

- L-9

SUMMARY REPORT  
FOR  
REGIONAL EVALUATION  
OF  
TEXAS UTILITIES GENERATING COMPANY  
COMANCHE PEAK S.E.S

DOCKET 50-445

PREPARED BY  
U. S. NUCLEAR REGULATORY COMMISSION  
REGION IV

JUNE 30, 1983

**FOIA-87-847**  
**B/13**

During the period of August 1, 1979 through July 31, 1980, this facility was evaluated in the following functional areas:

<u>Functional Area</u>	<u>Increase</u>	<u>No. Change</u>	<u>Decrease</u>
Quality Assurance, Management & Training		X	
Substructure & Foundations Concrete		X	complete
Liner (Containment & Others)			complete
Safety-Related Structures		X	
Piping & Hangers (Reactor Coolant & Others)		X	
Safety-Related Components (Vessel, Internals & HVAC)		X	
Electrical Equipment		X	
Electrical (Tray & Wire)		X	
Instrumentation		X	
Fire Protection		X	
Preservice Inspection		X	
Reporting		X	

During the period of July 1, 1980 through June 30, 1981, this facility was evaluated in the following functional areas:

<u>Functional Areas</u>	<u>Category</u>
Soils and Foundations	NA
Containment and other Safety-Related Structures	NA
Piping Systems and Supports	1
Safety-Related Components	1
Support Systems	2
Electrical Power Supply and Distribution	1
Instrumentation and Control Systems	1
Licensing Activities	2

During the period of October 1, 1981 through September 30, 1982, this facility was evaluated in the following functional areas:

<u>Functional Area</u>	<u>Performance Category</u> <u>1982</u>
A. Plant Operations - Preoperational Testing	3
B. Construction Activities	
Soils and Foundation	N/E
Containment and Other Safety-Related Structures	2

Piping Systems and Supports (includes welding, NDE, and preservice inspection)	2
Safety-Related Components (includes vessel, internals, pumps, etc.)	1
Support Systems (includes HVAC, radwaste, fire protection)	N/E
Electrical Power Supply and Distribution	1
Instrument and Control Systems	1
Vendor Procurement Cycle Controls	3
Licensing Activities	1

#### D. ESCALATED ENFORCEMENT HISTORY

An Immediate Action Letter was issued on September 7, 1979, confirming a licensee decision not to place concrete in the wall to dome transition area of the Unit 2 Containment Building until such time as a proper engineering evaluation could be made of the omission and subsequent addition in another location of a group of reinforcing steel shear ties.

#### E. INDEPENDENT DESIGN HISTORY

Discussion with licensee are in progress. No final decision has been reached.

#### F. NRC INDEPENDENT MEASUREMENTS INSPECTION

The NRC Mobile NDE Laboratory was brought to The Comanche Peak site April 25 - May 6, 1983. The report on the results of the examination has not been released. When the report is released, it will be included as an addendum to this report.

#### G. GENERIC CORRESPONDENCE

TUGCO has established procedures providing specific instructions to the nuclear project support group personnel who are responsible for coordination and review of IE Circulars, Bulletins, and Generic Letters. In each case, a TUGCO-appointed coordinator is given responsibility for assigning the cognizant responsible person to review and track all actions and provide documentation. When required the coordinator shall draft a response to the NRC which will be reviewed by plant manager-nuclear, licensing engineering supervisor-nuclear, and project support manager-nuclear. The response shall be signed by the vice president-nuclear operations and shall include an affidavit. A permanent record of actions taken is maintained.

#### H. LICENSEE AND CONTRACTOR INITIATED STOP WORK ACTION

There have been 45 stop work orders issued by the licensee and his contractors. See Exhibit 2 for a summary of the stop work orders.

#### I. CONSTRUCTION DEFICIENCY REPORTS (10 CFR 50.55e)

The licensee has reported 34 significant construction deficiencies. See Exhibit 3 for a summary of these reports.

J. PART 21 NOTIFICATIONS

Part 21 Reports are being handled as 10 CFR 50.55e item and will appear in Section I of this report.

K. NRC INSPECTION ACTIVITIES

1. Construction Inspection

The routine MC 2512 inspection program is essentially complete for Unit 1 and Common, however, an augmented program has been implemented to correspond to licensee final completions inspection. This special program is the key to actual activities of completion and will be on-going until final construction completion.

2. Preoperational Testing and Operational Preparedness

MC 2513 is directed toward inspection of activities involved in preoperational testing and operational preparedness. These inspection activities may be summarized as follows:

	<u>% Complete</u>
Preoperational Test Procedure Review	95
Preoperational Test Witnessing	50
Preoperational Test Results Evaluation	25
Operation Staffing	0
Quality Assurance	80
Operating Staff Training	75
Technical Specification Review	20
Operational Procedure Review	0
Radiation Protection	50
Radwaste	50
Environmental Monitoring	50
Emergency Planning	50
Security	50

3. Startup Testing

Inspection activities established in MC 2514 define the inspection program for the startup testing phase. Since this program generally starts with fuel loading, the program, except for procedure review, has not begun. The program includes:

QA/QC  
 Technical Specification Review (started in MC 2513)  
 Startup Procedure Review  
 Initial Fuel Load  
 Precritical Checks  
 Power Ascension Testing  
 Initial Criticality/Low Power Testing  
 Data Review

## 4. TMI Open Items

Most of the TMI lessons-learned issues were specifically addressed during the FSAR review and appear in The Safety Evaluation Report, Nureg-0737 and its supplements. These items are being tracked and verified during preoperational testing (MC 2513). The individual items will be inspected and closed out in accordance with the temporary instruction.

## 5. Allegations

Numerous allegations specific to Comanche Peak SES have been received during the last two years, in part due to the public licensing hearings. Several of the investigations of these allegations is on-going at this time.

## 6. NRR Confirmatory Items (To be verified by Region IV program)

<u>SER Section</u>	<u>Description of Item</u>
5.3.1.2/5.3.1.3 5.3.2/5.3.3	Fracture-toughness properties of Unit 2 reactor vessel materials (SSER #1 5.3.1.2, 5.3.1.3, 5.3.2, and 5.3.3)
7.3.2.2	Steam generator reference leg temperature compensation and low-low steam generator level setpoint per IE Bulletin 79-21
7.5.4	Confirmation of procedure review per IE Bulletin 79-27
9.1.4	Handling of heavy loads in conformance with the guidelines of NUREG-0612 (SSER #1 9.1.4)
10.4.5	Protection against folding of safety-related compartments from a failure in the circulating water expansion joint
9.4.4	Verification that auxiliary building post-LOCA radiation levels will be low enough to permit manual operation of exhaust damper CPX-VADPOC-83
22	TMI Action Plan
I.C.2	Shift and relief turnover procedures (SSER #1)
I.C.5	Procedures for feedback of operating experience to plant staff (SSER #1)

I.G.1	Special low-power testing and training
II.B.1	Reactor coolant system vents
II.D.1	Performance testing of BWR and PWR relief and safety valves (SSER #1)
II.E.1.1	Recommendation G1.-3: Verification by test of the capability of the turbine-driven AFW pump to operate for two hours without ac power
II.E.4.2	Containment isolation dependability
II.K.2.13	Thermal mechanical report--effect of high-pressure injection on vessel integrity for small-break LOCA accident with no auxiliary feedwater (SSER #1)
II.K.2.17	Potential for voiding in the reactor coolant system during transients (SSER #1)
II.K.3.1	Installation and testing of automatic PORV isolation system (SSER #1)
II.K.3.2	Report on overall safety effect of PORV isolation system (SSER #1)
II.K.3.5	Automatic trip of reactor coolant pumps during LOCA
II.K.3.11	Justification of use of certain PORVs (SSER #1)
II.K.3.30	Revised small-break LOCA methods to show compliance with 10 CFR 50, Appendix K
II.K.3.31	Plant-specific calculations to show compliance with 10 CFR 50.46

SSER Section

Description of Item

3.9.6

Periodic leak testing of pressure isolation valves

9.5

Documentation of applicant's commitments on fire protection

L. CONSTRUCTION STATUS

The active systems have largely been completed sufficiently to conduct pre-



operational tests. Pipe support design and installation remain as major pacing effort at this time. Also, there is a considerable effort in the area attaining separation in the electrical area. (IEEE 384)

There is also a considerable effort directed to engineering design review of site changes. In conjunction with this effort, site QA is verifying that the changes have been inspected and that proper documentation is available.

#### M. PREOPERATIONAL TEST RESULTS

The TUGCO startup group has determined that the plant will be safe for fuel load when the following systems have been prerequisite/preoperational tested. Not all systems are required to be preoperational tested by NRC Regulatory Guide 1.68, Revision 2.

<u>System</u>	<u>Description</u>	<u>Preoperational *% Complete</u>
01	125 V DC Class 1E Power Systems	50
02	6.9 KV/480v Class 1E AC Distribution Systems	85
03	Startup Power Systems	90
04	Service Water System	90
06	Fire Protection/Detection Systems	25
07	Control Room - HVAC System	60
08	Battery Rooms - HVAC System	50
11	Component Cooling Water System	90
12	Communication System	0
22	Sampling System	80
24	Primary Plant Ventilation System	75
29	Diesel Generator and Auxiliaries System	90
31	Safety Chill Water System	100
32	Auxiliary Building - HVAC	100
34	Main Steam System	90
36	Safeguards Building - HVAC System	80
37	Auxiliary Feedwater System	90
39	Diesel Generator - HVAC System	100
40	Fuel Handling and Vessel Servicing Systems	55
41	Liquid Waste Processing System	0
42	Fuel Building - HVAC System	90
44	Steam Generator Blowdown System	100
45	Containment Ventilation System	85
46	Containment Hydrogen Purge System	65
47	Fuel Pool Cooling and Cleanup System	100
48	Containment Spray System	75
49	Chemical and Volume Control System	80
55	Reactor Coolant System	85
56	Boron Recycle System	75
57	Safety Injection System	30
58	Residual Heat Removal System	85
60	Solid Waste Processing System	45
61	Gaseous Waste Processing System	0

64	Reactor Protection System	40
65	Containment Atmosphere Monitoring System	0
66	Nuclear Instrumentation System	0
67	Hydrogen Recombiner System	50
68	Rod Control System	0
70	Radiation Monitoring System	0
73	Protection and Surveillance Package (N-16)	0
74	Movable Incore and Flux Mapping System	90
75	Structural Integrity and Leak Rate Testing	90
78	ERF Computer (SPDS) System	0
80	Seismic Monitoring System	50
81	Cranes and Hoists	50
82	Meteorological Monitoring System	0
91	Loose Parts Monitoring System	100

\*90% indicates the physical testing is complete with the remaining 10% allowed for review and acceptance of test results.

The preoperational test program is 63% complete.

There are 10 preoperational tests that are in the draft form stage. They are listed below along with their scheduled completion dates.

1CP-PT-02-06	Annunciator Operability Test	7/18/83
1CP-PT-02-17	6.9 KV and 480 B SWGR Under Voltage Functional Test	5/28/83
1CP-PT-06-04	Charcoal Filter Deluge	7/18/83
1CP-PT-49-08	Boron Dilution Mitigation	6/27/83
1CP-PT-57-10	Redundant Class 1E Trains Integrated Safeguards Actuation Independence Test	8/15/83
1CP-PT-64-01	RPS Time Response Measurement	6/6/83
1CP-PT-64-04	Reactor Plant System Setpoint Verification	7/18/83
1CP-PT-64-08	RPS Time Response Summary	6/27/83
1CP-PT-66-01	Nuclear Instrumentation System	6/6/83
1CP-PT-70-02	Report Process System	7/25/83

#### **N. CONCLUSION**

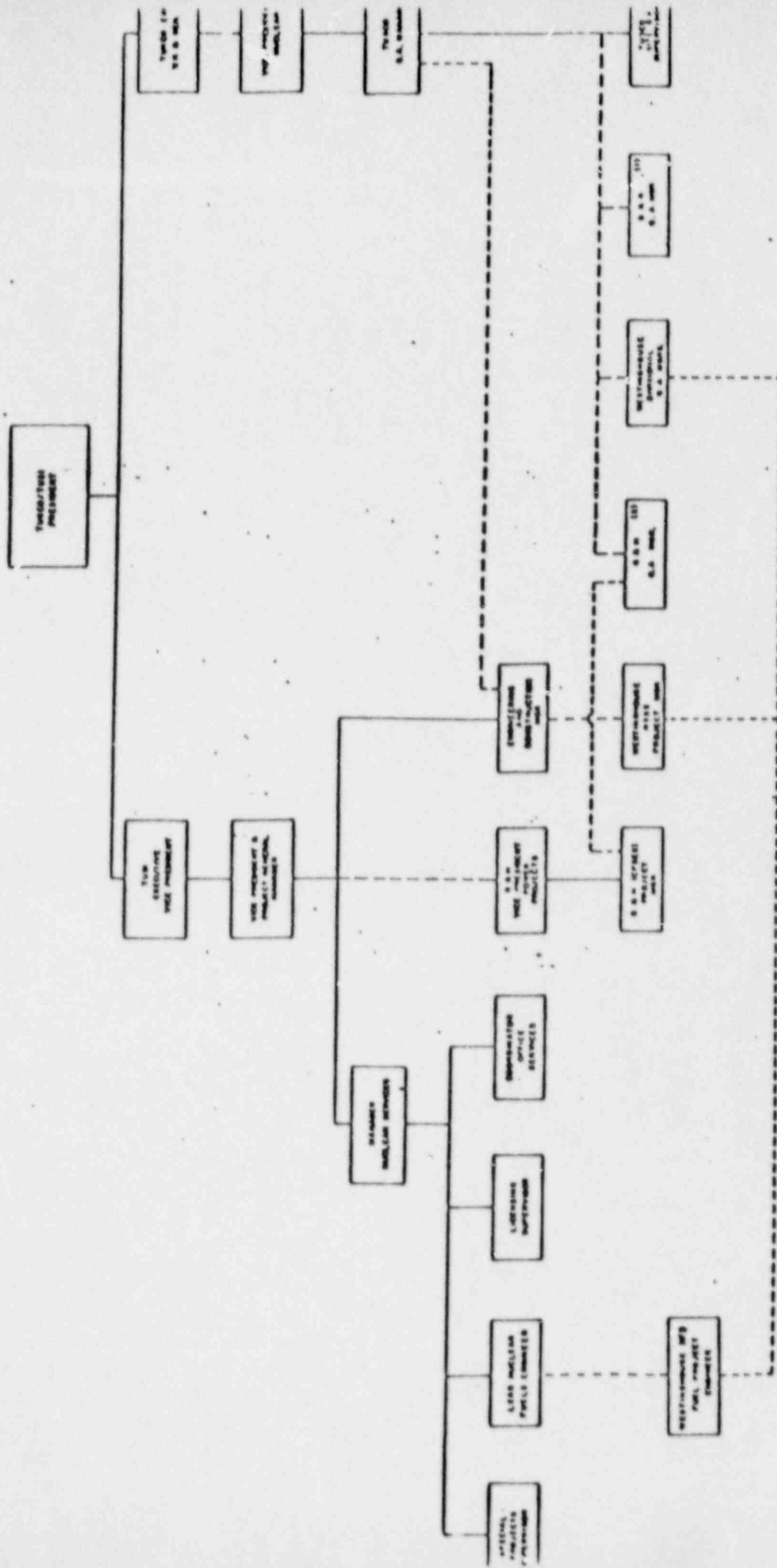
The licensee's performance and progress has generally been on par with other utilities embarking on their first nuclear facility. The upper management exhibits keen interest and support for Comanche Peak S.E.S. However, like other first time nuclear utilities, they have been hampered by the lack of actual nuclear experience.

The licensee has officially scheduled fuel load for Unit 1 in September of 1983. The assessment of the Regional Office, based on work to be done and the past progress rate, estimates that fuel load can take place no sooner than December of 1983.

The licensee's Quality Assurance program for design, construction, pre-operational, and startup programs appears adequate to assure the necessary confidence level for these programs are attained.



## EXHIBIT 1



AUTHORITY  
 COORDINATION  
 (1) IN HOUSTON  
 (2) IN NEW YORK

## EXHIBIT 2

## STOP WORK NOTICES

Page 1

ISSUED TO	ISSUED DATE	SUBJECT	START WORK APPROVAL DATE	DISPOSITION
Construction	07/26/75	Category 1 Concrete Pours	08/01/75	Testing lab implemented their quality program to correct deficiencies and prevent recurrence
Chicago Bridge & Iron Co.	09/03/75	Work on containment liner which precludes radiography	09/04/75	Performed MT examination in lieu of RT on reactor cavity containment liner.
Construction	12/19/75	Category 1 Concrete Pours	12/22/75	Provided clarification of discrepancies noted on surveillance report
Construction	12/23/75	Concrete Aggregate	12/30/75	Mixed aggregates from several locations to provide a composite aggregate that met requirements
Construction	02/12/76	Category 1 Concrete Pours	Varied with complexity	Planning implemented in accordance with Reg. Guide 1.55
Construction	04/28/76	Off-Loading of volume control tank	04/29/76	Obtained purchase order
Construction	07/23/76	On site miscellaneous steel fabrication on Safety Related Items	08/03/76	Revised inspection procedure
Construction	07/23/76	On site miscellaneous steel installation of safety related items	07/29/76	Revised inspection procedure

## STOP WORK NOTICES

Page 2

ISSUED TO	ISSUED DATE	SUBJECT	START WORK APPROVAL DATE	DISPOSITION
Construction	08/02/76	On site miscellaneous steel fabrication of safety related items	08/05/76	Revised inspection procedure
Construction	08/20/76	Receiving Safety Related Mechanical Equipment that Requires Maintenance	09/16/76	Issued procedure for surveillance of maintenance of mechanical equipment
Construction	08/20/76	Receiving Safety Related Electrical Equipment that Requires Maintenance	09/16/76	Issued procedure for surveillance of maintenance of electrical equipment
R. W. Hunt Co.	11/18/76	Calibration Activities	02/15/77	Established and implemented an acceptable program
Construction/ Quality Assurance	11/30/76	Calibration Activities	02/14/77	Established and implemented an acceptable program
Construction	01/24/77	Calibration of Optical Field Survey Instruments	01/27/77	Corrected discrepancies
Engineering	07/01/77	Design change document legibility	None	Discontinued practice of telecopying design changes
Bostrom Bergen Co.	07/12/77	All safety related work by Bostrom Bergen in Fresno	08/10/77	Supplier corrected survey deficiencies and was resurveyed
Construction	07/21/77	All Safety Related activities at miscellaneous steel fab shop	07/29/77	Corrected document control deficiencies

## STOP WORK NOTICES

Page 3

ISSUED TO	ISSUED DATE	SUBJECT	START WORK APPROVAL DATE	DISPOSITION
Construction	07/21/77	Concreting of embedded anchor bolts in Unit 1 Containment	08/01/77	Established accountability of the anchor bolts
Engineering	07/28/77	On site issuance of field design changes	08/01/77	Established appropriate management controls
Construction	07/28/77	Safety Related Construction activities affected by all field design changes issued to date	08/01/77	Implemented procedural requirements
Construction	08/19/77	Installation of safety related piping	09/09/77	Resolved administrative concern
Construction	01/17/78	All welding associated with ASME activities	01/25/78	Flowmeters and welding machines were checked for specified output and the checks documented and traceable to each machine
Bahnson Service Co.	04/18/78	All Fabrication or Installation of any Nuclear Safety Related Category 1 items or assemblies	05/10/78	Resolved surveillance findings
Construction	08/25/78	Welding of stainless steel materials	Case basis	Established program for closer monitoring of welders to assure procedural compliance
Construction	09/05/78	Safety Related Welding	09/19/78	Revised Welder Conformance Qualification Log and updated QA records to reflect welder qualification status

## STOP WORK NOTICES

Page 4

ISSUED TO	ISSUED DATE	SUBJECT	START WORK APPROVAL DATE	DISPOSITION
Construction/ Engineering	10/17/78	Origination, distribution and all work performed to all project CMC's	10/19/78	Revised procedures to adequately describe the method(s) used for the origination, distribution, and use of CMC's. Indoctrinated project personnel
Construction	10/23/78	Unauthorized repairs in Unit 1 main loop piping	11/16/78	Evaluated welds for acceptability. Investigated cause of unauthorized repairs and took appropriate management actions.
Construction	10/30/78	Manual welding activities associated with the Unit 1 main loop piping	11/30/78	Performed analysis of welding materials with satisfactory results
Construction	02/14/79	Welding - ASME on WPS 88023 - Question on procedure qualification	02/16/79	Requalified procedure
Construction	02/15/79	Welding - ASME on WPS 88021 - Through wall repairs	02/15/79	Corrected discrepancy
Construction	04/13/79	Welding - ASME on WPS 88023 - Question on procedure qualification documentation	04/16/79	Corrected documentation discrepancy
Construction	10/19/79	Housekeeping in safety- related buildings	10/22/79	Accomplished cleanup and established ongoing program

## STOP WORK NOTICES

Page 5

ISSUED TO	ISSUED DATE	SUBJECT	START WORK APPROVAL DATE	DISPOSITION
Construction	10/26/79	Installation of Sway Strut Assemblies	02/21/80	Design drawing to be included in traveler package, indoctrinated personnel in assembly, and provided inspection criteria
Construction	10/29/79	All Class 1E and associated Class 1E cable pulling activities	12/03/79	Cable pulling lubricant tested and determined to be acceptable
Construction	07/09/80	Fabrication and installation of Class V Pipe Supports	07/25/80	Established and implemented an acceptable program
Construction	07/25/80	Procurement, fabrication and installation of secondary restraints for essential lighting and light conduit	01/30/81	Established and implemented an acceptable program
Engineering	08/01/80	Design of small bore pipe supports	09/03/80	Established and implemented an acceptable program
Construction	01/20/81	Epoxy grouting of base plates	09/30/81	Acceptable grout selected
Engineering	01/30/81	Field design changes for pipe supports	02/02/81	Established and implemented appropriate procedural controls
MATSCO	01/15/82	Lack of responsiveness to to QA Audit Deficiencies	05/04/82	Resolved deficiencies
BIF	03/03/82	Nuclear QA Program not implemented by supplier	None	Material scrapped and repurchased from alternate source



## STOP WORK NOTICES

Page 6

ISSUED TO	ISSUED DATE	SUBJECT	START WORK APPROVAL DATE	DISPOSITION
PAPCO	07/19/82	Corrective actions from previous audit not implemented	08/12/82	Resolved discrepancies
Chicago Bridge & Iron	08/10/82	Lack of compliance to specification requirements for pipe whip restraints	08/11/82	Established positive corrective action
Quality Control/ Welding Engineering	11/23/82	Liquid Penetrant Examinations	02/09/83	Recalled all penetrant materials and issued approved penetrant
Bahnson Service Co.	03/08/83	Structural Welding; HVAC Supports	04/27/83	Upgraded inspection program and indoctrinated affected personnel
TUGCO Operations	04/15/83	Audit deficiencies with Instrumentation and and Control Activities	04/19/83	Established positive corrective action

## REPORTABLE SIGNIFICANT DEFICIENCIES

NUMBER	DATE	SUBJECT	DISPOSITION
--	2/4/75	Unit 1 Reactor Building Excavation (Overbreak)	Fractured rock removed and replaced with dental concrete and grout.
--	7/24/75	Unit 1 Reactor Cavity Mat (Cold Joint)	Concrete removed; new joint prepared.
--	4/9/76	Unit 1 Containment Base Mat Coring	Concrete integrity determined acceptable through coring and core holes filled with grout or mortar.
--	9/20/76	SSI Dam Filter "A" Material	Removed nonconforming Filter "A" material and other conforming portions of the dam. Reconstructed dam.
77-4	5/6/77	Weld Defects in Polar Crane Brackets	Rework all similar welds and perform random UT inspection on all other welds.
77-C	7/19/77	Westinghouse AR Relays	All affected contact cartridges replaced with approved relays and torque requirements placed on holddown screens
77-D	9/29/77	Westinghouse Operation of Safeguard Actuation Block/Reset Circuitry	Deficiency identified and corrected prior to receipt at CPSES.
77-B	8/23/77	Design Deficiency in Fuel Building Crane System	Place hold on drawings issued to contractor and redesign support structure to incorporate correct seismic loadings.
79-5	5/22/79	Pipe Wall Thickness May Not Meet ASME Code Stress Requirements	Determine wall thickness by documentation review and/or UT inspection. All Class 1 piping with less than minimum wall will be repaired. All other piping greater than 24" below minimum will be repaired.

## REPORTABLE SIGNIFICANT DEFICIENCIES

NUMBER	DATE	SUBJECT	DISPOSITION
79-6	6/19/79	Electrical Cable Tray Hangers without Full Penetration Welds	After review of 404 cable tray hangers assigned to CB& 210 are to be reworked per Engineering direction.
79-8	11/7/79	Installation of Drilled in Expansion Anchors	Revise procedures to reflect correct installation requirements, identify affected supports, rework as required.
79-9	11/15/79	Installation and Inspection of Welded Conduit Supports	Develop typical engineering drawings & provide additional information on construction travelers. Develop inspection procedures and reinspect supports to provide documentation.
79-10	11/20/79	Class V Pipe Supports	Revise PSAR to delineate requirements for supports, revise specification to clarify quality requirements, develop and implement construction & inspection procedures, reinspect, and rework as necessary
79-13	12/13/79	Concrete Honeycombs Unit 2 Steam Generator Compartments	Determine defective areas and repair
80-02	2/22/80	Discs for SW Control Valves	Return to vendor for repair/rework.
80-03	2/29/80	Welded Connection of Control Boards	Review as-built weld configuration and rework as necessary
80-05	7/2/80	Two Inch Architectural Concrete in Floor Slabs	NCR M-81-01667 issued against non-conforming bolts.
80-09	9/26/80	Diesel Generator Pipe Supports	Establish compliance to requirements by engineering evaluation, inspection and rework if required.

## REPORTABLE SIGNIFICANT DEFICIENCIES

NUMBER	DATE	SUBJECT	DISPOSITION
80-10	10/1/80	Hilti Kwik Bolt Installation	Indoctrinate personnel, rework affected supports, and initiate a sampling program of UT examination for Hilti-bolt installation
81-A	2/17/81	Westinghouse Gate Valves	Modify valves as per Westinghouse Field Change Notice and perform stroking during startup testing.
81-B	3/24/81	Bahnson HVAC Anchor Bolts	Revise Bahnson Procedures to require information on anchor bolts, as-built drawings, reinspect previous installations and document as as-built dwgs for post installation design verification. Rework as necessary.
81-03	3/30/81	HVAC Cooling System	Replace existing HVAC system with system meeting new design requirements.
81-06	6/4/81	Seismic Design Criteria for Instrumentation Supports	Evaluate engineering documentation and revise, if necessary, survey completed installations and rework as required.
81-07	11/19/81	Orifice Plates (BIF) Outside ISA Standard RF3.2 Tolerances	Scrap existing orifice plates and procure new plates from a new supplier with an approved quality program.
82-A	1/22/82	Borg Warner Valves May Not Close Properly if Installed Between 22 $\frac{1}{2}$ $^{\circ}$ & 157 $\frac{1}{2}$ $^{\circ}$	Rework/repair
82-02	2/25/82	Papco HVAC Fire Damper	Dampers will be cleaned & lubricated, blade locks secured with additional fasteners, damaged closure springs replaced & based on testing additional springs added, & large horizontal dampers replaced with multipanel dampers.
82-07	8/12/82	Governor Drive Coupling	Existing drive element to be replaced with new element of more suitable material (neoprene).

## REPORTABLE SIGNIFICANT DEFICIENCIES

NUMBER	DATE	SUBJECT	DISPOSITION
82-09	8/18/82	Solid State Protection System Undetectable Failure (Westinghouse 10CFR21)	Modify test procedure.
83-01	1/20/83	Fractured Tack Weld in Check Valve	Valves redesigned to change tack weld to fillet weld. Disassemble, inspect & repair valves supplied prior to design change. Inspect valves supplied after design change to insure correct weld.
83-02	1/25/83	Westinghouse Gate Valves	Modify valves in accordance with manufacturer's recommendations.
83-07	3/10/83	New Fuel Storage Racks	Approved anchor design issued and racks reworked.
83-08	3/24/83	Valves Without Proper Weld Documentation	Scrap existing brackets and replace
83-09	4/20/83	DS-416 Reactor Trip Switchgear	Replace
83-11	5/24/83	CCW System Class V Piping	Controls added to existing level transmitters and non-safety related components upgraded.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TEXAS 76011

2-1

TRANSMITTAL SHEET - REGION IV

DATE: JULY 28 1986

MESSAGE TO: MR. GEORGE MULLEY

TELECOPY NUMBER: 301 - 492 - 7142

VERIFICATION NUMBER: \_\_\_\_\_

NUMBER OF PAGES: 3<sup>2</sup> ~~38~~ PLUS INSTRUCTION SHEET

MESSAGE FROM: H. S. PHILLIPS

CONTACT: \_\_\_\_\_

SPECIAL INSTRUCTIONS: PLEASE CONTACT ADDRESSEE

3114

**FOIA-87-847**  
**B/14**



The following documents support some of the concerns that have been previously identified.

1. Riv Performance letter From IE (June 6, 1986)  
Construction inspection by Riv was fully satisfactory; however, inspection on Unit 2 at Comanche Peak was unsatisfactory because Riv did not provide resources for inspection of Unit 2. The events reporting system was unsatisfactory because NRC could not readily track from documentation to hardware corrected or vice versa. Enforcement was unsatisfactory because management/supervision did not support violations identified that were indicative of long standing quality assurance problems that would be embarrassing to the NRC because it is found at 100% complete construction of Unit 1 and embarrassing/licensing problems for TUGCO. Resource utilization has been poor because an average of about 2000 hours/month have been devoted to inspecting Unit 1 and about 150-200/month for Unit 2 where all the action is. The Senior resident (Construction) has pointed out this problem since Oct 1984.

The IE report (p. 15) supports my concern about unsatisfactory enforcement. If they had considered Comanche Peak, I believe their findings would be unsatisfactory.

## 2. SALP Reports

a. 1984-1985 - None

b. 1982-1983. This report gives high marks in areas that have since been shown (by NRC and TUGCO) to be deficient.

Item 0 on page 26 indicates that QA inspections by NRC were not done.

The NRC CAT showed a number of problems, yet, this SALP gives high ratings to TUGCO performance.

c. 1981-1982. This SALP report gives very high marks in areas that later proved to be deficient. One exception was vendor procurement. There were problems in this area (documented by the NRC Vendor Branch) back to 1978 or 1979; however, NRC QA inspection procedure was never accomplished until 1984 and then only in part because most of the procurement was complete. Therefore procurement was known to be deficient by the NRC and not even a routine inspection was completed when really an increased frequency was appropriate.

d. 1980-1981 - Again a glowing report when all was not well. They gave TUGCO the highest marks. How when item 3 below is considered?

3. NRC-TUGCO Meeting (R+T 80-25) October 1980  
On page 6 the NRC states a serious problem. I have never seen a followup report which documents followup inspection. If this was true strong enforcement action should have been taken by the NRC.

Note: PHILLIPS Memo, subject: Lessons Learned was directed to all the RIV Managers at this meeting. Since very similar problems had been identified with the Brown & Root organization at South Texas, why did management not inspect the Brown & Root organization at Comanche peak to assure there was no problem? Why did they not require an in depth NRC inspection as the Memo requested knowing what they knew.

Z.P. Phillips  
Senior Resident Construction