



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

Report Nos. 50-400/80-20, 50-401/80-18, 50-402/80-18 and 50-403/80-18

Licensee: Carolina Power and Light Company
411 Fayetteville Street
Raleigh, NC 27602

Facility: Shearon Harris

Docket Nos. 50-400, 50-401, 50-402 and 50-403

License Nos. CPPR-158, CPPR-159, CPPR-160 and CPPR-161

Inspection at Harris site near Raleigh, North Carolina

Inspected by: G. F. Maxwell

8-19-80
Date Signed

Approved by: J. C. Bryant
J. C. Bryant, Section Chief, RC&ES Branch

8/19/80
Date Signed

SUMMARY

Inspection on July 21-31, 1980

Areas Inspected

This routine resident inspection involved 46 inspector-hours onsite in the areas of containment steel, concrete placement, equipment storage and licensee action on previous inspection findings.

Results

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

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DETAILS

1. Persons Contacted

Licensee Employees

J. A. Jones, Senior Executive Vice President and Chief Operating Officer
M. A. McDuffie, Senior Vice President
*N. J. Chiangi, Manager - Engineering and Construction QA
R. M. Parsons, Site Manager
*A. M. Lucas, Senior Resident Engineer
*G. L. Forehand, Principal QA Specialist
*G. M. Simpson, Principal Construction Inspection Specialist
*R. Hanford, Principal Engineer, Welding
*M. F. Thompson, Director of Contracts and Services
*C. S. Himmant, Resident Electrical Engineer

Other licensee employees contacted included 15 construction craftsmen, seven technicians, two security force members, and 11 office personnel.

Other Organizations

*W. D. Goodman, Daniel Project Manager
*B. B. Isom, Daniel Construction Manager

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on July 31, 1980, with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

(Closed) Noncompliance 400/79-17-01, "Improper curing of structural concrete." The corrective action indicated in CP&L letter dated September 27, 1979, has been fully implemented. That is, there is evidence that personnel have been trained on the curing requirements for concrete. A weekly trend analysis is being conducted and the results reported to CP&L management. The RII inspector observed proper curing practices being exercised relative to a concrete placement made on July 25, 1980. This item is closed.

(Closed) Noncompliance 400/401/79-19-01; 402/403/79-18-01, "Processing and review of construction deficiencies." The corrective action indicated in CP&L letter dated November 7, 1979, has been implemented. The inspector observed four examples where in-process concrete curing and improper use of concrete vibrator practices were documented on the applicable nonconformance report forms (NCR, DR or DDR) thus providing CP&L management with the opportunity to review unsatisfactory in-process conditions. This item is closed.



(Closed) Noncompliance 400/401/79-07-02; 402/403/79-06-02, "Failure to place embankment core fills at specified moisture content." IE reports 400/401/79-25 and 402/403/79-24 updated this item requiring closure pending removal and replacement of affected core fill in the west auxiliary dam diversion. The inspector reviewed field CP&L inspection reports dated June 10, 1980 and internal CP&L correspondence dated June 25, 1980. As a result, there is sufficient evidence that the affected soil has been removed, replaced and inspected as required by the revised procedures and specifications. This item is closed.

(Closed) Noncompliance 400/401/79-23-01, "Failure to follow procedures". The corrective action indicated in CP&L letter dated December 21, 1979, has been implemented. A procedure (WP-36) has been issued to allow and describe how to bend and straighten reinforcing steel that is partially embedded in set concrete. Procedure WP-36 was approved for use by the design engineer. This item is closed.

(Closed) Noncompliance 400/80-11-01; 401/402/403/80-08-01, "Failure to consider effect of backfill settlement in design analysis of Category 1 piping." The inspector discussed the CP&L letter of response dated June 4, 1980, with the RII inspector that documented this item of noncompliance. The RII inspector stated that corrective action has been implemented for this item. This item is closed.

(Closed) Noncompliance 400/401/402/403/80-07-01, "Inadequate measures to control nonconforming curing compound." The corrective action indicated in CP&L letter dated May 2, 1980, has been implemented. A "suspense file system" has been developed for controlling curing compounds that have effective shelf lives. This item is closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Containment Steel - Unit 1

Observed in-process welding of Unit 1 containment dome plate steel section 66C, C-4 to C-3. The welder, CB&I welder symbol L.H., was found to have current qualifications for the process that was being applied. Evaluated the certifications for the low-hydrogen electrodes that were being used. The electrodes were found to meet the requirements of ASME Section III, SFA5.1. Observed that welder symbol L.H. discontinued welding on the above steel when rainwater fell in the location where he was welding.

In the areas inspected, no items of noncompliance or deviations were observed.

6. Concrete Placement and Testing - Units 1-4

- a. While making a tour at the west auxiliary dam spillway the inspector observed the placement and inspection of a concrete seal mat. The concrete used was mix code M-56, requiring a slump less than 4" and a

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maximum temperature of 90 F. The concrete was located at placement number WADSM039 as a substitute for the loose material that had been previously removed. Observed the placement and consolidation of the concrete and reviewed documentation indicating that the concrete batch (M-56) had been tested and found acceptable - reference CP&L procedures WP-05 and CQC-13.

- b. Observed preparation for concrete placement, placement, testing and portions of the curing practices related with placement 1RASL236005 (located in reactor building Unit 1). The concrete used was mix M-56 which required a slump of less than 4" and a maximum temperature of 90 F. As a result, the following were observed:

- (1) After the construction inspection (CI) preplacement inspection had been completed but prior to the placement of the concrete, the inspector observed that the placement area contained an empty cigarette package, one area had oil on the surface of three bars of reinforcing steel and one of the embeds appeared to be out of position (reference drawing CAR-2168-G-157905 Revision 4 coordinates I12 and J12).

The inspector brought the above three conditions to the attention of CI personnel. Prior to placing the concrete the cigarette package was removed, the oil was removed from the reinforcing steel, measurements were taken and the embed was placed in the specified location. The inspector was shown a note on drawing CAR-2168-G-157905 which allows a tolerance of +1" for the location of concrete embeds. The "as found" location of the embed was approximately 1" from its exact location. The inspector has no further questions about this matter, at this time.

- (2) The concrete temperature, slump and air measurements were taken per CP&L Procedure CQC-13 and ASTM C143 and C173.
- (3) Observed a concrete repair made to the wall of the fuel handling building at elevations 217' and 219' (previous placement number 1FHXW232012-P1). The repair was conducted in accordance with CP&L Procedure WP-27 and WP-05 using a M-56 design mix.

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

7. Equipment Storage - Units 1-4

- a. Observed the stored conditions of Units 1-3 reactor vessels, Units 1-4 reactor vessel closure heads, Units 1-4 reactor vessel internals and the reactor vessel head hold-down springs for Units 2-4. The building which contained the head hold-down spring for Unit 3 reactor vessel appears to have been leaking water due to inadequate drainage outside the building. However, upon inspection of the spring itself, no evidence of deterioration or damage was seen. The CP&L personnel

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responsible for storage and maintenance informed the inspector that repairs have been made to the affected building and that the building will be watched closely in the future to assure that Unit 3 reactor hold-down spring does not get wet. The inspector has no further questions about this matter at this time.

- b. Observed the stored conditions of steam generators serial number 1651, 1652 and 1653. As a result, observed that steam generator 1653 appears to be having problems with its dunnage (temporary supports while in outside storage). There is evidence that the dunnage is deteriorating due to either the weather or termites. The inspector was informed that new dunnage has been ordered, received and will be used to replace deteriorating dunnage, as applicable.

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