



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

Report Nos. 50-566/7-7 and 50-567/79-7

Licensee: Tennessee Valley Authority  
 501 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: *A. R. Herdt* 5/24/79  
 M. J. Gouge Date Signed

Approved by: *A. R. Herdt* 5/24/79  
 A. R. Herdt, Section Chief, RCES Branch Date Signed

SUMMARY

Inspection on May 8-11, 1979.

Areas Inspected

This routine unannounced inspection involved 28 inspector-hours onsite in the areas of construction status, containment welding (Unit 1), 10 CFR 21 posting, QA implementing procedures for containment and others safety related steel structures and supports, and a licensee identified item.

Results

Of the six 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
- \*C. G. Wages, Assistant Construction Engineer (QC)
- S. G. Carr, Assistant Construction Engineer (PE)
- J. C. Adams, Assistant Construction Superintendent
- R. G. Delay, Supervisor, Civil QC Unit
- L. C. Marshall, Supervisor, Mechanical Engineering Unit
- E. W. McGuire, General Labor Foreman
- \*R. D. Briggs, Supervisor, Mechanical QC Unit
- M. F. Stakley, Supervisor, Welding QC Unit
- S. E. Alge, Supervisor, DCU
- C. M. Freeman, Civil QC Unit
- G. B. Alexander, Civil QC Unit
- R. J. Engel, Civil QC Unit
- D. P. Reynolds, Civil QC
- N. K. Masonia, Civil QC Unit
- L. E. Swafford, DCU
- S. P. Watson, DCU
- \*J. N. Holladay, Supervisor, Project QA Unit
- J. B. Nelson, Project QA Unit
- \*L. B. Parker, Project QA Unit
- J. M. Guillott, Project QA Unit

Other Organization

Chicago Bridge and Iron Company

- C. L. Spears, QA Superintendent
- W. Spalding, Senior QA Auditor
- L. Savage, QA Technician

\*Attended exit interview.

2. Exit Interview

The inspection scope and findings were summarized on May 11, 1979 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

Not inspected.

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4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort

a. Construction Status (Units 1 and 2)

Nine sectional pours of the elevation 445 foot slab for Unit 1 been completed as of May 10, 1979. Formwork, reinforcing steel placement and installation of miscellaneous embedments continues in the Unit 1 reactor building area. Initial concrete placements have been made in the sump areas of the Unit 2 reactor building. Concrete operations in the personnel tunnel are nearing completion. Stainless steel tritiated and non-tritiated sumps are being installed in the Unit 1 reactor building area. Chicago Bridge and Iron Company (CBI) is welding and radiographing sections of the carbon steel containment vessel plates on-site. Construction of warehouse, office and shop buildings are continuing. Fill concrete pours have been conducted in the fuel building and waste management building foundation areas. The position of Supervisor, Welding QC Unit has been manned.

b. Concrete Placement (Unit 1)

The inspector observed placement of Category I concrete pour A1-010 located at elevation 445 feet in the Unit 1 reactor building area. Acceptance criteria examined by the inspector are specified in the following documents:

- (1) Section 3.8 of the PSAR and TVA Topical Report TR-75-1A
- (2) TVA Specification G-2, "Plain and Reinforced Concrete"
- (3) Quality Control Instructions C-201 through C-214
- (4) Drawing 4RE0417-5R-1, R5, Walls and Slabs
- (5) Drawing 4RE0418-5R-1, R-3, Reinforcement
- (6) Specification N8C-887, "Plain and Reinforced Concrete"

Forms were tight and clean and preplacement inspection was indicated by the signed pour card. Areas inspected included delivery, conveying, placement, consolidation, testing and curing of concrete. The following records were reviewed by the inspector for pour A1-010:

- (1) Concrete Pour Card
- (2) Concrete Sample Data Input
- (3) Mixing Plant Report
- (4) Concrete Curing Report

Concrete operations were continuously monitored by Civil QC personnel. Concrete placement, testing and inspection were conducted in accordance with applicable procedures.

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No items of noncompliance or deviations were identified.

c. Containment Vessel Welding (Unit 1)

The inspector observed in-process welding of the carbon steel containment vessel plates. Chicago Bridge and Iron Company (CBI) is the contractor responsible for fabrication of the spherical steel containment vessel. Welding was conducted in accordance with WPS EH-14 (twin) for the basic weld and WPS 7018 for fit-up welds by qualified welding personnel. The contractor is using the automatic EH-14 weld process with a tilting platform to properly orient the spherical plates to the weld geometry.

The inspector reviewed repair records for the three repairs conducted to date on flaws detected during radiographic examination of completed plate welds. The repairs were conducted in accordance with approved repair procedure GR10X and documented in accordance with the CBI QA Manual for ASME Section III Products, Issue 8. Certified Material Test Reports for weld filler material heat numbers 432E3951, 422E5861 and 421E3481 were examined for compliance to Part C of Section II of the ASME Code.

No items of noncompliance or deviations were identified.

6. Containment(Steel Structures and Supports/Safety Related Structures (Structural Steel and Supports) - Review of QA Implementing Procedures - Units 1 and 2

The inspector reviewed quality assurance plans procedures and instructions in the areas of structural steel and supports for containment and other safety related structures. This review verified the establishment of sufficient procedures to control safety related work in this area.

The following documents were reviewed:

- a. Construction Engineering Procedures (CDD's) 1.01, 2.01, 5.01, 7.02, 8.01, 12.01, 13.02, 14.01, 15.01, 15.03, 17.01, 18.01
- b. Mechanical Quality Control Instructions (QCI's) M-110 through M-460
- c. Selected Mechanical Receiving, Inspection, Storage and Preventive Maintenance (RIS&PM) Procedures
- d. CBI QA Manual for ASME Section II Products, Issue 8
- e. Contract File "Containment Vessel" - Chicago Bridge and Iron Company, 822043-1 (Unit 1) and 822043-2 (Unit 2)

The above documents conform to the Yellow Creek Nuclear Plant QA program as described by TVA Topical Report TR-75-1A.

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No items of noncompliance were identified.

7. 10 CFR Part 21 Inspection (Units 1 and 2)

The site facilities were inspected to determine if the posting requirements specified in 10 CFR 21.6 were continuing to be implemented. The licensee had posted notices prepared per 10 CFR 21.6 (a) in a conspicuous location on the site bulletin board. The posting requirements of 10 CFR 21.6 are continuing continuing to be implemented on-site.

No items of noncompliance or deviations were identified.

8. Licensee Identified Item (LII) (Units 1 and 2)

(Open) Item 556-567/79-07-01: Piping elbows made of unspecified materials. On May 2, 1979 the licensee notified Region II that seven, 4 inch, 45 degree elbows had been received and stored on-site.

These piping elbows manufactured by Tube Turns had been made with unspecified materials and their return had been requested by Guyon Industries. Nonconforming Report (NCR) 007 was written to document the nonconformance. The pipe elbows have been placed in QC hold (QCIR-12064) and segregated pending disposition of this item. TVA plans to submit a report on this subject by June 1, 1979.

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