



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

Report Nos. 50-566/79-8 and 50-567/79-8

Licensee: Tennessee Valley Authority
 500A Chestnut Street Tower II
 Chattanooga, Tennessee 37401

Facility Name: Yellow Creek Nuclear Plant, Units 1 and 2

Docket Nos. 50-566 and 50-567

License Nos. CPPR-172 and CPPR-173

Inspection at Yellow Creek Site near Iuka, Mississippi

Inspector: J. J. Lenahan, P.E. June 4, 1979
Date Signed

Approved by: J. C. Bryant, Section Chief, RCES Branch 6/4/79
Date Signed

SUMMARY

Inspection on May 21-24, 1979

Areas Inspected

This routine unannounced inspection involved 22 inspector-hours onsite in the areas of structural concrete work activities and quality records, Level C and D storage, construction status, and licensee actions on previous findings.

Results:

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

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DETAILS

1. Persons Contacted

Licensee Employees

- *M. M. Price, Project Manager
- *L. S. Cox, Construction Engineer
- *R. G. Delay, Supervisor, Civil QC Unit
 - J. N. Holladay, Supervisor, Project QA Unit
 - G. B. Alexander, Civil QC Unit
 - C. M. Freeman, Civil QC Unit
 - C. Burshears, Project Geologist
- *C. Wages, Assistant Construction Engineer
- *S. Alge, Supervisor, Document Control Unit

Other Organizations

Chicago Bridge and Iron Company

C. L. Spears, Lead QC Inspector
L. Savage, QC Inspector

*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on May 24, 1979 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

- a. (Closed) Unresolved Item (566/78-10-01 and 567/78-10-01): Frequency of sampling for test cylinders, air content, temperature and slump. The inspector reviewed Revision 5 to QCI 208 which states sampling shall be at the 100 cubic yard interval specified in the PSAR. The inspector reviewed batch plant inspection records and records of tests performed on plastic concrete (slump, air content, temperature, and strength) for the period January 4, 1979 through May 15, 1979, and determined that Category I concrete was sampled at the frequency specified in the PSAR. This item is closed.
- b. (Closed) Unresolved Item (566/78-10-02 and 567/78-10-02): Pumped Concrete. The inspector reviewed Revision 5 to QCI 208 which requires pumped concrete to be sampled at the pump line discharge as specified in ANSI standard N45.2.5-1974 which is referenced in the PSAR. No Category I concrete has been placed by pumping to date. This item is closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort

The inspector examined the following areas:

- a. Concrete Batch Plant
- b. Concrete and Soils Laboratory and currentness of calibration of laboratory equipment
- c. Welding (Fourth layer) of seam A-1 on assembly B-8 of the spherical containment vessel
- d. Level C storage areas
- e. Reinforcement steel storage area
- f. Specification N8C-882, "Earth and Rock Foundations and Fills"

No deviations or items of noncompliance were disclosed.

6. Foundations - Observation of Work and Work Activities (Unit 2)

The inspector examined the completed excavation for the Unit 2 powerhouse block. Acceptance criteria examined by the inspector appear in the following documents:

- a. Section 2.5 of the PSAR
- b. Paragraph 2.5.3 of the SER
- c. QC1 110, "Excavation and Fill, Batching Inspection and Monitoring"
- d. N8C-882, "Earth and Rock Foundations and Fills"
- e. Drawings 4YE0500-Y1-1 and 4YE0500-Y1-2, "Units 1 and 2 Reactor, Fuel Control and Waste Management Buildings, Structural Excavation"

Dewatering is being controlled by ditches and sumps. Fill concrete has been placed on bedrock in the Fuel Building and Emergency Sumps and geologic mapping has been completed in these areas. Final approval of foundations before placement of concrete is through a foundation inspection team made up of engineers and geologist from the site and engineering design.

No deviations or items of noncompliance were identified.

7. Containment (Structural Concrete I) - Observation of Work and Work Activities (Unit 1)

The inspector observed placement and grouting of anchor rods in hole numbers 53, 125, 1117, 1156 and 1157 in the Unit 1 Control Building. Acceptance criteria examined by the inspector appears in the following documents:

- a. Section 3.8 of the PSAR
- b. QC1 220, "Concrete-Foundation Anchor Grouting"
- c. Drawing No. 4CE0301-C2-1, "Concrete Anchor Rods"

The anchor rods were being placed and grouted in accordance with procedures and were continuously monitored by a certified QC inspector.

No deviations or items of noncompliance were identified.

8. Containment (Structural Concrete I) - Review of Quality Records (Units 1 and 2)

The inspector examined the following records relating to structural concrete:

- a. Mixer efficiency tests.
- b. Batch plant scale calibration records for months of December, 1978, through May, 1979.
- c. Replacement inspection records for pour numbers A1-D5 fill concrete and A1-D5 structural concrete
- d. Concrete mixing plant inspection records for period January 4, 1979 through May 15, 1979.
- e. Concrete curing record for pour number A1-D5.
- f. Receiving inspection check lists for water reducing agent and air entraining agent and certified materials test reports provided by manufacturers of these products.
- g. Receiving inspection check lists for cement and fly ash delivered to project during months of February through April, 1979 and results of chemical and physical tests performed on those materials.
- h. Certifications of 8 QC inspectors.
- i. Certifications of cadweld crew numbers 5-114, 5-559, and 5-574.
- j. QC1R numbers 4162, 4864, 4865, 12022, 12024, 12026 through 12028, and 12109 through 12111.
- k. Receiving inspection check lists and certified material test report for reinforcing steel heat numbers listed below:

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(1) Size No. 11
Heat Nos. 1G0192, 1G5295, U2F6403, V1F1821, and 2G5342.

(2) Size No. 18
Heat Nos. A50571, A50581, B52347, B52353, C50123 and C50150

l. Documentation of QC inspections performed on cadwell numbers CB833, 899, 1007, 1580, 1590, 1599, 1703, 1708, 1715, 1768, 1779, 1787, 1904, 1906, 1973, 1977, 1978, and 1997.

m. QA Audits listed below:

Number	Title
YC-C-79-02	Concrete Placement, Curing and Form Removal
YC-C-79-04	Cadwelding Activities
YC-C-79-05	Grouting of Rebars and Anchors
YC-C-79-01	Concrete Mixing Plant Operations, and Material and concrete sampling and testing
YC-C-78-03	Concrete Operations

Acceptance criteria examined by the inspector appear in Section 3.8 of the PSAR. Controlling procedures and specifications examined by the inspector are TVA Specification G-2, Quality Control Instruction (QCI) C-201, C-202, C-208, C-210, C-212, C-401, and C-402, RIS & PM C-201, C-202, C-203, and C-209 and Yellow Creek SOP-15.

No deviations or items of noncompliance were identified.

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