UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

Report Nos.: 50-369/84-41 and 50-370/84-38

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 Conducted: December 17-20, 1984

Inspector: _____ 1/28/85
N. Economos Date Signed

Approved by: _____ 1/28/85
J. J. Blake, Section Chief Date Signed
Engineering Branch
Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection entailed 28 inspector-hours on site in the areas of licensee action on previous enforcement matters, licensee identified items, inservice testing of pumps and valves, and inservice inspection-program review.

Results: No violations or deviations were identified.

REPORT DETAILS

1. Licensee Employees Contacted

*D. J. Rains, Superintendent of Maintenance
*D. Mendezoff, Engineering Specialist
R. P. Ruth, Project Senior QA Engineer
*A. F. Batts, QA Technical Support Supervisor
*R. A. Johansen, Performance Engineer
*N. McCraw, Compliance Engineer
T. M. Hilderbrand, ISI Specialist

Other licensee employees contacted included technicians and office personnel.

NRC Resident Inspectors

W. T. Orders, Senior Resident Inspector
*R. C. Pierson, Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on December 20, 1984, with those persons indicated in paragraph 1 above. The licensee acknowledged the findings listed below without exception.

(Open) Inspector Follow-up Item (IFI) 370/84-38-01, Shop Fabricated Welds On As-built Drawings, (paragraph 9).

(Open) IFI 370/84-38-02, Incorrect Drawing Numbers On ISI Computer Printouts, (paragraph 9).

(Open) IFI 370/84-38-03, Use Of Code Case N-356, (paragraph 9).

3. Licensee Action on Previous Enforcement Matters

(Closed) Unresolved Item (UNR) 369/82-25-01, Drawing Control. This item dealt with a discrepancy between drawing number MCM1201.01-107 which showed the thermal sleeves in the charging line being held by two retaining welds and a sketch associated with a Westinghouse (W) field deficiency report (FDR) which showed four welds. Duke's Design Engineering has reviewed this matter and does not deem it as a generic problem. In an internal memo, Duke's Design Engineering has indicated that W should have converted the FDR to a field change notice and revised the applicable document. Since this was not done, Design Engineering revised and reissued the document.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Licensee Identified Items (50.55(e))

(Closed) Item 370/CDR 81-06, Radiographic Film for Control Rod Drive Violate Code

On June 3, 1981, Duke Power Company (DPC) notified Region II of a 50.55(e) item concerning a W determination that 11 radiographic films for reactor vessel Control Rod Drive Mechanism (CRDM) housing welds at McGuire exceeded Code film density requirements. In addition, it was stated that one of these could not be located. The final Construction Deficiency Report (CDR) on this matter was submitted on December 15, 1981. This report has been reviewed by the staff and found acceptable.

6. IE Bulletins (92703) Units 1 and 2

The following IE Bulletins were reviewed to ensure receipt, evaluation and appropriate implementation:

a. (Closed) 83-BU-07, Apparently Fraudulent Products Sold by Ray Miller, Inc.

On March 22, 1984, DPC notified Region II that a review by the QA-Vendors Division disclosed that no material had been received from those companies identified in the Bulletin or its supplements. DPC determined that apparently fraudulent Ray Miller, Inc., material had been received at McGuire from Pall Trinity Company of Cortland, New York. The type of material received was Type 304SS 3-inch schedule 40 elbows used in the Fuel Pool Cooling System filter holders. The licensee's review of design parameters and hydrostatic test results shows the elbows pose no threat to the integrity of this system.

b. (Closed) 83-BU-06, Nonconforming Materials Supplied By Tube-Line Corporation Facilities At Long Island City, New York; Houston, Texas; and Carol Stream, Illinois

On November 15, 1983, the licensee notified Region II that a review by Duke Power Company's Quality Assurance Department and McGuire Nuclear Station has shown that no materials supplied by Tube-Line Corporation have been furnished for use in any safety-related systems at McGuire.

c. (Closed) 83-BU-05, ASME Nuclear Code Pumps and Spare Parts Manufactured by the Hayward Tyler Pump Company (HTPC)

On September 2, 1983, the licensee notified Region II that (1) McGuire Nuclear Station did not use or plan to use ASM nuclear code pumps manufactured by HTPC, (2) the station had HTPC manufactured spare parts

in the component cooling and fuel pool cooling pumps, (3) these parts did not include shafts, impellers, wear rings, or any other major components. Therefore, none of the spare parts used affected the pressure boundary of the pumps and only one spare part, the coupling for the component cooling pumps, could cause any operability concerns. At the time of this response, DPC stated that there had been no abnormal maintenance or operability problems with any of the subject pumps. In addition, DPC stated that existing maintenance and performance procedures, along with operability verification, adequately address the recommendations of the Bulletin.

d. (Closed) 83-BU-03, Check Valve Failures in Raw Water Cooling Systems or Diesel Generators

On June 7, 1983, the licensee notified Region II that their review showed there were no check valves in the system that supplies raw cooling water to the diesel generators at McGuire Nuclear Station.

e. (Closed) 82-BU-01, Revision 1, Supplement 1, Alteration of Radiographs of Welds in Piping Subassemblies

On November 10, 1982, the licensee notified Region II that 26 piping subassemblies at McGuire Units 1 and 2 were identified as containing 30 welds within the scope of this Bulletin. A 100 percent review of the radiographic film had revealed that none of the film had been altered, and the required penetrameter sensitivities were clearly discernible. DPC concluded that acceptable weld quality had, therefore, been demonstrated.

7. IE Circulars Units 1 and 2 (92703)

The following IE Circular was reviewed to ensure its receipt, review by appropriate personnel, and that appropriate action was taken:

(Closed) IE Circular 81-C1-14, Main Steam Isolation Valve Failures to Close

In a memo to files dated December 17, 1981, regarding this Circular, DPC identified two instances where Main Steam Isolation Valves failed to fully close. The first occurred during functional testing. In this instance, the licensee modified the valve operator to use air to assist in valve closure and subsequently loosened the bronze guide studs which permitted closure without air assistance. The second instance occurred when the 90% test feature was wired incorrectly at the valve operator and was subsequently corrected. This problem was attributed to inadequate electrical drawings from the vendor.

Both problems were corrected during the preoperational test phase.

8. Inservice Testing of Pumps and Valves - Units 1 and 2 (92706)

Review of Inservice Testing Program Implementation

Selected aspects of the licensee's implementation of inservice testing (IST) requirements for pumps and valves were reviewed to verify compliance with regulatory requirements and licensee commitments. The applicable code for IST, as identified through 4.0.5 of the Technical Specifications and 10 CFR 50.55(a)g, is ASME Section XI, 1980 Edition.

Requirements for pump and valve testing as required by the Code, along with applied/granted Code relief requests, are documented in McGuire's IST Pump and Valve Inservice Testing Program, Revision 7. The inspector discussed the scheduling, performance and documentation of pump and valve testing with cognizant on-site personnel and observed implementation of main steam valve stroke timing test, PT/1/A/4255/03. In addition, the inspector reviewed the documentation of previously performed pump/valve performance tests (PT) for Units 1 and 2 to determine accuracy, completeness and Code compliance. The PTs reviewed were as follows:

Unit 1	Performance Test	Date
Diesel Generator 1B Fuel Oil Transfer Pump	PT/1/A/4350/17B	11-29-84
Residual Heat Removal Pump, 1B Baseline Data Functional Test	PT/1/A/420/03B	11-30-84
Containment Spray Pump 1A	PT/1/A/4208/01A	12-07-84
Containment Spray Pump 1B	PT/1/A/4208/01B	12-07-84
Component Cooling Pump Train A	PT/1/A/4401/01A	12-12-84
Residual Heat Removal Pump 1A	PT/1/A/4204/01A	12-13-84
Residual Heat Removal Pump 1B	PT/1/A/4204/01B	12-13-84
Safety Injection Shutdown Valve No. 1NI431B	PT/1/A/4206/03	12-01-84
Nuclear Sampling, (NM) Valve No. 1NM72B	PT/1/A/4207/02	12-14-84
Steam Generator Blowdown Recycle (BB) Valve No. 1BB1B	PT/1/A/4251/02	11-30-84

Unit 1	Performance Test	Date
Nuclear Sampling, (NM), Stroke Timing Retest Valve No. 1NM25A	PT/1/A/4207/02	11-30-84
Feedwater, Stroke Timing Valve No. 1CF126B	PT/1/A/4253/03	12-14-84
Containment Air Return, (VX) Exchange and Hydrogen Skimmer Valve No. 1VX1A	PT/1/A/4457/02	12-05-84
Steam Generator Blowdown Recycle Valve No. 1BB142A	PT/1/A/4251/02	12-05-84
Unit 2		
Auxiliary Feedwater Pump No. 2	PT/2/A/4252/01	12-13-84
Lower Containment Personnel Airlock Valve Stroke Timing	PT/2/A/4200/01F	12-20-84
Nuclear Service Water Valve Stroke Timing	PT/2/A/4403/02	12-20-84

Within the areas inspected, no violations or deviations were identified.

9. Inservice Inspection-Review of Program, Unit 2 (73051)

The inspector reviewed the McGuire Unit 2 Inservice Inspection (ISI) Plan Program Volume 1, Revision 6 for the current outage in the areas of: program approval; QA program requirements including organizational structure, audit requirements, general QA requirements (examination reports, control of deviations from established program, quality documentation and identification of components), work and quality inspection procedures, control of processes, corrective action, document control, control of examinations and examination equipment, and quality records; inspection scope; inspection intervals; personnel qualification; and NDE records including provisions for storage. The applicable code for the ISI is the ASME Boiler and Pressure Vessel Code, Section XI, 1980 Edition, with Addenda through the Winter 1980 to the extent practicable within the limitations of design, geometry and materials of construction of the component.

In addition to inspections required by the Code, the licensee has committed to inspect/examine certain components/welds in accordance with the following codes and/or Regulatory Guides:

a. Reactor coolant pump flywheels will be inspected as required by USNRC Regulatory Guide 1.14, Revision 1, and the Technical Specifications for McGuire Nuclear Station.

b. Steam generator tubing will be inspected as required by ASME Section XI and the Technical Specifications for McGuire Nuclear Station.

c. Reactor vessel welds will be inspected in accordance with USNRC Regulatory Guide 1.150, Revision 0, to the extent committed by DPC.

d. Augmented inspections on certain systems or components will be performed in accordance with other editions or addenda of ASME Section XI as identified in the governing commitment.

Items requiring augmented Inservice Inspections are as follows:

Reactor Coolant Pump Flywheel Examinations

Steam Generator Tube Examinations on Preheater Section

Pipe Rupture Protection

Steam Generator Feedwater Modification

Safety Injection System Modification

Thermal Sleeves Removal

Listed in the McGuire ISI Plan are certain code cases which are applicable to Section XI of the Code and will, therefore, be used for the first interval inservice inspection program. The code cases are as follows:

Code Case N-98: Ultrasonic Examination - Calibration Block Tolerances;

Code Case N-234: Time Between Ultrasonic Calibration Checks;

Code Case N-356: Certification Period for Level III NDE Personnel.

Sections of the residual heat removal (ND) and safety injection (NI) systems were selected to ascertain whether the number and types selected complied with Table IWB-2500-1 Examination Category B-J. Specifics of the weld selection review were as follows:

Drawing	Boundary	Welds
MCFI-2ND1 Rev. 18	From valve 2ND2A to valve 2ND1B 14" dia. pipe	14-field welds, 3-shop fabricated welds - Inspect 25%
MCFI-2NI18 and MCFI-2NI14	From valve 2NI59 to valve 2NI60 on ISO-2NI18, 10" dia. and 6" dia. pipe	19-field welds- Inspect 25%

The referenced Isos and the Inservice Inspection Examination Listing and schedule for McGuire Unit 2 were subsequently checked to ascertain whether the welds designated for ISI had been properly identified.

Within these areas, the inspector noted the following:

- The Isos used for weld selection depict field fabricated welds and the spool pieces fabricated in the fab shop which do not identify shop fabricated welds or their location. In this format it would be impossible to determine the number of welds and location in a given shop fabricated, spool piece without referring to weld fabrication sketches stored in the QA vault. The inspector stated that in this format, the Isos do not necessarily meet the concept of as-built drawings which they are being used as, since they do not reflect as-built conditions. Moreover, the inspector stated that this format could and probably does generate errors and makes it difficult for technical and inspection personnel to identify and locate the weld joints in the field. This matter was discussed with cognizant personnel who agreed to look further into the matter and report back on a subsequent inspection. Inspector followup item, 370/84-38-01, Shop Fabricated Welds on As-built Drawings, was identified on this matter pending its resolution.

- During the review of ISI examination listings, the inspector noted that certain welds in the NI and/or ND system designated for ISI were matched with the wrong drawing/Iso numbers. The licensee representative identified this as a clerical error and gave assurance that it would be promptly corrected. Since the extent of this problem was not known at this time, Inspector followup item 370/84-38-02, Incorrect Drawing Numbers on ISI Computer Printouts, was identified pending further review.

- In reviewing the Inservice Inspection Plan for McGuire Unit 2, the inspector noted that Code Case N-356, Certification Period for Level III NDE Personnel, was being evoked. However, since this code case has not received generic approval for use under Regulatory Guide 1.147 Rev. 3, and it could not be ascertained whether NRC had granted permission for its use at this time, Inspector followup item 370/84-38-03, Use of Code Case N-356, was identified pending further review.

Within the areas inspected, no violations or deviations were identified.