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

IE Inspection Report Nos. 50-445/75-12
50-446/75-12

Docket Nos. 50-445

Applicant: Texas Utilities Generating Company
2001 Bryan Tower
Dallas, Texas 75201

Category A 2

Facility: Comanche Peak Steam Electric Station
Units 1 & 2

Location: Glen Rose, Texas

Type of Licensee: W, PWR, 1161 MW(e)

Type of Inspection: Routine, Unannounced

Dates of Inspection: September 11-12, 1975

Dates of Previous Inspection: August 14-15, 1975

Principal Inspector: R. C. Stewart
R. C. Stewart, Reactor Inspector
10/1/75
Date

Accompanying Inspector: W. G. Hubacek
W. G. Hubacek, Reactor Inspector
10/1/75
Date

Reviewed By: W. A. Crossman
W. A. Crossman, Senior Reactor Inspector
10/1/75
Date

SUMMARY OF FINDINGS

I. Enforcement Action

A. Items of Noncompliance

1. Violations

None

2. Infractions

None

3. Deficiencies

None

B. Deviations

None

II. Licensee Action on Previously Identified Enforcement Matters

Infractions

75-10/A.2.a - Lack of Adherence to Procedure Requirements - Concrete Placement

The inspector conducted a follow-up review of the corrective actions taken by the licensee as outlined in their letter of response dated September 5, 1975. The inspector had no further questions regarding this item. This matter is considered closed. (DETAILS, paragraph 4)

75-10/A.2.b - Lack of Adherence to Procedure Requirements - Concrete Transit Mix

The inspector conducted a follow-up review of the corrective action taken by the licensee as outlined in their letter of response dated September 5, 1975. The inspector had no further questions regarding this item. This matter is considered closed. (DETAILS, paragraph 4)

III. New Unresolved Items

1. R. W. Hunt Temporary Procedure

Evidence of approval of Temporary Procedure HT-513-9 by the R. W. Hunt QA Manager could not be found. (DETAILS, paragraph 5)

(continued)

2. Method of Identification and Control of Nonconformances

The CB&I Site QC Documents identify a liner plate anchor stud pull-out which was apparently caused by a lamination in the steel plate. This problem is identified as an item of nonconformance by CB&I; however, it is not clear that B&R and TUSI are handling the matter as an item of nonconformance. (DETAILS, paragraph 3)

IV. Status of Previously Reported Unresolved Items

A. IE Bulletin Status

1. 75-05 Hydraulic Shock and Sway Suppressors

The licensee's response, dated 6/11/75, indicates a hydraulic shock suppressor supplier has not been selected for the Comanche Peak Station; however, the intent of the bulletin has been satisfied.

This matter is considered resolved.

B. CDR-H00507F4 - Reactor Building Over-Excavation

The licensee is continuing geological mapping of the area. A final report is to be submitted when corrective measures are finalized.

This item remains unresolved.

C. CDR - Unit 1, Containment Building Base Mat - "Cold Joint"

On July 24 the licensee informed the IE Region IV office that the construction deficiency, relating to the containment base mat "cold joint" 1/ has been evaluated and considered to be a reportable deficiency within the meaning of 10 CFR 50.55(e).

The licensee submitted an interim report dated August 26, 1975. The final report remains outstanding.

V. Design Changes

None

VI. Unusual Occurrences

None

(continued)

1/ RO Inspection Report No. 50-445/75-10, Section I, Item A.2.a.

VIII. Management Interview

On September 12, at the conclusion of the inspection, a meeting was held with the following licensee representatives in attendance.

Texas Utilities Services, Inc. (TUSI)

C. H. Gatchell, Resident Manager
P. M. Milam, Site QA Supervisor

Brown & Root, Inc. (B&R)

H. C. Dodd, Project Manager
C. E. Bonin, Assistant Project Manager
P. L. Bussolini, Project QA Manager
D. L. Hansford, QC Engineer, Civil
W. E. Childress, Jr., Project Engineer
L. E. Handcock, Subcontract Administrator

Gibbs & Hill (G&H)

J. J. Moorhead, Resident Engineer
R. V. Fleck, QA Supervisor

Freese & Nichols (F&N)

J. M. Dodson, Resident QA Manager
W. L. McGrath, QA Administrative Assistant

The inspection findings, as contained in the Summary and Details Sections of the report, were discussed.

(continued)

DETAILS

Persons Contacted

Texas Utilities Services, Inc. (TUSI)

C. H. Gatchell, Resident Manager
P. M. Milam, Site QA Supervisor

Brown & Root, Inc. (B&R)

H. C. Dodd, Project Manager
C. E. Bonin, Assistant Project Manager
P. L. Bussolini, Project QA Manager
D. L. Hansford, QC Engineer (Civil)
G. H. Fisher, QC Inspector
W. E. Childress, Jr., Project Engineer
C. F. Clark, Field Engineering Subcontracts
L. E. Handcock, Subcontracts Administrator

Gibbs & Hill (G&H)

J. J. Moorhead, Resident Engineer
R. V. Fleck, QA Supervisor

R. W. Hunt Co.

B. K. Kinkade, Level III Inspector

Freese & Nichols (F&N)

J. M. Dodson, Resident QA Manager
W. L. McGrath, QA Administrative Assistant

Chicago Bridge & Iron (CB&I)

W. H. Carter, Manager, Welding & QA Radiation Engineer
M. Jeffers, Project Welding & QA Supervisor

Report of Subjects Inspected

1. Scope of Inspection

The scope of the inspection was limited to a follow-on review of previously identified items of nonconformance and observations of work activities during placement of concrete for the Unit 1 containment building base mat. In addition, the inspector reviewed CB&I QA/QC Record Documents related to the containment liner installation.

(continued)

2. Plan Progress

The overall plant progress is reported as 7.0% complete.

The second of three mass concrete pours for the Unit 1 containment building base mat was completed on 9/12/75.

Preparations for the start of installation of reinforcing steel for Unit 2 containment building base mat is currently in progress.

Construction activities in other areas of the site appeared to be progressing as scheduled.

3. Unit 1 Containment Liner - QA/QC Record Review

During this inspection, the inspector conducted a review of the CB&I QA/QC Record Documents related to the containment liner installation. The reactor vessel cavity liner plates, in the containment base mat, have been installed. Twelve bottom plates and 18 shell plates to the 805' 6" elevation are welded in place. The CB&I work crews are currently off-site and will not return until the containment base mat concrete has been completed to the 805' 6" elevation.

The inspector reviewed the CB&I QA/QC records accumulated for the liner plate installation completed to date. The records consist of 16 various forms or drawings prescribed by the CB&I QA Program Manual.

During the review it was observed by the inspector that CB&I, Form 681, "Nonconformance Control List", Item #6, identified a anchor stud pull-out on plate, MK-20-17. It was also noted that the plate was replaced with a new plate marked 20-17-2. In discussing this matter with the cognizant CB&I representative, the inspector was informed that the anchor stud pull-out was caused by a lamination in the steel plate, and therefore, the plate was replaced.

During subsequent discussions held with the B&R representatives, the inspector was informed that the B&R QA/QC staff had reviewed the item, and in view of the requirements prescribed by ASTM A-20, B&R did not consider the matter as an item of nonconformance; however, it was also revealed that correspondence being generated by B&R and TUSI express a concern regarding the potential of other liner plates having similar laminations. The use of UT inspection of the liner plate is being considered. During the exit meeting the inspector expressed his concern in that the CB&I "Nonconformance Control List" does not provide a clear basis for the nonconformance, nor is it clear as to the manner in which B&R identifies, reviews, accepts/rejects and documents items of non-conformance identified by subcontractors.

The B&R and TUSI representatives stated that this matter would be reviewed.

(continued)

The item is considered unresolved and will be reviewed by I&E during the next inspection.

4. Concrete Placement

The inspector observed activities related to the placement of approximately 1200 cubic yards of concrete for CPSES Unit 1 containment. The placement, which was accomplished on September 12, 1975, appeared to be adequately planned and executed. Included within the scope of activities observed, the inspector reviewed the corrective measures initiated by B&R as outlined in the licensee's letter of September 5, 1975. Within the scope of the review, there were no items of noncompliance observed.

5. R. W. Hunt Temporary Procedure

R. W. Hunt has issued Temporary Procedure No. HT-513-9, "Tension Tests", for use on the CPSES project. The inspector was shown documentation of review and approval of this procedure by the B&R Project QA Manager but evidence of approval by the R. W. Hunt QA Manager as described in R. W. Hunt Procedure W-1000, "Creation, Revision and Control of Inspection and Testing Procedures", could not be found. It was pointed out by the inspector that the absence of the date of issuance and approval signature made the status of this procedure questionable. The R. W. Hunt representative stated that corrective measures would be taken. This matter was identified as an unresolved item.

6. Concrete Cylinder Test Analysis

R. W. Hunt Procedure No. C 1068, "Statistical Method for Evaluating Cylinder Strength", Rev. 0, 3/6/75, prescribes the preparation of reports in accordance with ACI 214-65, "Recommended Practice for Evaluation of Compression Test Results of Field Concrete." The inspector reviewed R. W. Hunt report HCP 588, "Statistical Analysis of Concrete Strength - May 1975", which was issued July 2, 1975. The report appeared to have been prepared in accordance with R. W. Hunt procedures. Cylinder test data for containment mat placement in July was available but had not been processed for statistical analysis.