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

Report No. 50-369/80-40

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

Facility Name: McGuire Unit 1

Docket No. 50-369

License No. CPPR-83

Inspection at McGuire site Near Charlotte, North Carolina

Inspectors T D Peebles for — 2/5/81
T. J. Donat, Senior Resident Inspector — Date Signed

T D Peebles for — 2/5/81
M. J. Graham, Resident Inspector — Date Signed

Approved by C Julian — 2/6/81
C. A. Julian, Acting Section Chief, RONS Branch — Date Signed

SUMMARY

Inspection on December 1-31, 1980

Areas Inspected

This routine inspection involved 180 resident inspector-hours on site in the areas of startup procedure review, emergency planning, review of technical specifications, training program review, plant tours, and followup on open items.

Results

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

DETAILS

1. Persons Contacted

M. McIntosh, Station Manager
*M. Sample, Projects & Licensing
*D. Lampke, Projects & Licensing
T. McConnel, Technical Support Supervisor
G. Gage, Operations Supervisor
T. Koane, Station Health Physicist
T. Parker, Training Officer
R. Ruth, Quality Assurance
S. Frye, Operations Engineer

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

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on January 5, 1981, with those persons indicated in paragraph 1 above. The licensee representatives acknowledged their understanding of the findings.

3. Licensee Action on Previous Inspection Findings

Not inspected.

4. Unresolved Items

Unresolved items were not identified during this irspection.

5. Followup on Open Items

The inspector reviewed the following inspector follow-up items:

a. Open - Inspector Followup Items 50-369/78-35-02 and 78-35-03 concerning the licensee's program to verify shock suppressor operability. The inspector met with representatives of site construction and maintenance departments and corporate design engineering and project management departments. The licensee summarized his suppressor ("snubber") program as follows: All Mechanical Shock Suppressors were listed and certified by their original manufacturer, Pacific Scientific, prior to shipment to Grinnel Corporation for eventual delivery. Also, all ½" and ¼" bore snubbers have been stroke tested following installation as committed to in Duke's Significant Deficiency Report 369/80-13 dated August 18, 1980. The maintenance department representative also indicated that a program had been instituted to stroke test as many of the safety-related mechanical snubbers of other sizes as possible prior to fuel loading. He stated that written documentation of the result of these checks is not available in the form of a procedure, such as a

periodic test (PT), since the technical specification in this area has not been finalized.

In the case of the hydraulic snubbers, all were tested originally at the Grinnell Corporation and the manufacturer has indicated that they have lockup and bleedrate data on each device. Once the units arrived at the site, they were stored in a construction Q/C controlled warehouse until installed. Some snubbers were stored haphazardly, but these were retested by the licensee prior to installation. Presently, the maintenance department is testing all safety-related hydraulic snubbers as their associated piping system is released to Steam Production. The test data is being recorded and will become the baseline data for use with periodic tests PT/0/A/4200/06 and 07. After reviewing the licensee's program the inspector identified three areas of concern: (1) Certification of hydraulic snubber lockup and bleed rate. The licensee needed to provide written documentation from the original manufacturer, construction Q/C, and/or steam production that the lockup and bleed rates of all installed hydraulic snubbers were within the manufacturer's original limits. This documentation could take the form of a letter or individual data sheets. (2) Certification that expanded ranges of lockup and bleed rates due to temperature variations had been accounted for in the shock support design or that engineering design had reviewed the possible effects and considered them inconsequential with respect to piping response. (3) The need to insure via measurement, during the next heatup, that the ambient temperature in the vicinity of each snubber does not exceed 146 degrees F. This maximum temperature was obtained using an initial lockup velocity of 10"/min, a maximum lockup velocity of 40"/min and the Grinnell reports PHD-6500-7 (1/5/79) and PHD-7579-S-1 (10/77) which establish a correlation between lockup, bleed rate, and ambient temperature.

The licensee agreed to provide (1) certification of operability, (2) certification of acceptability of hydraulic snubber lockup and bleed rate to engineering design, and (3) a program to monitor snubber temperatures during the post fuel load plant heatup. The inspector stated that he would review the licensee's documentation when it became available. This item remains open.

a. Open-TMI-2 Action Plan Item 80-RD-10, NSSS Vendor Review of Procedures. Action plan item I.C.7 specifies that the licensee "obtain NSSS vendor review of their low-power, power ascension and emergency procedures as a further verification of the adequacy of the procedures." The inspector discussed this item with the licensee. A licensee representative concurred that a formal, written response was needed from Westinghouse for each group of procedures. It was further concluded that each letter would specify the procedures reviewed, the comments generated, and whether an additional review by Westinghouse was needed. The inspector noted that this review and documentation was needed for

the low power test procedures prior to Fuel Loading. This item remains open pending receipt of the Westinghouse evaluations.

The inspector also reviewed the following licensee Significant Deficiency Reports:

a. Closed - Licensee Identified Item - SD 369/80-14 concerning a loose cap and jam nut on RHR pump 1A. In September of 1979, the licensee had increased the torque used to install the impeller cap nut and jam nut on Ingersall-Rand 8X20WD pumps. When RHR pump 1A was disassembled in July 1980 for mechanical seal replacement it was found that both nuts had loosened themselves. The licensee had purchased and installed special locking washer kits on each of the Unit 1 RHR and containment spray pumps. Based on successful retest of the pumps during the performance of their periodic tests this item is closed.

b. Closed - Licensee Identified Item - SD 369/80-15 concerning the report of excessive temperature inside the pressurizer cubicle during HFT-II. The licensee had installed permanent mirror insulation on the pressurizer vessel and connecting piping, modified some structural support hangers so that they no longer contact the pressurizer vessel and act as a heat pipe, replaced twenty-four of the thirty-five original shock suppressors with mechanical devices, provided the remaining ones with metal hydraulic fluid reservoirs, and redistributed the ventilation flow into the cavity so that the maximum temperature should not exceed 120 degrees F. The licensee also installed a temperature monitoring system which will be capable of monitoring each Steam Generator cavity and the Pressurizer cavity as well as the general lower compartment temperature. Based on these actions this item is closed.

6. Startup Procedure Review

The inspector reviewed the following precriticality and low power test procedures for conformance with the description given in section 14.2 of the FSAR, and the requirements in Regulatory Guide 1.68 and 1.79:

TP/1/A/2600/04	Rod Position Indication Alignment Check
TP/1/A/2600/01	Movable Incore Detector Functional Test
TP/1/A/2150/05	Below Bank Rod Test
TP/1/A/2150/20	Natural Circulation Verification
TP/1/A/2000/01	Aux Feedwater System Functional Test II
TP/1/A/2150/21	Effect of S/G Isolation on Natural Circulation
TP/1/A/2150/23	Natural Circulation with Simulated Loss of Offsite Power
TP/1/A/2150/26	Simulated Loss of All Onsite and Offsite AC Power
TP/1/A/2150/14	S/G Water Hammer Functional Test

The inspector reviewed the procedures to insure that acceptance criteria were clearly defined, that the test procedure description corresponded with the FSAR description, and that signoff provisions existed for all pre-

requisites, initial condition and procedure steps. The inspector had no comments on the procedures.

7. Emergency Planning

The inspectors participated in the NRC inspection of the December 5-6 emergency drill. Major findings and comments in this area were included in inspection report 80-38.

8. Review of Technical Specifications

The inspectors performed a complete review of the proposed McGuire Technical Specifications with respect to enforceability of requirements. Areas of concern were discussed with the licensee at the exit interview, prior to sending the complete comments to NRR.

9. Training Program

The inspector discussed the licensee's training program and systems of record retention with the training officer. Areas discussed included operations training for unit operators and licensed operators, training of health physics technicians, requalification training of plant staff in health physics, and respirator training. The inspector reviewed in greater depth the Quality Assurance and health physics/fertile female programs. In both cases, the licens 's training requirements, program, and records retained were verified eet his regulatory commitments. The inspector had no adverse findings is area.

10. Plant Tours

The inspectors toured the reactor, auxiliary and control building, observing operations and plant conditions. They observed work in progress, verified fire protection activities, and verified tagging. The inspectors also attended plant status meetings, observed control room operations, and discussed log entries with members of the plant staff. The inspectors have no further questions in this area.