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

JUN 19 1984

Report Nos.: 50-369/84-16 and 50-370/84-13

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 1 and 2

Inspection Dates: May 29 - June 1, 1984

Inspection at McGuire site near Charlotte, North Carolina

Inspector: G. R. Jenkins for R. H. Albright — 6/18/84 Date Signed

Approved by: G. R. Jenkins — 6/18/84 Date Signed
G. R. Jenkins, Section Chief
Division of Radiation Safety and Safeguards

SUMMARY

Areas Inspected

This routine unannounced inspection involved 22 inspector-hours on site in the areas of licensee action for previous enforcement matters, NUREG-0737 items, audits, chemistry program, shield survey, external exposure control, posting, labeling and control, and inspector followup items.

Results

No violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

*M. D. McIntosh, Station Manager
*T. L. McConnell, Superintendent of Technical Services
*D. J. Raines, Superintendent of Maintenance
*T. J. Keane, Station Health Physicist
*L. E. Haynes, Health Physics Staff
*S. H. McInnis, Licensing
*D. Mendezoff, Licensing Engineer
J. Foster, Health Physics Coordinator
G. Singletary, I&E Engineer

Other licensee employees contacted included 2 technicians and 2 office personnel.

NRC Resident Inspector

*W. T. Orders, Senior Resident Inspector

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on June 1, 1984, with those persons indicated in paragraph 1 above.

3. Licensee Action on Previous Enforcement Matters

(Closed) Violation (50-369/83-19-02): Failure to use calibrated air-pressure gauges when air supplied hoods were used as respiratory protection devices. The inspector reviewed Health Physics (HP) Manual Section 17.8, verification of Air Line Pressure Gauge Calibration, and observed that air regulating limits ready for check out had calibrated pressure gauges. Licensee corrective action for the violation was verified.

(Closed) Violation (50-369/83-32-01): Radioactive material shipments made without a current approved procedure. The inspector reviewed selected radioactive material shipping procedures to ensure they were current with DOT regulations. Licensee corrective action for the violation was verified.

(Closed) Violation (50-369/83-05-04): Failure to post a trailer with: CAUTION - RADIOACTIVE MATERIALS as required by 10CFR 20.203(e). The licensee response to the violation dated March 25, 1983, stated that a step would be added to the applicable procedures to compare, during the receipt inspection, the quantity of radioactive material in a trailer containing radioactive material against the posting requirements of 10 CFR 20.203(e). Corrective action was to be complete by April 1, 1983. This step was not added to procedure HP/0/B/1004/01, Receipt and Opening of Radioactive Material Packages, until June 1, 1984, when the inspector brought the

deficiency to licensee attention. Licensee personnel stated that this failure to revise the procedure was an oversight. The inspector reviewed posting of trailers during subsequent inspections with no new violations being found. Licensee personnel responsible for receipt survey of radioactive material were aware of the requirement to compare receipt documents with 10 CFR Appendix C quantities and the posting requirements of 10 CFR 20.203(e).

4. NUREG-0737 Items (25559)

a. NUREG-0737 item II.F.1-1 described high range noble gas effluent monitors to be installed on the plant vent and main steam lines. The inspector ensured through review of vendor documents, discussion with licensee representatives and observation of the installed meters in the control room that the systems met the criteria of NUREG-0737 table II.F.1-1 for the required range to monitor effluents during the accident condition.

The inspector verified through review of calibration procedure IP/0/A/3006/08B, RP-2C Module Calibration and Trip Adjustments (used for the high range noble gas effluent monitor calibration) and IP/0/B/3005/01, RD-1 Area Radiation Detector Calibration (used for the steam line radiation detector calibration), calibration data for the most recent monitor calibration, and review of procedures used to calculate effluent releases during various time periods after an accident that the following criteria from NUREG-0737, table II.F. 1-1 were met: 1) The high range noble gas effluent and main steam line monitors were adequately calibrated, and 2) the licensee has procedures to calculate effluent releases after an accident by correcting monitor response for the changing energy spectrum with respect to time after the accident.

b. NUREG-0737, item II.F.1-2 described iodine and particulate sampling criteria for effluents after an accident. The inspector discussed the NUREG-0737, table II.F.1-2 criteria with a licensee representative. The licensee has a shielded transport container for the samples. In the event of an accident the sampling media to be used will meet the collection efficiencies listed in NUREG-0737, Table II.F.1-2. Procedure HP/0/B/1009/06, Procedure for Quantifying High Level Radioactivity Release during Accident Conditions was reviewed.

The licensee has a method to calculate iodine releases in the event the sample is too radioactive to be counted on laboratory analysis equipment. The licensee has the capability to purge the iodine sample of noble gases. The licensee is reviewing previous dose estimates for collecting the sample media to determine that previous dose calculations accounted for all sources of radiation near the sample collection point.

No violations or deviations were identified.

5. Audits (83722, 83723, 83724, 83725, 83726, 83728)

The inspector reviewed audits of the Health Physics, Chemistry, and Radioactive Material Transportation programs. The following audits were reviewed:

Department Audit NP-83-5(MC)

Department Audit NP-83-12(MC)

The audits reviewed personnel training and qualifications, procedures, applicable records, and observation of activities. Licensee response to identified deficiencies were reviewed for timeliness and appropriate corrective action. Minor deficiencies were identified in these audits. No major program weaknesses were identified.

No violations or deviations were identified.

6. Chemistry Program (84530)

Technical Specification 3/4.1.1 Boration Control, 3/4.4.7, Chemistry, 3/4.4.8 Specific Activity, 3/4.7.1.3 Secondary System Specific Activity, state requirements for sampling frequencies and limits for various parameters in the specified radioactive liquid system. The inspector reviewed selected chemistry sampling data for Unit 2 for the period January - May 7, 1984 which indicated that the sampling frequencies and parameters sampled were within the specified limits of the applicable technical specification.

No violations or deviations were identified.

7. Start-up Shield Survey - Unit 2 (83530)

The Unit 2 start up shield survey is described in FSAR table 14.1.4-1 and the McGuire Nuclear Station, Radiological Shield Survey procedure TP/2/A/2200/01. The Unit 2 shield survey was completed February 15, 1984. The inspector reviewed the completed Unit 2 shield survey data.

No violations or deviations were identified.

8. External Exposure Control (83724)

a. 10 CFR 20.202 requires that personnel who enter radiation areas such that they could receive in excess of 25 percent of the applicable value specified in 10 CFR 20.101(c) in a calendar quarter and personnel who enter high radiation areas shall be provided with dosimetry devices. During tours of the facility radiation control area the inspector observed that personnel were wearing dosimetry devices to monitor their exposure.

b. 10 CFR 20.101 states the quarterly exposure limits for the skin of the whole body. The inspector reviewed Health Physics Procedural Guide No. II-12, Decontamination of Personnel and Determination of Skin Dose. The inspector reviewed records of skin contamination evaluation where beta skin doses were calculated.

No violations or deviations were identified.

9. Posting, Labeling and Control (92706)

The inspector toured various areas of the Radiation Control Zone (RCZ) and determined by observation and independent surveys that posting, labeling, and control of these radiation areas, high radiation areas, contaminated areas, and radioactive material areas were adequate to meet 10 CFR 20 and Technical Specification requirements. No violations or deviations were identified.

10. Inspector Followup (92701)

a. (Closed) Inspector Followup Item (IFI) 82-27-02: Review the program for assigning MPC-hrs. The inspector reviewed a procedure and discussed the assignment of MPC-hrs with a licensee representative. A computer printout which indicates MPC-hr totals was reviewed. The inspector had no further questions.

b. (Closed) IFI (83-05-01): Survey vehicles leaving the protected area. The inspector discussed vehicle release practices with licensee representatives. Licensee personnel use scintillation detectors to survey clean trash trucks and other trucks which may have carried contaminated material prior to releasing these vehicles from the protected area. The inspector had no further questions.

c. (Closed) IFI (83-19-01): Semi-annual effluent report does not meet Technical Specification 6.9.1.7. The inspector reviewed the report for the last half of 1983. The report conformed to Technical Specification 6.9.1.7. The inspector had no further questions.

d. (Closed) IFI (83-01-01): Review corrective action for the tool decontamination room ventilation being shutdown after the continuous air monitor (CAM) for the area alarms due to low flow. The inspector discussed this item with a licensee representative. The low flow alarm problem was corrected and additional problems have not been noted since mid-1983. The inspector had no further questions.

e. (Closed) IFI (83-01-02): Review corrective action for installing shop ventilation duct and elephant trunk type hoses. The inspector observed the installed adaptors. The inspector had no further questions.

f. (Closed) IFI (83-05-03): Survey of the Duke Power Co. landfill should be a routine survey. The landfill survey is performed on a quarterly frequency as required in Health Physics Manual Section 8.3.2. The inspector had no further questions.

g. (Closed) IFI (83-32-02): Licensee to determine if shipping procedure needs additional detail. The inspector reviewed radioactive material shipping procedures with licensee representatives. The procedures have been revised and contain sufficient detail to assist personnel in making shipments. The inspector had no further questions.