

U. S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION IV

This Report Contains Investigation Information  
(Paragraphs 4, 5, 8 & 9)

Report No. 50-498/80-02; 50-499/80-02

Docket No. 50-498; 50-499

Category A2

Licensee: Houston Lighting & Power Company  
Post Office Box 1700  
Houston, Texas 77001

Facility Name: South Texas Project, Units 1 & 2

Inspection at: South Texas Project, Matagorda County, Texas

Inspection Conducted: February 5-8, 1980

Inspectors:

*W. G. Hubacek*  
*for* W. G. Hubacek, Reactor Inspector, Projects Section  
(paragraphs 1, 2, 3, 4, 5, 10 & 11)

2/29/80  
Date

*D. P. Tomlinson*  
*for* D. P. Tomlinson, Reactor Inspector, Engineering Support  
Section (paragraphs 2, 6, 7, 8 & 9)

2/20/80  
Date

Approved:

*W. A. Crossman*  
W. A. Crossman, Chief, Projects Section

2/29/80  
Date

*R. E. Hall*  
R. E. Hall, Chief, Engineering Support Section

2/20/80  
Date

Inspection Summary:

Inspection on February 5-8, 1980 (Report No. 50-498/80-02; 50-499/80-02)

Areas Inspected: Unannounced inspection of construction activities including: review of procedures and observation of work related to reactor coolant piping; review of licensee actions on previous inspection findings; and investigation of matters that had potential impact on quality of construction. The inspection involved forty-eight inspector-hours by two NRC inspectors.

Results: No items of noncompliance or deviations were identified.

## DETAILS

### 1. Persons Contacted

#### Principal Licensee Employees

- \*L. D. Wilson, Site QA Supervisor
- \*D. G. Long, QA Lead Engineer
- \*T. J. Jordan, QA Lead Engineer
- J. W. Soward, QA Specialist

#### Other Personnel

- U. D. Douglas, Project Manager, Brown & Root (B&R)
- \*J. E. Adkins, QA Procurement Supervisor, B&R

The IE inspectors also contacted other licensee and contractor employees including members of the QA/QC and engineering staffs.

\*Denotes those attending the exit interview.

### 2. Licensee Action on Previous Inspection Findings

(Open) Unresolved Item (50-498/78-18; 50-499/78-18): Storage of Permanent Plant Equipment. The IE inspector was informed by a licensee representative that this matter concerning storage and maintenance of equipment has been resolved except for achieving satisfactory responses from area managers relative to discrepancies identified in their areas.

This matter will remain open pending resolution of the discrepancies and subsequent review by IE.

(Open) Unresolved Item (50-498/79-14; 50-499/79-14): Frequency of Inspection Required by B&R Procedure CCP-12. The IE inspector observed that inconsistencies regarding frequency of inspections required for waterproofing membrane still exist in paragraph 3.4.3.1 and Appendix B of Procedure CCP-12. A licensee representative stated that these inconsistencies will be promptly resolved by revision of the procedure.

This matter will remain open pending revision of CCP-12 and subsequent review by IE.

(Closed) Unresolved Item (50-498/79-12; 50-499/79-12): Identification of Anchor Bolt Material. Improper use of testing equipment and questionable identification of anchor bolt material was identified on nonconformance report (NCR) S-M-1151. Since the NCR was issued, Brown & Root established and issued Procedure CCP-24 for hardness testing. Forty-two QC personnel attended a training course for the correct operation of the equipment and implementation of the procedure. All previously inspected anchor bolts

were retested and positive material identity established. A total of fifty-seven installed anchor bolts were retested and all future testing will be monitored under 5A840-SQ-14A (Anchor Bolt Integrity Verification Program). An approved procedure is in use, inspectors have been trained and all questionable bolts reinspected.

This item is considered resolved.

3. Site Tour

The IE inspector walked through various areas of the site to observe construction activities and to inspect housekeeping and equipment storage. The IE inspector observed that Centrifugal Charging Pump 1A located in the Unit 1 Mechanical/Electrical Auxiliary Building has been cleaned and was free from the sandblasting dust previously noted during IE inspection 79-22.

The IE inspector also observed that the Reactor Containment Fan Cooler fans previously located in Kelly Enclosure "A" have been moved into a Level B storage area. The IE inspector was informed that efforts to upgrade Kelly Enclosure "A" to meet Level B storage requirements have been abandoned.

No items of noncompliance or deviations were identified.

4. Falsification of Personnel Records by Brown & Root QC Inspector

On January 18, 1980, the Resident Reactor Inspector (RRI) was informed by a licensee representative that Brown & Root had terminated the employment of a Level II coating QC inspector for falsification of personnel records. The former QC inspector had used an assumed name and failed to state his past criminal record in his application for employment at the South Texas Project. Brown & Root became aware of the former QC inspector's criminal record after the individual was apprehended for a traffic violation on January 15, 1980, and the local police discovered that he was an escaped convict using an assumed name. Brown & Root terminated the employment of the QC inspector on January 17, 1980. The former QC inspector was returned to the control of authorities who previously had jurisdiction over his imprisonment.

The IE inspector examined results of the licensee's review of the former QC inspector's credentials which had been conducted to determine if the individual's education and work experience stated in his application were valid. The IE inspector observed evidence that on January 29, 1980, the licensee had verified the individual's education and experience by contact with a high school and a previous employer listed on the individual's application for employment.

The former QC inspector was certified as a Level II coating inspector on October 24, 1979, based on his education and experience and satisfactory completion of an examination in the coating discipline.

The IE inspector also reviewed results of reinspection of the former QC inspector's work which had been requested by the licensee to determine if the inspections performed by the former QC inspector were correct and accurate. No indications of improprieties were identified during the reinspection; however, the reinspection had not been completed as of the date of the IE inspector's review of this matter.

This matter is considered unresolved pending completion of the reinspection of the former QC inspector's work and subsequent review by IE.

5. Allegation Concerning the Qualifications of a Brown & Root Foreman

On February 4, 1980, the RRI received a telephone call from an anonymous individual who alleged that a Brown & Root foreman had never been anything but a bricklayer and questioned the foreman's qualifications to direct the activities of personnel of various disciplines under his supervision. The anonymous individual stated that he had no knowledge of any specific problems related to the foreman's area of responsibility. The anonymous individual declined the opportunity for further contact with the NRC.

The IE inspector reviewed information extracted from the Brown & Root foreman's personnel files which described the foreman's employment experience prior to his employment at the South Texas Project. The foreman's experience during the period from 1967 to 1977 included direction of the activities of carpenters, iron workers, concrete craft, mechanical craft, electricians, pipefitters and insulators.

The above information indicates that the foreman had previous experience in directing the activities of various disciplines prior to his employment at the South Texas Project.

This allegation was not substantiated.

6. Reactor Coolant Piping - Review of Procedures

The IE inspector reviewed Procedures No. 2012, Revision 3; No. 2024, Revision 1; and No. 2034, Revision 2 for the installation of Reactor Coolant piping. These covered the tack welding and manual repair as well as the automatic gas-tungsten arc welding (AGTAW) of the 31" diameter loop piping. All three procedures appeared to comply with the requirements of the ASME Boiler and Pressure Vessel (B&PV) Code, 1974 edition with Addenda through Winter 1975. Welding was also performed in accordance with Welding Engineering Standard (WES) 12 which stipulates even more precise parameters and equipment requirements than the approved procedures. All essential variables for the AGTAW process were addressed and limits were specified.

No items of noncompliance or deviations were identified.

7. Reactor Coolant Piping - Observation of Work Activities

The IE inspector observed work being performed on sections of Reactor Coolant Loops 1 and 2. The identification codes of ten welders working on this piping were compared to the qualified welder's list to assure that all were qualified and that their qualifications were current. Welders checked were ACJ, AHI, AUK, AUM, AVC, AVL, AVQ, AVT and AWA. Work activities were observed on Joint No. FW-0002 and Joint No. FW-0013 as shown on Drawing FSP-0239, Rev. 4.

The pre-weld fit-up for alignment of FW-0013 was witnessed by the IE inspector and during inspection by a Brown and Root QC inspector. The traveler package and weld record card for this joint appeared to be correct and complete for all previous operations. This weld will join the steam generator nozzle to a spun-cast 40° elbow for the cross-over leg of Loop No. 2. Work on Joint FW-002 was witnessed during deposition of the final weld layer using the AGTAW process. Records of the weld indicated the use of correct filler material, purge and torch flow, interpass temperatures and interpass cleaning. Wire brushes used for interpass cleaning were correctly marked for use on stainless steel only.

No items of noncompliance or deviations were identified.

8. Weld Filler Material Control

The IE inspector toured the warehouse area used for the receipt inspection and storage of purchased weld filler material. NCR S-G03382 was written by Brown & Root QC following a complaint made by the Material Distribution Station (MDS) #1 attendant that weld filler material was delivered to this MDS in dented and ripped metal containers. A QC inspection of all weld rod received on purchase order 35-1197-2044 revealed that a total of 151 containers out of the complete order of 318 were damaged to such an extent that they were deemed unacceptable for use. This discovery was made after the shipment had been "inspected" by a warehouseman and a QC receiving inspector and all documentation signed off as acceptable. Thirty containers (1500 pounds) had already been issued to MDS #1 and nine containers (450 pounds) issued to the Weld Training Center. All rod, except that issued to the WTC, was returned to the warehouse and was reinspected. At the time of this inspection, 7550 pounds of rod from the shipment of 15,900 pounds had been found to be unsuitable for issue due to the condition of the cans. The material has been segregated and the acceptable 8350 pounds of rod will remain in the distribution system. Following the discovery of this discrepancy, both the warehouseman and the QC inspector were terminated. Forty-three employees in warehouses A, B, C and D, along with seventeen in the receiving inspection area, have been reinstructed in the duties and responsibilities of their jobs. No action is planned for this item as it was identified and corrected by Brown & Root's QC system. All 15,900 pounds of 1/8" E-7018 filler material has been accounted for and none has been used for any purpose other than training.

9. Verification of Repair Radiographs

A former Brown & Root welder contacted HL&P QC personnel and stated that he thought repairs on three welded pipe joints were inadequate and that radiographs of the repairs might have been switched. HL&P determined that three welds on the Chemical and Volume Control System (CVCS), Joints CV-1019 FW-0006, CV-1086 FW-0002 and CV-1088 FW-008 were the only welds repaired during the time period mentioned by the welders (December 12-13, 1979). HL&P QA personnel visually inspected the repaired areas and reviewed the radiographs for the original welds and for the repairs. No basis for the claim was found by HL&P.

The IE inspector also requested and was granted access to these radiographs and adequate viewing facilities. Enough discernable features were noted on each set of original/repair radiographs to determine that no switching of film had occurred. The welds following repairs were found to meet the quality requirements of the ASME B&PV Code and no further action is necessary.

No items of noncompliance or deviations were identified.

10. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance, or deviations. One unresolved item disclosed during the inspection is discussed in paragraph 4.

11. Exit Interview

The IE inspectors met with licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on February 8, 1980. A licensee representative acknowledged the statements of the IE inspectors concerning the unresolved item.