APPENDIX

U. S. NUCLEAR REGULATORY COMMISSION REGION IV

Construction Permits: CPPR-128 and NRC Inspection Report: 50-498/85-08

CPPR-129 50-499/85-08

Dockets: 50-498

50-499

Licensee: Houston Lighting & Power Company (HL&P)

P. O. Box 1700

Houston, Texas 77001

Facility Name: South Texas Project, Units 1 and 2

Inspection At: South Texas Project, Matagorda County, Texas

Inspection Conducted: May 1 - June 30, 1985

Inspector:

penter, Resident Inspector

L. Constable, Chief Project Section C, Reactor

Projects Branch

12/23/85 Date

Inspection Summary

Inspection Conducted May 1 - June 30, 1985 (Report 50-498/85-08; 50-499/85-08)

Areas Inspected: Routine, unannounced inspection included site tours, licensee action on previously identified items, plant maintenance, inplace protection of equipment, operator training and simulator and startup activities.

The inspection involved 157 inspection onsite hours by one NRC inspector.

Results: Within the scope of this inspection, no violations or deviations were identified.

One new unresolved item was identified and is discussed in paragraph 4.

DETAILS

1. Persons Contacted

Principal Licensee Employees

- R. Balcom, Reactor Operations Supervisor J. Hughes, Construction Superintendent
- D. Cody, Training Manager *R. Daly, Startup Manager
- *S. Dew, Deputy Project Manager
- *J. Goldberg, Vice President, Nuclear
- *J. Green, Operations QA Manager
- T. Jordan, Site QA Manager
- *W. Kinsey, Plant Manager
- M. Ludwig, Maintenance Manager
- *M. McBurnett, Licensing Supervisor
- A. Peterson, Startup Engineer Special Projects
- *J. Westermeier, Project Manager
- *F. White, Site Licensing
- *J. Williams, Site Manager
- *B. Franta, Manager, Staff Training
- *R. Hernandez, Manager, Project Compliance

Other Personnel

Bechtel Power Corporation (Bechtel)

- *R. Medina, Lead QA Engineer
- *L. Hurst, Project QA Manager
- A. Priest, Site Manager

Ebasco Services, Inc. (Ebasco)

- *A. Cutrona, Quality Program Site Manager
- *J. Thompson, Site Manager

Westinghouse Electric Company (Westinghouse)

*A. Hograth, Site Manager

The NRC inspector also interviewed additional licensee personnel, Bechtel personnel, and other contractor personnel during this inspection.

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

2. Site Tours

During this reporting period, routine tours of the site were conducted by the NRC inspector to observe ongoing work activities.

The general plant cleanliness was acceptable. Areas of concern were noted to the licensee. Plant cleanliness at South Texas Project (STP) appears to be steadily improving. Continued attention needs to be paid to areas off the beaten path.

General construction activities and prerequisite testing activities were observed in Unit 1 MEAB, Diesel Generator Building, Fuel Handling Building, Reactor Containment Building, and BOP support facilities. For Unit 2, no testing activities were observed.

The Unit 1 control room is manned 24 hours a day by shift operations personnel. There was a small fire under Unit 1 Reactor Vessel and neither the control room nor operations were notified, nor were they aware of the fire the following day. This fire was considered a construction problem, not operations, but operations does perform around-the-clock plant tours. This was discussed with the plant manager and deputy project manager. They committed to implement measures to assure that the Operations Control Room will be kept better informed of plant activities whether construction or operations.

No violations or deviations were identified.

3. Licensee Action on Previously Identified Items

(Closed) Violation 498/499-8502-01, Failure to Follow Procedures

This item concerned failure to follow procedures regarding the control of temporary material. Procedures CSP-14 and WPP/QCI 12.1 require that material used as a construction aid or used in any other temporary application be identified by painting the item yellow. The NRC inspector observed many instances where nonpermanent material had been used without the yellow paint identification. Some of these temporary installations involved Category 1 material that was to be utilized at a later date in other permanent installations. Site procedures contained no provisions for the retrieval and reuse of Category I materials.

The licensee has made a complete plant walkdown to insure that non-Category I material used in temporary installations or as construction aids is appropriately marked per their respective procedures. Material that is Category I and the "pedigree" is to be maintained during temporary use is being controlled under procedure ASP-5. Several procedural enhancements have been implemented to clarify the requirements for control of temporary installations. The NRC inspector has reviewed the procedures and performed site tours to verify compliances in the plant. At this

time the licensee is in compliance with their procedural requirement and this violation (498/499-8502-01) is considered closed.

(Closed) Deviation 498/499-8416-01 Component Cooling Water Design

This item concerns the failure of the licensee to control the design process in that the plant design for the Component Cooling Water (CCW) system was changed without the required Safety Analysis Report Change Request (SARCR) being prepared.

The text in FSAR Section 9.2.2 (Amendment 39) reflected the original chromate inhibitor design of the CCW system. Replacement of this design with All-Volatile Treatment (AVT) had been under review since mid-1983. With All-Volatile Treatment (AVT) had been under review since mid-1983. The design change to AVT in the CCW system was identified on the P&ID and The design change to HOLD" in July 1983. The HOLD" was subsequently removed with placed on "HOLD" in July 1983. The HOLD" was subsequently removed with placed on "HOLD" in July 1983. The HOLD" was subsequently removed with placed on June 5, 1984 (Revision 2, DCN 5). At this time, the responsible on June 5, 1984 (Revision 2, DCN 5). At this time, the responsible engineer should have commenced a FSAR text revision by initiating a Safety engineer should have commenced a FSAR text revision by initiating a Safety engineer should have commenced a FSAR text revision by initiating a Safety engineer should have commenced a FSAR text revision by initiating a Safety engineer should have commenced a FSAR text and the issued identified several inconsistencies between the FSAR text and the issued identified several inconsistencies between the FSAR text and the Upon notice from HL&P, Bechtel began a review of the FSAR text and the Upon notice from HL&P, Bechtel began a review of the FSAR text and the current revision of the P&ID to resolve the inconsistencies.

The appropriate SARCRs have now been issued. Additionally, all Bechtel engineers assigned to the STP have attended a special 1 hour lecture on "FSAR vs. Design - Consistency," course Code 5031, lesson No. 1. The NRC inspector has reviewed the SARCRs issued for this item, the lesson plan and attendance sheets.

The licensee's action to correct this specific item and the training provided to the engineer responsible for processing SARCRs is acceptable and complete. The NRC inspector considers this deviation (498/499-8416-01) as closed.

(Closed) Potentially Reportable 10CFR 50.55(e) -IRC-208 Superheated Steam Condensation Outside Containment Following a MSLB

This item concerned a generic notification by Westinghouse that the analysis for a Main Line Steam Break (MLSB) may not have considered the effect of superheated steam on systems and components outside of containment. Analysis by Westinghouse for the STP plant indicates that containment. Analysis by Westinghouse for the STP plant indicates that the only suspect location for deleterious effects at STP would be the Isolation Valve Cubicles (IVC). At STP, the IVCs are four separate cubicles (one for each steam line) separated by concrete structural walls. No credit is taken for equipment in a cubicle where a rupture occurs in No credit is taken for equipment in a cubicle where a rupture occurs in the event analysis. The results of this analysis indicate no unreviewed the event analysis. The results of this analysis indicate no unreviewed safety item and, therefore, it is not reportable under 10CFR 50.55(e). Safety item and, therefore, it is not reportable under 10CFR 50.55(e). The NRC inspector reviewed the various data packages provided for the analysis, reviewed associated prints and toured the IVC area. Based on this review, the NRC inspector agrees this item is not reportable and is considered closed.

4. Plant Maintenance

The NRC inspector, while observing plant maintenances on turned over equipment, noted that there was no grease in the motor bearings for Unit 1, Service Air (SA) compressor Nos. 11 and 12. In discussion with craftsmen working on the units it was determined that the motor bearings were dry when disassembled. The bearings for the two Instrument Air (IA) compressors were also dry. All four compressors are alike and from the same supplier; they differ only in application. The vendor manual for all the units indicated they were shipped dry and need not be lubricated till just prior to placing in service. However, the two SA units had completed Maintenance Action Cards (MAC) requiring and indicating they had been greased every 6 months. No such MAC cards were found for IA units. The same conditions existed for the Unit 2 IA and SA compressors. Both the SA and IA units at STP are nonsafety-related; however, the NRC inspector is concerned because the MAC card system of maintenance is used for both safety and nonsafety equipment. It is not clear why the SA compressor required grease by the MAC card system and the IA compressor did not. Nor is the significance of signed MAC cards for greasing of the SA compressor when they were found to be grease free on disassembly. Due to the potential impact on safety systems, this is considered an Unresolved Item 498/499-8508-01.

No violations or deviations were identified.

Inplace Protection of Equipment

During previous inspections the NRC inspectors identified several concerns with regard to in-place protection of equipment. A concerted effort to upgrade and improve the protection of inplace equipment has been observed by the NRC inspector. In Unit 1, a large amount of permanent plant equipment is now located at site-installed locations and with the construction effort being at a high level damage or deterioration could easily occur. The licensee has made steady improvement in this area. The NRC inspector has observed fire retardant plastic wrapping, blanking of pipe and equipment opening, wood framed boxing, "angle hair" filter mediums, trace heating and other methods of protection being applied where protection may be required. This effort is an improvement over past existing conditions.

No violations or deviations were identified.

6. Operator Training and Simulator

The NRC inspector has attended selected operator training classes. This included attending portions of lectures on various cold licensing subjects such as IE electrical distribution, steam generator, feed system, etc. The training was conducted in an organized, professional manner. Class attention and participation was good. The trainees were observed in the plant on several occasions reinforcing their classroom instruction by tracing out systems and locating equipment. Discussions with students in

the plant indicated a basic understanding of the systems and a satisfaction with the level and quality of instructions provided.

Work on the installation of the plant simulator at the training facility was observed by the NRC inspector. Assembly is on schedule and very few unexpected problems are being encountered. The availability of the simulator for training should be January 1986, as required.

No violations or deviations were identified.

7. Startup Activities

The NRC inspector has been reviewing revisions to the startup manual, prerequisite and generic test procedures. The revisions have been at the fine tuning level with no major revision of startup policy. The NRC inspector had not yet received any approved safety startup procedures because the licensee is behind the published startup schedule. The licensee has committed to make available to the NRC the approved startup (pre operational) procedures 60 days prior to the test date. Turnover to startup of completed safety systems has impacted the ability to perform preoperational testing so the delay in procedure preparation has had little impact to date.

The NRC inspector observed the prerequisite testing and energization of the standby transformers which makes plant power available for other system testing. This effort demonstrated a good working relationship between the startup, operations and maintenance groups and a good coordinated effort at problem resolution.

No violations or deviations were identified.

8. Exit Interview

An exit interview was conducted on June 28, 1985, with those personnel denoted in paragraph 1 of this report. During the exit interview, the NRC inspectors summarized the scope and findings of this inspection.