



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

Report No. 50-369/82-27

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

Facility Name: McGuire Nuclear Station

Docket No. 50-369

License No. NPF-9

Inspection at McGuire site near Charlotte, NC

Inspector: *R. H. Albright*  
 R. H. Albright

8/11/82  
 Date Signed

Approved by: *K. P. Barr*  
 K. P. Barr, Section Chief  
 Technical Inspection Branch  
 Division of Engineering and Technical Programs

8/11/82  
 Date Signed

SUMMARY

Inspection on July 26-30, 1982

Areas Inspected

This routine, unannounced inspection involved 30 inspector-hours on site in the areas of health physics program evaluations, health physics procedures, gaseous radioactive effluents, radioactive material shipment, coolant activity measurements and the RWP program.

Results

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

## REPORT DETAILS

### 1. Persons Contacted

#### Licensee Employees

M. D. McIntosh, Station Manager  
\*G. W. Cage, Superintendent of Operations  
\*T. J. Keane, Station Health Physicist  
\*T. J. Wall, Radwaste Supervisor  
\*D. Mendezoff, Engineering Specialist  
J. W. Foster, Health Physics Coordinator  
G. R. Terrell, Health Physics Coordinator  
M. T. Ramseur, Health Physics Supervisor  
D. C. Britton, Health Physics Supervisor  
M. B. Carswell, Health Physics Supervisor

#### NRC Resident Inspector

\*P. Bemis

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on July 30, 1982, with those persons indicated in paragraph 1 above. The inspector discussed the potential for underestimating gaseous effluent concentrations when the pressure differential between the plant vent and the sampling device is not taken into account. The licensee does not correct gaseous effluent activity concentrations due to this pressure differential. A licensee representative stated that this potential source of error in calculating gaseous effluent would be evaluated.

### 3. Licensee Action on Previous Inspection Findings

Not inspected.

### 4. Unresolved Items

Unresolved items were not identified during this inspection.

### 5. Review of Health Physics Program Evaluations

The inspector reviewed a Health Physics (HP) program review conducted by the General Office HP Unit in March 1982, and a surveillance summary conducted by the station Quality Assurance group in April 1982. The inspector also reviewed the station response to findings by the General Office HP Unit. The inspector considered the station response to the program review to be responsive to the findings.

## 6. Health Physics Procedure

The inspector reviewed the following health physics procedures for regulatory requirements and good health physics practices.

Health Physics Manual Volumes I and II

HP/0/B/1003/02	Procedure for Liquid Waste Release
HP/0/B/1003/03	Radioactive Gaseous Waste Release
HP/0/B/1003/08	Determination of Radiation Monitor Setpoints
HP/0/B/1003/13	Containment Ventilation Unit Condensate Drain Tank Release to Environment
HP/0/B/1004/01	Receipt of Radioactive Material
HP/0/B/1004/02	Shipment of Radioactive Material

The inspector had the following comments.

- a. Section 11.2 of the health physics manual describes the station body burden analysis program. This procedure stated three situations where a special body burden analysis would be required. The inspector stated that the procedure should also give guidance as to when facial or nasal contamination would require a special body burden analysis.
- b. Section 6.4 of the health physics manual is the personnel decon procedure. This procedure, as written, does not require personnel to call HP if they find themselves contaminated. Instead, personnel are directed to proceed to the contaminated change room and decontaminate themselves. Personnel are then directed to call HP when they have completed the decontamination or, if after three decontamination attempts, they still have residual contamination. A licensee representative stated that the decon procedure does not describe the decon practice at the plant and that the procedure would be revised. The licensee representative stated that personnel are instructed to call health physics if they are contaminated. The inspector attended health physics general employee training as a prerequisite to being granted unescorted access. During this training the inspector observed that personnel are instructed to call HP if they are contaminated.

This procedure also did not require records of personnel contamination to be kept. A licensee representative stated that personnel contaminations are noted in the health physics logs. The inspector stated that records of personnel contaminations are necessary in a health physics program in order to identify potential health physics problems including poor work practices. The inspector stated that the effectiveness of the health physics logs for tracking personnel contamination trends will be evaluated in a future inspection. (82-27-01).

- c. Section 16.2 of the health physics manual describes posting requirements and states that personnel are allowed to enter airborne areas with concentrations up to 10 times MPC. This is in conflict with the ALARA policy. The procedure does not state the circumstances or evaluations required for personnel to enter an airborne area without a respirator. This procedure is in apparent conflict with procedure 16.1 which gives guidelines to be used in selecting the proper type of respiratory protection. Section 16.1 states that a filtered respirator should be used at 0.25 MPC. The inspector stated that Section 16.2 should be revised to state what evaluation is required prior to an individual being allowed to enter an airborne radioactivity area without a respirator.

The inspector reviewed a computer printout which indicates MPC-hrs assigned to personnel. This review indicated that only a few personnel had been assigned MPC-hrs. The inspector stated that this program will be re-examined in a future inspection (82-27-02).

- d. Other aspects of these procedures are adequate.

#### 7. Radiation Work Permit (RWP) Program

The inspector made a limited review of the RWP program due to the limited amount of work in progress requiring an RWP. The inspector selectively reviewed recent RWP's and the associated surveys. No deviations or violations were identified.

#### 8. Gaseous Radioactive Effluents

The inspector determined by procedure review and discussions with licensee personnel that radioactive gaseous effluent concentrations are not corrected for pressure difference between the plant stack and the sampling device. The inspector stated that this problem at another facility had caused significant underestimation of gaseous effluents. A licensee representative stated that an evaluation of this source of error would be made. The inspector stated that this evaluation would be examined during a future inspection (82-27-03).

#### 9. Radioactive Material Shipment

The inspector selectively reviewed radioactive material shipment records and the radioactive material shipping procedure HP/O/B/1004/02. No violations or deviations were identified. The inspector had no further questions.

#### 10. Coolant Activity Measurements

The inspector selectively reviewed records of analyses, calculations, and sampling and analysis frequencies for compliance with technical specification requirements. No violations or deviations were identified.