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UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION IV
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ARLINGTON, TEXAS 76011

June 6, 1978

In Reply Refer To:

RIV

Docket No. 50-498/78-09

50-499/78-09

Houston Lighting and Power Company
ATTN: Mr. E. A. Turner, Vice President
Power Plant Construction and
Technical Services

Post Office Box 1700
Houston, Texas 77001

Gentlemen:

This refers to the investigation conducted by Mr. J. J. Ward and other members of our staff during the period May 16-18, 1978, of activities authorized by NRC Construction Permit Nos. CPPR-128 and 129 for the South Texas Project facility, Units No. 1 and 2, concerning an allegation by a Brown and Root employee.

The investigation and our findings are discussed in the enclosed investigation report.

Within the scope of the investigation, no items of noncompliance were identified.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed investigation report will be placed in the NRC's Public Document Room. If the report contains any information that you believe to be proprietary, it is necessary that you submit a written application to this office, within 20 days of the date of this letter, requesting that such information be withheld from public disclosure. The application must include a full statement of the reasons why it is claimed that the information is proprietary. The application should be prepared so that any proprietary information identified is contained in an enclosure to the application, since the application without the enclosure will also be placed in the Public Document Room. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

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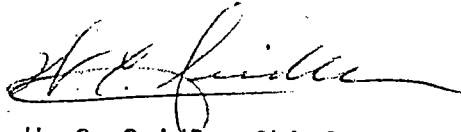
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Houston Lighting and Power Company -2-

June 6, 1978

Should you have any questions concerning this investigation, we will be pleased to discuss them with you.

Sincerely,



W. C. Seidle, Chief
Reactor Construction and
Engineering Support Branch

Enclosure:

IE Investigation Report No. 50-498/78-09
50-499/78-09

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

REGION IV

Report No. 50-498/78-09; 50-499/78-09

Docket No. 50-498; 50-499

Category A2

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

Facility Name: South Texas Project, Units 1 & 2

Investigation at: South Texas Project, Matagorda County, Texas

Investigation conducted: May 16-18, 1978

Investigator: *J. J. Ward*
J. J. Ward, Investigation Specialist

6/6/78
Date

Inspectors: *W. G. Hubacek*
W. G. Hubacek, Reactor Inspector, Projects Section

6/6/78
Date

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

6/6/78
Date

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

6/6/78
Date

REASON FOR INVESTIGATION

A telephone call on May 15, 1978, to the Region III office from an anonymous allegor who advised of possible falsifications of Cadweld records regarding lack of qualification of QC inspectors and procedural violations at the South Texas Project.

SCOPE OF INVESTIGATION

To investigate the allegations and determine their substance.

CONCLUSIONS

Based on a review of records and interviews with all individuals in the departments involved, it was determined that there was no evidence that Cadweld records had been falsified. It was also determined that all present QC civil/structural inspectors have been properly qualified for their positions, tests have been given to all inspectors and in the case of failed tests, subsequent tests have been passed by those individuals. Both tests are kept in the records for the individuals. In no case, did the file folder for a qualified inspector not have a completed test that had been passed. None of the inspectors interviewed stated that they had received undue pressure to lift a "hold" on an activity to allow the construction to proceed.

No items of noncompliance or deviations were identified.

SUMMARY OF FACTS

On May 15, 1978, a Region III investigator received a telephone call from an individual who identified himself as a Brown & Root employee at the South Texas Project who wished to remain anonymous, but who wished to report some alleged irregularities. As reported by Region III, the following allegations were made:

- a. Cadweld records have been falsified. In most cases, QC inspections of Cadwelds have been done, but, in some cases, QC has been too busy to do the inspections and has missed them. In cases where the inspections are done, the Cadwelds are marked with a marker and, after weathering, many markings became illegible. When it was time to locate the Cadwelds on as-built drawings, the Cadwelds could not be positively identified, and some 900 Cadwelds were taken from other records and recorded on as-builts by guesswork. Individual A, in collusion with QC personnel, completed the as-built drawings. These Cadwelds are now in concrete.
- b. Inspectors are not qualified for their positions. As an example, Individual B cannot read a civil drawing. During his period as an inspector in the containment building, he never identified any nonconformances, but present inspectors are identifying many nonconformances. He had left employment at the site, but has since returned to work there.

- c. Inspectors have been tested (a general knowledge test) and have failed the test, yet documents indicate that they successfully passed the test. Quite a few of the failed tests do not appear in the "record vault." The man that gives the tests to inspectors is aware of this.
- d. "Procedural violations" have occurred. When something is put on "hold" by an inspector, construction personnel and/or licensee personnel indicate that the inspection is not proper, or otherwise put pressure on the inspector to lift the "hold" and allow construction to proceed.

An investigation of the allegations was conducted May 16-18, 1978, with the assistance of the IE Project Inspector and Project Section Chief who were conducting a simultaneous inspection at the facility. Training of the inspectors had been partially covered in a prior inspection by the Project Inspector, but additional review of the records was made by him to confirm the finding. Additionally, since one allegation concerned Cadwelds, a specific inspection of completed Cadwelds in the Units 1 & 2 containments was made with a comparison of the test records for these Cadwelds.

DETAILS

1. Persons Contacted

A. J. Hammons, Brown & Root (B&R) QC Civil Supervisor
D. E. Swayze, B&R QC Inspector
C. M. Singleton, B&R QC Inspector
J. M. Lacey, B&R QC Inspector
J. A. Stevens, B&R QC Inspector
J. F. Ellis, B&R QC Inspector
B. N. Kesarinath, B&R QC Inspector
L. W. Lauderdale, B&R QC Inspector
C. King, B&R QC Inspector
H. L. Casanova, B&R QC Inspector
R. Buckalew, B&R Construction Supervisor
T. K. Logan, Lead Engineer, Houston Power & Lighting Co.
D. G. Long, QA Engineer, Houston Power & Lighting Co.

2. Investigation May 16-18, 1978

Records were examined in the storage vault where training records were kept. Individual records are maintained for forty-one Cadwelders of which seventeen were currently active in that occupation. In each case, a record of test in horizontal and vertical positions, with the date passed, was noted. In cases where the individuals had not done Cadwelding for a period longer than ninety days, they were retested in accordance with the procedure requirement. Records of testing and qualification for all of the QC inspectors were examined by the reactor inspector. In some cases where the initial test had been failed, a subsequent test had been given and passed. Copies of both tests were in the folders for these individuals. Each QC inspector's file contained a completed passed test for the QC inspection procedures.

An on-the-spot inspection of Cadwelds presently completed and in place in the containment structures of both Units 1 & 2 was made during a walk through of the facility. The IE inspector observed completed Cadwelds in Units 1 & 2 containment structures and selected sixteen Cadwelds for subsequent review of related documentation. The selected Cadwelds were identified by the following numbers: 37H50, 37H52, 37H29, 37H54, 28H434, 36H47, 36H46, 27H531, 27H533, 26H59, 26H60, 41H1141, 41H1142, 5H1181, 5H1178 and 29V152. The Cadweld identification numbers and white stripes indicating acceptance by Quality Control were legible and clearly visible. Related Cadwelder test records were logged in accordance with Brown & Root Procedure ST-QCP-4.2, "Cadwelding."

In the discussion with the QC inspectors and in particular, a discussion with the construction supervisor, the matter of the legibility of Cadweld markings was discussed in reference to the subsequent

record made on the as-built drawings. It was determined that the Cadwelds for the mat of the Unit 1 containment (approximately 1000 Cadwelds) had been made on the horizontal rebars as they were placed in the lay-up yard where they had been subsequently left exposed to the elements. For the first 100-150, marking of the Cadwelds had been done only on one side and it was soon discovered that there was difficulty in identifying them since sometimes the markings would be turned downward and in order to be examined a mirror had to be used. For the remaining Cadwelds, the marking was placed on both sides of the Cadweld ensuring that, in case of weathering, at least one of the numbers would be legible. Three of the inspectors and the construction supervisor confirmed that there had been some difficulty in identifying the Cadwelds as the rebars were picked up to be placed in the containment and the as-built record was being made. However, in any case of a doubtful marking, two and sometimes three opinions were obtained as to the number which it represented. In no case, was the complete numbering obliterated. The construction supervisor stated that in only one or two cases was there a doubtful identification of the Cadweld and that these had been put in the proper sequence so that he was ninety-nine percent sure that all Cadwelds, as represented on the as-built drawings, had been correctly placed. In all cases, each of the Cadwelds which had been made in the lay-up yard had been correctly made, tested and accepted as required by procedures.

Interviews of all of the QC inspectors determined that, while there was a natural pressure on all of them to get the job completed, there had been no untoward pressure which would have caused them to forego any hold orders. In the case of one QC supervisor, he advised that his holds had sometimes been overruled by higher authority, but as he stated this was their prerogative and did not result from pressure from the construction side.

Inquiry was made in regard to the allegation concerning an individual, formerly a qualified QC inspector, who could not read a civil drawing. It was determined that other inspectors also could not read a civil drawing and that for the type of inspections that these individuals had to do, this ability was not required. In regard to the particular individual referred to, he had terminated from Brown & Root sometime in the past and had recently been rehired. He has not, at present, been qualified or tested for qualification on any of the inspection procedures. He is presently employed in activities which do not require this kind of certification.