

APPENDIX

U.S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-498/86-08 Construction Permits: CPPR-128
50-499/86-08 CPPR-129

Dockets: 50-498
50-499

Licensee: Houston Lighting & Power Company (HL&P)
P. O. Box 1700
Houston, Texas 77001

Facility Name: South Texas Project (STP), Units 1 and 2

Inspection At: South Texas Project, Matagorda County, Texas

Inspection Conducted: March 31 through May 2, 1986

Inspector: J. E. Bess 5/29/86
J. E. Bess, Reactor Inspector, Engineering Section Date

Approved: R. E. Ireland 5/29/86
R. E. Ireland, Chief, Engineering Section Date

Inspection Summary

Inspection Conducted March 31 through April 18, 1986 (Report 50-498/86-08;
50-499/86-08)

Areas Inspected: Routine, unannounced inspection of construction activities including site tour; review of records for receipt, installation, nonconformances, design changes, audits, construction testing, and QC personnel qualification pertaining to electrical equipment and components.

Results: Within the eight areas inspected, no violations or deviations were identified.

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DETAILS1. Persons ContactedPrincipal Licensee Personnel

- *T. Jordan, Project QA Manager
- *R. J. Daley, Startup Manager
- *S. M. Head, Project Compliance Group

Other PersonnelBechtel Power Corporation

- *L. Hurst, Project QA Manager
- *L. Davis, QA Manager

Ebasco Service, Inc.

- *A. Cutrona, QA Manager
- J. Cleere, Supervisor, QA Training
- B. Coval, Administrative Assistant to QA Supervisor

The NRC inspector also interviewed other licensee and contractor employees during the course of the inspection.

*Denotes those attending the exit interview.

2. Site Tour

The NRC inspector toured the reactor building, control room, and auxiliary buildings to observe construction in progress and to inspect housekeeping.

No violations or deviations were identified.

3. Review of Records - Electrical Equipment and Components

The purpose of this inspection was to determine whether adequate preparation, control, review, and evaluation of records had been made, whether the records reflected that requirements had been met and whether the system of record documentation was functioning properly.

a. Receiving Inspection Records

The NRC inspector reviewed the receiving inspection records associated with the electrical components listed below:

<u>Components</u>	<u>Receiving Inspection Report</u>
Auxiliary Feedwater Pump #21	6052A
1KV Low Voltage Electrical Penetrations	5947
Electrical Penetration	6414
Voltage Regulating Transformer	6012
Auxiliary Feedwater Pump #24	6162A
Auxiliary Feedwater Pump Motors	2241
Voltage Regulating & Isolation Transformer	6248
Motor Control Center	4130
480 Volt Motor Control Center	5741
Class IE Dry Type Transformer	5383

In the areas reviewed, the records properly identified received electrical components and associated items. Applicable engineering and functional specifications of received items and components were reviewed, and the required electrical component material, performance tests, environmental and seismic qualification were reviewed.

No violations or deviations were identified.

b. Installation Records

The NRC inspector reviewed the installation records associated with the electrical equipment and components listed below:

<u>Components</u>	<u>Electrical Equipment Installation Inspection Report</u>
Distribution Panel Transformer	3E341EDTA270
480 V Motor Control Center	3E171EMCE1C1
480 V Motor Control Center	3E17EMCE1C2
Isolation Transformer	3E561ERV001C
Isolation Transformer	3E561ERV001A

In the areas reviewed, the records reflected the following:

- (1) The most recent and approved design and construction documents were used during installation.
- (2) Electrical components and associated items were installed in the locations specified.
- (3) Material and methods used for supports and anchors met applicable specifications.
- (4) Required inspections were performed, recorded, and reviewed by qualified personnel.

(5) Required protection was provided after installation.

No violations or deviations were identified.

c. Nonconformance and Deviation Reports

The NRC inspector reviewed nonconformance and deviation reports relative to the receipt, storage and installation of safety-related electrical components and equipment. The records reviewed are listed below:

- o NCR No. CE01188
- o NCR No. BE00232
- o NCR No. CE00028
- o D.N. No. 1-1578-E
- o D.N. No. 1-1943-E
- o D.N. No. 1-1588-E
- o D.N. No. 1-1504-E
- o D.N. No. 1-1215-E
- o D.N. No. 1-1168-E
- o D.N. No. 1-634-E
- o D.N. No. 1-454-E
- o D.N. No. 1-453-E

The documents were reviewed to determine if the records:

- (1) Were legible, complete, and promptly reviewed by qualified personnel;
- (2) Had been routinely processed, timely evaluated, and controlled through established channels for resolution of the root cause of problems;
- (3) Were properly identified and stored, indicated current status, and could be retrieved in a reasonable time; and
- (4) Included the status of corrective actions or resolution.

No violations or deviations were identified.

d. Change Control Records

The NRC inspector reviewed change control records relative to the installation of safety-related equipment and components. The documents reviewed are listed below:

- o Drawing Change Notice (DCN) No. 5-E-02-9-E-1861
- o Drawing Change Notice (DCN) No. 4066-01138-GB
- o Drawing Change Notice (DCN) No. 5-E-02-9E-1853
- o Specification Change Notice (SCN) No. 3E179ES0035

The documents were reviewed to determine whether:

- (1) Records associated with design and field changes reflected timely review and evaluation by qualified personnel;
- (2) Records ensured that only the most recent approved documents, including design changes, were used in the field; and
- (3) Records of nonconformance to design requirements included preparation of a nonconformance report.

No violations or deviations were identified.

e. Audit Records

The NRC inspector reviewed and evaluated licensee and contractors audits pertaining to electrical components. The audit documents examined are as follows:

- ° Houston Lighting & Power Company Audit E10-301, "Quality Assurance Audit of Ebasco Electrical Installation Activities," dated October 3-7, 1983.
- ° Ebasco Audit EQA-127, "Electrical Activities," dated December 17-21, 1984.
- ° Ebasco Audit EQA-080, "Electric Activities," dated December 27-30, 1983.
- ° Bechtel Audit BPC-18-B2, "EE580 Cable and Raceway Tracking Procedure," dated October 18, 1982.
- ° Bechtel Audit ES1-12-83, "Compliance to the Procedural Requirements for Conduits, Cable Trays, and Cable Tray Hanger," dated June 1-10, 1983.

The documents were reviewed to determine whether:

- (1) Audits had been performed in accordance with the schedules and functional areas established in the audit plan;
- (2) Audit findings had been reported in sufficient detail to permit a meaningful assessment by those responsible for corrective actions and final disposition;
- (3) The licensee and contractor had taken proper and timely followup action on those matters in need of correction; and
- (4) The auditing organization and personnel were independent of the work being audited.

No violations or deviations were identified in this portion of the inspection.

f. Construction Testing Records

The NRC inspector reviewed construction test records relative to the installation of safety-related cabling. The documents reviewed are listed below:

- ° Cable Insulation Resistance Test Record - Cable No. A1CSAAC1EA
- ° High Potential Test Form - From Equipment - A1PKSGOE1A10
to Equipment - Containment Spray Pump 1A.
- ° Cable Insulation Resistance Test Record - Cable No. B1CSABC1EA
- ° High Potential Test Form - From Equipment - B1PKSGOE1B10
to Equipment - Containment Spray Pump 11B.
- ° Cable Insulation Resistance Test Record - Cable No. C1CSACC1EA
- ° High Potential Test Form - From Equipment - C1PKSGOE1C10
to Equipment - Containment Spray Pump 11C.

The documents were reviewed to determine whether:

- (1) Tests were performed as required;
- (2) Records showed that approved procedures were followed;
- (3) Test equipment was periodically checked and calibrated as specified; and
- (4) Test data and results were properly documented and evaluated.

No violations or deviations were identified.

g. Personnel Qualification Records

The NRC inspector reviewed the qualification records for eight inspection (QC) personnel in detail to determine whether:

- (1) The system of craft and inspection personnel qualification records met stated requirements and were maintained in a current status; and
- (2) The records were sufficient to support personnel qualification in terms of certification, experience, proficiency, training, and testing as applicable.

No violations or deviations were identified.

4. Exit Interview

The NRC inspector met with licensee representatives (denoted in paragraph 1) and Mr. C. Johnson, the NRC senior resident inspector, on May 1, 1986, and summarized the scope and findings of the inspection.