



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

MAR 03 1992

Report Nos.: 50-321/92-01 and 50-366/92-01

Licensee: Georgia Power Company  
P. O. Box 1295  
Birmingham, AL 35201

Docket Nos.: 50-321 and 50-366 License Nos.: DRP-57 and NFP-5

Facility Name: Hatch 1 and 2

Inspection Conducted: January 27-31, 1992

Inspector: D. W. Jones 2/27/92  
D. W. Jones Date Signed

Approved by: Thomas R. Decker 3/2/92  
T. R. Decker, Chief Date Signed  
Radiological Effluents and Chemistry  
Section  
Radiological Protection and Emergency  
Preparedness Branch  
Division of Radiation Safety and Safeguards

SUMMARY

Scope:

This routine, unannounced inspection was conducted in the areas of Control Room environmental systems, meteorological monitoring, reactor coolant chemistry, and solid waste management.

Results:

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

The licensee had complied with the operational and surveillance requirements for the Control Room pressurization and air filtering systems (Paragraph 2).

The meteorological instrumentation was adequately maintained and the meteorological monitoring program had been effectively implemented (Paragraph 3).

The required coolant chemistry control program was effectively implemented (Paragraph 4).

The licensee had effectively implemented a program for removal and disposal of contamination from areas around which spills have occurred. The lower limits of detection of the systems used for measuring the activity remaining in those areas and for measurements of sludge from the on-site sewage treatment facility will be further examined (Paragraph 5).

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

- \*B. Arnold, Supervisor, Chemistry
- \*K. Breitenbach, Manager, Engineering Support
- I. Buchans, Supervisor, Instrumentation and Control
- \*O. Fraser, Supervisor, SAER
- \*J. Hammonds, Supervisor, Regulatory Compliance
- \*W. Kirkle, Manager, Health Physics and Chemistry
- \*B. Manning, Nuclear Specialist, Southern Nuclear
- V. McGowan, Supervisor, Chemistry
- \*D. Read, Assistant General Manager, Plant Operations
- \*H. Rogers, Superintendent, Chemistry
- \*D. Smith, Superintendent, Health Physics
- \*L. Sumner, General Manager
- \*S. Tipps, Manager, Nuclear Safety and Compliance
- \*P. Wells, Acting Manager, Operations
- D. Woodson, System Engineer, Engineering Support

Other licensee employees contacted included engineers, technicians, and administrative personnel.

#### Nuclear Regulatory Commission

- R. Musser, Resident Inspector
- \*L. Wert, Senior Resident Inspector

#### \*Attended exit interview

### 2. Control Room Environmental Systems (84750)

Technical Specification (TS) 3/4.12 for Unit 1 and 3/4.7.2 for Unit 2 described the operational and surveillance requirements for the Control Room pressurization and air filtering systems. The Unit 1 and 2 common Control Room pressurization and air filtering system was required to have two separate 100% capacity trains each consisting of an exhaust fan, a booster fan, and an air filtration unit. Within the air filtration unit the flow path was through a pre-filter, a high efficiency particulate air (HEPA) filter, a charcoal adsorber filter bed, and another HEPA filter. The system was required to be operable during reactor startup, power operation, hot shutdown, and refueling operations. Operability of the system was required to be demonstrated monthly by operation of the system for at least 15 minutes. Visual inspection, filter leak testing and measurements of air flow, differential pressure and charcoal adsorbent efficiency were required to be performed every 18 months or after every 720 hours of system operation.

The inspector toured the plant area in which the pressurization and air filtering systems were located. The licensee's cognizant system engineer located and identified, for the inspector, the major components of the systems. The inspector observed that the components and associated ductwork were well maintained structurally and that there was no physical deterioration of the ductwork sealants.

The inspector reviewed the procedures listed below and determined that they included provisions for performing the above operability and performance tests at the required frequencies. Review of selected records of those tests indicated that they had been performed at the required frequencies.

34SV-Z41-001-0S, Rev. 1 "Control Room Filter Train Operability"  
 42SV-Z41-002-0S, Rev. 4 "Testing of Control Room Habitability Filter Trains"  
 42SV-Z41-003-0S, Rev. 1 "Control Room Filter Train Flow and DP Measurement"

Based on the above reviews and observations, it was concluded that the licensee had complied with the above operational and surveillance requirements for the Control Room pressurization and air filtering systems.

No violations or deviations were identified.

### 3. Meteorological Monitoring Program (84750)

Section 2.3.3 of the Unit 2 Final Safety Analysis Report (FSAR) described the operational and surveillance commitments for the meteorological monitoring instrumentation. Those commitments included continuous recording of wind speed, wind direction, and vertical temperature differences on strip charts in the Control Room and semiannual instrument calibration.

The inspector reviewed procedure #4CH-ENV-001-0S, Rev. 0, "Meteorological Station" and determined that it included provisions for daily operability checks and data recording from the meteorological instrumentation located at the Primary Weather Station, the Back-up Weather Station, the Emergency Operations Facility, and the Control Room. The inspector also reviewed the records for performance of that procedure during December 1991 and determined that specified surveillances had been performed on a daily basis. The licensee indicated that a computerized records system was used for collecting and reducing the continuously generated

meteorological data and for producing an annual summary of the data for the year end Semiannual Effluent Release Report.

The inspector reviewed the reports for the four most recent vendor performed calibrations of the meteorological instrumentation and determined that the calibrations had been performed semiannually as required.

Based on the above reviews, it was concluded that the meteorological instrumentation was adequately maintained and that the meteorological monitoring program had been effectively implemented.

No violations or deviations were identified.

4. Reactor Coolant Chemistry (84750)

TSS 3.6.F.1 and 3.6.F.2 for Unit 1 and 3/4.4.4 and 3/4.4.5 for Unit 2 described the operational and surveillance requirements for reactor coolant specific activity and chemical characteristics. Sampling frequencies and limits were specified for radioactivity concentration, chloride concentration, and conductivity of reactor coolant during various operational conditions.

The inspector reviewed procedure 64CH-ADM-001-0S, Rev. 9, "Chemistry Program" and determined that it included provisions for collecting and analyzing reactor coolant samples at the frequencies required by the TSS. The procedure also identified specific sampling and analytical procedures which were to be used and the acceptance criteria for each attribute. The inspector also reviewed trend plots of analytical results for reactor coolant dose equivalent I-131 (DEI), chloride concentration, and conductivity reported during the period May 1991 through January 1992. Before the October-November 1991 outage, the Unit 1 DEI was typically  $4.5 \text{ E-4 } \mu\text{Ci/cc}$ ; after the outage the DEI was  $<3 \text{ E-4 } \mu\text{Ci/cc}$ . The Unit 2 DEI was  $<1 \text{ E-4 } \mu\text{Ci/cc}$  from May to October 1991, after which it gradually increased to  $2 \text{ E-4 } \mu\text{Ci/cc}$  during January 1992. The licensee indicated that the slight increase in the Unit 2 DEI was due to a very small leak from one or more fuel rods. During the period under review, the DEI for both units was well below the TS limit of  $0.2 \mu\text{Ci/gm}$ . The chloride concentrations were typically  $<1 \text{ ppb}$  during power operation which was much less than the TS limits of 200 ppb for Unit 1 and 500 ppb for Unit 2. The conductivity results were typically  $<0.2 \mu\text{mhos/cm}$  during power operation and were also below the TS limits of 2  $\mu\text{mhos/cm}$  for Unit 1 and 5  $\mu\text{mhos/cm}$  for Unit 2.

Based on the above reviews, it was concluded that the required coolant chemistry control program was effectively implemented.

No violations or deviations were identified.

5. Solid Radioactive Waste Management (86750)

10 CFR 50.75 required the licensee to keep records of information pertaining to the safe and effective decommissioning of the facility. That information includes records of spills or other unusual occurrences involving the spread of contamination in and around the facility, equipment, or site. These records must include any known information on identification of involved nuclides, quantities, forms, and concentrations. Other pertinent information includes drawings of structures and equipment in restricted areas where radioactive materials are used and/or stored and of locations of possible inaccessible contamination such as buried pipes which may be subject to contamination.

The licensee's activities with regard to characterizing and disposing of contaminated soil from around the plant site were discussed with the licensee. The licensee indicated that, as a matter of policy, no contaminated areas outside of buildings have been left for cleanup during decommissioning. The only exception to that policy was the contaminated swamp and the drainage ditches and pipes leading to the swamp. (The contaminated swamp is subject to an on-site environmental monitoring program.) The licensee indicated that contaminated soil from around spills was bagged and shipped off site to a licensed land disposal facility. Soil was removed from the area around the spills until the remaining activity was less than the lower limits of detection (LLD) of the on-site measurement equipment routinely used for effluent releases. A comparison of the LLDs actually achieved for those samples to environmental level LLDs will be made during a subsequent inspection.

The licensee also operates an on-site landfill for non-radioactive waste under a state permit. The application for renewal of that permit is due by June 1, 1992. The licensee indicated that the renewal application will include provisions for the current practice of land application of sludge from the on-site sewage treatment facility. No activity, above background, for licensed material was found by the licensee in the sludge which has been spread on owner controlled property outside of the protected area. Those measurements were also performed on the equipment routinely used for effluent measurements and will be subject to the above planned comparisons.



Based on the above, it was concluded that the licensee had effectively implemented a program for removal and disposal of contamination from areas around which spills have occurred. The LLDs of the systems used for measurements the activity remaining in those areas and for measurements of sludge will be further examined.

No violations or deviations were identified.

6. Exit Interview

The inspection scope and results were summarized on January 31, 1992, with those persons indicated in Paragraph 1. The inspector described the areas inspected and discussed in detail the inspection results listed above. No dissenting comments were received from the licensee. Proprietary information is not contained in this report.