



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

October 22, 1982

Report Nos. 50-269/82-38, 50-270/82-38 and 50-287/82-38

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

Facility Name: Oconee Nuclear Station

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

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

Inspection at Oconee Nuclear Station site near Seneca, South Carolina

Inspector: T. R. Collins 10/20/82
Date Signed

Approved by: K. P. Barr 10/20/82
Date Signed
 K. P. Barr, Section Chief
 Technical Inspection Branch
 Division of Engineering and Technical Programs

SUMMARY

Inspection on October 4 to 8, 1982

Areas Inspected

This routine, unannounced inspection involved 33 inspector-hours on site in the areas of radiation protection, liquid and gaseous radioactivity releases, solid radwaste shipments, licensee event reports, inspector follow-up items, health physics appraisal inspector follow-up items, 10 CFR 50.59 Safety Evaluations of the demineralized water system and interim radwaste facility and semiannual effluent release report.

Results

Of the eight areas inspected, no violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *J. E. Smith, Station Manager
- *T. B. Owen, Superintendent of Technical Services
- C. T. Yongue, Station Health Physicist
- *L. F. Bengt, Associate Chemist
- T. C. Matthews, Licensing Technical Specialist
- D. L. Davidson, Associate Health Physicist
- J. A. Long, Support Functions Coordinator
- B. A. Murphree, Health Physics Administrative Supervisor
- S. E. Spear, Health Physics Supervisor
- T. Carroll, Health Physics Supervisor
- R. P. Rogers, Licensing Engineer
- K. Murray, Jr. Health Physicist

Other licensee employees contacted included three technicians, two operators, two security force members and two office personnel.

Other Organizations

Rad Services, Inc.
NUMANCO
KMAC Contract Services

NRC Resident Inspector

*W. T. Orders

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on October 7, 1982, with those persons indicated in paragraph 1 above. The inspector expressed his concern in that full implementation of the ALARA Program has not been fully implemented. Licensee management acknowledged the inspectors concerns.

3. Licensee Action or Previous Enforcement Matters

Not inspected.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or

deviations. New unresolved items identified during this inspection are discussed in paragraph 16.

5. Inspector Follow-up Items

- a. (Closed) 80-BU-10 (IFI) Contamination of Non-Radioactive System. The inspector had previously discussed the operation of the contaminated Demineralized Water (DW) System with licensee management personnel and stated that IE Bulletin 80-10 requires that if a non-radioactive system becomes contaminated, a 10 CFR 50.59 Safety Evaluation will be performed if the system is considered necessary for continued operation. The 10 CFR 50.59 Safety Evaluation must consider the level of contamination (i.e., concentration and total curie inventory) and any potential releases (either routine or accident) of radioactivity to the environment. The relationship of such releases to the radioactive effluent limits of 10 CFR 20 and the facility's Technical Specifications and to the environmental radiation dose limits of 40 CFR 190 must also be evaluated. The record of the Safety Evaluation must set forth the basis and criteria on which the determination was made. The inspector reviewed the 10 CFR 50.59 Safety Evaluation of the contaminated Demineralizer Water System, which had been considered necessary for continuous operation. The inspector concluded that the Safety Evaluation appeared to be adequate and had no further questions.
- b. (Closed) 82-29-01 (VIO) High Radiation Area. The inspector discussed the corrective actions taken by the licensee to preclude any future occurrences of unlocked high radiation area doors leading to the Radwaste Compacting Area Room 304. The inspector was informed by licensee management that heavy duty door closures were obtained and installed on all doors leading to the Radwaste Compacting Area. The inspector concluded that the installation of the heavy duty door closure should preclude any future occurrences of unsecured high radiation doors in this area and had no further questions.
- c. (Closed) 82-29-01 (UNR) Contaminated Demineralized Water (DW) System. The licensee has determined the cause of the contaminated DW System to be from the Chem Nuclear System, Inc. (CNSI) mobile solidification system. The licensee has restricted use of the DW System by the use of appropriate tags. Additionally, Chemistry Sampling Program CP/O/B/100/1 has been revised to sample the DW System for radioactivity on a weekly basis. The inspector reviewed the appropriate procedure change and results of the weekly samples conducted from July 29, 1982 to present. The inspector concluded the corrective actions taken appeared to be adequate and had no further questions.

6. Licensee Event Reports (LER's)

- a. Reportable Occurrence Report RD-269/81-19 (Closed) Inadequate Sampling of Liquid Waste Released. The licensee has been processing and releasing a large volume of slightly contaminated, secondary system

water resulting from a steam generator tube leak on Oconee Unit 2. In order to facilitate this processing, several temporary modifications were made to existing secondary plant equipment in order to utilize existing tanks and pumps for holdup, sampling, and eventual discharge of effluent through the normal effluent monitors (RIAs 33 and 34) to the Keowee tailrace.

On October 19, 1981 at 0940 RIAs 33 and 34 were administratively declared inoperable as a result of lower than expected RIA indications on a preceding liquid waste release. Although administratively inoperable, the RIAs remained "in service" and responded to subsequent releases. Subsequent releases were made at 1953 on October 19, 1981 and at 1115 and 2217 on October 20, 1981. The redundant samples addressed by Technical Specification 3.9.7 were requested and taken of each release. However, as a result of the modified system configuration, the sample point for the tank involved, Unit 1 Condensate Storage Tank, did not provide a representative sample of the water being released. All of the water being processed and released via this path was of similar origin and activity level. Using sample results from batch releases prior to and following the unsampled releases, and the available data from the RIAs, the activity of the unsampled batches was conservatively estimated. These estimates indicate that the quantity of activity and the release rates were well within regulatory limits. Thus, it is considered that this event is of no consequence with respect to safe operation and that the health and safety of the public were not affected by this incident.

Immediately after discovery of the incorrect sampling point, the Chemistry sampling procedure was revised to reflect the proper method for sampling the Condensate Storage Tank in the modified configuration. All Chemistry personnel responsible for taking the chemistry sample were notified of the procedural change.

The inspector reviewed the appropriate procedural change which indicated the correct sampling point of the Condensate Storage Tank (CST) and concluded that this should preclude any future occurrence. The inspector had no further questions.

- b. Reportable Occurrence Report RO-287/82-05 (Closed) Spent Fuel Pool Ventilation Fans Inoperable. During the period between March 23 and March 29, 1982, ten fuel assemblies were moved in the Spent Fuel Pool. On March 30, 1982, the Spent Fuel Ventilation Fans were found to be inoperable due to the control power having been "white tagged" for maintenance on March 23, 1982. The apparent cause of this occurrence is personnel error, in that the White Tags for the Spent Fuel Pool Fans were not properly placed or removed during performance of a Penetration Leak Rate Test procedure.

The licensee's immediate corrective action was to properly clear the White Tags and shut the control power breaker for the Spent Fuel Pool Exhaust Fans which returned the fans to operable status. The individuals involved were counseled to ensure that a procedural step is completed before signing it off, and to ensure that White Tags are properly placed and removed.

The inspector reviewed the licensee's corrective action which incorporated a revision to appropriate procedures to prevent the movement of fuel, stating specifically what equipment should be tagged when the Spent Fuel Pool Fans or associated circuits are tagged out. The inspector concluded this appeared to be adequate and had no further questions.

7. Health Physics Appraisal Inspector Followup Item

- a. (Open) IFI (80-31-07), Calibration of TLD System with Radiation Sources Similar to Those Expected Within the Plant. The licensee has agreed with the goals of such a program, but is experiencing difficulty in obtaining appropriate NBS (National Bureau of Standards) traceable sources in a timely manner. This item will remain open until the program is implemented.
- b. (Open) IFI (80-31-21), Implementation Date of System ALARA Manual. A licensee representative stated that the manual was not yet fully implemented. A licensee representative identified that the reason for the delay was that the manual is sweeping in scope and requires extensive change throughout the facility and its operation and staffing. A licensee representative also stated that the highest levels of management at Duke Power Company are concerned and committed to ALARA and all reasonable effort is being expended to implement this policy manual.
- c. (Open) IFI (80-31-22), Review of Plant Procedures by Health Physics Staff. Plant Technical Specifications do not require a multi-disciplinary review of all procedures at this time. However, selected procedures are reviewed by Health Physics prior to implementation. As a result the concerns of this item will not be addressed until the ALARA Manual implementation referenced above takes place.
- d. (Open) IFI (80-31-23), Isolation of Counting Room in the Event of High Airborne Radioactivity in Plant. The licensee has investigated this problem and agrees to its validity. Currently, procedures are under development to provide a counting facility outside the Auxiliary Building which would not be affected.
- e. (Open) IFI (80-31-26), Review of Fixed Monitor Calibration Procedures and Techniques. Some work in this area has been done by the licensee, but it is not complete. The licensee is in the process of obtaining the appropriate ANSI standards and will compare their requirements for applicability and practicality against current procedures.

8. Posting, Labeling and Control

The inspector reviewed the licensee's posting, and control of radiation areas, high radiation areas, airborne radioactivity areas, contamination areas, radioactive materials areas, and the labeling of radioactive material during tours of the Auxiliary Building, Reactor Building, and Turbine Building. No discrepancies were observed. The inspector also performed independent surveys of Radiation Control Zones (RCZs) to determine proper labeling and posting of RCZs. The inspector concluded that posting, labeling and control appeared to be adequate and had no further questions.

9. Notification and Reports

a. The inspector reviewed the licensee's records to determine if radiation exposure data had been provided to terminated employees as required by 10 CFR 19.13(d). The inspector reviewed selected terminated employees and verified that each employee had been sent a letter regarding his radiation exposure history. The inspector had no further questions.

b. The inspector discussed with a licensee representative the reporting requirements of 10 CFR 20.402, 403, 405, and 408 and reviewed plant records. No deviations were identified.

10. Surveys and Radiation Work Permits (RWP)

The inspector selectively reviewed records of radiation, contamination and airborne radioactivity surveys and RWPs performed in July, August and September 1982, for the Unit 3 Reactor Building (Containment) and discussed the survey results with licensee representatives and observed the work in several active work areas to verify that the licensee was following the regulatory requirements of 10 CFR 20.103, 201(b) and 401(b). The inspector concluded that proper surveys were being performed and had no further questions.

11. Respiratory Protection Program

The inspector reviewed and discussed the licensee's respiratory protection program with licensee representatives on issuance of respirators, MPC-hour controls, inspection of respirators, training of personnel and respiratory medical qualification. The inspector concluded that the respiratory protection program was adequate and had no further questions.

12. Posting of Notices

10 CFR 19.11 requires, in part, that each licensee post current copies of 10 CFR 19 and 10 CFR 20, or, if posting of the documents is not practicable, the licensee may post a notice which describes the document and states where it may be examined. 10 CFR 19.11 further requires that copies of any Notice

of Violation involving radiological working conditions be conspicuously posted within two working days after receipt of the documents from the Commission. The inspector observed the posting of notices required by 10 CFR 19.11 and had no further questions.

13. Shipment of Radioactive Material

On October 6, 1982, the inspector observed a radioactive waste shipment, number ONS-82-372 being loaded for shipment to Chem Nuclear Systems, Inc. (CNSI) for burial. The waste shipment was low specific activity (LSA) solidified spent resin. The inspector concluded, after his review of the Radioactive Shipment Record (RSR) and independent radiation surveys of the shipping vehicle, that the radioactive waste shipment met 10 CFR 71 and 49 CFR Department of Transportation (DOT) requirements.

14. Instruments and Equipment

The inspector observed a variety of radiological instruments (portable survey instruments, portal monitors, personnel friskers) in use and available for use. The inspector checked calibration stickers, performed battery checks for selected portable instruments in operating plant and response checked selected portable instruments for proper operation. The inspector discussed the radiation survey instrument calibration program with licensee representatives. No violations or deviations were identified.

15. Liquid and Gaseous Effluent Releases

The inspector selectively reviewed the records of liquid and gaseous radioactivity effluent releases for the period of July, August and September 1982, in accordance with appropriate administrative procedures and Technical Specifications. No violations or deviations were observed.

16. Interim Radwaste Facility

The inspector reviewed the 10 CFR 50.59 Safety Evaluation Performed by the licensee of the interim radwaste facility. In view of the Safety Evaluation it was noted that an unreviewed safety question existed of the non-seismic tanks and piping in the radioactive liquid waste system. 10 CFR 50.59(a)(1) states in part that a holder of a license authorizing operation of a production or utilization facility may make changes in the facility as described in the safety analysis report without prior Commission approval, unless the proposed change involves a change in the technical specifications incorporated in the license or an unreviewed safety question.

The inspector asked to review the Commission's approval to operate the interim radwaste facility, since an apparent unreviewed safety question existed. The licensee was unable to locate the appropriate approval. The inspector informed licensee management that this would be left as an unresolved item pending their retrieval of the NRC approval to operate the interim radwaste facility with an unreviewed safety question (50-269, 270, 287/82-38-01).

17. Semiannual Effluent Release Report

As required by Oconee Nuclear Station Technical Specification 6.6.1.4 and 10 CFR 50.36a(a)(2) states in part that the licensee is required to submit a report to the appropriate NRC Regional Office of the liquid and gaseous effluent releases of the previous six(6) months of operation. The inspector reviewed the appropriate Semiannual Effluent Release Report of liquid, gaseous, and solid radwaste effluent releases for the period of January 1, 1982 to June 30, 1982. The inspector concluded after his review that the report appeared to be adequate and apparently met the requirements of 10 CFR 50.36a(a)(2). The inspector had no further questions.