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

APR 21 1980

Report Nos. 50-400/80-09, 50-401/80-09, 50-402/80-09 and 50-403/80-09

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

Facility Name: 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, NC

Inspector: E. H. Girard 4/16/80
E. H. Girard Date Signed

Approved by: A. R. Herdt 4/17/80
A. R. Herdt, Section Chief, RCES Branch Date Signed

SUMMARY

Inspection on March 24-26, 1980

Areas Inspected

This routine, unannounced inspection involved 24 inspector-hours on site in the areas of licensee action on previous inspection findings, inspector follow-up items, observation of safety related pipe welding (Unit 1), and visual examination of support welds (Unit 1).

Results

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



DETAILS

1. Persons Contacted

Licensee Employees

- R. M. Parsons, Site Manager
- *A. M. Lucas, Senior Resident Engineer
- *P. W. Howe, Vice President Technical Services Division
- *G. L. Forehand, Principal QA Specialist
- *R. Hanford, Principal Engineer - Welding Engineering
- V. M. Safarian, Senior QA Specialist - Welding

Other licensee employees contacted included four construction craftsmen, and three QA technicians.

Other Organizations

- F. P. Hazelip, Welding & QA Superintendent, Chicago Bridge & Iron Co
- *D. Goodman, Project Manager, Daniel Construction Company

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on March 26, 1980 with those persons indicated in Paragraph 1 above.

3. Licensee Action on Previous Inspection Findings

(Open) Unresolved Item (400-79-05-01): Cold spring controls. The licensee informed the NRC inspector that evaluation of proposed new cold spring requirements was continuing. Preliminary unapproved requirement documents were examined by the inspector. The NRC inspector questioned two of the licensee's QC inspectors and two craftsmen to verify their knowledge of what cold spring was and of the licensee's current restrictions on its use. Their knowledge appeared adequate in these areas.

4. Unresolved Items

Unresolved items are matters about which more information is required to determine whether they are acceptable or may involve noncompliance or deviations. New unresolved items identified during this inspection are discussed in paragraphs 7 and 8.

5. Inspector Follow-up Items

The following previously identified inspector follow-up items were examined during this inspection:

- a. (Closed) Inspector Follow-up Item (400, 401, 402, 403/80-03-01): Welding material control. The inspector verified changes to procedure MP-03 (Rev. 8) which clarified requirements relative to control of welding electrodes. This item is closed.
- b. (Open) Inspector Follow-up Item (400, 401, 402, 403/80-03-02): Welding procedure weave width. The inspector discussed this item with the licensee. The licensee did not fully understand the concerns relative to this item and had taken no action on it. The inspector informed the licensee that the concerns were:
 - (1) In the welding procedure specifications (WPS) for manual welding the variable oscillation is specified in terms of a multiple of the core wire diameter. Oscillation is not readily measurable and it appears that it is being described in terms of weld bead width. The procedures should clarify this point.
 - (2) Bead width requirements in the General Welding Procedures and the "oscillation" requirements in the applicable WPS are not the same (for example see procedure MP-07 and WPS-8B2). There is no apparent reason for this difference. In some cases the General Welding Procedure is more restrictive and in others the WPS's are more restrictive.
- c. (Open) Inspector Follow-up Item (400, 401/79-26-01; 402, 403/79-25-01): QA/QC inspection procedures. The inspector was informed that revision of the procedures applicable to socket welding had not been completed. The inspector asked the licensee whether any socket welding was in progress or if any site fabricated socket welds were available for examination. The licensee stated that no socket welding was in progress and that no completed socket welds were accessible for examination. This item will remain open pending a review of the revised procedures and their implementation.

6. Licensee Identified Items (50.55(e))

(Closed) Item 400, 401/79-23-05: Defective hanger welds. The licensee stated that this item had been determined not to be reportable. The NRC inspector reviewed the licensee's evaluation report (Report MW-003 dated 2/12/80) on this item, discussed the item with licensee QC inspection personnel and accompanied a Carolina Power & Light inspector to witness his proper performance of required hanger weld inspections. The inspections witnessed were for hangers identified A-2-236-1-CC-H-91, A-1-190-1-RH-H-63 and A-2-236-1-CC-H-947. The applicable code for the welds on these hangers is AWS D1.1-75. The NRC inspector has no further questions on this matter.

7. Observation of Safety-Related Pipe Welding (Unit 1)

The NRC inspector observed welding in progress and examined completed welds on containment spray piping. The code applicable to welding for this piping is ASME Section III Class 2. The completed welds examined by the NRC inspector had been made off site to 1971 edition, Summer 1973 addenda code requirements. The in progress welding observed was specified to be performed to 1974 edition, Winter 1976 addenda code requirements. The welds and welding were examined for compliance with the code requirements. Completed welds examined included socket weld 19 on piece 1-CT-10-3 and pipe attachment weld 39 to piece 1-CT-5. The inside diameter of the pipe attachment weld was found to be undercut in excess of 1/32" requirement specified by the code. The inspector asked the licensee to determine the safety significance of this item and identified it as unresolved item 400/80-09-02, Undercut Containment Spray Piping Attachment Weld. Other welding in progress observed by the NRC inspector was on butt welds identified as C1-286-1-CT-3-FW-158 (partially completed) and FW-189 (only fitup complete).

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

8. Steel Structures and Supports - Visual Examination of Welds (Unit 1)

The inspector examined welds for pipe hangers for containment spray system piping. The code applicable to welds for these hangers is specified as AWS D1.1-77. The applicable licensee procedure for these welds is CB&I Procedure VT2N Rev. 2. The welds examined by the inspector were fillet welds for hangers identified CT-H-4 through - 9. The inspector examined the welds for proper location, length, size, surface condition, joint configuration, removal of temporary attachments, removal of arc strikes and spatter, grinding (if required), and surface defects. The inspector noted that several of the welds appeared to have undercut exceeding specified requirements (for example on hanger CT-H-7) and that slag did not appear to have been properly cleaned off some welds. Also, the inspector found evidence of what appeared to be overlap or unsatisfactory fusion on fillet welds attaching plates (to which the hangers were attached) to the containment liner. The inspector asked the licensee to determine the extent and significance of the apparently nonconforming conditions. This is identified as unresolved item 400/80-09-01, Surface Defects in Hanger and Liner Attachment Welds.

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

