



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

Report Nos. 50-321/81-11 and 50-366/81-11

Licensee: Georgia Power Company
270 Peachtree Street
Atlanta, GA 30303

Facility Name: Hatch Nuclear Plant

Docket Nos. 50-321 and 50-366

License Nos. DPR-57 and NPF-5

Inspection at Hatch Site near Baxley, Georgia

Inspector: J. J. Lenahan For

5/7/81

Date Signed

Approved by: T. E. Conlon
T. E. Conlon, Station Chief
Engineering Inspection Branch
Engineering and Technical Inspection Division

5-7-81

Date Signed

SUMMARY

Inspected on April 20-22, 1981

Areas Inspected

This special, announced inspection involved 16 inspector-hours on site in the areas of licensee action on previous inspection findings, licensee identified items, and nonconformance control.

Results

Of the three areas inspected, no violations or deviations were identified in two areas; one violation was found in one area (Inadequate nonconformance procedure - paragraph 5.b.)

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REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *C. E. Belflower, QA Site Supervisor
- *J. M. Watson, Senior QA Field Representative
- C. R. Miles, QA Field Supervisor
- *M. Manry, Plant Manager
- *D. A. McCusker, QC Supervisor
- *R. M. Herrington, Senior QC Specialist
- *J. Rearden, Junior Engineer
- *R. Houston, QA Field Representative
- R. Baker, Licensing Engineer (Telephone Conversation)

Other Organizations

- *L. G. Byrnes, Geotechnical Engineer, Law Engineering
- E. Beall, Geotechnical Engineer, Law Engineering
- W. C. Orr, Civil Engineer, Southern Company Services (Telephone Conversation)

NRC Resident Inspector

R. Rogers

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 22, 1981 with those persons indicated in paragraph 1 above. The violation described in paragraph 5. was discussed.

3. Licensee Action on Previous Inspection Findings

- a. (Open) Violation Item 321/80-48-02 and 50-366/80-48-02: Failure to Initiate a Nonconformance Report and Failure to Obtain Approval Prior to Implementing a Change to a DCR.
 - (1) Failure to Initiate a Nonconformance Report - The inspector reviewed nonconformance report (NCR) numbers 80-177 and 80-179 which document the nonconforming conditions concerning the damaged protective coating on the service water lines and the welding of angle iron supports onto one of the 18" diameter RHR lines. The inspector reviewed the NCR log listing NCRs written against the

backfill repair program. Based on review of the above NCRs and the NCR log, the inspector concluded that procedure HNP-801, "Nonconformances" is being implemented by personnel involved with the intake backfill repair.

- (2) Failure to Obtain Approval Prior to Implementing a Change to a DCR - The inspector reviewed Revision 8 to procedure number HNP-809 "Plant Modifications - Approved and Implementation" which was written as part of the corrective action involving failure to follow procedures in implementing a change to a design change request (DCR) prior to its approval by the plant review board (PRB). The revised procedure does not require approval by the PRB of changes to DCRs which do not alter the scope of the DCR or invalidate the approved safety evaluation of a DCR. Based on a review of HNP-809 (Revision 8) and discussions with site personnel, the inspector concluded that the licensee's corrective actions stated in their letter dated March 9, 1981 to NRC Region II were not clear. Subsequent to the inspection, on April 29, 1981, the inspector discussed this problem with licensee personnel and requested a supplemental response to clarify their corrective actions. This item remains open pending receipt of the licensee's supplemental response and further review by NRC Region II.
- b. (Closed) Unresolved Item 321/80-48-04 and 366/j80-48-04: K-Krete QC Requirements. The inspector examined revisions to the Bechtel "Technical Specification for Design, Construction and Backfilling of a Braced Excavation for the Intake Structure Service Water Piping and Utilities for E. I. Hatch Power Plant, Units 1 and 2" transmitted to the site by Bechtel letter dated March 31, 1981. These revisions specify the acceptance criteria for K-Krete to be a minimum unit weight of 120 pcf and a minimum 7-day unconfined compressive strength of 10 psi. All K-Krete placed to date meets these requirements. The revisions also added requirements to specify the maximum elapsed time between batching and placing of the K-Krete to be one and one-half hours, which is the same as for concrete. This maximum batch criteria is what has been used for the project since placement of K-Krete was started. This item is closed.
 - c. (Closed) Unresolved Item 321/81-02-01 and 366/81-02-01: Deep Excavation Dewatering Procedure. The inspector examined Wellpoint Dewatering Corporation Drawing No. D-81-15 "Proposed Deepwell Dewatering System" and Wellpoint Dewatering Corporation Procedure "Dewatering-Intake Structure - Hatch Nuclear Plant". The drawing and procedure address the layout of the dewatering system, well size (diameter) and depth, size and type pumping equipment, requirements for emergency pumping equipment (standby electrical system), the required system performance, and the requirements for well discharge monitoring. Three observation

wells have been installed to monitor the performance of the dewatering system. Water level readings will be taken on these three wells, and on piezometers which was previously installed, on a daily basis by Law Engineering personnel. This item is closed.

- d. (Closed) Violation Item 321/81-02-02 and 366/81-02-02: Failure to Establish Procedures for Control and Calibration of Testing Equipment Used to Perform Tests on K-Krete. The inspector reviewed the procedure for calibration of the Karol-Warner Model 1000 RP load ring used in testing of the K-Krete. The inspector also examined the current calibration curve for the load ring. A calibration sticker has been attached to the load ring to indicate that calibration is current and the date when recalibration of the load ring is required. This item is closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort

- a. The inspector examined Procedure No. HNP-1-10947, "Repair of Backfill - East Side of Unit 1 Reactor Building". This procedure covers repair of backfill on the east side of the Unit 1 reactor building which was washed out when an 8-inch fire main broke. The problem is documented on Nonconformance Report No. 81-209. The inspector examined work in progress to replace the eroded backfill. The area affected is approximately five feet wide by 100 feet long, with a maximum depth of six feet. The procedure specifies that K-Krete is to be used to replace the eroded backfill.
- b. The inspector examined Procedure No. HNP-801, "Nonconformance". Examination of this procedure disclosed the following violation; 10 CFR 50, Appendix B, Criterion XVI requires in part that measures be established to promptly identify and correct nonconformances, and in the case of significant conditions adverse to quality, that the cause of the nonconformance be determined. Criterion XVI also requires that the cause of significant nonconformances be documented and reported to appropriate levels of management. Contrary to these Criterion XVI requirements, after review of Procedure HNP-801, and several nonconformances, and during discussions with quality control and quality assurance personnel, the inspector noted that procedure HNP-801 does not require the cause of significant conditions (nonconformances) adverse to quality to be determined, and that the causes of significant conditions (nonconformances) adverse to quality are not being documented. This was identified to the licensee as violation item 321/81-11-01 and 366/81-11-01, "Inadequate nonconformance procedure".

No deviations were identified.

6. Licensee Identified Items

- a. Settling of Fill Under Plant Service Water and RHR Service Water Piping (LER 50-321/1980-062) - The inspector examined the deep excavation adjacent to the intake structure and installation of deep wells for dewatering the excavation. The loose backfill material under the plant service water and RHR service water piping adjacent to the intake structure has been excavated to a depth of approximately elevation 62. An additional 10 feet of material is to be removed prior to reaching firm foundation materials on which the K-Krete backfill is to be placed. The removal of this material will be delayed until installation of the dewatering system is completed and operating. The inspector noted that the excavation, bracing of the excavation, temporary support of the RHR and service water piping, and deep well installation is in accordance with the project drawings and specifications. Excavation of the loose backfill under the RHR and service water lines and replacement of the backfill with K-Krete has been completed in the shallow excavation section of the intake backfill repair. The shallow section was approximately 80 feet long. The deep excavation section is approximately 20 feet long. The inspector examined the following quality records relating to the intake backfill repair:
 - (1) Second shift QC inspection reports for February 28 through March 16, 1981, and for April 9 through April 16, 1981
 - (2) Records of settlement monitoring program performed on RHR and service water piping and on conduit ducts for period of March 6 through April 20, 1981
 - (3) Nonconformance Report No. 81-205, 81-211, 81-245 and 81-252
 - (4) Records of water level readings in observation wells for period of March 20 through April 6, 1981
- b. Overstressed Masoning Walls (LER 50-321/1980-115) - Performance of the masonry wall design re-evaluation required by IE Bulletin 80-11 disclosed that nine walls had local stresses above the code allowable upon application of seismic loads. The inspector reviewed Design Change Request (DCR) No. 81-10 which has been written to accomplish the modifications to the nine walls. The design drawings showing details of the wall modifications have been completed. The materials required to complete the modifications have been purchased and have been received on site.
- c. Nonconservative Computer Program Used in Design Re-evaluation of Masonry Walls (LER 50-321/1981-031) - The licensee notified Region II on April 16, 1981 that an additional masonry wall requires modification

in order to meet seismic design requirement due to a lack of conservatism in the computer program used to perform the original IE Bulletin 80-11 masonry wall design re-evaluation. The IE Bulletin 80-11 design re-evaluation was performed for the licensee by Southern Services Company. The computer program used by Southern Services Company in the design re-evaluation was furnished by Bechtel. A recent review of the computer program disclosed that it contained an unconservative assumption in computation of seismic loads acting on the walls. The program was modified and the masonry walls were reanalyzed using the revised version of the program. This design re-analysis disclosed that one wall, in addition to the nine reported under LER 50-321/1980-115 (see paragraph 6.b., above), had local stresses above the code allowable upon application of seismic stresses. This wall will be modified under DCR 81-10. The design drawings showing details of the wall modifications have been completed.

No deviations or violations were identified.