

May 17, 1982

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)	
)	
TEXAS UTILITIES GENERATING)	Docket Nos. 50-445 and
COMPANY, <u>et al.</u>)	50-446
)	
(Comanche Peak Steam Electric)	(Application for
Station, Units 1 and 2))	Operating Licenses)

APPLICANTS' ANSWERS TO CASE'S
ELEVENTH SET OF INTERROGATORIES

Pursuant to 10 C.F.R. § 2.740b(b), Texas Utilities Generating Company, et al. ("Applicants") hereby submit their answers to "CASE's Eleventh Set of Interrogatories and Requests to Produce," served May 7, 1982. Applicants set forth below answers to both CASE's Interrogatories and CASE's Requests to Produce. These answers are being provided at this time in accordance with the Board's directive to complete discovery on this date. In addition, Applicants have made the documents requested herein available for inspection and copying beginning May 17, 1982.

DSO's
50/1

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APPLICANTS' ANSWERS TO CASE'S
ELEVENTH SET OF INTERROGATORIES

1. To address this concern, Applicants propose that CASE provide, well in advance of the hearing, copies of the documents it intends to introduce so that Applicants may stipulate as to their authenticity.
2.
 - a. After the Nonconformance Report (NCR) is written, the trend category may be assigned by the person who reported the nonconformance, the NCR Coordinator or a Quality Engineer. The one trend category which is judged best to fit the nonconforming condition is chosen. In some instances, more than one category may be assigned to an individual NCR. Thus, no cross-referencing is done. The trending of NCR's is a method used by QA management to identify recurring nonconformances of a particular type.
 - b. After the Deficiency and Disposition Report (DDR) was written, the trend category was assigned by the DDR Supervisor. The one trend category which was judged best to fit the deficient condition was chosen. In some instances, more than one category may have been assigned to an individual DDR. Thus, no cross-referencing was done. The trend categories were used directly from the DDR or from the DDR log. The trending of DDR's was a method used by QA management to identify recurring deficiencies of a particular type.
 - c. There are no trend categories associated with Corrective Action Requests (CAR's); therefore, no trending has been performed on these documents.
3. All trending is done manually; there is no computer printout. Applicants will provide these documents for inspection and copying.
4. Void; no response required.
5. The "For Information Only" stamp is used to differentiate between the original document and a copy of the same. This is its only function.
6. See response to Interrogatory 7. In addition, this information was provided to CASE in Applicants' 5/12/81 telephone conversation with CASE.
7. Civil/Structural
 - C-1: Excavation/Backfill - nonconformances identified during backfill and/or excavation activities.
 - C-2: Preplacement of Concrete - nonconformances regarding preparation for concrete placement.
 - C-3: Concrete Batch Plant Operations - nonconformances regarding concrete mixing and/or testing

C-4: Structural/Miscellaneous Steel Fabrication - nonconformances regarding site fabrication of structural and/or miscellaneous steel. Structural steel includes such items as beams, girders, steel joists, crane rails, etc. Miscellaneous Steel includes such items as miscellaneous steel shapes, plates and assemblies, anchor bolt sleeves, equipment mounting plates, etc.

C-5: Structural/Miscellaneous Steel Installation - nonconformances regarding field installation of structural and/or miscellaneous steel. Refer to C-4.

C-6: Cadwelding - Cadweld nonconformances. Cadwelding is the splicing of reinforcing steel used in concrete construction.

C-7: Welding - nonconformances regarding Civil/Structural welding not in compliance with governing documents.

C-8: Nondestructive Examination Results - unsatisfactory results of Nondestructive Examinations (NDE) on civil/structural items. NDE includes visual, magnetic particle, liquid penetrant, radiographic and ultrasonic tests.

C-9: Inspection/Surveillance - nonconformances regarding inspections and/or surveillance of civil activities.

C-10: Defective Concrete - nonconformances regarding concrete attributes or properties.

C-11: Noncompliance with Specifications/Procedures - noncompliance with the requirements in appropriate procedures and/or specification.

C-__: (Any other C's) - None

General

G-1: Shipping Damage - damage incurred in transit between the supplier and CPSES

G-2: Incomplete Documentation - all required documentation not available upon receipt of item at CPSES.

G-3: Noncompliance with Specifications (including configuration during receiving/procedures) - any noncompliance with the specification and/or procedure, including those identified at receiving.

G-4: Handling/Storage: nonconformances identified during handling of the item or storage of the item, either in the warehouse or in the field.

G-5: Cleanliness - any item or area that is not adequately "clean" as required by project specifications.

G-6: Calibration - nonconformances regarding measuring or test equipment calibration and/or timeliness.

G-7: Coatings/Painting - any nonconformance identified on protective coatings or protective coating activities.

G-8: Installation Construction Damage - nonconformances regarding damage incurred during installation activities.

G-9: Improper Material - nonconformances regarding the use of a material other than that specified in the applicable drawing, procedure, etc.

G-10: Storage Maintenance - nonconformances regarding items stored in warehouse not properly maintained.

G-11: Installed Maintenance - nonconformances regarding items installed in the field.

G-12: Drawing/Component Modification Card Incorrect - Errors on a drawing (other than those for component supports - refer to M-21) and/or its change notices.

Mechanical

M-1: Equipment Installation - mechanical equipment not installed per design documents and/or procedures, instructions, etc.

M-2: Equipment Alignment - nonconformances regarding orientation of mechanical equipment

M-3: Piping Fabrication - nonconformances regarding piping fabrication not per specification or drawing.

M-4: Piping Installation - piping not installed per design documents and/or procedures, instructions, etc.

M-5: Welding - nonconformances identified during welding activities.

M-6: Nondestructive Examination Results - unsatisfactory results of nondestructive examinations on mechanical piping and equipment. Refer to C-8.

M-7: Heat Treatment - nonconformances regarding heat treatment of piping and components.

M-8: Hydrostatic Testing - nonconformances identified during hydrostatic testing of piping systems.

M-9: Equipment Malfunction - mechanical equipment failure to function as specified in purchase documents.

M-10: Inspection/Surveillance - nonconformances regarding inspections and/or surveillances of mechanical activities.

M-11: Minimum Wall - pipe wall thickness below the minimum required by design documents and standards.

M-12: Violation of Holdpoints - mechanical piping and equipment inspection holdpoints by-passed.

M-13: Material - incorrect material used in or for mechanical piping and equipment.

Mechanical (Component Supports)

M-14: Support Fabrication - support fabrication unsatisfactory, e.g. incorrect dimensions.

M-15: Support Installation - support not installed per design documents and/or procedures/instructions, etc.

M-16A: WPS Violation - Welding Procedure Specification (WPS) violated. The WPS describes the parameters to be used during welding, such as position, bead width, weld rod material, travel speed, etc.

M-16B: Unqualified Welder - welding performed by a person who is not currently qualified and/or certified to weld to the WPS specified.

M-17: NDE - (typographic error) - nonconformances regarding the results of nondestructive examinations performed on component supports. Refer to C-8.

M-18: Heat Treatment - nonconformances regarding the heat treatment of component supports.

M-19: Material - nonconformances regarding material used in or for component supports.

M-20: Holdpoint Violation - inspection holdpoints for component supports by-passed.

M-21: Drawing/Component Modification Card Incorrect - errors on a component support drawing and/or its change notices.

M-22: Documentation Incomplete/Incorrect - documentation for component supports incomplete and/or incorrect. The documents may be regarding purchasing, fabrication, installation, inspection, etc.

M-23: Specification Violation - a violation of the applicable component support specification.

Electrical

E-1: Equipment Installation - equipment not installed per procedures, instructions, etc.

E-2: Cable Installation - cable not installed per procedures, instructions, etc.

E-3: Cable Tray/Conduit Installation - cable trays and/or conduit not installed per procedures, instructions, etc.

E-4: Cable Terminations/Connections - nonconformances regarding cable terminations and/or connections.

E-5: Instrument Calibration - instrument not calibrated properly and/or in a timely manner.

E-6: Inspection/Surveillance - nonconformances regarding inspections and/or surveillances of electrical activities.

8. "DDR No." (Deficiency and Disposition Report Number)
This is a sequential listing of all DDR's. The letter preceding each number indicates the discipline in which the deficiency was noted.

"Date Issued" - This is the date the DDR was originally issued.

"Hold Tag No." (Number) - This is the number of the particular Hold Tag associated with the DDR, if applicable.

"Reject Tag No." (Number) - This is the number of the particular Reject Tag associated with the DDR, if applicable.

"Description of Condition" - This provides a brief statement on the subject DDR for identification purposes.

"Dispo. Cat." (Disposition Category) - This is the category in which disposition for the particular DDR falls. See also response to Interrogatory 9.

"Dispo. Approved" (Disposition) - This is the date on which the disposition was accepted.

"Temp. Waiver Req. No." (Temporary Waiver Request Number) - This is the number of the associated Temporary Waiver Tag, if applicable.

"Temp. Waiver Tag No." (Temporary Waiver Tag Number) - This is the number of the associated Temporary Waiver Tag, if applicable.

"Date Tag Rem." (Removed) - This is the date the Temporary Waiver Tag was removed.

"Date" - This is the date the DDR was closed.

"Rep. Def. Yes/No" (Reportable Deficiency) - This refers to whether or not this DDR was considered to be a reportable deficiency under the requirements of 10 CFR Part 50.55(e). P. L. Bussolini, Brown & Root Project QA Manager was responsible for making this determination. He is no longer employed on the project.

9.* / Category A - Indoctrination and Training

1. Personnel records
2. Personnel qualifications
3. Classroom and on-the-job training

Category B - Design Control

1. Quality standards in design document
2. Control of deviations or changes
3. Process and material suitability
4. Control of design documents
5. Design interface

Category C - Instructions, Procedures, Specifications, and Drawings

1. Documented description of activities affecting quality
2. Compliance with documented description
3. Inclusion of acceptance criteria in prescribed documents

Category D - Document Control

1. Release and control of documents
2. Review and approval of documents by authorized personnel
3. Changes controlled as original documents

Category E - Material Control

1. Conformance of purchased items and services to procurement documents.
2. Evaluation and selection of suppliers
3. Source inspection or audit
4. Inspection of purchased items on receipt
5. Documented evidence of conformance
6. Control of handling, lifting, and rigging
7. Control of storage
8. Control of shipping
9. Control of cleaning
10. Identification, documentation, and segregation of non-conforming items
11. Inspection of repaired or reworked items

Category F - Identification Control

1. Establishment and maintenance of item identification and control
2. Lineage traceability of items

* /
CASE's Interrogatories included two items numbered "9". This response is to the first of those items.

Category G - Special Process Control

1. Establishment and maintenance of process controls (Welding, from fit up to NDE, heat treatment, painting, and coating, etc.)
2. Qualification of personnel, procedures, and equipment

Category H - Inspection, Test, and Test Equipment Control

1. Establishment and execution of inspection program
2. In-process inspections
3. Recognition of hold points
4. Documentation and evaluation of inspection results
5. Evaluation of measuring and test equipment
6. Calibration and control of measuring and test equipment
7. Maintenance and control of standards
8. Evaluation of discrepant equipment and affected items
9. Documentation and evaluation of test results
10. Indication of inspection and test status

Category I - Records

1. Preparation and maintenance of quality assurance records
2. Identification of types of records
3. Retrievability of records
4. Retention of records

9. a. Civil, Mechanical, Electrical, and Instrumentation.

b. DDR's for all disciplines were recorded on the DDR log provided to CASE. The majority of activities in the early stages of the project were in the Civil discipline. Accordingly, the number of DDR's issued was proportional. Thus, "civil" was entered in the "Discipline: _____" block. As the activities in other disciplines increased, so did the number of DDR's in these areas, requiring that the entry in the "Discipline: _____" block be expanded to "All."

c. See response to Interrogatory 9b.

d. See response to Interrogatory 9b.

10. 76 - 5B
90 - 10
106 - 6
130 - 11
142 - 5A
147 - 5A
164 - 5A
199 - 5A
246 - 5A
350 - 5A
361 - 11
365 - 11

399 - 5A
449 - 6
450 - 5B
573 - 10
666 - 5A
865 - 5B
1226 - 5A
1462 - 5A

10. Trend Categories for the remaining items are as follows:

1981 TUCCO NCR's

1982 TUGCO NCR's

TREND CATEGORY 1

1680, 1702-1704, 1783

41, 85, 91, 193, 254, 379

TREND CATEGORY 2

115, 157, 198, 303

TREND CATEGORY 3

368

TREND CATEGORY 4A

1597

109, 129, 153, 167, 174, 249-251,
260-263, 432

TREND CATEGORY 4B

78, 255, 434

TREND CATEGORY 4C

1635

162, 269, 369, 409

TREND CATEGORY 5A

66, 538, 1319, 1349, 1400, 1433,
1434, 1503, 1513, 1515, 1520,
1572, 1577, 1607, 1614, 1622, 1624-
1630, 1638-1642, 1649, 1655, 1658,
1661, 1664, 1665, 1667, 1670, 1673,
1686, 1717, 1795, 1797-1801, 1805

2-5, 7, 8, 12-17, 23, 30,
32-36, 39, 45, 50-52,
55-56, 58-61, 65-66, 72, 74-77,
84, 87, 90, 94, 100, 106-107,
110-111, 116-118, 124-125, 137,
139, 150, 154, 156, 175, 177, 181-
184, 188-192, 194-196, 161, 164,
166, 169-170, 172-173, 205-206, 208,
211, 214-215, 217-218, 220-221, 224-
225, 230, 232, 235-236, 241-242,
246, 253, 259, 264, 266-268, 270-
276, 281-282, 284, 290-291, 293,
297, 301, 307, 313-314, 317-326,
330-331, 333-336, 340, 344-351,

353, 356, 371, 375, 377, 380-
382, 387-388, 390-391, 394-398,
401-402, 404-405, 408, 410-414,
417-418, 420-424, 427-431, 433,
435-436

TREND CATEGORY 5B

1518, 1522, 1554, 1580, 1581, 1605, 1609, 1631, 1632, 1634, 1643, 1644, 1646, 1648, 1650-1653, 1554, 1669, 1660, 1700, 1796, 1826, 1828	6, 9-11, 19-22, 25, 28, 29, 40, 42-44, 46, 47, 53-54, 57, 62-64, 67-69, 79- 83, 88-89, 92-93, 97-99, 101- 104, 108, 112, 119-120, 122- 123, 133-136, 138, 141-145, 149, 151-152, 155, 158-160, 163, 165, 186, 197, 199-203, 207, 209, 212-213, 216, 228, 231, 233- 234, 237-238, 244-245, 247- 248, 252, 257-258, 265, 288- 289, 300, 302, 305-306, 309-312, 315-316, 328-329, 332, 337-338, 341, 343, 354-355, 357-360, 363- 367, 370, 372, 374, 378, 389, 390, 393, 399, 403, 406, 407
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TREND CATEGORY 5C

1454, 1517, 1525-1534, 1575, 1598, 1637, 1671	24, 71, 294, 295, 426
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TREND CATEGORY 6

1370-1373, 1475, 1591, 1718, 1823	48 96, 105, 127, 243, 304, 327, 362, 376, 400, 437
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TREND CATEGORY 7

1645, 1666, 1709	26, 37, 70, 171, 222, 296, 342, 415, 416, 419
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TREND CATEGORY 9

1369	148, 168, 178, 179, 204
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TREND CATEGORY 10

1360, 1396, 1399	73, 86, 131, 132, 256
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TREND CATEGORY 11

1460, 1623, 1647	185, 239
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VOIDED NCR'S

1536, 1654

277, 278, 280, 283, 285,
286, 287

NUMBERS NOT USED

140

11. "NCR No." (Nonconformance Report Number) - this is a sequential listing of all NCR's.

"Nonconforming Condition" - this provides a brief discription of the subject NCR for identification purposes.

"Report & Date" - this identifies the person reporting the condition and the date the NCR number was requested.

"Trend Cat." (Category) - this is the category in which the nonconforming condition falls.

"Issued" and "Issued Date" - this is the date the NCR is issued.

"Action Addressee" - this is the person the NCR is assigned to for disposition. SEE also Applicants' response to CASE's Ninth Set of Interrogatories No. 141.

"Disp. Submittal" and "Dispo Submittal" (Disposition) - this is the date the NCR disposition was accepted by Engineering.

"Disp. Approval" and "Dispo Approval" (Disposition) - this is the date the NCR was accepted By Quality Engineering.

"Verification and Closure" and "Verif. & Closure" (Verification) - this is the date on which the NCR was verified and closed out.

- 12.* / The NCR's trend categories are finalized on a quarterly basis utilizing the NCR itself and not the log.

12. Yes.

* / CASE's Interrogatories included two items numbered "12". This response is to the first of those items.

13. "CAR No." (Corrective Action Request Number) - This is a sequential listing of all CAR's.

"Condition Description" - This provides a brief statement on the subject CAR for identification purposes.

"Referred To" - This is the person who has been assigned responsibility for responding to the CAR.

"Date" - This is the date the CAR was originally issued.

"Reply Requested Date" - This is the date that the CAR response is due to Quality Assurance.

"Reply Received Date" - This is the date that the CAR response is received by Quality Assurance.

"Accepted PQAM/Date" - (Project Quality Assurance Manager) This is the date that the response was accepted by Quality Assurance.

"QA File No." (Quality Assurance File Number) - This is a reference to the file where the subject CAR is maintained.

"Reply Accepted Date" - This column replaced the "Accepted PQAM/Date" column on the CAR log. This indicates the date the response is accepted by Quality Assurance.

"Verif/CO Date" (Verify Close Out) - This column replaced the "QA File No." column. This indicates the date that the response to the CAR was verified and closed out.

14. No trending is performed on Brown & Root Corrective Action Requests.

15. As stated in our February 8, 1982, response to CASE's Sixth Set of Requests for Production of Documents, TUGCO QA Division has begun to issue CAR's. At that time, CASE was provided with a copy of the Brown & Root CAR Log and the TUGCO QA CAR Log. CAR's 001-005 were items on the TUGCO QA CAR Log and are not a part of the Brown & Root CAR Log. There were no Brown & Root CAR's issued in 1981.

16. See response to Interrogatory 15.

17. No.

18. Not applicable.

19. "DR No." (Deficiency Report Number) - this is a sequential listing of all DR's.

"Description of Condition" - this provides a brief statement on the subject DR for identification purposes.

"Deficiency Trend Cat." (Deficiency Trend Category) - this is the category in which the particular DR falls.

"CAR Req'd Yes/No" (Corrective Action Request Required, Yes/No) - if a CAR was issued a Yes was inserted; if not, a No was inserted.

"Reportable Yes/No" - this refers to whether or not this DR was considered to be a reportable deficiency under the requirements of 10CFR50.55(e).

"Issued" - date when the deficiency report was issued.

"Resolution Assignment" - identifies what individual the deficiency was sent to for resolution/disposition.

"Resolution Due" - the date when the disposition is due.

"Resolution Submittal" - the actual date when the disposition was submitted to Quality Engineering.

"Resolution Approval" - the date when the disposition was approved by Quality Engineering.

"Verification/Closure" - the date when the disposition was verified and the deficiency closed.

20. Deficiency Reports were categorized utilizing the associated 10 CFR Part 50, Appendix B criteria as follows:

- I - Organization
- II - Quality Assurance Program
- III - Design Control
- IV - Procurement Document Control
- V - Instructions, Procedures, and Drawings
- VI - Document Control
- VII - Control of Purchased Material, Equipment, and Services
- VIII - Identification and Control of Materials, Parts, and Components
- IX - Control of Special Processes
- X - Inspection
- XI - Test Control
- XII - Control of Measuring and Test Equipment
- XIII - Handling, Storage, and Shipping
- XIV - Inspection, Test, and, Operating Status
- XV - Nonconforming Materials, Parts, or Components
- XVI - Corrective Action
- XVII - Quality Assurance Records
- XVIII - Audits

21. Trending was done to ascertain whether or not corrective action for a given function/activity was warranted. This was done by reviewing deficiencies and nonconformances to preclude repetition of significant conditions adverse to quality. Trending of deficiencies was performed and reported on a monthly basis by Quality Engineering personnel. The trending was performed manually utilizing both the DR Log and the DR's.
22. Applicants will provide these documents for inspection and copying.

23. Void, no response required.
24. CASE has already been provided these documents for inspection and copying, pursuant to CASE's Tenth Set of Interrogatories to Applicants.
25. Yes.
26. a. TUGCO has performed trending on Field Deficiency Reports (FDR's) and Component Modification Cards (CMC's). See Applicant's response to Interrogatory 93. TUGCO has prepared Pipe Weld Trend Reports. This trending was a management tool used to provide meaningful data on the quality of safety-related welds.

b. The requested information on FDR's and CMC's is contained in the documents being provided in response to Interrogatory 3. Applicants will provide the additional documents subject to this request for inspection and copying.
27. Applicants will provide these documents for inspection and copying.
28. Applicants will provide these documents for inspection and copying.
29. 16.1 is the designation given to the vault file in which CAR's are contained.
30. DDR's

Prior to April 1, 1977, all nonconformances and deficiencies were documented on the Deficiency and Disposition Report. Each DDR was then entered on the DDR Log. The purpose of the DDR Log is to serve as an administrative aid and as a quick reference for general information.

Brown & Root NCR's and DR's

Starting April 1, 1977, nonconformances were documented on the NCR and deficiencies were documented on the DR. The following can be used as guidance for distinguishing between nonconformances and deficiencies:

Nonconformance - a deficiency in characteristic, documentation, or procedure which renders the quality of an item unacceptable or indeterminate.

Deficiency - a product condition which departs from applicable project procedures/instructions and can be resolved with an existing standard repair procedure OR a project procedural violation not directly associated with an item.

Brown & Root NCR's are included on the Brown & Root NCR log. Brown & Root Deficiency Reports are included on the Brown & Root DR Log. The purpose of these logs is to serve as an administrative aid and as a quick reference for general information. NCR's are still being used; however, the use of DR's was discontinued in 1978.

FDR'S

In 1978 the Field Deficiency Report was initiated. Accordingly, the FDR's were entered on the FDR Log. The purpose of the log is to serve as an administrative aid and as a quick reference for general information.

TUGCO NCR's

In July of 1980, the NCR program was changed to its present structure. Nonconformances of ASME activities are documented on Brown & Root NCR's, while nonconformances of non-ASME activities are documented on TUGCO NCR's. The Brown & Root and TUGCO NCR's are entered on their respective log as an administrative aid and as a quick reference for general information.

CAR's

Corrective Action Requests are issued as deemed necessary by the QA Management. Refer to Applicants' answer 76 for further details. If one or more NCR's are judged to be indicative of a significant problem that warrants formalized corrective action, a CAR may be issued. The Corrective Action Requests are entered on a CAR log. The purpose of this log is as an administrative aid and as a quick reference for general information.

SUMMARY

There is no relationship between the reports and logs except as described above, and there are no steps involved in going from report to report. See also, response to Interrogatories 31-48.

31-48. Applicants discussed their responses to these Interrogatories (and portions of Interrogatory 30) with CASE on May 13, 1982, during a visit by CASE to the site to inspect documents. On May 14, 1982, Applicants provided CASE with a summary of these responses as requested by CASE. CASE signed that summary with the understanding that Applicants thereby satisfied CASE's requests for information set forth in these Interrogatories.

49. Reactor Building Rock Overbreak -

See documents being provided in response to Interrogatory 104.
Inspection & Enforcement (I&E) Reports 75-09, 76-03, and 76-05

Cold joint in Reactor Building Base Mat -

I&E Reports 75-10 and 75-12

Containment #1 Base Mat Concrete Coring -

DDR-C-224

I&E Reports 76-04, 76-05, and 76-10

Safe Shutdown Impoundment Dam Filler Material -

I&E Reports 76-10 and 77-01

Design Deficiencies in Fuel Building Crane Systems -

I&E Reports 78-04 and 78-05

Overtravel on AR Relay -

I&E Report 77-10

I&E Bulletins 77-02 and 77-03

Operation of Safeguard Actuation Block/Reset Circuitry -

I&E Bulletins 77-02 and 77-03

Unit #1 Polar Crane Support Brackets -

I&E Reports 77-06 and 77-08

Pipe Wall Thickness may not meet ASME Code Stress Requirements -

I&E Reports 81-09, 79-13

NCR-M-857	NCR-M-915	NCR-M-935
NCR-M-859	NCR-M-916	NCR-M-943
NCR-M-862	NCR-M-919	NCR-M-947
NCR-M-868	NCR-M-920	NCR-M-951
NCR-M-890	NCR-M-921	NCR-M-953
NCR-M-897	NCR-M-923	NCR-M-1055
NCR-M-900	NCR-M-924	NCR-M-1134
NCR-M-901	NCR-M-926	NCR-M-1187
NCR-M-908	NCR-M-929	NCR-M-1249
NCR-M-910	NCR-M-930	NCR-M-1398
DCA-1560	DCA-9457	DCA-1593
DCA-2109	DCA-1559	DCA-1521
DCA-5551	DCA-1560	

Cable Tray Hangers without full Penetration Welds as required -

I&E Reports 79-16 and 79-27/26

DCA-5671	DCA-5675	DCA-5679
DCA-5672	DCA-5676	DCA-5680
DCA-5673	DCA-5677	DCA-5683
DCA-5674	DCA-5678	

Installation of Drilled In Expansion Anchors -

CMC-43927	CMC-34145
CMC-36292	CMC-50582
CMC-43927	

Installation & inspection of welded Conduit Supports -

Class V Pipe Supports -

I&E Report 79-27/26, 81-11			
DCA-7955	NCR-1933	CMC-30749	CMC-5404
DCA-7952	NCR-1934	CMC-6537	CMC-2040
DCA-5021	NCR-1935	CMC-6163	CMC-12378
IE Bulletin 79-14			

Concrete Honeycomb in Unit #2 Steam Generator Compartment Walls -

I&E Reports - 80-01, 80-08, 80-11	
NCR-C-1824	NCR-C-1784
NCR-C-1766	NCR-C-1791

Discs for Service Water Control Valves -

NCR-2069
I&E Reports 80-03 and 80-08

Welded Connections of Control Boards

I&E Reports 80-01	DCA-3150
NCR-2087	DCA-7394

Two Inch Architectural Concrete in Floor Slabs -

NCR-81-01667
I&E Report 80-18, 81-18

Diesel Generator Pipe Supports

I&E Report 81-09

Hilti Kwik Bolt Installation

I&E Report 81-18		
NCR-81-00001	NCR-81-01223	NCR-81-00232
NCR-80-00126	NCR-81-00555	NCR-81-00371
NCR-81-00079	NCR-81-00126	NCR-81-00030
NCR-81-00108	NCR-81-00033	NCR-81-00008
NCR-81-00086	CMC-00293	FDR-7051
FDR-7052	FDR-7053	FDR-7054

Westinghouse Gate Valves

NCR-M-2679
I&E Report 81-18
I&E Bulletin 81-02

Bahnson HVAC Anchor Bolts

I&E Report 81-09
NCR-M-81-00093

HVAC Cooling System
I&E Report 81-09

Seismic Design Criteria for Instrumentation Supports developed for CBE
not SSE

I&E Report 82-01

NCR-I-81-00241

CMC-57415, CMC-47643, CMC-47645, CMC-47647, CMC-57411, CMC-47601,
CMC-47644, CMC-47646, CMC-57410, CMC-57413, CMC-57475, CMC-57481,
CMC-57487, CMC-47629, CMC-47643, CMC-57411

Orifice Plates supplied by BIF are outside ISA standard RF3.2
tolerances -

DCA-11515

DCA-6152

DECP-1863

Borg Warner Valves may not close properly if installed between 22-1/2°
and 157-1/2° of vertical

NCR-M-30835

NCR-3155

50. Inspection & Enforcement Reports are a matter of public record.
Copies are contained in the Public Document Room. Applicants will
provide the remaining documents for inspection and copying.
51. Applicants will provide these documents for inspection and copying
upon specific request, after CASE's review of the documents provided
in response to Interrogatory 50.
52.
 - a. The as-built program development is in progress.
 - b. The as-built program has been partially implemented.
 - c. Yes.
 - d. Verification of the as-built program will be done consistent with
work progress.
 - e. Yes, to the degree described above.
 - f. Not applicable.
 - g. These documents will be provided for inspection and copying.
 - h. These documents will be provided for inspection and copying.
These drawings have already been incorporated into the as-built
program.
53. Applicants will provide these documents for inspection and copying.

54. There are no "form letters" used during dispositioning of NCR's. Each letter is generated and issued on an as-need basis.
55. The initials are GFB - George F. Bentinck
56. Applicants will provide these documents for inspection and copying. The first form was initiated July 14, 1975, and revised September 8, 1978, and February 1, 1980.
57. This information is contained in CP-QAP-17.1 (Brown & Root QA Procedures Manual) and CQP-CS-7 (Corporate Quality Procedures/Instructions Manual).
58. Applicants will provide the Brown & Root documents for inspection and copying. A copy of procedure CQP-CS-7 (Corporate Quality Procedures/Instructions Manual) which defines the use of CAR's initiated by TUGCO QA, Dallas, has already been provided to CASE in our response to CASE's Sixth Set of Requests for Production of Documents.
59. See Attachment 1 for a listing of all current QC Inspectors at CPSES, their disciplines and dates of hire. In addition, the names and dates of employment and termination for all past Brown & Root QC Inspectors are contained on a computer printout list being made available for inspection and copying. Past QC Inspectors not employed by Brown & Root are listed in Attachment 1.
60. Applicants will provide these documents for inspection and copying.
61. This process is defined in procedures CP-QP-16.1 (TUGCO "Quality Procedures Manual") and CQP-CS-6 (Corporate Quality Procedures/Instructions Manual), copies of which have previously been made available to CASE for inspection and copying.
62. The basic process for reporting items under 10 CFR 50.55(e) has remained relatively constant. Initially, the person identifying a nonconformance was responsible for completing the appropriate box on the NCR form, subject to review by Brown & Root and TUGCO QA management. After these reviews, if necessary, a report was made to the NRC. In September, 1978, the Brown & Root NCR form was revised, deleting the requirement that the initiator of the NCR make any documented determination for reportability. Concurrently, TUGCO QA procedure CP-QP-16.1 was issued which more specifically defined the reporting requirements. TUGCO QA management continued to review NCR's to determine the need for reporting under the criteria set forth in 10 CFR 50.55(e).

In April, 1980, Applicants met with the NRC Region IV office to discuss the reporting requirements for 10 CFR 50.55(e). The NRC indicated that they not only wanted to be informed of items that had been determined to be formally reportable but wanted to be apprised of "potentially" reportable items also. Accordingly, TUGCO QA management began reporting items prior to the final determination of reportability.

63. Various organizations, all of which report to TUGCO QA.
64. CQP-CS-8 (Corporate Quality Procedures/Instructions Manual) requires the use of a "QA Significant Deficiencies Log." The reportability determination for each Significant Deficiency is recorded on this log.
65. Applicants will provide this document for inspection and copying.
66. a. Brown & Root Procedure CP-QAP-10.1, Rev. 0
- b. Applicants will provide these documents for inspection and copying.
- c. Yes.
67. No.
68. Not applicable.
69. No.
70. No, after October, 1981, the Temporary Waiver Request (TWR) form was discontinued.
71. TUGCO maintains the handwritten copies of their NCR's; however, Brown & Root does not.
72. Applicants will provide these documents for inspection and copying.
73. No.
74. Not applicable.
75. a-e. These referenced headings are input data fields used only by records management personnel for record-keeping indexing purposes. These fields have no quality significance except for the "status" field which is the NCR issuance number. The fields in question were filled in by the NCR Coordinator so that input into the computerized record indexing system could be performed directly from the individual document.
- f. This information is contained on the back of the Brown & Root NCR form itself, a copy of which was provided to CASE on April 22, 1982.
- g. 1. Block 7, J. P. Clarke, Brown & Root, see "f" above
2. Block 14, G. McGee, Brown & Root, see "f" above
3. Block 16, Ron Michels, TUGCO, see "f" above
4. Block 20, D. Fellingner, Gibbs & Hill, see "f" above
5. Block 25, Melvin R. Todd, Brown & Root, see "f" above
- h. N/A stands for Not applicable. Signature was not required because condition identified on NCR was not applicable to their area of responsibility. See response to Interrogatory 75f.

1. The referenced stamp is used to indicate that the document has been reviewed by Brown & Root QA. In the case of NCR this review is performed by NCR Coordinator prior to its transmittal to the Records Vault. The blocks have the following meaning:
 1. RTN - Retention time of document, "L" stands for life time retention.
 2. QA Review - Date and initials of individual performing review.
 3. File No. - Location of file in vault
 4. Subfile No. - Subfile location in the vault which is the same as the NCR number
- j. Item 7.
- k. Yes.
1. As stated in response to 75 a-e above, the system for indexing information onto the computer has changed. The NCR form was revised to reflect this change.
- m. See response to Interrogatory 75.f.
- n. The person whose signature appears in Item 25.
76. Corrective Action Requests are issued for the purpose of providing corrective action to preclude repetition of significant conditions adverse to quality. In many cases, corrective action is an on-going activity and is taken when nonconformances/deficiencies are identified, thus eliminating the need to formalize a CAR. The decision to obtain formal corrective action is made at the discretion of QA Management.
77. Applicants provided their response to this Interrogatory with their responses to Interrogatories 31-48.
78. Debra L. Anderson - Quality Assurance Auditor (Coordinator, Vendor Evaluation/Audits)
Bailey F. Campbell - Quality Assurance Auditor
Roland F. Cote' - Senior Quality Assurance Auditor
Steve Davis - Associate Auditor
Al'An Kesler - Associate Auditor
Larry Rillera - Senior Quality Assurance Auditor
Robert H. Shoemake - Quality Assurance Auditor
Susan L. Spencer - Quality Assurance Auditor
Lisa M. Bielfeldt - Special Projects Engineer
John Maxwell - Sr. Technician
Jim Smith - Sr. Technician
Leonard A. Lamb - Technician
Cecil Manning - Senior QA Technician
Rick Hoelscher - Associate Engineer
Antonio Vega - Supervisor, Quality Assurance Services
Tony Valdez - Senior Engineer
Debara Paris - Engineer
Albert Boren - Supervisor, Vendor Compliance

Wayne Parry - Senior QA Technician
David Deviney - Operations Quality Assurance Supervisor
Richard Curtis - Sr. Technician
Charles Killough - Sr. Technician
John Echterhoff - Associate Technician
Alan Lancaster - Sr. Technician

The Manager, Quality Assurance has delegated to the Supervisor, Quality Assurance Services responsibility for implementing the audit program.

79. The National Board of Boiler and Pressure Vessel Inspectors have performed two audits of CPSES activities. These audits were performed on April 4, 5, and 6, 1979, and May 22 and 23, 1979.

80. Applicants will provide these documents for inspection and copying.

81. Although these documents did not fall specifically within the scope of CASE's interrogatories, Applicants provided them for inspection and copying in response to CASE's First Set of Interrogatories and Requests to Produce. CASE reviewed these documents on October 2, 1980.

82. The audits referenced in our response to Question 53 in CASE's Ninth Set of Interrogatories and Requests to Produce are the same audits being provided in response to 80.

83. Yes.

84. Not applicable.

85. Applicants will provide these documents for inspection and copying.

86. Yes.

87. Applicants will provide these documents for inspection and copying.

88. 1975

W-001-75

C-001-75 through C-067-75

G-001A-75

G-001-75 through G-008-75

1976

C-068-76 through C-133-76

M-001-76 through M-004-76

G-009-76 through G-029-76

1977

C-134-77 through C-162-77

E-001-77 through E-008-77

M-005-77 through M-015-77

G-030-77 through G-052-77
G-054-77 through G-063-77

1978

P-001-78
P-002-78
W-002-78
W-003-78
C-163-78 through C-180-78
E-009-78 through E-010-78
M-016-78 through M-025-78
G-064-78 through G-100-78

89. As stated in Applicants' response to Interrogatory 128 of CASE's Ninth Set of Interrogatories, Applicants will supply these documents for inspection and copying.
90. No.
91. Final determination for reportability under 10 CFR 50.55(e) was made by R. G. Tolson, TUGCO Site QA Supervisor for the following NCR's.

NCR-669	NCR-906
NCR-831	NCR-907
NCR-899	

Final determination for reportability for the following NCR's was made by D. N. Chapman, TUGCO Manager, Quality Assurance.

NCR-704	NCR-810
NCR-722	NCR-811
NCR-806	NCR-815
NCR-833	NCR-809
NCR-894	

92. D. N. Chapman, TUGCO Manager, Quality Assurance.
93. a. "Report Number" - this is a sequential listing of all FDR's.
- "Deficiency Description" - this provides a brief description of the subject deficiencies for identification purposes.
- "Date issued" - this indicates the date the FDR was issued.
- "Date Closed" - this indicates the date the FDR was closed.
- "Comments" - this contains any comments regarding the subject FDR.
- b. SEE reponse to Interrogatory 30.
- c. SEE reponse to Interrogatories 25 and 26.

94. Prior to July 10, 1980, all NCR's were documented in and tracked by the Brown & Root NCR System.
95. Copies of the Brown & Root NCR logs have previously been provided to CASE.
96. a. A. Vega, TUGCO, Supervisor, Quality Assurance Services
b. 6186 Campfire
Columbia, Maryland 21045
(301) 730-6663
c. As stated in Applicants' response to CASE's Ninth Set of Interrogatories, Mr. Lobbin was retained to evaluate the TUGCO QA Program. The results of his evaluation are contained in his report, and we consider them to be self explanatory. We see no reason, therefore, to question Mr. Lobbin at this time.
- 97-100. Applicants are unable to identify at this time persons who are knowledgeable in all aspects of the general categories of construction activities listed in Interrogatory 97. Each of these categories encompasses many areas of expertise. The particular areas of expertise in which CASE is interested are not clear from the Interrogatory. Accordingly, Applicants are willing to discuss with CASE providing additional information in response to these Interrogatories upon further specification of the Interrogatories by CASE.
- 101-105. Applicants believe these interrogatories are irrelevant to Contention 5 in that they concern matters that were the subject of CFUR's Contention 7, which has been dismissed from this proceeding. Nonetheless, Applicants will provide for inspection and copying all documents provided to CFUR in response to its discovery requests on Contention 7.
- In addition, Applicants direct CASE to Applicants' Motion for Summary Disposition regarding Contention 7, filed in January, 1982. That motion contains additional information regarding rock overbreak. Finally, as Applicants indicted in their May 12, 1982, conference call with CASE, if CASE still has questions on this matter it should contact Applicants.
106. a. (1) The horizontal dimensions of the shrinkage cracks were not recorded. However, the nonconformance report cited by CASE, as well as the June 3, 1977, memo contained in the NCR, reflect these horizontal dimensions.
- (2) Applicants will provide this document for inspection and copying.
- b. No.
- c. Not applicable.
- d. (1) As evidenced on the subject NCR, Brown & Root QA did not consider the matter reportable under 10 CFR 50.55(e) (i.e. the

"No" block in Section 12 of the Nonconformance Report was checked). Mr. R. G. Tolson, TUGCO Site QA Supervisor, concurred with this conclusion and, therefore, no further regulatory action was required or taken.

(2) Shrinkage cracks in concrete are not considered significant and do not meet criteria for reporting under 10 CFR 50.55(e).

(3) No.

(4) 2001 Bryan Tower, Dallas, TX 75201.

- e. All documents regarding this matter are contained and/or referenced in NCR-C-650, a copy of which has been provided to CASE. Documents which are referenced but not contained in the NCR will be provided for inspection and copying.

107. Applicants will provide this document for inspection and copying.

108. a. DC/DDA 1560 had been used as a means to disposition and close out NCR's concerning minimum wall thickness violations. When DC/DDA 1560 was determined to be in error, it was necessary to reopen the NCR's to assure their proper disposition.

b. The original basis for DC/DDA 1560 being used to disposition NCR's was the ability of the piping system to maintain pressure integrity under the design temperature and pressure conditions in accordance with ASME Section III.

c. DC/DDA 1560 was rescinded because it did not consider worst case stress levels to which the piping system could be subjected.

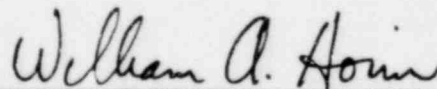
d. No specific individual made the decision to rescind DC/DDA 1560. When it was determined to be in error, project procedures required corrective action to be taken. Mr. Mark W. Smith, Mechanical Engr. TUSI, prepared the necessary paper-work.

e. No additional NCR's are currently being re-opened.

f. Applicants have already provided a copy of this document to CASE.

109. Applicants will provide a copy of this document to CASE.

Respectfully submitted,



William A. Horin

Debevoise & Liberman
1200 Seventeenth Street, N.W.
Washington, D. C. 20036
(202) 857-9800

May 17, 1982

Counsel for Applicants

ATTACHMENT 1Brown & Root Inspectors at Comanche Peak

<u>Radiography</u>	<u>Date of Hire</u>
Roger Walters	1-03-78
Fannie Harper	2-12-79
Jene Radcliffe	5-22-79
Frederick Baker	10-6-81
Jeffrey Bevan	5-12-81
Larry Bungardner	12-20-81
Mike Dennon	4-4-82
John Cleveland	11-8-81
Mary Gilbreath	7-6-81
Jeff Ivie	4-20-82
Curt Grunwald	4-7-81
David Lotterhos	10-28-81
Johnny Lunsford	12-20-81
Paul McDowell	7-16-80
James Parker	12-11-79
Randal Pendergrass	3-16-81
Clayton Johndrow	4-25-82

Pipe Welding

Donny Doyle	7-23-79
Richard Allstrom	6-14-79
Phil Atkins	11-27-78
Allen Adkins	9-14-81
Johnny Blanscet	9-28-81
John Butler	9-17-79
John Caldwell	3-21-82
Robert W. Darby	2-5-80
Greg Fanning	8-29-78
James T. Goode	7-3-79
Charles Swindell	1-8-79
Raul Hernandez	5-1-78
Rus Hilton	10-22-79
Melinda Holder	1-3-78
Jim Mathis	12-19-77
Anthony Patterson	1-29-79
Charlie Saengerhausen	3-21-82
Doug Snow	11-13-78
Dwight Woodyard	3-1-82
Andrew Ganzmann	1-16-76
Sid Waynick	9-8-75
Richard Hasegawa	2-12-79
Lee McDowell	10-29-80
Harlow Hall	5-11-82

Completions/Startup

Greg Bennetzen	6-6-77
Jack Henline	11-28-77
Tom Ellis	12-7-81
Brian Coffin	5-12-81
Terry Matheny	5-12-80
Richard Sprouse	7-23-79
Jon Rogers	1-25-82
Scott Wagner	3-22-82
Jim Shaver	1-8-79
James E. Lloyd, Jr.	5-10-82

Component Supports

Billy Snellgrove	2-12-79
Bobby Bronson	3-17-82
Robert Green	1-24-82
Harry Johnson	8-20-79
Ramesh Lahoti	12-16-82
Wayne Mansfield	10-15-81
Jeff McConnas	1-4-80
Barry McNellie	5-28-80
Ted Neely	3-14-82
Donald Nisich	2-1-82
John Reed	1-8-80
William T. Sims	11-5-76
Richard Smith	3-15-82
Gary Vaughan	9-23-80
Robert Walston	10-13-80
Larry Wilkerson	12-7-81
Rex Ondracek	4-12-82
Thomas Coleman	5-4-82
Sammy Bell	3-5-79
James Cole	5-29-79
William Campbell	4-19-82
Richard Heuer	4-6-82

Mechanical Equipment

Richard Ice	2-14-77
W. D. Bishop	3-21-82
John Frazier	7-24-78
Mike Ivey	11-10-81
Earl Lindberg	2-9-82
D. H. MacDonald	1-31-82
Garland Osborne	7-12-76
Melvin Todd	2-17-76
Ben Conner	5-10-82

Receiving QC

John Horton	10-18-76
Kenneth Cox	12-13-81
Henry Dickson	3-21-82
Donna Dyer	7-10-78

Documentation Backlog

Ray Eckert	4-8-82
Dusty Earley	11-23-81
William Beem	4-26-82
William Darby	1-22-81
Ralph Darby	1-6-82

QC Startup

Robert L. Adams	5-26-81
Harold Glover	4-3-78
Thomas Jensen	7-27-81
Billy R. Morrow	4-25-82
Timothy Sawatsky	4-25-82

Electrical QC

Stan Vore	9-18-79
Randall McGaughy	10-9-78
Randy C. Whitman	1-28-77
Jerry Beck	7-17-78
Sherry Burns	11-22-81
Arnando Canacho	12-7-81
David Dial	3-28-82
Ezequiel Flores	12-7-81
William Ford	12-7-81
James W. Griffith	2-1-82
Sheree Harding	11-14-78
Michael W. Holland	9-21-81
Billy Holmes	11-15-81
Shirley Starr	4-25-82
James McCann	2-6-80
Debra Mabe	5-28-80
John O'Grady	6-18-79
Dewey Oliver	7-17-78
Jerry Osborne	3-28-82
Richard Plimmer	1-11-82
Patsy Rabon	11-16-81
Eddie Snyder	4-4-82
Leslie Taggart	7-17-78
Jack Vance	11-16-81
Hector Villarreal	11-16-81
Wayne Whitehead	11-16-81
Warner Wiggs (Robert)	7-1-80
Eddie Dantzler	10-9-79

Civil QC

Ira A. Scoggins	7-17-78
Mark Tatarko	5-1-78
William J. Reynolds	7-17-78
Jo Ann Anundson	4-11-82
Phyllis May	10-9-80
Paula Robinson	4-11-82
Andrew Roach	1-3-82
Rix McClenny	9-15-81
Bryan Belew	4-14-82
Robert Gutierrez	7-27-78
David Osborne (Charles)	7-17-79
John L. Roberts	3-26-82
David Wood (Benny)	1-14-80
Cecelia Payne	2-21-82

Protective Coatings

William Avery	12-7-81
Fred Dunham	4-13-82
Shelia Brown	3-21-82
Mark Dendy	3-29-82
Houston Gunn	10-10-77
Timothy Wilcoxson	3-24-82
Joseph Fazi	2-18-77
William Dunham	11-18-81

Mechanical - Conduit Supports

Mike Warner	3-14-77
Mike Uptmore	6-18-79
Dan Chandler	5-2-77
Tony Chandler	6-26-81
Ken Gonser	5-28-81
David Gray	7-30-79
Ray Hughes	10-19-81
William Jones (Oren)	8-17-81
Marian Kiernan	6-4-81
John Long	11-17-80
Richard Moreland	3-29-82
Robert Ray Posey	3-9-82
Scott Patterson	12-1-81
Leslie Sanchez	12-1-82
Doug Wimberley	11-9-81

Instrumentation

Curtis Biggs	7-17-81
Bobby L. Berry	7-17-78
Billy B. Cecil	6-18-79
John Griffith	10-28-81
Timothy Jackson	1-20-82
Ki Anthony Marley	11-15-81

Marcus Palmer	9-24-80
Valinda Sain	7-2-80
Geannette Sweat	12-29-79

Mechanical (Non-ASME)

Randall D. Smith	6-13-80
Mikal S. Young	10-22-79
Larry G. Hite	10-23-79
William Kattness	12-6-81
Darlene Stiner	8-1-80
David Stinson	11-1-81
Eddie Tatum	10-13-81
Kirby Scott	4-13-81

QC Inspectors

UNITED ENGINEERS

John Divetro	Mechanical	2/8/82 to present
John Ignaszewski	Mechanical	2/8/82 to 3/17/82
Charles Wolf	Mechanical	2/8/82 to present
Tim Barber	Electrical	2/8/82 to present
Tom Jackson	Electrical	2/8/82 to present
Dave Brown	Mechanical	1/12/82 to present

TUGCO

Vernon Mahan	Electrical	12/17/79 to present
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NFS

Chi Van Cao	Civil	3/29/82 to present
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EBASCO

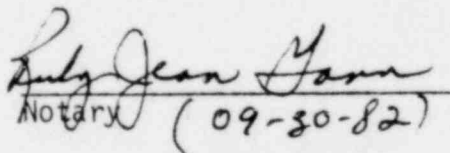
C. Randall	Mechanical	11/13/82 to 4/16/82
R. Shields	NDE	5/7/82 to present
C. T. Brendt	Mech/Civil/Inst	9/9/80 to present
T. D. Schmidt	Mechanical	8/27/80 to 5/7/81
H. E. Foote	Mechanical/Civil	1/5/82 to present
C. Reeves	Mechanical	3/29/82 to present
L. Stolliker	Mechanical	1/10/82 to present
G. Yando	Civil	3/31/82 to present
T. Finn	Civil	1/29/82 to present
L. Gleason	Civil	4/5/82 to present
R. Wallace	Civil	1/27/82 to present
R. Perry	NDE	3/8/82 to present
D. Bradley	Mechanical	4/5/82 to present
D. Hanke	Mechanical	12/14/81 to present
M. Elliott	Civil	11/30/82 to present
M. Lawrence	Mechanical	5/3/82 to present
A. Smart	Electrical	4/30/82 to present
M. Kennedy	Mechanical	4/16/82 to present
C. Scruggs	NDE	5/7/82 to present
E. Stout	NDE	5/7/82 to present
L. Tessier	NDE	5/7/82 to present
D. Cux	NDE	5/7/82 to present
V. McDermott	NDE	5/7/82 to present
M. Ferris	NDE	5/7/82 to present

STATE OF TEXAS)
)
COUNTY OF SOMERVELL)

John S. Marshall, being duly sworn deposes and says:
That he is Licensing Supervisor, Texas Utilities Services, Inc.
and knows the contents of the foregoing Applicants' Answers to
CASE's Eleventh Set of Interrogatories; that the same is true
of his own knowledge except as to matters herein stated on
information and belief, and as to that he believes them to be
true.


John S. Marshall

Subscribed and sworn to before me this 17th day of May 1982.


Notary (09-30-82)

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of)
)
TEXAS UTILITIES GENERATING) Docket Nos. 50-445
COMPANY, et al.) 50-446
)
(Comanche Peak Steam Electric) (Application for
Station, Units 1 and 2) Operating License)

CERTIFICATE OF SERVICE

I hereby certify that copies of the foregoing "Applicants' Answers to CASE's Eleventh Set of Interrogatories," in the above-captioned matter were served upon the following persons by deposit in the United States mail, first class postage prepaid this 17th day of May, 1982:

Marshall E. Miller, Esq.
Chairman, Atomic Safety and
Licensing Board
U. S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Chairman, Atomic Safety and
Licensing Appeal Panel
U. S. Nuclear Regulatory
Commission
Washington, D.C. 20555

Dr. Kenneth A. McCollom
Dean, Division of Engineering
Architecture and Technology
Oklahoma State University
Stillwater, Oklahoma 74074

Marjorie Ulman Rothschild, Esq.
Office of the Executive
Legal Director
U. S. Nuclear Regulatory
Commission
Washington, D.C. 20555

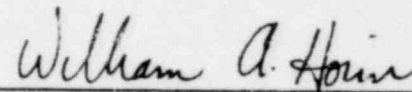
Dr. Richard Cole, Member
Atomic Safety and Licensing
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David J. Preister, Esq.
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Chairman, Atomic Safety and
Licensing Board Panel
U. S. Nuclear Regulatory
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Washington, D.C. 20555

* Mrs. Juanita Ellis
President, CASE
1426 South Polk Street
Dallas, Texas 75224

Mr. Scott W. Stucky
Docketing & Service Branch
U. S. Nuclear Regulatory
Commission
Washington, D.C. 20005



William A. Horin

cc: Homer C. Schmidt
Spencer C. Relyea, Esq.

*Copy to be provided to CASE by hand May 17, 1982, in addition to the copy served by first class mail.