

APPENDIX B

U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV

NRC Inspection Report: 50-498/85-01  
50-499/85-01

CP: CPPR-128 and 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: STP, Matagorda County, Texas

Inspection Conducted: January 1 - February 28, 1985

Inspector: 

D. B. Carpenter, Resident Inspector

7/22/85  
Date

Approved: 

G. C. Constable, Chief, Project Section C  
Reactor Project Branch 1

7/22/85  
Date

Inspection Summary

Inspection Conducted January 1 - February 28, 1985 (Report 50-498/85-01;  
50-499/85-01)

Areas Inspected: Routine, unannounced inspection included: (1) site tours; (2) review of revised startup administrative instructions (SAI); (3) review of generic test procedures; (4) reconciliation of proposed Final Safety Analysis Report (FSAR), Chapter 14 Revision; (5) review of startup training files; (6) training simulator; and (7) operator cold license training. The inspection involved 235 inspector-hours onsite by the NRC inspector.

Results: Within the scope of this inspection, one violation was identified. Failure to properly follow procedures (8501-01) in paragraph 6.

DETAILS

1. Persons Contacted

Principal Licensee Employees

- R. Balcom, Reactor Operations Supervisor
- \*G. Parkey, Technical Support Superintendent
- J. Hughes, Construction Superintendent
- D. Cody, Training Manager
- \*R. Daly, Startup Manager
- \*S. Dew, Deputy Project Manager
- L. Fotter, Startup Training Supervisor
- \*J. Goldberg, Vice President, Nuclear Engineering and Construction
- \*J. Green, Operations Quality Assurance (QA) Manager
- G. Jarvela, Health/Safety Service Manager
- T. Jordan, Site QA Manager
- \*W. Kinsey, Plant Manager
- M. Ludwig, Maintenance Manager
- \*M. McBurnett, Licensing Supervisor
- \*G. Oprea, Jr., Executive Vice President
- A. Peterson, Startup Engineer Special Projects
- \*J. Westermeier, Project Manager
- \*F. White, Site Licensing
- \*J. Williams, Site Manager
- \*B. Franta, Manager, Staff Training

Other Personnel

Bechtel Power Corporation (Bechtel)

- \*J. Downs, Deputy Manager of Construction
- \*L. Hurst, Project QA Manager
- A. Priest, Site Manager

Ebasco Services, Inc. (Ebasco)

- \*C. Hawn, Quality Program Site Manager

Westinghouse Electric Company (Westinghouse)

- \*A. Hogarth, Site Manager

In addition to the above personnel, the NRC inspector held discussions with additional licensee, Bechtel, and other contractor personnel during this inspection.

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

## 2. Site Tour

During this reporting period, routine tours of the site were conducted by the NRC inspector. In addition to the general housekeeping activities and cleanliness of the facilities, specific attention was given to areas where safety-related equipment is installed, stored, and where activities were in progress involving safety-related equipment. These areas were inspected to ensure that:

- . Work in progress was being accomplished in accordance with approved procedures.
- . Special precautions for protection of equipment were being implemented, where required, and additional cleanliness requirements were adhered to, where required.
- . General plant cleanliness was being maintained with trash and construction debris being removed in a timely manner and unused construction material was being properly stored.

The areas inspected included:

### Units 1 and 2

Reactor containment buildings, mechanical/electrical auxiliary buildings (MEABs), fuel handling buildings, diesel generator buildings, and the safety-related equipment areas within the turbine generator buildings.

The general plant cleanliness was acceptable. Areas of concern that were noted to the licensee were cleaned and placed in order in a timely manner. Pockets of trash, construction debris, and construction material not being used continue to appear in various locations that are out of the main stream of activity. Such areas as small rooms, cells, cable spreading areas, pipe trenches, and cableways in the reactor containment and the MEAB need to be given continuous attention in order to maintain general plant cleanliness.

The NRC inspector observed a continuation of efforts to upgrade the physical protection of in plant stored equipment. New plastic wrap was observed being installed on the MEAB equipment. Heat trace and temporary air filters were checked and found to be in place and functioning.

### Site

Reservoir, essential cooling pond, warehouses, laydown areas, welder qualification area, and heavy equipment storage area.

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

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

The NRC inspector observed construction and material handling activities at the essential cooling pond pump house to be orderly and acceptable. Equipment and material movement and storage was observed at the warehouse and laydown complex. All activities were being conducted in a safe, effective manner.

No violations or deviations were identified.

3. Review of Reissued Startup Administrative Instructions (SAI)

As a result of the replacement of the startup manager, the entire "Startup Administrative Instruction Manual" was revised and reissued in toto. This revision resulted in a reduction in the number of SAIs from 34 to 19. The NRC inspector reviewed the revised SAIs against the old SAIs, FSAR, Chapter 14 and the operations QA plan. This review was conducted to determine whether there had been a reduction in commitments made in the FSAR or other issued documents. The procedures reviewed and comments are:

- . SAI 1, "Startup Manual Use and Control," Revision 0 - No Comment
- . SAI 2, "Startup Organization," Revision 0, Section 4.1.2 - Although the responsibilities of the startup manager are directly quoted from the FSAR, Chapter 14, there are some direct responsibilities assigned to him under SAI 6, "Document Control," Section 4.1, dealing with the test records center that are not noted here.
- . SAI 3, "Startup Quality Assurance Plan," Revision 0 - Section 5.1.1 states, "The organization and responsibilities of the person performing quality functions during the startup program are described in SAI 2." Contrary to the above, no mention of this subject is in SAI 2.
- . SAI 4, "Equipment Clearance," Revision 0 - Section 5.0, paragraph 2 states, "Components that have been removed from their permanent location for bench testing are not required to be danger tagged." While this may be true, it is misleading in that danger tags may be needed to protect personnel from the "hole" left when equipment is removed, i.e., if a relay is removed, the circuit that would have

supplied power to that unit should be tagged. This SAI really says nothing except to use Plant Procedure PGP3-7.0-1, "Equipment Clearance."

- . SAI 5, "Release For Test," Revision 0 - There is no requirement on the jurisdiction tags/stickers to identify what component/system specifically is being turned over. While this is not a requirement, specific identification would reduce major error.
- . SAI 6, "Document Control," Revision 0, Section 5.1.3(2) - The "Official Test Copy" stamp should be in place prior to starting the test. Same comment for Section 5.3.3(2).
  - . 5.1.3(f) - Add "startup" between "responsible" and "Level III."
  - . 5.2.5(b) - Define "test package." What elements are required to be present?
- . SAI 7, "Preventive Maintenance Program," Revision 0, Section 5.1 - Additionally, the construction preventive maintenance cards should be reviewed to determine if the component was in fact maintained as required.
- . SAI 8, "Master Completion List," Revision 0, Section 5.3.2 - Does the record center maintain a record copy of closure documents?
- . SAI 9, "Control of Measuring and Test Equipment," Revision 0, Section 5.1.4 - What is the status of the test being conducted at the end of this section?
- . SAI 10, "Indoctrination and Certification of Test Personnel," Revision 0 - No comment.
- . SAI 11, "Startup Work Request," Revision 0 - No comment.
- . SAI 12, "Field Change Request and Startup Field Reports," Revision 0 - No comment.
- . SAI 13, "Configuration Control Package," Revision 0 - No comment.
- . SAI 14, "Temporary Alteration Control," Revision 0 - Section 5.1 states, ". . . do not require temporary alteration tagging or logging . . ." while the "note" states, ". . . shall tag both the component and location . . ." Reconcile these two statements.
- . Section 5.2.1 - Does this mean that activities conducted under 5.1 do not have to be orange? Reconcile with Operations QA Plan 11.0, Section 6.4.8.



- . SAI 15, "Material Requisition and Vendor Services," Revision 0 - No comment.
- . SAI 16, "Review of Startup and Operating Experience," Revision 0 - No comment.
- . SAI 17, "Prerequisite Testing," Revision 0 - Page 8 is not consistent with format requirements of SAI 1, Section 1.1.1 and 1.1.3.
- . SAI 18, "Preoperational Testing," Revision 0 - Define what goes into the chronological log and test packages.
- . SAI 19, "Acceptance Testing," Revision 0 - No comment.

#### General Comments

- . Not all references used in the body of the text are listed in Section 3.0.
- . The "old" set of SAIs contained information in regard to the joint test group, cleanliness and housekeeping, turnover to operations, discussion on how to prepare test procedures, Section XI work, and various other activities. Where are these subjects now covered?
- . With the revision and reissuance of the SAIs, a large amount of user guidance and "how to" information has been eliminated from the SAIs. How and where is this guidance to be provided to the startup personnel?

The above specific and general comments are provided as information and documentation of the NRC inspector's review of the SAIs. No violations or deviations were identified.

#### 4. Review of Generic Test Procedures

The NRC inspector reviewed several issued and revised generic test procedures used in component testing during the prerequisite testing phase. The tendency seems to be toward shortening the procedures and eliminating the "how to" information. At this point it is hard to determine if these procedures are adequate for component testing of safety-related systems. At this time there is no safety-related testing being performed.

No violations or deviations were identified.

#### 5. Reconciliation of Proposed Final Safety Analysis Report, Chapter 14 Revision

Based on a decision to overhaul the startup test program, the licensee proposed a revision to Chapter 14 of the South Texas FSAR. This

revision constituted a major rewrite with the elimination of much specific guidance as to responsibilities and test description information. The NRC inspector reviewed this draft and discussed its impact on testing. The licensee has agreed to review the proposed draft and insure that no reduction in commitments to NRC has occurred. The revision will deal mainly with how the startup group is organized and where the various responsibilities lie.

No violations or deviations were identified.

6. Review of Startup Training Files

The NRC inspector reviewed the training files of senior startup personnel. This review included work history, QA indoctrination, startup training, startup required reading list, and other required records.

Of the five startup files reviewed, two were complete and acceptable. One file was missing a supervisor's signature and in the same file a signature was placed in the wrong location. One file had no documentation of the required QA lectures in the file, but the training department index indicated he had attended. The startup manager had not attended the required QA indoctrination lecture, a requirement for conducting Startup Activities/Operations QA Plan 4.0, Section 6.2.1.

The above is considered a violation of Level V Severity (8501-01).

7. Training Simulator

The NRC inspector made a tour of the STP training simulator currently undergoing assembly and acceptance testing in Bay City, Texas. The simulator was fabricated based on a pre-TMI control room configuration. Since the order was placed, a significant redesign of the control room appearance has been completed. The decision by the licensee was to accept the original simulator design, complete acceptance testing (the logics remain nearly the same), and then perform the hardware reconstruction. All activities are scheduled to be completed by the end of 1985 with the redesigned simulator in place and tested, ready for operator training at the emergency operations facility (EOF) adjacent to the site.

No violations or deviations were identified.

8. Operator Cold License Training

The NRC inspector attended several hours of cold license training. These sessions were on fundamental and nonsafety systems. Class size was 20 students. There was good class participation and the instructor took time to answer all questions completely. The session did not proceed till all students were satisfied and the instructor was satisfied, based on oral questioning by the instructor on the subject just completed.

The lesson plans and hand-outs were rough drafts and marked up based on design changes. The formal training manuals are about 6 months away. Some fundamentals (heat transfer, etc.) were taught using B&W once-through steam generator.

No violations or deviations were identified.

9. Exit Interviews

Exit interviews were held periodically with the licensee management personnel during the course of this inspection. Those attending one or more of the meetings are denoted in paragraph 1. At these meetings, the scope and findings of the inspection were presented.