



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

Report No. 50-369/80-39

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

Facility Name: McGuire Nuclear Station

Docket No. 50-369

License No. CPPR-83

Inspection at McGuire Nuclear Station

Inspectors:

M. J. Graham

Date Signed

T. J. Donat

Date Signed

Approved by:

*C. Julian*

C. A. Julian, Acting Section Chief  
RONS Branch

*2/5/81*  
Date Signed

#### SUMMARY

Inspection on November 1-30, 1980

#### Areas Inspected

This routine announced inspection involved 188 resident inspector hours on site in the areas of Preoperational and Startup Test Procedure review, test witnessing, test results review, followup on previous inspection findings and touring of plant to observe licensee activities.

#### Results

Of the five areas inspected, no items of noncompliance or deviations were identified.

8103120 802

## DETAILS

### 1. Persons Contacted

#### Licensee Employees

M. D. McIntosh, Station Manager  
\*G. W. Cage, Superintendent of Operations  
\*D. J. Rains, Superintendent of Maintenance  
T. L. McConnell, Superintendent of Technical Services  
\*W. M. Sample, Licensing & Project Engineer  
\*D. Lampke, Assistant Licensing & Project Engineer  
B. Hamilton, Reactor Engineer  
M. Pacetti, Test Engineer  
D. Marquis, Assistant Reactor Engineer  
W. Messer, Assistant Electrical Engineer  
M. Glover, Station Emergency Preparedness Coordinator  
T. Keane, Station Health Physicist

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

\*Attended exit interview

### 2. Exit Interview

The inspection scope and findings were summarized on 11/5/80 and 12/3/80 with those persons indicated in paragraph 1 above. The inspectors summarized the areas examined and identified those items requiring further examination at later times.

In the December 3 exit interview, the licensee and inspectors discussed the licensee's plans to preoperationally test the loose parts monitor. The FSAR commits the licensee to install and test the system, although operability prior to fuel load is not a specifically stated requirement. Due to damage during later stages of construction, major portions of the loose parts monitoring system must be replaced. The licensee is concerned that further damage could occur if reinstallation is done while construction work is being done in the area. The inspectors agree that the earliest need for the system is at the time the reactor coolant pumps are first started after fuel loading. The licensee has committed to completing preoperational testing of the loose parts monitoring system prior to starting the pumps. Review of completion of testing by that time is inspector followup item 80-39-01.

### 3. Licensee Action on Previous Inspection Findings

Not inspected.

### 4. Unresolved Items

Unresolved items were not identified during this inspection.

## 5. Procedure Review

Procedures were reviewed in the following areas:

### a. Initial Fuel Loading

The inspector reviewed the following procedures for completeness in meeting Technical Specification conditions and surveillance requirements, and for compliance with industry practices.

TP/1/A/2650/01	Initial Fuel Loading
OP/0/A/6550/04	Fuel and Component Handling
OP/0/A/6550/07	Preparation for Refueling
OP/0/A/6550/02	Overhead and Fuel Handling Cranes Operation

The inspector also verified the existence of a surveillance program for the overhead crane hooks.

Two items remain open in this area, related to IE Circulars.

- (1) CI-80-21 Refueling Crew Makeup. In NRC's response to Duke's letter of October 20, 1980 on IE Circular 80-21, NRC agrees that the Oconee organization of refueling crews meets the Technical Specification requirements. The licensee indicated that the following changes to TP/1/A/2650/01 will be made prior to fuel load so that the McGuire procedures reflect the acceptable refueling organization.

- (a) The individual operating the fuel handling bridge will be a licensed reactor operator, or a reactor operator in training being supervised by a licensed operator on the refueling deck.
- (b) Clarification will be made of the duties of the control room reactor operator during refueling. Specific areas include normal duties a statement of permitted concurrent duties, if any, and duties assumed if the DRO in charge of refueling leaves the control room.

This circular remains open pending completion of these changes.

- (2) CI-80-13 Grid Strap Damage in Westinghouse Fuel Assemblies. This circular includes several recommendations for loading fuel to avoid bundle contact. The inspector concurs with the licensee's decision not to incorporate these recommendations into the initial fuel load procedure. However, the licensee has agreed to reconsider the recommendations for refuelings, when some of the fuel bundles will be radiation deformed and problems with bundle to bundle contact are more likely. This circular remains open until the refueling procedures are completed and reviewed.

b. Precritical Testing

The following test procedures were reviewed against the licensee's commitments stated in FSAR section 14.1, 7.1, 7.2, and 7.3; Reg Guides 1.68 and Reg Guide 1.33. Specific items which were verified included:

- (1) Acceptance Criteria consistent with Test Specification and FSAR description
- (2) Procedural steps have provisions for completion signoffs
- (3) Data sheets are properly referenced in the test, have provisions for all data requested, and are consistent with acceptance criteria
- (4) All changes have been approved by at least the test director and his supervisor.

TP/1/A/1150/04B	Pressurizer Functional Test
TP/1/A/1450/07	Loss of Instrument Air Test
TP/1/A/1550/04A	Initial Core Assembly Insert Verification
TP/1/A/2150/01	NC Flow Test
TP/1/A/2150/02	NC Flow Coastdown Test
TP/1/A/2150/08	Dynamic Rod Drop Test
TP/1/A/2600/03	Incore Thermocouple and RTD Cross Calibration
TP/1/A/2600/04	Rod Position Indication Alignment
TP/1/A/2600/06	Full-Length Rod Drive Mechanism Timing Test
TP/1/A/2600/07	Full-Length Rod Control Cluster Assembly Drop Timing
TP/1/A/2600/08	RTD Bypass Flow Verification

The inspector had no comments on the procedures reviewed.

c. Zero Power Physics Testing

The following procedures were reviewed for technical content and completion of FSAR requirements and commitments.

TP/1/A/2650/02	Initial Criticality
TP/1/A/2100/02	Zero Power Physics Controlling Procedure
TP/1/A/2150/03A-H	Boron Endpoint Measurement
TP/1/A/2150/06A	RCCA Pseudo Ejected Rod Test
TP/1/A/2150/10	Stuck Rod Worth Measurement
TP/1/A/2150/11A-E	Isothermal Temperature Coefficient of Reactivity
TP/1/A/2150/12A-E	Zero Power Flux Map

The inspector has no further questions in this area.







