



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W., SUITE 2900  
ATLANTA, GEORGIA 30323-0199

FEB. 25 1994

Report Nos.: 50-269/94-06, 50-270/94-06, and 50-287/94-06

Licensee: Duke Power Company  
422 South Church Street  
Charlotte, NC 28242

Docket Nos.: 50-269, 50-270,  
and 50-287

License Nos.: DPR-38, DPR-47,  
and DPR-55

Facility Name: Oconee 1, 2, and 3

Inspection Conducted: January 24-28, 1994

Inspector: D. W. Jones  
D. W. Jones

2/24/94  
Date Signed

Accompanying Personnel: D. Kasnicki

Approved by: T. R. Decker  
T. R. Decker, Chief

2/24/94  
Date Signed

Radiological Effluents and Chemistry Section  
Radiological Protection and Emergency Preparedness Branch  
Division of Radiation Safety and Safeguards

SUMMARY

Scope:

This routine, announced inspection was conducted in the areas of radioactive effluent monitoring instrumentation, post-accident sampling systems, training, and records for decommissioning.

Results:

No violations or deviations were identified.

The licensee had implemented effective programs for effluent radiation monitoring instrument surveillances, for maintaining the capability to obtain and analyze samples of reactor coolant and containment atmosphere under accident conditions, and for training and qualification of Radiation Protection and Chemistry personnel. Records of information pertaining to facility decommissioning were being maintained and a new system of records for consolidating that information was being developed.

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

†L. Benge, General Supervisor, Chemistry  
†D. Berkshire, Senior Scientist, Radiation Protection  
\*R. Bowser, Scientist, Radiation Protection  
W. Elliott, Scientist, Chemistry  
\*B. Jones, Manager, Chemistry  
J. Kelly, Production Specialist, Component Engineering  
E. Lampe, Scientist, Radiation Protection  
\*B. Peele, Station Manager  
†S. Perry, Licensing Coordinator, Regulatory Compliance  
\*M. Thorne, Supervising Scientist, Radiation Protection  
†E. Wehrman, Scientist, Radiation Protection  
\*C. Yongue, Manager, Radiation Protection

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

#### Nuclear Regulatory Commission

\*P. Harmon, Senior Resident Inspector  
G. Humphry, Resident Inspector  
\*K. Kavanagh, Intern  
L. Keller, Resident Inspector  
K. Poertner, Resident Inspector

†Attended entrance interview

\*Attended exit interview

### 2. Radioactive Effluent Monitoring Instrumentation (84750)

Technical Specification (TS) 6.4.6 and Sections 16.11-3 and 16.11-4 of the Final Safety Analysis Report (FSAR) described the operational and surveillance requirements for the radioactive effluent monitoring instrumentation. The instrumentation was required to be operable during specified operational modes and demonstrated to be operable by the performance of channel response checks, source checks, channel calibrations, and channel functional tests at specified frequencies. Compensatory actions for inoperable monitors were specified.

The inspector toured the Control Room and relevant areas of the facility with a licensee representative to locate and determine the operational status of the following six radiation monitors.

4-RIA-33	Liquid Radwaste Effluent Line
1&3-RIA-54	Turbine Building Sump
1,2,&3-RIA-45	Unit Vent

The instrumentation for the above radiation monitors was found to be operable at the time of the tour.

The inspector reviewed the procedures listed below which related to channel checks, source checks, channel calibrations, and channel functional tests for the above listed monitors.

PT/1,2&3/A/600/01	"Periodic Instrument Surveillance"
PT/0/A/230/01	"Radiation Monitor Check"
IP/0/B/0398/019	"Radwaste Facility Liquid Radiation Monitor (RIA-33)"
IP/0/B/0398/020	"Radwaste Facility Liquid Radiation Monitor (RIA-33) Functional Check - Monthly"
IP/0/B/0360/030	"Sorrento Process Radiation Monitor Functional Check"
IP/0/B/0360/031	"Sorrento Process Radiation Monitor Skid Calibration"
IP/0/B/0360/032	"Sorrento Process Radiation Monitor Particulate Detector Calibration"
IP/0/B/0360/033	"Sorrento Process Radiation Monitor Low Range Gas Detector Calibration"
IP/0/B/0360/035	"Sorrento Process Radiation Monitor Iodine Detector Calibration"
IP/0/B/0360/039	"Sorrento Liquid Monitor Calibration"
IP/0/B/0360/042	"Sorrento RIA-54 Turbine Building Sump Monitor Functional Test"
CP/0/B/5100/10	"Radwaste Regulatory Surveillance Requirements"
CP/0/B/5200/45	"Liquid Waste Release From RWF"

The inspector determined that the above procedures included provisions for performing the required surveillances in accordance with the relevant sections of the TSs and FSAR. The frequency for performing the surveillances was either specified in the procedures or was scheduled by the Planning group through issuance of Work Requests. The inspector also reviewed selected licensee records of channel checks, source checks, channel calibrations, and channel functional tests for the above listed monitors. Those records indicated that the surveillances had been performed in accordance with their applicable procedures.

During review of the above sections of the FSAR, the inspector noted that footnote (3) was indicated as being applicable to channel calibrations of each effluent radiation monitor listed in Table 16.11-4 except the liquid radwaste effluent radiation monitor. Footnote (3) required the use of national reference standards for initial channel calibrations and the use of sources related to the initial calibration for subsequent calibrations. The licensee indicated that this was an inadvertent omission and would be corrected in the next update of Chapter 16 of the FSAR. That chapter is required to be updated at least annually and the next update will be reviewed during a subsequent inspection.

Based on the above reviews and observations, it was concluded that the licensee had implemented an effective surveillance program for effluent radiation monitoring instruments.

No violations or deviations were identified.

3. Post-Accident Sampling Systems (84750)

TSs 6.4.4 and 6.4.5 required the licensee to establish, implement, and maintain a program which would ensure the capability to obtain and analyze samples of reactor coolant, containment atmosphere, and radioactive iodines and particulates in plant gaseous effluents under accident conditions. The program was required to include training of personnel, procedures for sampling and analysis, and provisions for testing and maintenance of sampling and analytical equipment.

The licensee's program included the use of a Post Accident Liquid Sampling Systems (PALSSs) for reactor coolant and a Post Accident Gas Sampling Systems (PAGSSs) for containment atmosphere. The inspector reviewed procedures CP/1,2,&3/A/2002/04D, "Test Procedure for Operation of the Post Accident Liquid Sampling System (PALSS) using the HPI Letdown Point," HP/1,2,&3/A/1009/17, "Operating Procedure for Post Accident Containment Air Sampling System," and HP/O/B/1009/15, "Procedure for Sampling and Quantifying High Level Gaseous, Radioiodine and Particulate Radioactivity." The procedures for the PALSS and PAGSS included provisions for periodic testing of those systems and acceptance criteria for analytical results obtained during those tests. A review of the selected licensee records for recent tests of the systems indicated that the systems were being adequately maintained and tested in accordance with the above procedures.

Based on the above reviews, it was concluded that the licensee had implemented an adequate program to ensure the capability to obtain and analyze samples of reactor coolant and containment atmosphere under accident conditions.

No violations or deviations were identified.

4. Training and Qualification (84750 and 86750)

Section 13.2.2 of the FSAR and TSs 6.1.1.4 and 6.1.1.7 described the requirements for training and qualification of licensee personnel. The licensee's program was implemented through the Employee Training and Qualification System (ETQS) which consisted of general employee training (GET), technical training, and employee/professional development training. The GET covered administrative, safety, and emergency control procedures, and plant systems and equipment. The technical training consisted of initial training, on-the-job training and qualification, and continuing training. The ETQS Manual included standards for specific positions and those standards described the specific topics covered by the technical training phase of the program.

The inspector reviewed the training records for two individuals assigned to the Radiation Protection section and two individuals assigned to the Chemistry section. The records reviewed included ETQS Task Lists and Qualification Summaries. The ETQS Task List was a list of tasks which had been developed for each position and for which an individual must have been trained and qualified prior to independently performing the task. The Qualification Summary was maintained for each individual and listed the tasks for which the individual had received training and qualification. The inspector compared the ETQS Task List and the Qualification Summary for each of the four individuals selected. Generally the Qualification Summaries included all of the tasks listed on the relevant ETQS Task List. The licensee indicated that procedural requirements prohibited individuals from performing those tasks for which they had not received training and qualification.

Based on the above reviews, it was concluded that the licensee had implemented an adequate training and qualification program for Radiation Protection and Chemistry personnel.

No violations or deviations were identified.

5. Records for Decommissioning (84750)

10 CFR 50.75(g) 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 maintaining records of spills around the plant site were discussed with the licensee. The licensee indicated that there were only three areas outside of buildings which would require additional cleanup during decommissioning. Those areas, which were located around each of the three borated water storage tanks, had been contaminated by a spent fuel pool overflow. For record purposes, a drawing which denoted those areas as potential sources of radioactive soil and asphalt was included in Section 5.1 of the Radiation Protection Manual. The licensee indicated that their corporate office was developing a new system of records for maintaining the required information in a consolidated file. Implementation of the new records system would involve changes to Radiation Protection Manuals, Site Directives, and forms for recording the pertinent information. That new system of records will be reviewed during a subsequent inspection.

Based on the above reviews and discussions, it was concluded that the licensee had maintained the required records of spills involving the spread of contamination in and around the facility.

No violations or deviations were identified.

6. Exit Interview

The inspection scope and results were summarized on January 27, 1994, 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.