Management Control

Management controls were reviewed by the inspectors with respect to overall adequacy and specific management responsibility for radiological protection. Management controls in this area were found to be within acceptable standard industry practices. There were no further questions in this area.

sample media, ranging from six months to two years. These appeared reasonable. A licensee representative informed the inspector that the preoperational radiological environmental monitoring program will be completed as described in the FSAR. The inspector pointed out this commitment during the management exit interview.

- b. The licensee currently has a contract with Dames and Moore, Atlanta, Georgia to collect many of the samples and licensee personnel collect the remainder. The inspectors observed the collection of fish samples from the Monticello Reservoir during this inspection and found the equipment and system employed to be effective. The inspectors inspected the licensee's air particulate and charcoal filter stations with associated TLDs and other solely TLD stations as well. The air particulate and charcoal filter equipment and TLDs all appeared to be in good condition and protected within locked, high, industrial type fencing. A licensee representative stated that during preliminary operation of the air monitoring equipment a problem was experienced with air flow back-pressure causing some pump failures. He stated that the air flow problem had been corrected and no further problem with this equipment is anticipated. He stated that the air sampling equipment will be activated in November 1978 to collect one year of data prior to operating license stage. The inspector confirmed this understanding during the management exit interview. The air sampling and TLD stations were strategically located in relation to Summer Unit 1 and as described in the FSAR. The inspectors also observed spare parts available for the air monitoring stations and they were informed by a licensee representative that the spare equipment will be transported during sample collections to restore malfunctioning units in the field. Inspection of the equipment and procedures employed in the environmental TLD program revealed a program of apparent high quality. The inspectors observed the equipment to be used to sample the Columbia, South Carolina drinking water supply. The installed equipment will be inspected during the next inspection. The status of the licensee's records of the results of the preoperational radiological environmental monitoring program were reviewed by the inspectors and the determination made that the data had not been compiled into a format similar to Table 11.6-7 of the FSAR. This will be reviewed at the time of the next inspection. The inspectors reviewed trend plotting done with some of the data. Licensee procedures for the radiological environmental monitoring program were reviewed and comments by the inspectors were acknowledged by a licensee representative. The procedures were not complete and had not been organized into a complete unit such as an overall manual for the radiological environmental monitoring program. A licensee representative indicated that the procedures will be completed in a timely way. The procedures will be reviewed at the time of the next inspection. This area of incompleteness was pointed out by the inspector during the management exit interview.

5. Quality Control of Analytical Measurements

The licensee analyzes the samples from the radiological environmental monitoring program in a facility located off the Summer site near Parr, South Carolina. A licensee representative stated that comparative measurements have been made with the EPA and that more of these are planned as well as comparative measurements with the State of South Carolina. The licensee representatives also indicated that other quality control measures such as duplicate sample analysis, recounting, spiked samples and intralaboratory comparisons will be employed. Section 6.1.5 of the FSAR states that experience gained through the use of analytical procedures and quality control reviews provides the basis for appropriate analytical modifications. The licensee laboratory participated in the Third International Intercomparison of Environmental Dosimeters. The licensee representative stated that an audit of the program by Quality Assurance personnel will be arranged as soon as the overall program is more nearly complete, including procedures. The status of the program for quality control will be reviewed at the time of the next inspection.

6. Implementation of the Preoperational Environmental Monitoring Program

- a. The licensee's construction permit for Summer, Unit 1, CPPR-94, states in paragraph 2.E1 that the applicant will perform preoperational measurement of physical parameters to establish baseline conditions upon which possible adverse effects of the station can be evaluated. Paragraph 2.E2 of CPPR-94 states that the applicant will submit a proposed operational environmental monitoring program for approval by the regulatory staff prior to the granting of an operating license. Section 1.2.1.7 of the Final Safety Analysis Report (FSAR) for the Summer Nuclear Station states that an environmental radiological surveillance will be initiated prior to operation and continue subsequent to commencement of plant operation. Section 11.6.4 of the FSAR states that the specific analyses of radiological environmental samples are presented in Table 11.6-4 with Table 11.6-6 indicating anticipated analytical detection sensitivities. The inspector compared Table 11.6-4, Amendment 3, dated March, 1978 with Table 6.1-15, Amendment 1, dated April, 1978, furnished to the inspector during this inspection, and found them to be essentially identical in content. The licensee representative informed the inspector that the program identified in the Tables is in fact that being pursued for the Summer Nuclear Station. The inspector noted differences in Table 21 of the Final Environmental Statement, dated January 1973 and Table 11.6-4 of the FSAR, however, these did not involve primary pathways to man and the program being conducted as identified in the FSAR, more nearly coincides with the recommendations of Regulatory Guide 4.8. Table 11.6-5 of the FSAR describes the preoperational period of record for various

7. Exit Interview

The inspectors met with licensee representatives (shown in paragraph 1) at the conclusion of the inspection on October 19, 1978 at the Summer Nuclear Station. The inspectors summarized the scope and findings of the inspections.