

APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION
REGION IV

NRC Inspection Report: 50-498/83-15
50-499/83-15

Dockets: 50-498; 50-499

Construction Permits: CPPR-128
CPPR-129

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: July 1-August 14, 1983

Inspector: W. M. Hill 8/30/83
W. M. Hill, Senior Resident Inspector Date

Approved: W. A. Crossman 9/2/83
W. A. Crossman, Chief Date
Reactor Project Section B

Inspection Summary

Inspection Conducted July 1-August 14, 1983 (Report 50-498/83-15; 50-499/83-15)

Areas Inspected: Routine, announced inspection of review of previously identified inspection findings; storage and maintenance of equipment; site tours; nonconformance reports; structural concrete; material control and identification; large and small bore piping; and pipe supports. The inspection involved 62 inspection-hours onsite by one NRC inspector.

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

Details1. Persons ContactedPrincipal Licensee Employees

D. Barker, Project Manager
 *J. Barker, Supervising Project Engineer
 D. Bednarczyk, Project QA Supervisor-Civil/Structural
 D. Bohner, Project QA Supervisor-Electrical
 *J. Estella, Supervisor, Quality Systems
 J. Geiger, Manager, Quality Assurance
 J. Goldberg, Vice President, Nuclear Engineering and Construction
 C. Grover, Senior Quality Assurance Engineer
 S. Hubbard, Senior QA Specialist
 T. Jordan, Project QA Supervisor-Design/Procurement
 *D. Keating, Project QA General Supervisor
 I. Morrow, Construction Superintendent
 W. Moyer, Construction Engineering Supervisor
 G. Oprea, Executive Vice President
 M. Powell, Licensing Engineer
 G. Steinmann, Lead Site Engineer
 H. Walker, Project QA Manager
 *J. Williams, Site Manager
 C. Wright, Project QA Supervisor-Mechanical/NDE

Other PersonnelBechtel Power Corporation (Bechtel)

*J. Downs, Deputy Manager of Construction
 *L. Hurst, Project QA Manager
 J. Little, Assistant Project Resident Engineer
 B. McCullough, Manager of Construction
 *R. Miller, Site Project Quality Assurance Engineer
 *H. Reuter, Resident Project Engineer

Ebasco, Services, Inc. (Ebasco)

J. Christensen, Assistant Site Manager
 J. Crnich, Construction Manager
 R. Cummings, QA Site Supervisor
 *K. Flanagan, Unit 2 Superintendent
 R. Grippardi, QC Site Supervisor
 *C. Hawn, Quality Program Site Manager
 F. Miller, Welding Construction Superintendent
 J. Murphy, Unit 1 Superintendent
 J. Thompson, Site Manager

*Denotes those individuals attending one or more management meetings during the inspection period.

2. Status of Previous Inspection Items

(Closed) Unresolved Item (8306-01) Concrete Bedding Beneath ECW Piping. The NRC inspector has periodically observed the removal of forms from the concrete bedding beneath the ECW piping. Any unacceptable visual conditions were repaired in accordance with construction procedures. This item is closed.

(Closed) Unresolved Item (8306-02) QC Procedure Changes. The NRC inspector has reviewed numerous procedure change reports (PCR) to QC procedures. Whole paragraphs are being rewritten vice single sentences or single word substitution. This permits easier reading and comprehension. This item is closed.

(Closed) Unresolved Item (8307-01) Undersized Nut on Electrical Supports. The NRC inspector has observed that the smaller nuts have been replaced with larger nuts and the bent washers have been removed. This item is closed.

(Closed) Unresolved Item (8217-03) Assembly Details for Support Columns Lower Bases. The NRC inspector reviewed documentation relating to the installation details for the bases of the lower support columns for the RC pumps and steam generators. The washer shown on the detail drawing are not required and will be deleted from the drawing. The torque values for the hold down nuts have been specified by engineering and QC will verify during final installation. This item is closed.

3. Site Tours

Routine tours of the site were conducted by the NRC inspector observing housekeeping activities; general cleanliness; protection and preservation of equipment and material; personnel access control; and plant status as follows:

a. Units 1 and 2

Reactor Containment Buildings, Mechanical-Electrical Auxiliary Buildings, Fuel Handling Buildings, and Diesel Generator Buildings.

b. Site

Reservoir, essential cooling pond, and storage areas, including the warehouse, laydown areas, and the welding fabrication shop.

With regard to the above areas, the NRC inspector confirmed the following:

- (1) Safety-related and storage areas were free from accumulations of trash, refuse, and debris.
- (2) Work areas were clean and orderly.
- (3) Tools, equipment, and material were returned to their proper storage locations when no longer in use.

The NRC inspector noted improvement in cleanliness beneath the construction opening in Unit 1 containment. A general effort to improve cleanliness was noted throughout the plant; however, some areas still require management attention. The licensee acknowledged the NRC inspector's concerns. The NRC inspector had no further concerns relative to site tours.

4. Storage and Maintenance

The NRC inspector observed activities in several warehouses and other designated storage areas with particular attention to the following:

- a. Equipment in various storage areas was segregated and classified as Levels A through D to provide appropriate storage and environmental control for various types of equipment.
- b. Storage areas were not being used to store food, drink, or salt.
- c. An active program was in effect to control rodents and small animals.
- d. Racks, crates, and cribbing were carrying the full weight without component distortion.
- e. All items were labeled and stored in a manner that allowed access for inspection.
- f. Fire protection systems and equipment were available for use.
- g. Sufficient dunnage was available to protect materials and components in storage.
- h. Canvas or plastic covering was available for weather protection.
- i. Protective covers and seals were properly attached.
- j. Personnel access to the storage locations was adequately controlled.

The NRC inspector had no further questions relative to site storage and maintenance.

5. Structural Concrete

a. Concrete Placement Activity

The NRC inspector observed selected portions of the following concrete placements:

2-RC-W-143-011
2-ME-W-035-045A
1-RC-W-221-019
1-RC-W-223-021
1-RC-W-229-023

The NRC inspector confirmed that concrete placements activities were being accomplished in accordance with applicable drawings, specifications, codes, and procedures in the following areas:

- (1) Proper mix specified and delivered.
- (2) Testing at placement location - proper tests, frequency, and acceptance criteria - use of calibrated test equipment.
- (3) Adequate construction crews and quality control personnel.
- (4) Proper equipment and placement techniques - vibrators properly used.

The NRC inspector did not identify any unacceptable areas during these pours.

b. Concrete Placement Records

The NRC inspector reviewed the following information on the batch tickets for pour 2-RC-W-143-011:

Formula Number
 Batch Size (yd.)
 Stone 1 (wt.)
 Stone 2 (wt.)
 Sand (wt.)
 Percent Moisture in Sand
 Cement (wt.)
 Water (wt.)
 Ice
 Admixtures
 Time
 Truck Number
 Locations
 Accumulated Yards
 Heated/Cooled
 Accepted By

No unacceptable batch tickets were identified.

6. Material Control Identified

The NRC inspector reviewed a portion of the licensee's program for material identification and control. The NRC inspector, accompanied by licensee's and contractor representatives, conducted a walk-through in the warehouse to review practices involving material identification.

In general, the items selected were in conformance with the procedure WPP/QCI 12.4, Rev. 2, dated July 6, 1983, "Material Identification and Marking Requirement." Several items were identified that would require review. Some material to be used in ASME application was to be identified with "gold" irridite marking. It was explained that this marking was in the material specification but not included in the procedure listed above. This item requires further review and is unresolved (8315-01) pending completion of this review. It was also observed that bulk, stock coded safety-related bolting material was stamped in accordance with class and safety-related application. Where these items were purchased without a marking requirement, they were stamped onsite. The QC inspector explained what inspections he performed prior to permitting the items to be stamped. The NRC inspector was unable to identify a procedure which detailed the inspection required by the QC inspector or his verification that all prerequisite conditions were satisfied prior to marking. This item requires further review and is unresolved (8315-02) pending completion of that review. It was also determined that a procedure was being written to provide control of scrap material and prevent reuse of material in safety-related applications after it had been identified as scrap material. This item is unresolved (8315-03) pending implementation of this procedure.

On August 8, 1983, the licensee's contractor issued a stop work order to be effective on August 19, 1983, unless items initially expressed as concerns by an NRC inspector were resolved. These items were relative to fabrication of miscellaneous steel in the fabrication shop and installation of miscellaneous steel in Units 1 and 2. These items will be examined during a subsequent NRC inspection.

7. Large and Small Bore Piping

The NRC inspector examined several small and large bore piping which were undergoing welding installation. The NRC inspector determined that the materials (piping and fittings) were adequately marked and these markings were identified on the process data checklist as required QCP 9.1, "Weld Inspection Piping ASME."

It was explained to the NRC inspector that in the past construction had maintained control of the "Weld" process data checklist but in the future, QC would maintain control of these cards. This item requires further review and is unresolved (8315-04) pending completion of this review.

8. Pipe Supports

Installation of pipe supports for safety-related piping in the field has begun. The NRC inspector examined partial installation of two adjacent pipe supports (identical). The clamp-to-strut connection was made using a pin in one and a threaded bolt in the other. The NRC inspector expressed his concern that if these small parts (coded items) were not properly

controlled, then the small parts may become lost and proper assembly would be difficult. Substitution of material could pose a problem during final QC inspection. A responsible person acknowledged the NRC inspector's concern. This item is unresolved (8315-05) pending further review.

9. Nonconformance Reports (NCR)

a. The NRC inspector conducted a review of the following NCR's:

CC-00696	CC-00687
BM-00158	ES-0024-01
DS-00040-01	CE-00088
CE-00086	HC-000704
FM-00157	CC-00678
BC-00182	CC-00733
CC-00686	CC-00740
DS-00028-01	BP-00165
CP-00160-01	CP-00082-14
HC-00591-01	HC-00630
CM-00097-01	BP-00120-02
CC-00665	CP-00129-02
CC-00738	BE-00140
BE-00136-01	BE-00122
HC-00647-01	DM-00098-03
HC-00649-01	BM-00129
CC-00720-01	CP-00173
BE-00085	ES-00009-01
BM-00173	BP-00271
HC-00659	BP-00268
EW-0022-01	BC-00233
CP-00145	BC-00248
GS-00083-01	HC-00734

The NRC inspector reviewed the descriptions of the nonconforming conditions and the dispositions of the NCR's. The NRC inspector had no further questions with respect to the NCR's reviewed.

b. During the periodic spot checks of NCR tags in the field and in the warehouses, the NRC inspector observed the following conditions:

- (1) Some NCR tags had "Pending" in the number block.
- (2) Some NCR tags had "N/A" in the number block.
- (3) Some NCR tags had the number block filled with an identifying number but no further relevant information.

It was explained to the NRC inspector that this practice was permitted by governing procedures. The NRC inspector questioned this as an acceptable practice and stated that further review would be necessary to determine if it was acceptable. This item is unresolved (8315-06) pending completion of this review.

10. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, violations or deviations. Six unresolved items disclosed during the inspection are discussed in paragraphs 6, 7, 8, and 9.

11. Management Meetings

Management meetings were held periodically with licensee personnel during the course of this inspection to discuss inspection scope and findings.