



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

JUL 20 1984

Report No.: 50-369/84-18 and 50-370/84-15

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

Docket Nos.: 50-369 and 50-370

License Nos.: NPF-9 and NPF-17

Facility Name: McGuire Nuclear Station Units 1 & 2

Inspection Dates: July 9-11, 1984

Inspection at McGuire site near Charlotte, North Carolina

Inspector: *G. B. Kuzo*  
 G. B. Kuzo

18 July 1984  
 Date Signed

*for* *J. R. Wray*  
 J. R. Wray

7/19/84  
 Date Signed

Approved by: *D. M. Montgomery*  
 D. M. Montgomery, Section Chief  
 Emergency Preparedness and Radiological  
 Protection Branch  
 Division of Radiation Safety and Safeguards

7-18-84  
 Date Signed

SUMMARY

Areas inspected:

This routine unannounced inspection involved 41 inspector-hours on site in the areas of gaseous and liquid waste systems, radiological effluent accountability, and reactor coolant and secondary water Technical Specification requirements.

Results: No violations or deviations were identified.

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## REPORT DETAILS

## 1. Persons Contacted

- \*M. D. McIntosh, Station Manager
- \*T. J. Keane, Station Health Physicist
- \*D. J. Rains, Superintendent Maintenance
- R. Michael, Station Chemist
- \*T. L. McConnell, Superintendent Technical Services
- J. Culp, Shift Supervisor
- J. W. Foster, Health Physics Coordinator
- \*D. Mendezoff, Licensing Engineer
- G. Singletary, Associate Engineer
- B. Byrum, Counting Room Supervisor
- H. J. Sloan, Associate Health Physicist
- M. Weiner, Operating Engineer
- \*C. D. Martinec, Junior Health Physicist

NRC Resident Inspectors

- \*W. T. Orders
- \*R. Pierson

\* attended exit interview

## 2. Exit Interview

The inspection scope and findings were summarized on July 13, 1984, with those persons indicated in Paragraph 1 above. Licensee management representatives acknowledged the inspector's comments and expressed no contrary opinions.

## 3. Audits (84723, 84724)

Technical Specification 6.5.2.9 requires audits to be performed under the cognizance of the Nuclear Safety Review Board (NSRB) encompassing the following areas: conformance of unit operation to provisions contained within the Technical Specifications and applicable license conditions at least once per 12 months; the Offsite Dose Calculation Manual and implementing procedures at least once per 24 months; and the performance of activities required by the Quality Assurance Program for effluent and environmental monitoring at least once per 12 months. The inspector selectively reviewed Quality Assurance Audit Nos. NP-83-5, NP-83-12, NP-84-5 and NP-84-8 conducted between June 1982 and June 1984 concerning the above listed areas. Audit No. NP-83-12 identified a deficiency in Station Dose Calculations, Radwaste Release Rate and Monitor Set Point procedures. The inspector reviewed responses to the findings and noted corrective actions to be adequate. No additional significant findings were noted in these areas.

## 4. Procedures (84723, 84724)

Technical Specification 6.8.1 requires written procedures to be established, implemented, and maintained covering the applicable procedures recommended in Appendix A of Regulatory Guide 1.33, Revision 2, February 1978; Offsite Dose Calculation Manual implementation; and Quality Assurance Program for effluent and environmental monitoring. The inspector reviewed selected portions of the following procedures:

- (1) HP/O/B/1003/02 Radioactive Liquid Release, 5/29/84
- (2) HP/O/B/1003/08 Determination of Radiation Monitor Setpoints (EMF's), 4/4/84
- (3) HP/O/B/3005/05 Process Radiation Monitoring System (RMS) "Particulate Monitor" Transfer Calibration Procedure, 2/10/83
- (4) IP/O/B/3006/13 Liquid Sampler Primary Calibration, 7/19/83
- (5) IP/O/B/3006/16 Gas Sampler Primary Calibration, 7/19/83
- (6) IP/O/B/4600/08 Correlation of EMF's, 6/1/84
- (7) PT/1/A/4600/03A Semi-daily Surveillance Items, 4/24/84
- (8) PT/1/A/4600/03D Monthly Surveillance Items, 3/13/84
- (9) PT/O/A/4450/15 Nuclear Air Cleaning System Visual Inspection, 7/20/83
- (10) PT/O/A/4450/12 Nuclear Air Cleaning Air Flow Measurement, 1/28/84
- (11) PT/O/A/4450/01 In-place Test of HEPA and Carbon Adsorber Filters, 4/11/84
- (12) TP/2/A/1450/21 Containment Purge Ventilation System Filter Train Acceptance, 4/15/83
- (13) TP/2/A/1450/19 Annulus Ventilation System Filter Train Acceptance, 4/15/83

The inspectors discussed details of the individual procedures with cognizant licensee representatives. The inspectors noted that the procedures were being reviewed, updated and approved as required by administrative procedures.

## 5. Records (84723, 84724)

a. The inspector reviewed selected portions of the following records:

- (1) Liquid Waste Permits, January - June, 1984
- (2) Gaseous Waste Permits, April - June, 1984

- (3) EMF Process Monitor Correlation Data, 1983
  - (4) EMF Nos. 44 & 49 Process Monitor Records including:
    - i. Calibration
    - ii. Monthly Source Check
    - iii. Quarterly Functional Check
    - iv. Refueling Calibration
  - (5) Reactor Coolant Parameter Records for January - June, 1984 including:
    - i. I-131 & I-135 Concentration Plots
    - ii. Reactor Coolant H-3 Concentration Plots
    - iii. Gross Specific Activity Data
    - iv. McGuire Nuclear Station Monthly Fission Product Summary
    - v. Primary/Secondary System Data including: pH, Boron, Chloride, Fluoride, Dissolved Oxygen, Specific Conductivity, Sodium, and Hydrazine
    - vi. E-bar Calculations
  - (6) Ventilation Test Performance Results of HEPA and Carbon Adsorber Filters (1982-1984) for the following systems:
    - i. Auxillary Building Filter Exhaust
    - ii. Control Room Ventilation
    - iii. Annulus Ventilation
    - iv. Fuel Pool Ventilation
    - v. Containment Purge
  - (7) Preoperational Test Performance of Unit 2 Ventilation Systems including:
    - i. Annulus Ventilation
    - ii. Containment Purge
  - (8) Semi-annual Radioactive Effluent Release Report for July - December, 1983
- b. The inspectors discussed calibration and testing of process monitor instrumentation. The inspectors noted that the licensee has an adequate tracking system for monitor testing, calibration status and updating requirements for each system. No deviations or violations were noted.
- c. Technical Specification 6.9.1.7 requires that routine radioactive effluent release reports covering the operation of the unit during the previous 6 months of operation shall be submitted within 60 days after January 1 and July 1 of each year. The inspectors reviewed and discussed the most recent Semi-annual Radioactive Effluent Release report with cognizant licensee representatives. The inspector noted that for many of the monitored release pathways, effluent release data

were reported as zero. Licensee representatives informed the inspectors that the reporting format was to be changed to represent the lower limit of detection instead of reporting zero where applicable. The inspectors noted that no abnormal releases nor anomalous data were reported.

- d. Technical Specifications 3/4.4.7 and 3/4.4.8 detail limits for reactor coolant chemistry and radiochemistry. The inspectors noted there were no deviations or violations in this area.
6. Instrumentation (84723, 84724)
    - a. The inspectors verified sampling line location and operability of selected liquid and gaseous process monitors. The inspectors toured the control room to verify process monitor instrumentation operability. No deviations or violations were noted in this area.
    - b. The inspectors discussed with cognizant licensee representatives and verified by calculation, process monitor setpoints and release limits. No deviations or violations were noted.