



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
230 PEACHTREE STREET, N. W. SUITE 818
ATLANTA, GEORGIA 30303

IE Inspection Report Nos. 50-269/76-5, 50-270/76-5 and 50-287/76-5

Licensee: Duke Power Company
422 South Church Street
Charlotte, North Carolina 28201

Facility Name: Oconee Units 1, 2 and 3
Docket Nos.: 50-269, 50-270 and 50-287
License Nos.: DPR-38, 47 and 55
Category: C, C and C

Location: Seneca, South Carolina

Type of License: B&W, PWR, 2568, Mw(t)

Type of Inspection: Special, Announced

Dates of Inspection: May 31 - June 4 and 9, 1976

Dates of Previous Inspection: March 23-24 and April 6-9, 1976

Principal Inspector: A.Y. Gibson 6/17/76
for A. D. Kowalcuk, Radiation Specialist
Radiation Support Section
Fuel Facility and Materials Safety Branch

Reviewed by: J.T. Sutherland 6/18/76
J. T. Sutherland, Chief
Fuel Facility and Materials Safety Branch

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SUMMARY OF FINDINGS

I. Enforcement Items

None

II. Licensee Action On Previously Identified Enforcement Matters

See Details I, paragraphs 2, 3, 4, 5 and 8.

III. New Unresolved Items

None

IV. Status of Previously Reported Unresolved Items

See Details I, paragraphs 2, 3, 6 and 8.

V. Design Changes

None

VI. Unusual Occurrences

None

VII. Other Significant Findings

None

VIII. Management Interview

A management meeting was conducted at the Region II, USNRC offices on June 9, 1976, to discuss licensee responses and corrective actions to radioactive effluent monitoring problems identified during Region II inspections. Mr. William O. Parker, Jr., Vice President Steam Production, and other representatives of the Duke Power Company attended. The following agenda items were discussed.

- A. Unresolved Item 73-12/1 in RO Report 50-269/73-12, Calibration of Effluent Monitors (October, 1973). (Details I, paragraph 2)
- B. Unresolved Item 76-2/1 in IE Reports 50-269, 50-270 and 50-287/76-2, Process and Effluent Monitor Calibrations and Functional Checks (February, 1976). (Details I, paragraph 3)

- C. Response to Infraction I.3 in IE Reports 50-269, 50-270, and 50-287/76-2, Interim waste building vent gas monitor, RIA 52, was not operating (February, 1976). (Details I, paragraph 4)
- D. Response to Infraction I.4 in IE Reports 50-269, 50-270 and 50-287/76-2, Sensitivity of radiological environmental analyses (February, 1976). (Details I, paragraph 5)
- E. Unresolved Item 74-3/3 in RO Reports 50-269/74-3 and 50-270/75-2, Training of Unlicensed Utility Operators (March, 1974) (Details I, paragraph 6)
- F. Familiarity of plant personnel with radiation monitor indications. (Details I, paragraph 7)
- G. Response to identified problems, timeliness of corrective action, and effectiveness of corrective action. (Details I, paragraph 8)

Management representatives acknowledged the existence of problems related to each of the agenda items and agreed to supply written statements concerning specific actions to be taken to resolve the outstanding items including a timely schedule for completion.

DETAILS I

Prepared by:

for

Alexander D. Kowalcuk, Radiation
Specialist, Radiation Support Section
Fuel Facility and Materials Safety Branch

6/17/76

Date

Dates of Inspection: May 31-June 4 and June 9, 1976

Reviewed by:

A. F. Gibson, Chief
Radiation Support Section
Fuel Facility and Materials Safety Branch

6/17/76

Date

1. Management Meeting Attendance

Duke Power Company

W. O. Parker, Jr. - Vice President Steam Production
H. B. Tucker - Manager Nuclear Production Division
J. E. Smith - Manager Oconee Nuclear Station
K. S. Canady - Manager Project Coordination and Licensing
W. A. Haller - Manager Technical and Environmental Services
L. Lewis - System Health Physicist
R. M. Koehler - Superintendent of Technical Services.- ONS

2. Unresolved Item 50-269/73-12/1, Calibration of Effluent Monitors

The inspectors commented that marked differences between radiation monitor concentration values and the values recorded for laboratory analyses of samples still exist and that this item has remained open for over two years. Examples of radiation monitors appearing to need further evaluation, including RIA 33 and RIA34 for liquid radioactive waste discharge, were specified. Examples of written commitments that had not been met, including modification completion dates for RIA 37 and RIA 38 for gaseous waste disposal, were given. Examples of enforcement action that resulted from failure to resolve radiation monitor calibration and comparison problems were stated. Management representatives acknowledged the examples used by the inspectors and agreed to supply a written listing of specific corrective actions to be taken to resolve this unresolved item which will include a timely schedule for completion. In addition, the representatives stated that precautionary measures as necessary would be instituted to insure future adherence to Technical Specifications and Commission regulations.

3. Unresolved Item 50-269, 50-270, 50-287/76-2/1, Process and Effluent Monitor Calibrations and Functional Checks

The inspectors commented that setpoint inadequacies identified in this item are closely related to those identified in a March 1974 noncompliance item titled "Process Radiation Monitor Setpoints." The licensee representatives were also advised of three additional noncompliance items cited during the period 1974 to 1976 which related to radiation effluent monitor setpoints. In addition, the inspectors commented that a recent Duke Power Company report to Region II, dated April 30, 1976, stated that the instantaneous release limit for radioactive liquid waste was exceeded and further commented that this could not have occurred with a properly established setpoint and functioning isolation capability. Management representatives acknowledged that a significant problem existed in the area and stated that prompt effective, corrective action would be taken to insure compliance with specifications and regulations. The representatives stated that technical problems involving internal contamination and response sensitivity of the liquid effluent monitors have precluded arriving at a satisfactory solution to response comparison (see paragraph 2) and setpoint problems. Empirical ratio factors relating net monitor responses to concentrations determined by laboratory analyses and the application of such comparisons to setpoint determinations were discussed. It was determined from the discussion that the maximum background at which the monitors can be considered operable with respect to the setpoint for the isolation action had not been established. The representatives agreed to consider a program for establishing and periodically checking empirical correlation ratios and for applying these ratios to calibration and setpoint determinations for effluent radiation monitors. The management representatives indicated that additional work was in progress to resolve internal contamination accumulation in the liquid waste monitors. It was agreed that a written listing of specific corrective actions to be taken to resolve this item including a timely schedule for completion would be submitted to Region II.

4. Response to Infraction I.3., IE Reports 50-269, 50-270, and 50-287/76-2

The management representatives were informed that additional information not included in the responses from Duke Power Company dated April 8 and May 14, 1976 was needed regarding the following items to complete Region II's evaluation of corrective action.

- a. How, when, and where iodine and particulate releases from the interim radioactive waste building vent will be accounted for

as required by Technical Specifications 3.10 and 6.6 and as required by 10 CFR 20.

- b. A statement as to when the calibration of RIA-52, reflected in the records now available, was performed.
- c. A statement as to whether written records of daily checks on RIA-52 operation are maintained.

The representatives were advised that responses to identified problems frequently appeared to be incomplete. The representatives agreed to submit a supplementary response and to make additional efforts to improve responses to identified problems.

5. Response to Infraction I.4., IE Reports 50-269, 50-270 and 50-287/76-2

Management representatives stated that proposed interim analytical sensitivities for radiological environmental samples, to be used during evaluation of the Technical Specification change request, had been submitted with a Technical Specification change request. The representatives also stated that a schedule for completing a review of analytical sensitivities in Table 4.11-3 of the Technical Specifications would be submitted to Region II (see Duke Power Company letter to Region II, dated April 8, 1976). The inspectors commented that Unresolved Items 50-269/74-3/1, Measuring and Reporting of Effluents, and 50-270/74-1/3, Records of Radioanalysis Results, which have been closed also involved analytical sensitivity inadequacies.

6. Unresolved Item 74-3/3, RO Reports 50-269/74-3 and 50-270/74-2,
Training of Unlicensed Utility Operators

The inspectors commented that this item had been open for over two years and that training in this area could significantly contribute to improved performance of radioactive waste processing systems, and to an improved compliance with effluent monitoring specifications and regulations, and to the avoidance of reportable occurrences. The management representatives stated that they had thought this item had been closed out. They further stated that an informal, undocumented program was in use. The representatives agreed to develop a checklist specifying training items to be covered including a sign-off by appropriate qualified personnel when the training acceptance criteria had been met. The inspectors commented that such a program would be acceptable, and commented that the effectiveness of implementation would depend on management support. The representatives agreed to supply a written schedule for prompt development and implementation of the training program.

7. Plant Personnel Familiarity with Radiation Monitor Indications

IE Reports 50-269/76-2, 50-270/76-2 and 50-287/76-2, Details III, paragraph 13, refer to this item. The inspectors commented that licensed operators and responsible radiation protection personnel were expected to be able to relate radiation monitor indications and alarms to radioactivity levels, regulations, and Technical Specifications, and the representatives were advised that operators' knowledge in this area appeared to be weak. The acknowledgement of alarms and the need for alarms to represent actual off-standard or unsafe conditions was discussed. There was mutual agreement that inadequacies in this area of concern were intimately related to other problems identified in this report. The management representatives stated that their personnel performance expectations were comparable to those stated by the inspectors and that actions to improve knowledge in this area would be initiated. The representatives agreed to submit a list of actions to be taken including a schedule for implementation.

8. Response to Identified Problems, Timeliness of Corrective Action and Effectiveness of Corrective Action

The inspectors stated that the examples used, references cited, and discussion of other items in this report demonstrate the following conditions exist:

- a. Repeated items of noncompliance
- b. Items of noncompliance related to previously identified problem areas.
- c. Problem areas that continue to exist after corrective action is reported as complete.
- d. Time frames in excess of two years to resolve identified problems.
- e. Frequent need for several communications of supplemental information to obtain an adequate response to identified problems.

The following references to previous discussion and actions in this area of concern were mentioned.

- a. Report cover letter dated May 3, 1974 to Reports 50-269/74-3 and 50-270-287/74-2.

- b. Report cover letter dated August 14, 1974 to Report 50-269/74-5.
- c. Report cover letter dated March 4, 1975 to Reports 50-269,
50-270 and 50-287/75-1.
- d. Duke Power Company in letter dated August 1, 1975 and IE
Reports 50-269, 50-270 and 50-287/76-2, Details III, paragraph 7.

The management representatives stated that a review of their records had highlighted similar problems. The representatives further stated that appropriate written responses would be prepared and submitted addressing each item discussed in the meeting and would include schedules for timely and thorough correction of identified problems.