



UNITED STATES
NUCLEAR REGULATORY COMMISSION

REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30303

Report No.: 50-261/84-13

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

Docket No.: 50-261

License No.: DPR-23

Facility Name: H. B. Robinson

Inspection at H. B. Robinson site near Hartsville, South Carolina

Inspector: *[Signature]* 5/11/84
for W. P. Kleinsorge Date Signed

Approved by: *[Signature]* 5/11/84
J. J. Blake, Section Chief Date Signed
Engineering Branch
Division of Reactor Safety

SUMMARY

Inspection on April 24 - 27, 1984

Areas Inspected

This routine, unannounced inspection involved thirty-two inspector-hours on site in the areas of licensee action on previous enforcement matters, modification progress, and steam generator replacement project.

Results

Violation - "Hold Point Bypassed Without Documented Authorization" No deviations were found.

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PDR ADOCK 05000261
Q PDR

REPORT DETAILS

1. Persons Contacted

Licensee Employees

- *R. E. Morgan, General Manager
- *M. J. Reid, Construction Manager
- *H. P. Beane, QC Supervisor
- *E. Upchirch, Senior Engineer
- *C. Wright, Regulatory Compliance
- *J. Sterdavant, Technical Regulatory Compliance

Other licensee employees contacted included construction craftsmen, technicians, and office personnel.

Other Organization

M. C. Shepard, Site Supervisor, Chicago Bridge and Iron Company (CB&I)

NRC Resident Inspector

- *R. Prevatte, Senior Resident Inspector (Harris - Construction)

*Attended exit interview

2. Exit Interview

The inspection scope and findings were summarized on April 27, 1984, with those persons indicated in paragraph 1 above. The inspector described the areas inspected and discussed in detail the inspection findings listed below. No dissenting comments were received from the licensee.

(Open) Violation 261/84-13-02: "Hold Point Bypassed Without Documented Authorization" - paragraph 6.d(1).

3. Licensee Action on Previous Enforcement Matters

(Closed) Unresolved Item 261/83-30-02: "Welding Filler Material Receipt Inspection."

This item concerned the applicable revision and addenda of Section II Part C of the ASME B and PV code that a specific heat of welding filler material had been purchased, and the adequacy of the receipt inspection of that material. The licensee has made the necessary records available to the inspector. As the result of this inspector's review this matter is considered closed.

4. Unresolved Items

Unresolved items were not identified during this inspection.

5. Independent Inspection Effort

Modification Progress

The inspector conducted a general inspection of the Unit 2 containment and turbine buildings, laydown areas, and the weld test shop to observe modification progress and activities such as welding, material handling and control, housekeeping and storage.

Within the areas examined, no violations or deviations were identified.

6. Steam Generator Replacement Project

The inspector observed welding work activities for the steam generator replacement project as described below, to determine whether applicable code and procedure requirements were being met. The applicable codes standards and specifications for the replacement project are listed below:

- ASME Code Section III, 1980 Edition including all Addenda through Winter of 1980 - as applicable to vessels (the steam generators)
- ASME Code Section IX, 1980 Edition including all Addenda through Winter of 1980 - for welding requirements as applicable to the project
- ASME Code Section XI, 1977 Edition with Addenda through Summer 1978, for the establishment of the new baseline inspection requirements
- ANSI (Power Piping Code) B31.1.0, 1967 - All applicable piping work is to meet or exceed the requirements of this code
- American Institute of Steel Construction (AISC) Sixth Edition (1963) for use for all structural steel design, fabrication, and installation
- American Concrete Institute (ACI) 318-63 for use in restoring structural (reinforced) concrete
- H. B. Robinson Plant Operation Manual (POM)
- H. B. Robinson Technical Specifications
- NPCD Approved Work Procedures
- Carolina Power and Light Company Corporation Quality Assurance Manual
- H. B. Robinson - Unit No. 2 Steam Generator Repair Report including answers to NRC questions

- H. B. Robinson - Unit No. 2 Specification for Power Piping, Specification CPL-R2-MP1, Ebasco Specification 62-65T
- H. B. Robinson Steam Electric Plant - Unit No. 2 Construction Modification Package ENG-5.8

a. Review of Quality Program

The inspector reviewed the below listed documents to ascertain whether the steam generator project had been approved by the licensee and whether adequate plans and procedures had been established to assure that the replacement project would be controlled and accomplished consistent with commitments and regulatory requirements.

<u>No.</u>	<u>Title</u>
CP&L-TP-SGR-13, Rev. 0	"Welding Machine Grid Feeders Inside Containment"
CP&L-TP-SGR-33, Rev. 0	"Lower Girth Weld"
CP&L-TP-SGR-35, Rev. 0	"Feedwater Nozzle Extension Weld"
CP&L-TP-SGR-48, Rev. 0	"Edge Preparation Channel Head"
CP&L-TP-SGR-49, Rev. 0	"Edge Preparation Upper Assembly"
CP&L-TP-SGR-52, Rev. 0	"Edge Preparation Miscellaneous"
CP&L-TP-SGR-60, Rev. 1	"Tubesheet and Tubebundle Temporary Protection"
CP&L-TP-SGR-82, Rev. 0	"Lower Assembly Handling Outside the Containment"
CP&L-TP-SGR-94, Rev. 0	"Stub Runner to Tube Sheet Weld"
CP&L-TP-90, Rev. 0	"S/G Shipping Cover Removal"

b. Welding (55050B)

(1) Production Welding

The inspector surveyed ongoing welding activities and selected typical inprocess operations representing different welding processes, procedures and joint configurations for detailed review. The weld joints selected are listed below. The review was conducted to determine the following: work conducted in accordance with a "traveler"; welding procedures and drawings available; WPS assigned in accordance with applicable code; technique and sequence are specified; materials as specified;

geometry as specified; fitup and alignment as specified; temporary attachments consistent with applicable code; gas shielding and purging as specified; preheat is as specified; technique is as specified; welding electrodes are as specified and consistent with the code; gas flow is controlled as specified; welding equipment is as specified; interpass temperature is controlled and consistent with the applicable codes; interpass cleaning and backgoing are performed as specified; process control system has provision for repairs consistent with applicable codes; weld repairs are conducted in accordance with specified procedures; base material repairs are properly documented; welder identification; peening not done on root or final weld surface layer; and contractor/licensee has periodic welding equipment preventative maintenance program.

Welds Examined

Feedwater Nozzle to Nozzle Remnant Generators A, B and C

- (2) Base Material and Filler Material Compatibility for Welding
- (a) The inspector reviewed the base and filler material combinations employed to evaluate the suitability of application.
- (b) The inspector reviewed the CP&L and CB&I programs for control of welding materials to determine whether materials are being purchased, accepted, stored, and handled in accordance with QA procedures and applicable code requirements. The following specific areas were examined:
- Purchasing, receiving, storing, distributing and handling procedures, material identification, and inspection of welding material issuing stations
 - Welding material purchasing and receiving records for the following materials were reviewed for conformance with applicable procedures and code requirements.

<u>Type</u>	<u>Size</u>	<u>Batch No.</u>
E-8018-NM	5/32"	JJ085
E-8018-NM	3/16"	JJ071
E-8018-NM	1/8"	JJ069

- (3) Welder Performance Qualification
- (a) The inspector reviewed the CB&I program for qualification of welders and welding operators for compliance with QA procedures and applicable code requirements.

- (b) The following welder qualification status records and "Records of Performance Qualification Test" were reviewed:

<u>Welder Symbol</u>	<u>Organization</u>
LGH	CB&I
BRJ	CB&I
JEF	CB&I
DLB	CB&I

- (c) The inspector observed inprocess performance qualification testing. The inspector verified that the person welding the test weldment was, in fact, the person being qualified. The below listed welders were observed:

<u>Welder Symbol</u>	<u>WPS</u>
HRB	43-BA-1
PHS	1-A-4
ARB	1-A-4
SPB	1-A-4
VAM	1-A-4

- (d) The inspector observed the testing of side bend specimens for the below listed welders:

<u>Welder Symbol</u>	<u>WPS</u>
REH	43-BA-1
RJD	43-BA-1

(4) Preheat and Post Weld Heat Treatment

(a) Preheat

- (1) The inspector reviewed the Cooper Heat and CB&I programs for weld preheating to determine whether procedures were available when specified; procedures specify acceptable methods and provide requirements for monitoring and recording preheat before, during, and if specified after welding, until post weld stress relief.
- (2) The inspector observed preheat controls in process for the below listed joints to determine whether procedures were being followed, and temperatures were within specified limits.

Welds Examined

Feedwater Nozzle to Nozzle Remnant Generators A, B and C

c. Liquid Penetrant Examination (57060B)

Record Review

- (1) The inspector reviewed the qualification documentation for the below listed examiners in the following areas: employer's name; person certified; activity qualified to perform; effective period of certification; signature of employer's designated representative; basis used for certification; and annual visual acuity; color vision examination.

Examiner - Level

JRN	PT-II
REM	PT-II
RAP	PT-II

- (2) The inspector reviewed the below listed liquid penetrant examination reports for compliance with procedure record requirements:

<u>Procedure No.</u>	<u>Step</u>
TP-SGR-94B	4.6.6
TP-SGR-94C	4.6.8
TP-SGR-94C	4.7.6

- (3) The inspector reviewed the "certification of containment content" for the below listed liquid penetrant materials to determine whether the analysis for halogen and sulfur was consistent with applicable requirements.

<u>Type</u>	<u>Batch No.</u>
Cleaner	83K051
Cleaner	83J063
Developer	83K004
Developer	83J048
Penetrant	83K027
Penetrant	83J037

d. Magnetic Particle Examination (57070B)

Record Review

- (1) The inspector reviewed the qualification documentation for the below listed examiners in the following areas: employer's name; person certified; activity qualified to perform; effective period of certification; signature of employer's designated representative; basis used for certification; and annual visual acuity; color vision examination.

Examiner - Level

RDP MT-II

- (2) The inspector reviewed the calibration records for the below listed equipment:

<u>Equipment</u>	<u>Identification</u>
MT Yoke	QC-13
10 lb. Test Weight	5277B
40 lb. Test Weight	5278B

- (3) The inspector reviewed the below listed magnetic particle examination reports for compliance with procedure record requirements.

<u>Procedure No.</u>	<u>Step</u>
TP-SGR-49C	4.12
TP-SGR-35B	4.6.3

d. Other Work Activities

- (1) The inspector observed a portion of machining activities being performed in accordance with TP-SGR-48A on the steam generator "A" channel head.

With regard to the inspection above, the inspector noted that work had progressed to step 4.5.5 of procedure TP-SGR-48A even though hold points in steps 4.3.1, 4.4.1, 4.4.2 and 4.4.5 had not been signed off. The inspector discussed the above with the licensee, who indicated that verbal approval had been given to bypass the above steps until later in the job. The licensee told the inspector that CP&L did not have a definition of a hold point, and clear requirements relating thereto. In view of the above, it appears that because the licensee personnel were unaware of the exact meaning and requirements relating to hold points, four hold points were bypassed without authorized documented approval. Failure to establish an adequate inspection program for activities affecting quality that prohibits work to proceed beyond hold points without the consent of the designated representative, is in violation of 10 CFR 50, Appendix B, Criteria X. This violation will be identified as 261/84-13-01: "Hold Point Bypassed Without Documented Authorization".

- (2) The inspector observed a portion of the handling activities being performed in accordance with TP-SGR-82 for steam generator "A" lower assembly.

Within the areas examined, no violations or deviations were noted except as described in paragraph 6.d(1).