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

Report Nos.: 50-321/85-14 and 50-366/85-14

Licensee: Georgia Power Company
P. O. Box 4545
Atlanta, GA 30302

Docket Nos.: 50-321 and 50-366 License Nos.: DPR-57 and NPF-5

Facility Name: Hatch

Inspection Conducted: May 6 - 10, 1985

Inspector: B. R. Crowley 5/23/85
B. R. Crowley Date Signed

Approved by: J. J. Blake 5/23/85
J. J. Blake, Section Chief Date Signed
Engineering Branch
Division of Reactor Safety

SUMMARY

Scope: This routine, unannounced inspection entailed 40 inspector-hours on site in the areas of inservice inspection (ISI) (Units 1 and 2) and licensee action on previous enforcement matter (Unit 1).

Results: No violations or deviations were identified.

REPORT DETAILS

1. Persons Contacted

Licensee Employees

*H. C. Nix, Site General Manager
*T. V. Green, Deputy General Manager
*P. E. Fornel, Manager of Quality Assurance (QA)
C. T. Jones, Manager of Engineering
*D. A. McCusker, Superintendent of Quality Control (Q/C)
*G. Goode, Superintendent of Plant Engineering and Services
J. Edwards, Senior Regulatory Specialist
*T. L. Elton, Plant Supervising Engineer - Regulatory Compliance
C. R. Goodman, Senior Plant Engineer - Regulatory Compliance
*D. J. Vaughn, Senior QA Field Representatives

Other licensee employees contacted included engineers, QC personnel, technicians, and office personnel.

Other Organizations

*D. Barnes, ISI Site Coordinator, Southern Company Services (SCS)
M. Belford, Supervisor, Inspection Engineering, SCS
J. Davis, Supervisor, Nondestructive Examination, SCS
G. Loftus, Lead Inspector - Level III, SCS

NRC Resident Inspector

P. Holmes-Ray, Senior Resident Inspector

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on May 10, 1985, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings listed below. No dissenting comments were received from the licensee. Relative to Inspector Followup Item 321, 366/85-14-04 the licensee committed to have the ISI sketches for supports updated with the latest as-built design information prior to the next refueling outage for each unit.

(Open) Unresolved Item 321, 366/85-14-01, Clarification of Requirements for ISI of Snubbers - Paragraph 5.b(1).

(Open) Unresolved Item 321, 366/85-14-02, Resolution of Requirements for Increase in Inspection Scope When Corrective Actions are Required for Pipe Supports - paragraph 5.b.(2).

(Open) Inspector Followup Item 321, 366/85-14-03, Clarification of Procedures for ISI Inspection of Pipe Supports - paragraph 6.c.

(Open) Inspector Followup Item 321, 366/85-14-04, Update of ISI Plan Pipe Support Sketches to Reflect Latest Design Information - paragraph 7.b.

The licensee did not identify as proprietary any of the material provided to or reviewed by the inspector during this inspection.

3. Licensee Action on Previous Enforcement Matters

(Closed) Violation 321/84-49-02, Failure to Follow Weld Material Control Procedure. During a previous inspection (See RII Report 50-321/85-11), the inspector examined licensee's corrective action and noted that welding materials stored in the warehouse did not appear to be adequately segregated by material type. During the current inspection, the inspector re-examined warehouse storage of welding materials and found that materials are segregated in bins by type. Based on examination of corrective actions, as stated in the letter of response, and discussions with responsible licensee personnel, the inspector concluded that Georgia Power had determined the full extent of the subject violation, performed the necessary survey and followup actions to correct the present conditions, and developed the necessary actions to preclude recurrence of similar circumstances. The corrective actions have been implemented.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve violations or deviations. Two new unresolved items identified during this inspection are discussed in paragraphs 5.b.(1) and 5.b.(2).

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

The inspector reviewed the licensee's inservice inspection (ISI) program for the current outage in the areas indicated below. In accordance with the updated program (submitted to NRC on August 12, 1983), the applicable code is the ASME Boiler and Pressure Vessel Code, Section XI, 1980 Edition with Addenda thru W80. Southern Company Services (SCS) has the responsibility as the ISI contractor. Lambert, McGill and Thomas (LMT) is a subcontractor for Nondestructive Examination (NDE) inspections. Georgia Power Company (GPC) performs their own ISI of pipe supports.

See RII Report 50-366/85-11 for documentation of a previous inspection in this area. During the current inspection, only the pipe support ISI inspection program was reviewed.

a. The following summarizes the pipe support inspection program:

(1) SCS "Nondestructive Examination Outage Plan - Edwin I. Hatch Nuclear Plant Unit 2 - 1985 Spring Outage" lists the supports to be inspected during the current outage.

(2) Based on the SCS Outage Plan, GPC issues Maintenance Work Requests (MWOs) to have the inspections performed. MWOs 2-85-875, 2-85-876 and 2-85-877 were issued for the current outage.

(3) Inspections are performed in accordance with GPC procedure 45QC-INS01-0, Revision 0, "ISI Visual Examination Surveillance Procedure for Class 1, 2 and 3 Pipe Support."

(4) In addition to the above program, snubbers are inspected under the following GPC procedures:

- HNP-2-3915-M, Revision 9, "Hydraulic Shock and Sway Arrestors Inspection and Functional Test"

- HNP-2-6804, Revision 7, "Inspection and Testing of Pacific Scientific Mechanical Snubbers"

HNP-2-3915-M covers the TECH SPEC requirements for inspection of hydraulic snubbers.

b. During review of the above program, the following problems were identified. These problems also apply to Unit 1.

(1) The visual inspection of piping supports required by ASME Section XI is a two part inspection; VT-3 for general mechanical and structural conditions and VT-4 for operability and functional adequacy. At plant Hatch, the ISI inspection under procedure 45QC-INS01-0 is to satisfy the VT-3 requirements. Procedures HNP-2-3915-M, the TECH SPEC program for hydraulic snubbers, and HNP-2-6804 are meant to satisfy VT-4 requirements. However, it is not clear that HNP-2-3915-M and HNP-2-6804 satisfy ASME Section XI VT-4 requirement in the following areas:

- In accordance with paragraph IWA-2300 of ASME Section XI, personnel performing VT-4 inspections must be qualified in accordance with a licensee program to ANSI N45.2.6-1973. GPC procedures HNP-2-3915-M and HNP-2-6804 do not require that personnel be qualified to ANSI N45.2.6-1973.

- The sample size and frequency of ASME Section XI is different from that of the TECH SPECS and it is not clear that Section XI requirements for sampling are being met.

In review of this problem, the inspector noted that for the previous ISI program (1974 Edition, S75 Addenda), the licensee requested and was granted relief from ASME Section XI requirements for hydraulic snubbers based on substitution of the TECH SPEC program. This relief covered hydraulic snubbers only and not mechanical snubbers. When the licensee submitted their updated program to the 1980 Edition, W80 Addenda, relief from Section XI was not requested. The updated program did state that a TECH SPEC program for hydraulic snubbers was in place, but the program did not specifically state that the program was to be used in lieu of the ASME Section XI, program. Pending resolution of the above problem, this matter is identified as Unresolved Item 321, 366/85-14-01, Clarification of Requirements for ISI of Snubbers.

(2) When the results of pipe support examinations require corrective actions, paragraphs IWF-2420 and IWF-2430 of ASME Section XI require re-examination of the problem supports during the next inspection period and expansion of the examination scope to include similar supports. Paragraphs IWF-2420 and IWF-2430 refer to subsection IWF-3000 for evaluation of support examination results to determine when corrective action is required. However, many of the paragraphs of IWF-3000 have not been issued or state, "in the course of preparation" for the 1980 Edition, W80 addenda of ASME Section XI. Therefore, it is not clear when reinspection and inspection scope expansion are required.

In addition, the licensee's procedures do not cover the area of increased inspections when problems are found as a result of pipe support ISI examinations. The licensee agreed to evaluate this problem, determine if past practices meet Section XI requirements, and issue any needed procedural changes. Pending review of resolution of this problem, this matter is identified as Unresolved Item 321, 366/85-14-02, Resolution of Requirements for Increase in Inspection Scope When Corrective Actions are Required for Pipe Supports.

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

6. Inservice Inspection - Review of Procedures (73052B) (Unit 2)

The inspector reviewed the ISI procedures indicated below to determine whether the procedures were consistent with regulatory requirements and licensee commitments. See paragraph 5 above for the applicable code.

a. The following procedures were reviewed in the areas of procedure approval, requirements for qualification of NDE personnel, and compilation of required records:

(1) SCS-MT-H-500, Revision 0, "Dry Powder Magnetic Particle Examination, Yoke Method"

(2) GPC 45QC-INS01-0, Revision 0, "ISI Visual Examination Surveillance Procedure for Class 1, 2 and 3 Pipe Supports"

b. In addition to the above review, Procedure MT-H-500 was reviewed in the area of procedure technical content relative to: examination method, surface preparation, use of color contrast particles, examination directions and overlap, pole spacing, and acceptance criteria.

c. Procedure 45QC-INS01-0 was reviewed for technical content relative to: method - direct, remote, etc.; applications; how examination is to be performed; surface condition and preparation, viewing conditions; illumination requirements; sequence for performing examination; data to be tabulated; and acceptance criteria. This review revealed the following areas that needed clarification:

(1) Paragraph 4.1.1 requires qualification of examination personnel in accordance with procedure 10AC-MGR07-0. Since procedure 10AC-MGR07-0 has not been issued (GPC is in the process of changing their procedure numbering system), procedure HNP-823 is the applicable procedure. Procedure HNP-823 primarily covers qualification of personnel to ANSI N45.2.6 and refers to GPC PSE&S procedure GEN 12750 for qualification of NDE personnel to ASNT SNT-TC-1A. Since Visual (VT) examination is not covered as an NDE method under SNT-TC-1A, procedure HNP-823 would allow qualification of VT examiners to ANSI N45.2.6. ASME Section XI, paragraph IWA-2300, requires that VT-1 examiners be qualified to SNT-TC-1A. Also, the GPC policy is to qualify all VT examiners to procedure GEN 12750 or SNT-TC-1A. Procedure HNP-823 needs clarification to clearly separate ANSI N45.2.6 qualifications and SNT-TC-1A qualifications.

(2) Paragraph G.4 of HNP-823, which covers temporary personnel, indicates that temporary personnel can be certified without qualification and testing. The GPC policy is to qualify temporary personnel in the same manner as other personnel. This paragraph needs clarification.

(3) Paragraph 4.1.2 of procedure 45QC-INS01-0 requires far distance and near distance annual eye examinations. Paragraph IWA-2300 of ASME Section XI requires that examiners receive a color vision examination also. Paragraph G.3.c of procedure HNP-823 states that "a color perception test may also be given...". Procedure GEN 12750 requires that examiners receive near distance, far distance, and color examinations. GPC policy is to give all three examinations. Procedures 45QC-INS01-0 and HNP-823 need to be clarified to be consistent with ASME Section XI and procedure GEN 12750.

(4) Paragraph 7.3.1 of procedure 45QC-INS01-0 appears to indicate that a Level I examiner can VT and accept or reject pipe supports under ASME Section XI without involvement of a Level II examiner except for review and signoff on the report. Procedure GEN 12750 also indicates that the Level I examiner can evaluate and accept or reject test results. The licensee's practice and intent of paragraph 7.3.1 of Procedure 45QC-INS01-0 is to have the Level I working under the Level II and not perform inspections and accept or reject without the Level II involvement in the inspection. Paragraph IWA-2300(f) of ASME Section XI requires that the Level I examiner implement written NDE instructions under the guidance of a higher level individual and not independently evaluate NDE results. Procedures 45QC-INS01-0 and GEN 12750 need to be clarified to clearly reflect ASME Section XI requirements.

(5) Paragraph 7.1.1.3 of Procedure 45QC-INS01-0 requires that all spring-type pipe supports be examined to verify that the spring is compressed within the "design values." The paragraph further states that spring-type supports have a scale on the can indicating the hot and cold setting positions and that the spring indicator is supposed to be within the settings specified on the scale. The licensee has interpreted this paragraph to mean that as long as the indicator is between the hot and cold set points, regardless of the pipe condition (hot or cold), the check is satisfactory. The inspector questioned whether or not this is adequate. The licensee was in the process of resolving a GPC audit finding, QA-84-527, relative to spring-type support settings and stated that as part of the evaluation of the audit finding, paragraph 7.1.1.3 of procedure 45QC-INS01-0 was being evaluated for adequacy.

(6) Paragraph 7.2.3 of procedure 45QC-INS01-0 requires that all Class 3 supports be visually inspected one time in each 40 month period or three times in the 10 year inspection interval. This is in excess of the frequency specified in the ISI Plan and ASME Section XI. The licensee indicated that this mistake will be corrected to have the frequency of inspection of Class 3 supports to agree with the ISI plan.

The licensee agreed to clarify the procedures as indicated above. Pending review of the above clarifications, this matter is identified as Inspector Followup Item 321, 366/85-14-03, Clarification of Procedures for ISI Inspection of Pipe Supports.

Within the areas inspected no violations or deviations were identified.

7. Inservice Inspection - Observation of Work and Work Activities (73753B) (Unit 2)

The inspector observed the ISI activities described below to determine whether these activities were being performed in accordance with regulatory requirements and licensee procedures. See paragraph 5 above for the applicable code.

a. Personnel qualification records for two GPC Level II VT examiners were reviewed.

b. The inspector randomly selected the following spring-type pipe supports, which had been inspected during the current outage, and visually examined the supports for compliance with applicable ISI requirements and ASME code requirements:

ISI Sketch B-80: Support 2T48-CPUR-H4

ISI Sketch B-37: Support RHR-H167
Support RHR-H168

During examination of support H4 on sketch B-80, the inspector noted the support arrangement was totally different from that shown on the sketch. Support H4 was located in the position shown for restraint R16. Restraint R16 had been deleted. Support H3 had been added down stream of restraints R14 and R15. However, support H3 did not appear on the sketch. Further discussion with QC personnel responsible for the inspection revealed that incorrect ISI pine support sketches is common problem. Further discussions with licensee personnel revealed that ISI sketches for pipe supports have not been updated to reflect the latest design information such as that generated for IE Bulletin 79-14 walkdown or design changes in general. The inspector noted that the system for providing design information to the ISI program is inadequate.

Further review revealed that the GPC QA audit of ISI for the current outage, Audit Report 85-ISI-1, which was in typing and due to be issued by May 18, 1985, had identified the identical finding. In review of the draft of the GPC audit and discussion of the finding with responsible personnel (QA Manager and Engineering Manager) it appears that the GPC audit fully defines the problem and that adequate corrective actions are planned.

The licensee's contractor was in the process of updating the ISI program and long term plan to meet the Winter 1981 addenda of ASME Section XI. This update will include updating the ISI plan sketches to reflect the latest design information. The licensee committed to have the support sketches updated prior to the next refueling outage for each respective unit. Pending review of the licensee's corrective

action, this matter is identified as Inspector Followup Item 321, 366/85-14-04, Update of ISI Plan Pipe Support Sketches to Reflect Latest Design Information.

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

8. Inservice Inspection - Data Review and Evaluation (73755B)(Unit 2)

The inspector reviewed the ISI records described below for the current outage to determine whether the records were consistent with regulatory and code requirements. See paragraph 5 above for the applicable code.

a. NDE records for the following pipe welds were reviewed:

ISI Sketch A-21	Weld 2E11-1RHR-20-RS-6
ISI Sketch A-9	Weld 2B21-1MS-24D-2
ISI Sketch A-9	Weld 2B21-1MS-24D-1
ISI Sketch B-83	Weld 2G31-2RWCU-4-2FW-3052
ISI Sketch A-23	Weld 2E11-1RHR-24B-R-3
ISI Sketch A-26	Weld 2E41-1HPCI-10-D21
ISI Sketch A-8	Weld 2B21-1MS-24C-8

The records were reviewed in the areas of:

- Method, extent, and technique comply with ISI program.
- Examination data and any recordable indications are properly recorded.
- Recording, evaluation, and disposition of findings are in accordance with applicable procedures.

b. NDE Records for the following reactor vessel welds were reviewed:

ISI Sketch A-1 - Weld 50-19-2 (CRDM Housing Weld)

ISI Sketch A-3 - Weld 2HC-2 (RV head to Flange Weld)

The records were reviewed in the areas of:

- Method, extent, and technique comply with ISI program
- Examination data meets applicable acceptance criteria
- Recording, evaluation, and disposition of findings are in accordance with applicable procedures
- Examination results compared with recorded results of previous examinations
- Method used sufficient to determine the full extent of indications

Indications were found and dispositioned in the above two welds as follows:

(1) Weld 2HC-2 - Two small UT indications were found. One of the two indications was found during PSI and the current inspection revealed the indication had not changed since the PSI inspection. The other indication appeared to be a mid-wall flaw approximately 1" long by 1/4" thru wall. The indication was slightly outside the size limits of section IWB-3000 of ASME Section XI and required a fracture mechanics analysis. By the close of the inspection, Structural Integrity Associates had performed the fracture mechanic analysis and informed GPC that the analysis was acceptable (see Structural Integrity letter JFC-85-020 dated May 8, 1985). The final report was to be provided to GPC by May 16, 1985.

The inspection scope was expanded to include 100% of the circumference of the weld. No additional indications were found.

The licensee indicated that the indication area would be re-examined during the next three inspection periods as required by paragraph IWB-2420 of ASME Section XI.

(2) Weld 50-19-2 had a 3/4" long liquid penetrant (PT) indication. The indication was dispositioned in accordance with paragraph IWB-3523.2(b) of ASME Section XI using ultrasonic (UT) examination.

The inspection scope was expanded in accordance with ASME Section XI requirements.

The licensee indicated that the indication area will be re-examined during successive inspections in accordance with paragraph IWB-2420 of ASME Section XI.

c. The inspector reviewed PT inspection reports and a portion of the video of PT inspection activities of feedwater nozzle blend radii for nozzles 2N4A and 2N4D. These inspections were performed to meet the requirements of Generic Letter 81-11 and NUREG 0619. No rejectable indications were detected. The contact radiation level was approximately 3 REM for nozzle A and 1200 MREM for nozzle D.

Licensee engineering personnel were in the process of evaluating the Welch Allen Video Probe 2000, a new remote video inspection system. It was suggested that due to the high radiation levels inside the feedwater nozzles, visual inspection using the new system in lieu of PT inspection might be feasible for future inspections. The inspector witnessed use of the system for inspection of feedwater heater tubes.

d. The inspector reviewed a portion of the video tapes for inspection of "A" and "C" core spray spargers. The inspection was performed in accordance with GPC procedure HNP-2-3213-E, Revision 3, in response to IE Bulletin 80-13. No cracks were found.

e. The video tape of a crack in source range monitor (SRM) 28-41 incore dry tube was reviewed. The inspection of the incore dry tubes was performed in response to GE's Service Information Letter (SIL)-409. A new replacement material for the tubes is being developed and the tubes will be changed out when the new material is available.

f. The inspector reviewed SCS audit of Lambert, McGill, and Thomas, Inc. (LMT) dated March 20, 1985.

g. The inspector reviewed the following records relative to inspection of pipe supports during the current outage:

- MWOs

  2-85-875 "Inservice Inspection of Class 1 Pipe Supports and Hangers

  2-85-876 "Inservice Inspection of Class 3 Pipe Supports and Hangers"

  2-85-877 "Inservice Inspection of Class 2 Pipe Supports and Hangers"

- Inspection Data Sheets

ISO	Support
S-25210	2B31-SSA-6
S-25210	2B31-HA-6
A-15	2B31-HB-3
A-25	2E21-CS-R60
2B21-106	2B21-MSRV-H22
2B21-106	2B21-MSRV-H35
B-37	2E11-RHR-H167
B-37	2E11-RHR-H168
B-80	2T48-CPUR-H4

h. Ultrasonic inspection records for weld 2HX-A-2 on ISO B-1 were reviewed.

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

9. Inspector Followup Items (92701B)(Unit 2)

(Closed) Inspector Followup Item 366/85-11-01, Identification of the Lower Supports on A&B RHR HX. This item pertained to the fact that for the lower supports on the RHR heat exchangers there was no positive method of identification of the support inspected when less than all of the supports were inspected. The licensee has established a method of support identification (see GPC letter GM-85-397 dated April 22, 1985).