UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

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50-445
50-446

JUL 02 1985

Ms. Billie Pirner Garde
Citizens Clinic Director
Government Accountability Project
1901 Que Street, NW
Washington, DC 20009

IN RESPONSE REFER
TO FOIA-84-778

Dear Ms. Garde:

This is in response to your letter dated October 1, 1984, in which you requested, pursuant to the Freedom of Information Act (FOIA), copies of documents regarding inspections that Region IV has conducted into allegations by current or former employees of the Comanche Peak project about the stainless steel liner plates of the spent fuel pool, transfer canal, refueling cavity, or any other facility at the site, including background records to those inspections or investigations and technical review records generated by other NRC offices.

The documents identified on enclosed Appendix A are being placed in the NRC Public Document Room (PDR) located at 1717 H Street, NW, Washington, DC 20555, in file folder FOIA-84-778 in your name. The document identified on enclosed Appendix B is already in the PDR. I have indicated the file location beside the document description.

Inasmuch as the documents that are subject to the portion of your request regarding technical review information are subject to your pending FOIA requests on the Comanche Peak Task Force activities, FOIA-85-15, 85-19, 85-33, 85-34, 85-50 and 85-59, they will be addressed with regard to those requests.

This completes NRC action on this request.

Sincerely,

J. M. Felton, Director
Division of Rules and Records
Office of Administration

Enclosures: As stated

Re: FOIA-84-778

APPENDIX A
Documents Being Placed in the PDR

1. Undated Document to RIV from R.C. Stewart, Dillingham allegations-personal notes (2 pages)

2. 12/03/76 Document to Brown & Root from C.H. Gatchell, Field Interpretation/Clairification Request No. 155 (1 page)

3. 12/20/77 Letter to TUGCo from W.C. Siedle, Transmittal letter for Inspection Report No. 50-445/77-13; 50-446/77-13 (2 pages)

4. 12/20/77 Document to TUGCo/PDR from Region IV, Comanche Peak Inspection Report No. 50-445/77-13; 50-446/77-13 (7 pages)

5. 12/27/78 Letter from F.L. McAllister, Design Change Authorization No. 3286 (1 page)

6. 01/25/79 Memo to D.B. Vassallo from G.W. Reinmuth, subject: Classification of Spent Fuel Pool Liner Plates (1 page)

7. 02/06/79 Memo to R.T. Carlson from G.W. Reinmuth, subject: Classification of Spent Fuel Pool Liner Plates (1 page)

8. 07/02/79 Letter to TUGCO from W.C. Seidle, Transmittal letter for Inspection Report No. 50-445/79-15; 50-446/79-15 (2 pages)

9. 06/21/79 Document to TUGCo/PDR from Region IV, Comanche Peak Inspection Report No. 50-445/79-15; 50-446/79-15 (9 pages)

10. 07/18/79 Document to Seyfrit, Seidle, Vetter, Crossman, Taylor, and Hall from NRC-RIV, Mail Control Form "Response to Inspection Report #79-15" (1 page)

11. 07/18/79 Document to K. V. Seyfrit, RIV from TUGCo, R.J. Gary, Comanche Peak Steam Electric Station 1981-83 2300 MW Installation Response to NRC Inspection Report No. 79-15, File No. 10130 (2 pages)

12. 12/06/79 Document from R. B. Willliams, Design Change Authorization No. 6231 (1 page)

13. 11/12/80 Document from D. Vogt, B & R Nonconformance Report No. M-1819 R2 (pages 1-44)

14. 03/06/80 Document from James W. Cole, B & R Stainless Steel Liner Inspection Traveler Weld No. 988 (3 pages)

15. 03/25/82 Document from Jerry D (?), Design Change Authorization No. 12,785 (1 page)

Re: FOIA-84-778

APPENDIX A
(Continued)

16. 08/13/82 Document from James W. Cole, Fuel Building - personal notes (1 page)

17. 08/13/82 Illegible name, Personal note-re: travelers (1 page)

18. 07/08/83 Document from W.H. Crowe, Design Change Authorization No. 18,035 (1 page)

19. 08/24/83 Document from NRC OI, Investigative interview of Arvill (J.R.) Dillingham, Jr. (pages 1-97)

20. 09/12/83 Document from C.R. Hooton, Design Change Authorization No. 18,035 Rev. 1 (1 page)

21. 9/10-21/84 Deposition of T. Brandt (12 pages)

22. 09/27/84 Case filing to ASLB re: CASE's Evidence of a Quality Control Breakdown (90 pages)

23. 11/19/84 Document to C.D. Richards from Frank Rinaldi, Fuel Pool liner Plates (3 pages)

24. 12/21/84 Document to Olan Parr from George Laar, Preparation of a Statement on the NRC Staff's Position on the Spent Fuel Pool Liner for Comanche Peak NPP (5 pages)

Re: FOIA-84-778

APPENDIX B
Document Already in the PDR

1. 10/16/84 Letter to ASLB transmitting 10/3/84 deposition of T. Brandt (124 pages) Accession No. 8410170157

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

December 20, 1977

In Reply Refer To:
RIV
Docket No. 50-445/Rpt. 77-13
50-446/Rpt. 77-13

Texas Utilities Generating Company
ATTN: Mr. R. J. Gary
Executive Vice President
and General Manager
2001 Bryan Tower
Dallas, Texas 75201

Gentlemen:

This refers to the inspection conducted by Mr. R. C. Stewart and other members of our staff during the period November 28 - December 2, 1977, of activities authorized by NRC Construction Permit Nos. CPPR-126 and 127 for the Comanche Peak facility, Units No. 1 and 2, and to the discussion of our findings with Mr. J. B. George and other members of your staff at the conclusion of the inspection.

Areas examined during the inspection and our findings are discussed in the enclosed inspection report. Within these areas, the inspection consisted of selective examination of procedures and representative records, interviews with personnel, and observations by the inspectors.

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

One new unresolved item is identified in paragraph 7 of the enclosed report.

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 inspection 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

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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.

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

Sincerely,

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

Enclosure:
IE Inspection Report No. 50-445/77-13
50-446/77-13

cc: w/enclosure
Texas Utilities Generating Company
ATTN: Mr. H. C. Schmidt, Project Manager
2001 Bryan Tower
Dallas, Texas 75201

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

REGION IV

Report No. 50-445/77-13; 50-446/77-13

Docket No. 50-445; 50-446 Category A2

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

Facility Name: Comanche Peak, Units 1 & 2

Inspection at: Comanche Peak Site, Glen Rose, Texas

Inspection conducted: November 28 - December 2, 1977

Inspectors: R. C. Stewart, Reactor Inspector, Projects Section (Paragraphs 1, 2, 3, 4, 9 & 10) — Date 12/20/77

for W. G. Hubacek, Reactor Inspector, Projects Section (Paragraphs 5 & 6) — Date 12/20/77

R. A. Hermann, Reactor Inspector, Engineering Support Section (Paragraphs 7 & 8) — Date

for L. D. Gilbert, Reactor Inspector, Engineering Support Section (Paragraphs 7 & 8) — Date 12/20/77

Other Accompanying Personnel: R. E. Hall, Chief, Engineering Support Section (November 30 and December 2, 1977)

Approved: W. A. Crossman, Chief, Projects Section — Date 12/20/77

R. E. Hall, Chief, Engineering Support Section — Date 12/20/77

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Inspection Summary

Inspection on November 28 - December 2, 1977 (Report No. 50-445/77-13; 50-446/77-13)

Areas Inspected: Routine, unannounced inspection involving observation of work performance and record review of dome liner and fuel pool liner fabrication; follow-on review of safety related piping shop and field fabrication; observation of work performance and record review of the installation of the reactor coolant system component supports, review of the QA program implementing procedures for electrical and instrument cables and terminations; and independent reviews concerning construction deficiencies for which the licensee has submitted reports in accordance with 50.55(e). The inspection involved one hundred thirty-nine inspector-hours on site by four NRC inspectors.

Results: No items of noncompliance or deviations were identified.

DETAILS

1. Persons Contacted

Principal Licensee Employees

*J. B. George, TUSI, Nuclear Construction Manager
*D. N. Chapman, TUGCO, QA Manager
*R. G. Tolson, TUGCO, Site QA Supervisor
*J. T. Merritt, TUSI, Resident Manager
*C. L. Biggs, TUGCO, QA Lead Engineer
R. V. Fleck, TUGCO/G&H, Site QA Supervisor
J. V. Hawkins, TUGCO/G&H, Site QA Representative
*D. E. Deviney, TUGCO, QA Technician

Other Personnel

*H. O. Kirkland, B&R, Project General Manager
H. C. Dodd, B&R, Project Manager
*U. D. Douglas, B&R, Assistant Project Manager
*P. L. Bussolini, B&R, Project QA Manager
J. P. Clarke, B&R, Senior QC Engineer
*J. J. Moorhead, G&H, Resident Engineer

The inspectors also interviewed other contractor employees during the course of the inspection. They included B&R field engineers, B&R QC inspectors and B&R construction personnel.

*denotes those present at the exit interview.

2. Licensee Action on Previous Inspection Findings

(Open) Noncompliance (50-445/77-10; 50-446/77-10): Failure to Remove Weld Surface Defect Prior to Final Acceptance. The licensee's written response, dated November 17, 1977, did not reflect audits and/or surveillance activities being implemented to prevent recurrence of this item. This matter remains open pending IE review of supplemental information to be provided by the licensee.

(Open) Noncompliance (50-445/77-10; 50-446/77-10): Failure to Provide Welding Procedures at the Location Where the Prescribed Activity is Performed. The licensee's written response, dated November 17, 1977, did not reflect audits and/or surveillance activities being implemented to prevent recurrence of this item. This matter remains open pending IE review of supplemental information to be provided by the licensee.

(Closed) Unresolved Item (50-445/77-11; 50-446/77-11): Indication of an Uncontrolled Welding Design Change. During this inspection, the IE inspector reviewed B&R inter-office memo (TSV-0087), dated November 30, 1977, which documents the corrective actions initiated to resolve this matter. The inspector had no further questions regarding this item.

3. Potential Construction Deficiency - Vendor Supplied Steel Embeds

On November 23, 1977, the licensee reported by telephone that the site construction staff discovered that "B" series Cadweld sleeves were welded to eight steel plate embedments in reversed orientation.

During this inspection, the IE inspector reviewed the current status of this discrepancy and found that the specific steel embeds had not been embedded in concrete and corrective measures were initiated; however, due to insufficient information at this time, the question of similar conditions of reversed orientation of "B" series Cadwelds on previously installed embeds can not be answered until an on-going review and evaluation is completed. This matter remains unresolved.

4. Allegation of Poor Workmanship

The licensee informed the NRC, Region IV office on November 23, 1977, by telephone, of a call on November 22, 1977, from an unidentified woman who was apparently concerned with the workmanship at the site regarding the use of "rotofoam" as a temporary spacer being utilized in construction in maintaining the required air space between Category I seismic structures. During this inspection, the IE inspector reviewed the subject allegation and found that contrary to the woman's belief, all temporary "rotofoam" blocks have been removed from the subject areas. The B&R QA/QC inspection staff have initiated an inspection and documentation program to assure that the required 1" gap between Category I seismic structures is being maintained in the as-built condition. This matter will remain open pending IE review of the QA/QC inspection results.

5. Review of QA Manual Provisions for Electrical Construction Activities

The inspector reviewed the Brown & Root QA manual to ascertain whether appropriate and adequate procedures were provided to assure that activities related to electrical cables and terminations and electrical components are controlled in accordance with NRC requirements and licensee commitments. The following procedures and specifications were reviewed:

ACP-3, "Material Receiving Storage and Handling"

QCP-1.1, "QC Receiving Inspection"

QCP-1.2, "QC Surveillance of Storage, Warehousing and Control"

QCP-1.6, "QC Surveillance of Mechanical, Electrical and Instrumentation Equipment"

QCI-1.6-11, "Safety Related Mechanical and Electrical Equipment Storage Maintenance"

QCI-1.1-11, "Receiving Inspection for TUSI/G&H Procured Safety Related Equipment"

MCP-10, "Storage and Storage Maintenance of Mechanical and Electrical Equipment"

ECP-10, "Cable Tray and Hangers"

ECP-19, "Exposed Conduit and Hangers"

Specification No. 2323-ES-100, "Electrical Erection Specification"

Specification No. 2323-ES-19, "Cable Tray Specification"

The inspector noted that several work and inspection procedures related to electrical construction activities are being developed and will be issued in the future. These procedures will be reviewed during subsequent inspections.

No items of noncompliance or deviations were identified.

6. Electrical Cable and Equipment Storage

The inspector observed storage of electrical cable which was stored at the site. Reels of electrical cable were stored outdoors on a concrete pad. The inspector noted that several QC tags attached to cable reels were becoming faded from exposure to weather and were difficult to read. A licensee representative stated that new weather-resistant tags were being procured to replace the faded tags.

The inspector also observed storage of several items of electrical equipment which were located in warehouses. These items included: three containment spray pump motors, one component cooling water pump motor, two safety injection pumps, and two motor operated valves.

The inspector reviewed receiving records for electrical cable and equipment maintenance records for one containment spray pump and two motor operated valves.

No items of noncompliance or deviations were identified.

7. Safety Related Structures

a. Review of QA Implementing Procedures

The inspector reviewed the program for the fabrication, erection, welding and inspection of the stainless steel liners for the refueling cavity, transfer canal, spent fuel storage and cask

loading pits to ascertain if the commitments stated in the PSAR and Gibbs & Hill (G&H) specification 2323-SS-18, Rev. 2 were being implemented. The inspector reviewed Brown & Root (B&R) construction procedure 35-1195-CCP-38, "Stainless Steel Liner Erections," and B&R QA procedures CP-QCP-2.11, "Inspection of Stainless Steel Pool Liner Systems," and CP-QCI-2.11-1, "Weld Inspection and Fit-Up of Stainless Steel Liners," to ascertain if the above stated requirements had been implemented. Additional QA and work procedures in the areas of weld expendable material control, welder and weld procedure qualification, NDE and welding surveillance were reviewed to assess control of these activities.

No items of noncompliance or deviations were identified.

b. Observation of Work Activities

(1) Stainless Steel Liners

The welding of fillet joints for the attachment of leak chase channels and of tacks for the attachment of backing bars for the butt weld seams for stainless steel liners was inspected. Weld procedures and welders were found qualified in accordance with the requirements of the ASME B&PV Code, Section IX. The welding was performed in accordance with WPSs 99020 and 88023 and placed as specified by B&R drawing WRB-10559. Work and inspection activities were performed as prescribed by the procedures discussed in the previous section.

No items of noncompliance or deviations were identified.

(2) Reactor Coolant System Component Supports

A limited inspection of the Vertical Columns - C1 as shown and described on Westinghouse drawings 1457F29 and 1457F27 was performed in the site storage yard. The inspector reviewed the PSAR and Westinghouse specification G-952628, Rev. 1, "Fabrication Requirements For the Reactor Coolant System Component Supports," and determined the vertical column fabrication requirements were ASME B&PV Code, Section III, Div. 1, NF, 1974 edition as a minimum. The inspector was unable to find any documentation in the preliminary data package and certificates of conformance or on the components that the articles were fabricated in accordance with ASME III, NF and that volumetric inspection of the full penetration welds had been performed as prescribed by ASME III, NF, paragraph NF-5212. The licensee is obtaining the complete data package for these items to determine if the items were fabricated and inspected as prescribed.

This item is considered unresolved.

8. Safety Related Piping (Welding)

The inspector observed the welding in the pipe shop of weld #2, 4"-pipe to fitting-, SF-1-151R-3 per WPS 88023, Rev. 2. The welders and welding procedure were qualified in accordance with the ASME B&PV Code, Section IX. Weld technique, parameters, gases and expendable materials were as prescribed by the WPS. Inspections were as prescribed by B&R QCP-3.4 as noted on Weld Data Card 00893.

The inspector reviewed the radiographs of welds 2 and 3, 24"-CC-1-AB-12, component cooling line. The radiography was performed in accordance with procedure CP-NDEP-101, "Radiographic Examination (Piping)," which complies with the requirements of ASME B&PV Code, Sections III and V, 1974 edition including Summer 1974 Addenda. The inspector reviewed twelve original radiographs and radiographs of repairs as required.

No items of noncompliance or deviations were identified.

9. Unresolved Items

Unresolved items are matters about which more information is required in order to ascertain whether they are acceptable items, items of noncompliance or deviations. The following item was disclosed during this inspection regarding fabrication and inspection of reactor coolant system component supports:

Identifier	Title	Reference
77-13-1	Adequacy of the fabrication and inspection of reactor coolant system component supports	Paragraph 7.b.(2)

10. Exit Interview

The inspectors met with the licensee representatives (denoted in paragraph 1) at the conclusion of the inspection on December 2, 1977. The inspectors summarized the purpose and the scope of the inspection and the findings. The licensee representatives acknowledged the unresolved item (paragraph 7.b.(2)) concerning lack of documentation regarding the fabrication of the reactor coolant system component supports.

COMANCHE PEAK STEAM ELECTRIC STATION
DESIGN CHANGE AUTHORIZATION

(WILL) (~~WILL NOT~~) BE INCORPORATED IN DESIGN DOCUMENTS

AUTHORIZATION NO. 3286

SAFETY RELATED DOCUMENT X YES ____ NO

1. DESCRIPTION: DESIGN CHANGE X YES ____ NO

A. APPLICABLE SPEC/~~DWG/DOCUMENT~~ 2323-SS-18 2 REV.

B. DETAILS Difficulties exists with field application of the Carboline 195 surfacer specified in Section 3.5 in the leak chase grooves of the stainless steel liner floors. Request approval to use Southern Imperial's NUTEC #11 or #11S as an alternate to the Carboline 195 surfacer for both the floor areas and the leak chase grooves.

SOLUTION: The proposed alternate is acceptable. The substrate preparation and coating application shall conform to the manufacturer's recommendations.

JOB NO. 35-1195

2. SUPPORTING DOCUMENTATION

GTT-3237; TWX-10638

RECEIVED DEC 29 1978 RECEIVED

3. SIGNATURES: OBJ/ss 12-27-78

A. APPROVED BY: F.L. McAllister for R.E. Ballard 12/27/78
G&H Representative Date

B. APPROVED BY: Bennett Jones 12/27/78
Responsible Engineer Date

4. STANDARD DISTRIBUTION:

B&R Field (Original) (1)
G&H-New York (1)
TUGCO Site QA (1)
B&R Site QA (1)
FSOG (1)
G&H - DALLAS (1)

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7-2-79

In Reply Refer To:
RIV
Docket No. 50-445/Rpt. 79-15
50-446/Rpt. 79-15

Texas Utilities Generating Company
ATTN: Mr. R. J. Gary, Executive Vice
President and General Manager
2001 Bryan Tower
Dallas, Texas 75201

Gentlemen:

This refers to the investigation conducted by Messrs. R. G. Taylor and W. A. Crossman of our staff on May 29 through June 4, 1979, of activities authorized by NRC Construction Permits No. CPPR-126 and 127 for the Comanche Peak facility, Units No. 1 and 2, concerning allegations by a former Comanche Peak employee.

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

No items of noncompliance or deviations were identified.

Even though no items of noncompliance with NRC requirements were identified during this investigation, we did find that the allegations were essentially true. We also noted during this investigation that a thread of continuity existed between this investigation and others recently conducted relative to alleged problems with site management and quality control in certain areas of construction. Although we feel that the major organizational changes you made in January 1978 have strengthened the QA/QC program at Comanche Peak, we cannot ignore the fact that we are continuing to receive allegations concerning construction practices. Taken individually these allegations, some of which have been substantiated, do not appear to have any significant adverse impact on the conformance of your plant to NRC commitments. However, as we discussed in our meeting with you and Mr. Fikar, in our office on June 22, 1979, when these allegations are taken collectively, there appears to be a morale problem which is evidenced by several of the allegers and may be attributable, in part, to communication problems between the workers and supervision. In our June 22 meeting, you indicated that you would look into these apparent communication problems along with the adequacy of QA/QC indoctrination of plant supervision and workers and take appropriate action to correct any weaknesses that you detect in these areas. We intend to follow this matter closely during subsequent inspections.

OFFICE	RIV WAC	WAC		WE		
SURNAME	RGTaylor/nh	WACrossman	WCReidle	WEVetter		
DATE	7/2/79	7/2/79	7/2/79	7/2/79		

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7-2-79

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.

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

Sincerely,

Original signed by
W. C. Seidle

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

Enclosure:
IE Investigation Report No. 50-445/79-15
50-445/79-15

cc: w/enclosure
Texas Utilities Generating Company
ATTN: Mr. H. C. Schmidt, Project Manager
2001 Bryan Tower
Dallas, Texas 75201

bcc to Reproduction Unit
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U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION IV

Report No. 50-445/79-15; 50-446/79-15

Docket No. 50-445; 50-446 Category A2

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

Facility Name: Comanche Peak, Units 1 & 2

Investigation at: Comanche Peak Steam Electric Station, Glen Rose, Texas

Investigation conducted: May 29 through June 4, 1979

Inspectors: W A Crossman 6/21/79
for R. G. Taylor, Reactor Resident Inspector, Project Sections Date

W A Crossman 6/21/79
W. A. Crossman, Chief, Projects Section Date

Approved: W A Crossman 6/21/79
W. A. Crossman, Chief, Projects Section Date

Investigation Summary:

Investigation on May 29 through June 4, 1979 (Report No. 50-445/79-15; 50-466/79-15)
Areas Investigated: Special investigation of allegation received regarding improper and potentially very poor welding of inter-plate seams in the Unit 1 Refueling Pool, spent fuel pools, and transfer canal of the common facility Fuel Handling Building. The investigation involved twenty-eight inspector-hours by the Reactor Resident Inspector (RRI) and the Chief, Projects Section.
Results: The allegations were neither specifically confirmed nor refuted. The allegations, if confirmed, would have no safety significance. No items of noncompliance or deviations were identified.

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INTRODUCTION

Comanche Peak Steam Electric Station (CPSES), Units 1 and 2 are under construction in Somervell County, Texas, near the town of Glen Rose, Texas. Texas Utilities Generating Company is the Construction Permit holder with Brown and Root, Inc. as the constructor and Gibbs and Hill, Inc. as the Architect/Engineer.

REASON FOR THE INVESTIGATION

The Region IV Reactor Construction and Engineering Support Branch received a telephone call from a former CPSES employee who reported several allegations indicating a potential breakdown in the CPSES Quality Assurance program and a possible threat to the health and safety of the public. The substance of the allegations also appeared in an edition of the Fort Worth Star-Telegram published on May 30, 1979.

SUMMARY OF FACTS

The Region IV Reactor Construction and Engineering Support Branch received a telephone call on May 25, 1979, from a party who identified himself as a former CPSES employee who had worked as a Boilermaker welder. The call was taken jointly by the Branch Chief and the Section Chiefs of the Projects Section and the Engineering Support Section who in turn provided the information to the assigned Resident Reactor Inspector at CPSES on May 29, 1979. The allegations were reviewed with the alleger in an interview which took place on May 30, 1979, at his home. Each of the following allegations relate to welding of stainless steel liners in the Unit 1 Reactor Containment Building or in the common Fuel Handling Building:

1. Allegation No. 1[1/]

   Welding and weld repairs on the liners were difficult because water from concreting activities had run down the leak chase channels and out past the backing strip into the weld area. Welds finally completed were very poor; some welds had been slugged with weld rod and others were so thin that if buffed a second time with 120 grit, they would not have passed PT (Penetrant Test).

2. Allegation No. 2

   There are problems with the gate guide (refers to a gate in the Reactor Containment separating the refueling pool from a small storage pool and the transfer canal).

1/The statements above are the allegations as received. Clarifications obtained from the alleger during the interview of May 30, 1979, are indicated by parenthesis.

a. The gate guide between the large and small pool was welded in the shop. When the gate guide was installed in the pit, the end bevel was cut off so it could be fit-up. When the guide was installed, it was not rebeveled and where a fillet weld of 3/8" was required, only 3/16" fillet weld was made.

b. The gate guide had to be welded to both sides of the liner. When welding the back side, the welder had to crawl down between the rebar to get to the weld. The position was so crowded that the welder could not make a good weld. Also, the welder couldn't see what he was welding very well.

c. Six inches of the chase channels were left off the gate guide and added after the gate guide was installed. The rebar was so thick in the areas where welding was performed that "you could hardly get your finger through, much less the welding torch." Consequently, the welds were not made properly.

3. Allegation No. 3

Welders have no experience. They spend as much as 80 hours trying to make a test weld. They finally learn how to make a weld that will pass the qualifying test and then when they get into the field they don't know what they're doing.

4. Allegation No. 4

There is "lots" of QC coverup. QC is "buying-off" on welds over the phone. One QC inspector bought off a seam before he ever saw the seam and it was not a good weld because water was coming through while the weld was being made. (The buy-off involved was joint preparation and cleanliness preparatory to welding).

5. Allegation No. 5

Brown and Root is not following procedures in welding the liner plate. (The procedures referred to are welding procedures and specifically refer to use of a down-hand welding technique being used versus the procedurally required up-hand technique).

6. Allegation No. 6

Some of the top seams 18" above water level on the fuel pool had backing strips tack welded to the liner plate. There are places where the plate did not cover the backing strip. He would not guarantee the weld. The weld was probably 60% rust, air, concrete, etc.

CONCLUSIONS

Review of the CPSES Final Safety Analysis Report, Project Specifications and Engineering Drawings, as they pertain to the liner fabrication and installation, have led to the following conclusions relative to each allegation stated in the Summary of Facts above. To better understand these conclusions, the following considerations are necessary:

The liner systems are not installed to prevent or mitigate the consequences of any of the postulated design basis accidents, but rather are installed to prevent an excessive burden on the liquid waste collection and disposal system and to allow the wall and floor area to be more easily decontaminated after pool usage. The liners as a functioning element are, therefore, not considered safety related and are not normally included in the NRC inspection program.

The liners, as passive elements and parts of the building structure, are usually classified into seismic Category I since if one or more of the liner plates were to become detached from the wall, serious damage could be done to stored fuel assemblies. The plates are, therefore, secured to the concrete supporting structure with a system of weld studs attached to the back of the plate and embedded into the concrete. The weld stud system is not a factor in these allegations.

1. Allegation No. 1

The RRI, based on the interview with the alleger and with other welders, has become reasonably sure that there were difficulties encountered by the welders with water, moisture and in some instances with concrete on the weld surfaces and that in some instances, the welds may not be completely sound internally. These welds, however, serve no strength purpose and need only to be smooth and leak free, factors which are established by visual inspection, dye penetrant examinations, and by vacuum box tests of the joint after it is complete. The allegation, while probably true, has no safety consequence.

2. Allegations No. 2.a, b, & c

These collective allegations, while probably true in a substantial sense, also have no safety consequence. The weld joints in question only need to be smooth and leak free in the case of a. and b. and leak free in the case of c. The welds do not serve to lend strength to the structure.

3. Allegation No. 3

The project specifications for all welding, including the pool liners, require that welders be qualified under the requirements of the American Society of Mechancial Engineers, Boiler and Pressure Vessel Code, Section IX or a comparable requirement such as those of the American Welding

Society. Section IX of the ASME requires that a welder must perform a weld process involved and the as-welded coupon must pass specified tests when complete. No time limits are specified or implied as a requirement in Section IX for making the qualification test coupon weld. The RRI has verified previously that the site welder qualification program is in full compliance with Section IX.

4. Allegation No. 4

The RRI examined the circumstances surrounding the specific portion of the allegation and discussed the matter with the QC inspector directly involved. It appears that this man, on occasion, was depending on the inspections performed by a fellow inspector and so recorded on the appropriate weld data card. The joint was covered over with tape after it had been inspected for cleanliness and fit-up and the inspector released it over the phone based on the record card entries. Water in the leak chase channels appears to have been a constant problem. The QC inspector may have made a judgement error in not re-examining the joint, but not withstanding, the joint had been inspected and found satisfactory at that time. The RRI did not investigate the alleged "lots" of QC coverup because of the lack of specifics.

5. Allegation No. 5

As noted in the Summary of Facts, the general allegation of failing to follow procedures was subsequently refined in the interview with the alleger to relate specifically to an occasion where the alleger was directed by his supervision to weld down-hand rather than up-hand as required by the welding procedures. ASME Section IX indicates that such a change is in the category of a non-essential variable and, therefore, is not a prohibited change in the procedure, if recorded. It appears that the change was not recorded. Interviews with other welders on the same activity failed to reveal any similar experiences and supervision has denied directing the alleger to perform out-of-procedure. The RRI, therefore, has no mechanism by which to confirm the allegation. Again, assuming that the alleger did weld down-hand instead of up-hand for whatever reason, the consequences of such an action are essentially meaningless as related to a weld, since such a change has no effect on the finished weld of the type involved.

6. Allegation No. 6

The particular welds in question are even less consequential than the other seam welds in a functional sense. These welds, which are above the water line in the pools, do not need to be leak free, just smooth for the purposes of easy decontamination. The allegation, while perhaps true, has no consequence.

DETAILS

1. Persons Contacted

Alleger

The alleger, hereafter identified as Individual "A," is a former employee of Brown and Root, Inc. (the site general contractor). The person identified himself as a former welder assigned to the millwright/boilermaker unit of the construction force.

Principal Licensee Employee

Site Quality Assurance Supervisor

Brown and Root, Inc.

Project Construction Manager
Millwright/Boilermaker Superintendent
Individual "B," a welder currently working as a pipefitter but who was a Boilermaker
Individual "C," a welder currently working as a pipefitter but who was a Boilermaker
Individual "D," a quality control inspector who was assigned to inspection of pool liners

2. Background of Allegations

Individual "A" contacted the Region IV office at approximately 9:25 a.m. on Friday, May 25, 1979, to express concerns about the welding activities which had taken place on the spent fuel pools, cask loading pool and the transfer canal in the common Fuel Handling Building for both Units as well as that work accomplished in the Unit 1 refueling pool and temporary storage pool installed in the Reactor Containment Building.

The RRI was notified of these allegations on Tuesday, May 29, 1979, (May 28 a holiday) and initiated an immediate investigation. The first point of contact was the licensee's site Quality Assurance supervisor who informed the RRI that he was aware of the allegations, since his company had been apprised of them by a newspaper reporter employed by the Fort Worth Star-Telegram.

The site supervisor also informed the RRI that another welder, Individual "B," had expressed similar concerns to the Project Construction Manager on May 23, 1979, and that concerns had been forwarded to site Quality Assurance for investigation. The RRI was provided an informal memorandum giving the results of the investigation dated May 23, 1979.

Individual "A" also contacted the Project Construction Manager on May 24, 1979, and expressed essentially the same concerns as those expressed by Individual "B" and which in turn he expressed to the Region IV office on May 25, 1979. It appears that Individual "A" and his supervision, up through the Project Construction Manager, had reached a substantial point of disagreement and Individual "A" voluntarily terminated his employment at the site as of May 24, 1979. The voluntary termination is a matter of record in Individual "A's" employment file.

3. Investigation

The RRI initiated the site phase of the investigation by extensively reviewing the CPSES Final Safety Analysis Report in order to ascertain the safety classification of the various pools and pool liners involved in the allegation and to review the functional descriptions. Reference to Section 3.2, "Classification of Structures, Components and Systems," in the FSAR does not indicate the liners as being safety related although the buildings in which they exist are shown to be in seismic Category I. Paragraph 3.8.3.7.1 provided a commitment to test the liner seams via a vacuum box for leak tightness and briefly described a leak chase system behind the liner seams. Paragraph 3.8.4.1.3 provided a brief additional description of the function of the liners. Figures 9.3-9 and 11.2-4 revealed that the extensive leak chase system has lead-out piping which leads to a building sump and hence into the liquid radioactive waste collection and disposal system.

The RRI then obtained Project Specification 2323-SS-18, Revision 3, "Stainless Steel Liners," to ascertain what requirements the design engineer had established for the liners. The RRI noted the following significant items from the specification:

a. The design engineer invoked the general quality assurance requirements of 10 CFR 50, Appendix B on the fabrication and installation work.

b. The design engineer provided three full pages of detail requirements relative to the system of studs to be welded to the reverse or concrete backed side of the liners.

c. The design engineer made reference to the inter-plate seam welds only by requiring that the welding procedures and welders be qualified to ASME, Section IX. Criteria for finished welds require that, "Surfaces of all welds shall be smooth and free of any irregularities such as serrations, ridges, crevices, or pinholes which may make it subsequently difficult to achieve an effective washdown of the liner surface." Under testing the design engineer provided the following, "All seam welds shall also be tested by vacuum box for leak tightness for their entire lenth." No other quality requirements were imposed on the seam welds.

d. The RRI then obtained the design engineer's drawings S-0831 through S-0834, SI-0560, MI-0581, all of which provide details of liner fabrication and installation. In addition, the RRI obtained vendor design detail drawings for the gate guide installed in the Containment Building between the refueling pool and the temporary storage pool. These drawings, taken collectively, showed that the design engineer had designed a system wherein the liner plates and the gate guide would be supported by and anchored to the surrounding concrete walls by a very extensive system of "T" headed studs welded to the concrete sides of the plates and gate guide frame. The seam welds are entirely from plate-to-plate and provide no attachment into the basic building structure.

The RRI concluded on the basis of the above information that the liner system had been designed such that resistance to seismic effect was vested in the "T" headed stud installation and that the seam welds were necessary only to provide a very low leakage path for the pool water and that what leakage might occur would be drained to an appropriately designed method of disposal.

The RRI interviewed Individual "A" on May 30, 1979, in conjunction with the Region IV Reactor Construction and Engineering Branch, Projects Section Chief, in order to gain additional information relative to each of the allegations received over the telephone on May 25, 1979. The additional information and clarifications were as noted in the Summary of Facts included in this report. In addition, Individual "A" acknowledged that he had only very recently become aware that the stud system existed for holding the plates in place and was, in fact, unaware that the leak chase channels were piped to a collection point for controlled collection and disposal of any leakage which might occur.

The RRI interviewed Individual "B" in the presence of the licensee's site QA supervisor, also on May 30, 1979. (This arrangment was allowed since Individual "B" only came to the attention of the RRI through the assistance of the licensee's representative.) The allegations of Individual "A" were reviewed in detail with Individual "B" who essentially confirmed Allegations 1, 3 and 6, but indicated he had not worked in the Allegation 2 area and further indicated that he had no complaints about lack of effective QC nor had he been instructed not to follow welding procedures.

The RRI interviewed Individual "C" on May 31, 1979, with the same results as those obtained in the interview with Individual "B." Individual "C" indicated that he perhaps was one of the persons referred to by Individual "A" in Allegation 3. He also indicated that he had very limited welding experience before coming to work at CPSES and none in "Heliarc" weld process. He was given some forty hours of very informal training and then used fifty-two hours to make his weld test coupon, a duration that he now considers to be excessive. He now thinks that he is a good welder.

The RRI interviewed Individual "D" on May 30, 1979, and again June 1, 1979, to develop any facts relative to the specific allegation of "buying-off" joints over the phone. Individual "D" categorically denied that he, or to his knowledge any other QC inspector assigned to this work area, had ever "bought-off" a designated inspection point without making the required inspection. On June 1, 1979, Individual "D" indicated that there had been very few occasions when he had given consent to the welders to weld up a seam that, by the inspection reports, had been previously inspected for fit-up and cleanliness. He also indicated that he and others had repeatedly stopped work on welding of seams where it came to their attention that water or moisture was interfering with good welding.

The RRI interviewed the Boilermaker Superintendent on June 4, 1979, relative to his knowledge and/or participation in any of the allegations. He categorically denied ever directing welders to make welds where water or moisture was present, but acknowledged that it was a constant problem. He indicated that he finally received engineering permission to drill holes through the liner at the ends of the leak chase channels so that air could be blown through to dry out the channels and that this action helped a great deal. He indicated that he had continuely attempted to impress the welders with the importance of making good seam welds.

4. RRI's Assessment of the Liners

The RRI observed some of the welding work on the refueling pool in the Unit No. 1 containment during the latter part of 1978 and the early part of 1979 incidental to making inspection of other activities in the same work area. The welding appeared to be normal and the dye penetrant examinations appeared to be properly accomplished. The finished surfaces examined have been uniformily smooth and appear sound. The RRI also examined some unfinished areas in the Unit 2 spent fuel pool and can appreciate the difficulties that may be encountered in removing some of the concrete laitance from the vertical weld joint areas.

FROM	DATE OF DOCUMENT	DATE RECEIVED	NO
TEXAS UTILITIES GENERATING COMP	7-18-79	7-23-79	0571

LTR	MEMO	REPL	OTHER
X			

TO	ORIG.	CC	OTHER
USNRC RIV	X		

ACTION NECESSARY	CONCURRENCE	DATE ANSWERED
NO ACTION NECESSARY	COMMENT	BY

CLASSIF.	POST OFFICE	FILE CODE
U	REG. NO.	50-445/446

DESCRIPTION (Must Be Unclassified)

RESPONSE TO INSPECTION REPORT #79-15

ENCLOSURES

NONE

REFERRED TO	DATE	RECEIVED BY	DATE
SEYFRIT	7-23		
SEIDLE	7/31		
VETTER (HAS COPY)			
CROSSMAN	7/24		
TAYLOR			
HALL	7/24		

Distribute wav

No dcktn. mtc - no

REMARKS

Notified of name change to PDR etc 8/8/79 mt

U. S. NUCLEAR REGULATORY COMMISSION

MAIL CONTROL FORM

FORM NRC-326 (1-75)

A/10

TEXAS UTILITIES GENERATING COMPANY
2001 BRYAN TOWER · DALLAS, TEXAS 75201

July 18, 1979
TXX-3016

R. J. GARY
EXECUTIVE VICE PRESIDENT
AND GENERAL MANAGER

Mr. Karl V. Seyfrit, Director
U. S. Nuclear Regulatory Commission
Region IV
611 Ryan Plaza Dr., Suite 1000
Arlington, Texas 76012

Docket Nos. 50-445/Rpt. 79-15
50-446/Rpt. 79-15

COMANCHE PEAK STEAM ELECTRIC STATION
1981-83 2300 MW INSTALLATION
RESPONSE TO NRC
INSPECTION REPORT NO. 79-15
FILE NO. 10130

Dear Mr. Seyfrit:

We have evaluated report 79-15 covering your investigation of allegations by a former employee regarding welding improprieties at Comanche Peak. Under normal circumstances we would not respond to this report because it identifies no items of noncompliance. However, since the cover letter raises the question of morale of workers at the jobsite, I find it necessary to address that question for the record.

Let me assure you that morale at Comanche Peak has been a matter of our continuing concern and attention - as it is on all of our construction projects. Conditions affecting morale have received continuing in-depth attention, from the periodic top management summit meetings right down to the individual worker on a daily basis.

We believe that the primary cause of what may appear to be a recent increase in morale problems stems from the allegations made almost entirely by ex-employees who have either quit or been discharged. The irresponsible charges they have made have received publicity that far exceeds the significance of their allegations. Although your investigations of the charges have determined no effects on the safety of the plant, the allegations, unfortunately, have adversely affected the morale of the thousands of workers at the site who work hard to achieve high standards.

To maintain the morale of these good workers, our management has taken the following additional action within the last several months:

(1) Management awareness has been increased and greater emphasis placed on the importance of morale, on two-way communications, on recognition of workers and on working with personnel to solve their problems. For example, engineers on site now have closer

Dupe

8 ~~7908310021~~ 5/pp

A/11

contact with the workers in the field to help solve problems and ease the frustrations of very complex construction.

(2) A training program has been established for foremen in order to help them improve their supervisory skills.

(3) A labor crew audit program has been developed to improve communications with workers, to provide them with added recognition, and to identify their training needs.

(4) The personnel department has been enlarged so that more attention can be given to recruiting, screening and hiring to help assure that the best qualified personnel available are hired. The expanded department is also better equipped to handle personnel problems.

In summary, let me emphasize that we believe the increased awareness of morale problems results principally from the allegations made by ex-employees and that this is not representative of the vast majority of the work force at the site. In addition, we have recently increased our continuing efforts to maintain and improve the morale of workers.

Sincerely,

R. J. Gary

R. J. Gary

RJG:dla

OOL!

:,file,arms,hah,tugco

COMANCHE PEAK STEAM ELECTRIC STATION
DESIGN CHANGE AUTHORIZATION

XXXXX (WILL NOT) BE INCORPORATED IN DESIGN DOCUMENTS

AUTHORIZATION NO. 6231

SAFETY RELATED DOCUMENT X YES ___ NO

1. DESCRIPTION:

A. APPLICABLE SPEC/XXXXXXXXXXXX 2323-SS-18 REV. 3

B. DETAILS PROBLEM: Fuel pool liner plates M-186, H-186, and F-186 shown on drawing WFB-00831 are bowed 1/8" to 3/16" along their longitudinal axis. This bowing took place after plates had been installed.

SOLUTION: The as-built condition of the plates is acceptable.

2. SUPPORTING DOCUMENTATION

3. SIGNATURES: GOC/ss 12-6-79

A. APPROVED BY: R B Williams — G&H Representative — 12-6-79 Date

B. APPROVED BY: Gerard G Connor — Originating Engineer — 12/6/79 Date

4. STANDARD DISTRIBUTION:

B&R Field (Original) (1)
G&H New York (1)
G&H Dallas (1)
TUGCO Site QA (1)
ESHC Site (1)

A/12

NCRM-13196
19-244

Rec'd 11-11-80 10:03 KSS

Arms Rec'd
Rtn to RMK
file

JOB NO. 35-1195
RECEIVED
NOV 12 1980
RECEIVED

ARMS INCEXED

TUGCO GRSE

NO

11/11/80

910 890 8660
TUSI SITE

GTT-7344

ATT: J.T. MERRITT/R.E. HOLLOWAY/R.M. KISSINGER

G AND H JOB NO. 2323

SUB: FUEL BUILDING TRANSFER CANAL LINER PLATES

REF: TWX-12604

THIS IS TO SUMMARIZE SEVERAL TELCONS BETWEEN ED BEZKOR, MARK BERGMAN AND ANIL KENKRE AND DICK KISSINGER AND CHRIS DUPRE ON NOVEMBER 5 AND 6, 1980 CONCERNING THE ABOVE REFERENCE.

1. ANALYSIS BY GH/NY INDICATES OVERSTRESS IN THE SEAL WELDS

2. THREE SOLUTIONS ARE SUGGESTED:

   A. REWORK THE PLATE

   B. SUPERIMPOSE A LOAD (EQUIVALENT TO WATER HEAD)

   C. WAIT UNTIL THE TRANSFER CANAL IS HYDROSTATICALLY TESTED WITH BORATED WATER AND EXAMINED FOR LEAKAGE.

GROUTING UNDER PLATES DOES NOT APPEAR FEASIBLE.

ASSUMING NO ADVERSE IMPACT ON SCHEDULE WE RECOMMEND REWORKING OF PLATE IN LIEU OF B OR C ABOVE.

H.R. ROCK/E.L. BEZKOR/M.L. BERGMAN/A.M. KENKRE
GIBBSHILL NEWYORK

TUGCO GRSE

GH ENG A NYK

A|13

Owner
Rec'd
Frank
QDC
File

NCR M-18192
Pg. 4 of 44

Sent
3-11-80
2:45
JB

TNX-12,604
ATTN: M.R. Rock/E.L. Bezkor/M.L. Bergman
SUB: Fuel Bldg. Transfer Canal Liner Plates

The liner plates at the south end of fuel transfer canal (el. 824'-6 3/4") are bowed up approx. 1" in the center of each plate. AS-built elevations are attached. Concern is with welds cracking when plates are loaded.

Please review and advise A.S.A.P.

R.E. Holloway
CPSES Jobsite
REH/RMK/JDC/jb

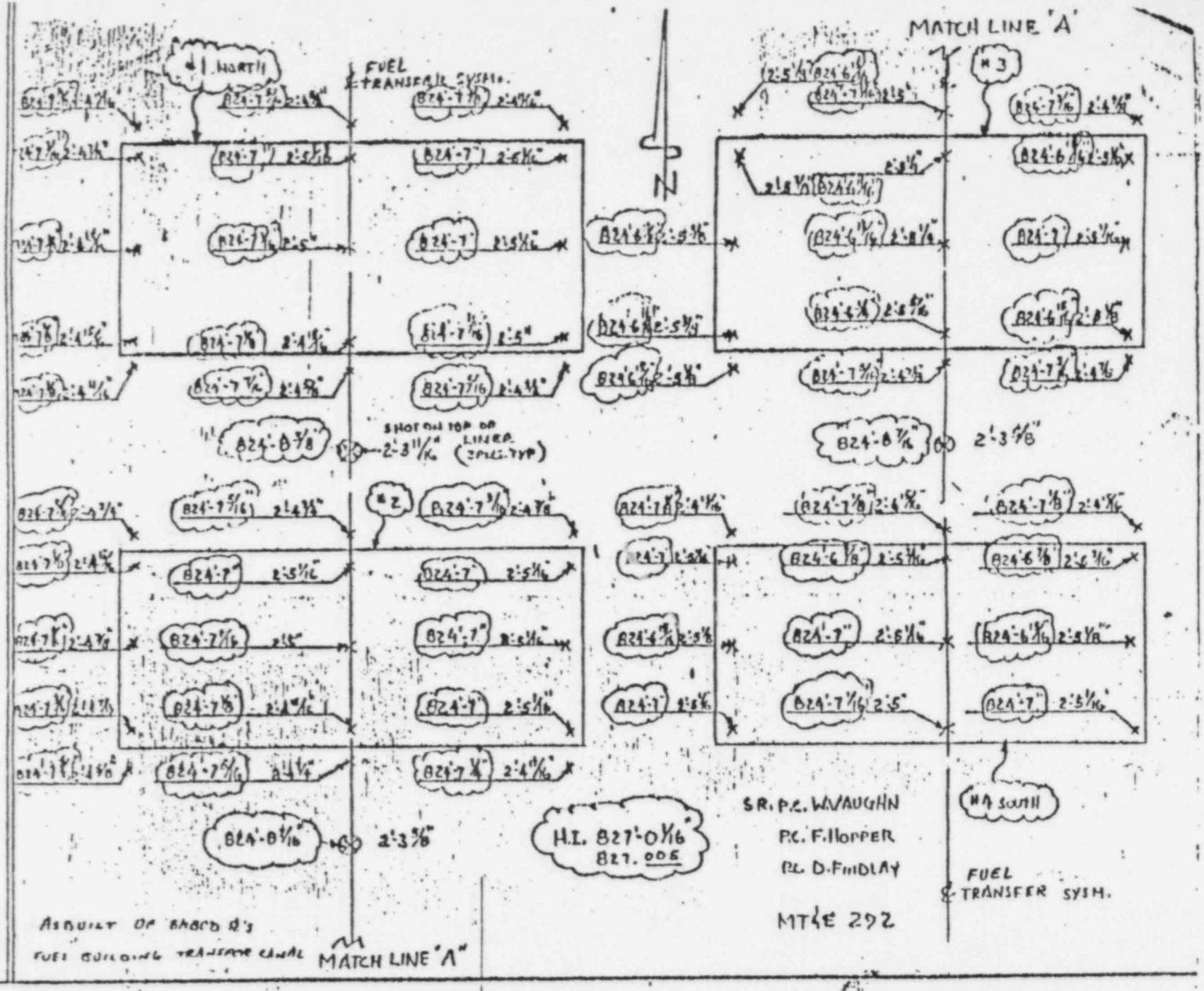
CHECK ON NCR

Reopen
NCR-1879 =

Disposition: Rework xx

Liner Plate to be removed, flattened and reinstalled.

JCR Kinner



BROWN & ROOT, INC
ENGINEERING DIVISION

CLIENT TUCO
SUBJECT ELEVATION OF TOP OF FUEL TRANSFER SYSTM. EMBEDS IN FUEL BLDG. TRANSFER CANAL
BASED ON (EL. 524.)
COMPUTER D. Finley
CHK'D. BY
APP'D. BY
DRAWING NO. FE-2001
DATE OCTOBER 26, 1973
JOB NO. 25-1105
SHEET NO. 1 OF 2

(1) TRAVELER NO.	(2) EQUIPMENT NO.	(3) UNIT NO.	(4) QUANTITY	(5) PAGE 1 OF
CE-80-237-8400	N/A	1	N/A	

(6) ACTIVITY DESCRIPTION: Rework associated w/NCR 1819 Rev. 2

(7) REFERENCE DRAWINGS: 2323-S-0831 R.3; PO#55-1195-14911 AFCO Steel Dwg Sht. E1

(8) SPEC/PROC/ENG. INSTR.: 2323-SS-18

(9) LOCATION: El. 824'-6" Fuel Bldg.

(10) SYSTEM: 8900

PREPARED BY J.D. Crim J.D.C. DATE 11-19-80 DEPT. ~~Civil Engineering~~

REVIEWED BY Sharia R. Ali DATE 11/19/80

ANI REVIEW N/A DATE N/A

VCM-X-[illegible] P2.6 of 44

OP. NO.	DEPT.	OPERATION	CONSTR	QA/QC ENG.	ANI
1.	MW QC(M)	Remove plates numbered M186, C186, H186 & F186 shown on AFCO Steel Drawing No. 14911, Sheet E1, by grinding off welds.			
2.	MW QC(V)	Flatten plate by Cold Forming.			
3.	QC	Examine weld surfaces by liquid penetrant test.			
4.	MW	Reweld plates as shown on 2323-S-0831 per WPS - 88023 and WPS-88025.			
5.	QC	Perform final NDE per 2323-SS-18.			

Brown & Root, Inc.

INSPECTION REPORT

NCR M-1819R2 Pg. 9 of 47

PAGE 1 OF 1

PLANT CODE	SYSTEM CODE	COMPONENT CODE
1-4	5-10	11-16

WFB 00831

TAG/SPN/IDENT NO						DRAWING/SPECIFICATION NO.				SERIAL NO	
	A	B	C	D	E	F	G (Units)	H	(Units)	J	(Units)
17-55											

PUCHASE ORDER NUMBER	VEND CODE
56-69	70-73

1/20/81

MRR NUMBER	RIR NUMBER	VENDOR'S HEAT/LOT/BATCH NO.	COUNT	UNITS	PURCH'S OR NO.	RLS/HOLD NO.	CODE	INPUT DATE
			QUANTITY			STATUS		
74-79	80-85	86-95	96-105		106-111	112-121		122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: To document the closure of NCR # M-1819/2

RESULTS OF INSPECTION / SURVEILLANCE: Results of disposition are satisfactory and work has been performed and completed in accordance with NCR # M-1819/2

see attached - Hold Tags removed

JWC
1/20/81

NCR NO. M-1819/2

James W. Cole
QC ENGINEER/INSPECTOR

DATE 1/20/81

QA-15.1/1-0(4-1-77)

(1) TRAVELER NO.	(2) EQUIPMENT NO.	(3) UNIT NO.	(4) QUANTITY	(5) PAGE 1 OF
CE-80-237-8900	N/A	1	N/A	

(6) ACTIVITY DESCRIPTION	(7) REFERENCE DRAWINGS
Network associated w/ CR 1819 Rev. 2	2323-S-0831 R.5 PO#55-1195-14911 AFCO Steel Dwg Sht. E1

(8) SPEC/PROC/ENG. INSTR.	(9) LOCATION	(10) SYSTEM
2323-SS-18	El. 824'-6" Fuel Bldg.	8900

PREPARED BY J.D. Crim DATE 11-19-80 DEPT. Civil Engineering

REVIEWED BY [illegible] DATE 11/21/80

ANI REVIEW N/A DATE N/A

(NCR M-1819: pg. 4 of 44)

OP. NO.	DEPT.	OPERATION	CONSTR	QA/QC ENG.	ANI
1.	MW QC(V)	Remove plates numbered M186, C186, H186 & F186 shown on AFCO Steel Drawing No. 14911, Sheet E1, by grinding off welds.		DRV 12/15/80	
2.	MW QC(V)	Flatten plate by Cold Forming.		[illegible] 1/7/81	
3.	QC	Examine weld surfaces by liquid penetrant test.		DRV 12/15/80	
4.	MW	Reweld plates as shown on 2323-S-0831 per WPS - 88023 and WPS-88025.		[illegible] 1/9/81	
5.	QC	Perform final NDE per 2323-SS-18.		[illegible] 1/20/81	
2		Delete operation 2 above and perform operations 2a & 2b below prior to operation 3.			
2a	MW QC(V)	Flatten plate by adding stiffeners as shown on DCA-9359 REV 1 Ref WPS-88032.		[illegible] 1/6/81	
2b	CONC	Chip concrete floor to accomodate stiffener plates.			
		NOTE: Operations 2a & 2b may occur simultaneously.			
2a	MW QC(V)	Change DCA-9359 REV 1 to DCA-9359, REV 2.		[illegible] 1/15/81	
		VERIFICATION of clearing of leak chase detection lines #32, 34, & 36 "SAT"		[illegible] 1/7/81	

NCR M-181 Rev 2
13.4.144

FIGURE 1.

COMANCHE PEAK STEAM ELECTRIC STATION
DESIGN CHANGE AUTHORIZATION

(WILL) (~~XXXXXXXX~~) BE INCORPORATED IN DESIGN DOCUMENTS DCA NO. 9359 REV 2

1. SAFETY RELATED DOCUMENT: XX YES ____ NO

2. ORIGINATOR: CPPE XX ORIGINAL DESIGNER ____

3. DESCRIPTION:

A. APPLICABLE ~~XXXX~~/DWG/~~XXXXXXXX~~ 2323-S-0831 REV. 5

B. DETAILS THIS REVISION VOIDS AND SUPERSEDES DCA 9359 REV 1 , –

the 4 Southmost plates in the Fuel transfer canal floor are bowed up approximately 1" in the center. The plates are to be removed and flattened by attaching stiffener plates as shown on the attached sketch. The concrete is to be chipped to accomodate the stiffener plates and the plates rewelded to the embeds.

Revise length of weld as noted on sheet 2.

2

4. SUPPORTING DOCUMENTATION:

NCR-1819 REV 2

5. APPROVAL SIGNATURES: CRH/bgf 1-6-81

A. ORIGINATOR: CRHooton DATE 1-6-81

B. DESIGN REPRESENTATIVE: [illegible] DATE 1-6-81

6. VENDOR TRANSMITTAL REQUIRED: YES – NO XX

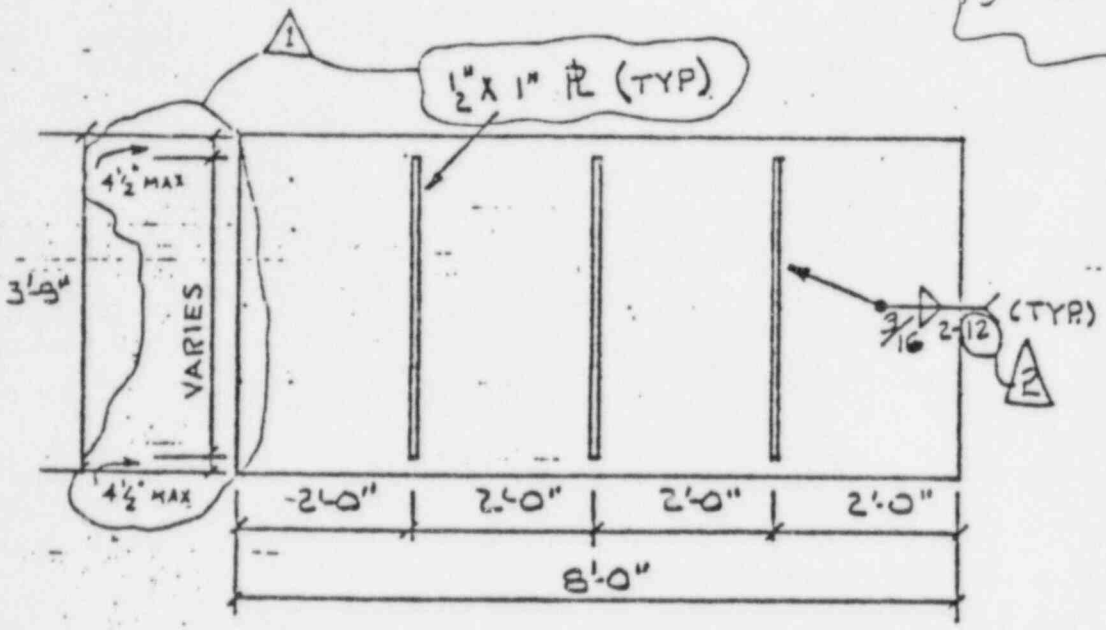
7. STANDARD DISTRIBUTION: DCA FORM 11-80

ARMS (Original) (1)
Quality Engineering (1)
TS for Orig. Design. (1)

DCA 9359 SHT 2 OF 2

REV. 2

MCR 11-18-80
3-10-77



BOTTOM VIEW LOOKING UP
OF STAINLESS STEEL LINER PL
FOUR SOUTH MOST PL'S IN
FUEL TRANSFER CANAL

REF DWG S-0831. PLAN VIEW SEC. 239-239, 240-240

Brown & Root Inc. HOUSTON, TEXAS		CONT. NO 35-1195
TITLE FUEL TRANSFER CANAL ATTACHMENT		DWG. NO.
OWNER TEXAS UTILITIES SERVICES, INC.		
LOCATION OF PROJECT C.P.S.E.S. GLEN ROSE, TEXAS		
DRAWN BY J.K.GANDY CHECKED APPROVED	DATE 12-22-80	SHT.

Brown & Root, Inc.

NCR M-1819 Rev 7
Pg. 11 of 44

202A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 1 OF 2

WFB-00831	Fuel Bldg. Liner	S/S	1"x1½"	C186
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5525	88025	1
BMD	D-5533	88025	1
BMD	D-5538	88025	7
BMD	D-5540	88025	7
~~BMD~~ BEN 1-9-81	D-5547	88025	7
BEN	D-5552	88025	7

1. Fit up and Cleanliness of Above:

Results	Inspector Signature	Date
Sat.	Don R. Wade	1-12-81

2. V.T. of Backing Strip Tack/Fillet Welds:

Results	Inspector Signature	Date
~~Sat~~ N/A 1-7-81	N/A	N/A

3. Cleanliness of Channel, Liner, and B. Strip:

Results	Inspector Signature	Date
N/A	N/A	N/A

4. Final V.T. of Channel Fillet Weld:

Results	Inspector Signature	Date
N/A	N/A	N/A

5. Inside Fit Up and Cleanliness:

Results	Inspector Signature	Date
N/A	N/A	N/A

6. V.T. of Fillet Prior to Grinding:

Results	Inspector Signature	Date
N/A	N/A	N/A

7. Final V.T. of Inside Weld:

Results	Inspector Signature	Date
Sat.	James W. Cole	1-17-81

PT & VT on removal area for base angle "SAT" JWC 1/7/81 ~~1/19/81~~ and 1/7/81

8. Completion of Weld Inspection: (NDE PCCD)

Results	Inspector Signature	Date
Sat	James W. Cole	1/20/81

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2024

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-NB-6350 Attach. 6B

Final P.T. Level II Sat. (RESULTS) James W. Cole (INSPECTOR SIGN.) 1/19/81 (DATE)

5c. Vacuum Box 36"L by 6"W GASKET TYPE rubber SOLUTION TYPE SNOOP

Pretest Cleaning Sat. Pre ssure 2-5 Temperature 74° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ____ Level II Inspector ✓ Date 1/20/81

Brown & Root, Inc.

NCR M-14-82-
P3-12-

203A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 1 OF 2

WFB-00831 | Fuel Bldg. Liner | S/S | 1"& 1/2" | C186
Drawing No. | Pool | Metal Type | Mtl. Thx. | PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5525	88025	1
BMD	D-5533	88025	1
BMD	D-5538	88025	7
BMD	D-5540	88025	7
BEN	D-5547	88025	7
BEN	D-5552	88025	7

1. Fit up and Cleanliness of Above:
SAT. | Don R. Jack | 1-12-81
Results | Inspector Signature | Date

2. V.T. of Backing Strip Tack/Fillet Welds:
N/A | N/A | N/A
Results | Inspector Signature | Date

3. Cleanliness of Channel, Liner, and B. Strip:
N/A | N/A | N/A
Results | Inspector Signature | Date

4. Final V.T. of Channel Fillet Weld:
N/A | N/A | N/A
Results | Inspector Signature | Date

5. Inside Fit Up and Cleanliness:
N/A | N/A | N/A
Results | Inspector Signature | Date

6. V.T. of Fillet Prior to Grinding:
N/A | N/A | N/A
Results | Inspector Signature | Date

7. Final V.T. of Inside Weld:
Sat. | James W. Cole | 1-19-81
Results | Inspector Signature | Date
PT 8V of removal area for base L
"SAT" JWC 1/7/81

8. Completion of Weld Inspection: (NDE PCCD)
Sat | James W. Cole | 1/20/81
Results | Inspector Signature | Date

NCEm-181 Rev
Pg. 14 of 4

203A

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5a. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-NB-5350 Attach. 5B

Final P.T. Level II Sat (RESULTS) James W. Cole (INSPECTOR SIGN.) 1/19/81 (DATE)

5c. Vacuum Box GASKET TYPE SOLUTION TYPE

36"L by 6"W Rubber SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature >40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ____ Level II Inspector ✓ Date 1/20/81

NCR M-1819R-3.
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Brown & Root, Inc.

204A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1193 UNIT 1 PAGE 1 OF 2

WFB-00831	Fuel Bldg. Liner	S/S	1" & 1/2"	C186
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5525	88025	1
BMD	D-5533	88025	1
BMD	D-5538	88025	7
BMD	D-5540	88025	7
BEN	D-5547	88025	7
BEN	D-5552	88025	7

1. Fit up and Cleanliness of Above:
   Sat. | Don R. Wood | 1-12-81
   Results | Inspector Signature | Date
2. V.T. of Backing Strip Tack/Fillet Welds:
   N/A | N/A | N/A
   Results | Inspector Signature | Date
3. Cleanliness of Channel, Liner, and B. Strip:
   N/A | N/A | N/A
   Results | Inspector Signature | Date
4. Final V.T. of Channel Fillet Weld:
   N/A | N/A | N/A
   Results | Inspector Signature | Date
5. Inside Fit Up and Cleanliness:
   N/A | N/A | N/A
   Results | Inspector Signature | Date
6. V.T. of Fillet Prior to Grinding:
   N/A | N/A | N/A
   Results | Inspector Signature | Date
7. Final V.T. of Inside Weld:
   Sat. | James W. Cole | 1-19-81
   Results | Inspector Signature | Date
   PT & VT of removal area for base
   "SAT" JWC 1/7/81
8. Completion of Weld Inspection: (NDE PCCD)
   Sat | James W. Cole | 1/20/81
   Results | Inspector Signature | Date

NER M-181 Rev
Pg. 14 of 44

204A
Weld No.

Acceptance Std.
Gibbs & Hill 2222-SS-18

5a. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-N8-5350 Attach. 5B

Final P.T. Level II Sat (RESULTS) James W. Cole (INSPECTOR SIGN.) 1/19/81 (DATE)

5c. Vacuum Box 36"L by 6"W GASKET TYPE rubber SOLUTION TYPE SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature >40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ___ Level II Inspector ✓ Date 1/20/81

NCR M-181, Rev 13, 14 of 44

Brown & Root, Inc.

205A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 1 OF 2

WFB-00831	Fuel Bldg. Liner	S/S	1" & 1/2"	C186 to P70
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WPHL No.	Weld Proced.	Hold Point
BMD	D-5525	88025	1
BMD	D-5533	88025	1
BMD	D-5558	88025	7
BMD	D-5540	88025	7
BEN	D-5547	88025	7
BEN	D-5552	88025	7
BEN	D-5562	88025	7

1. Fit up and Cleanliness of Above:

Sat.	Don R. Vogt	1-13-81
Results	Inspector Signature	Date

2. V.T. of Backing Strip Tack/Fillet Welds:

N/A	N/A	N/A
Results	Inspector Signature	Date

3. Cleanliness of Channel, Liner, and B. Strip:

N/A	N/A	N/A
Results	Inspector Signature	Date

4. Final V.T. of Channel Fillet Weld:

N/A	N/A	N/A
Results	Inspector Signature	Date

5. Inside Fit Up and Cleanliness:

N/A	N/A	N/A
Results	Inspector Signature	Date

6. V.T. of Fillet Prior to Grinding:

N/A	N/A	N/A
Results	Inspector Signature	Date

7. Final V.T. of Inside Weld:

Sat.	James W. Cole	1-19-81
Results	Inspector Signature	Date

PT&VT of Removal area for base L "SAT" JWC 1/7/81

8. Completion of Weld Inspection: (NDE P200)

Sat	James W. Cole	1/20/81
Results	Inspector Signature	Date

NCR M-81-9CE
89-15-A44

205A

Weld No.

Acceptance Std.
Gibbs & Hill 2223-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-N8-8350 Attach. 8B

Final P.T. Level II Sat James W. Cole 1/19/81
RESULTS INSPECTOR SIGN. DATE

5c. Vacuum Box GASKET TYPE SOLUTION TYPE

24"L by 24"W rubber SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature ~~40°~~ NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ___ Level II Inspector ✓ Date 1/20/81

Brown & Root, Inc.

NCR M-181-R2

206A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 1 OF 2

WFB-00831 Drawing No. | Fuel Bldg. Liner Pool | S/S Metal Type | 1" & 1/2" Mtl. Thk. | C186 to P70 PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5525	88025	1
BMD	D-5533	88025	1
BMD	D-5538	88025	7
BEN	D-5547	88025	7
BEN	D-5552	88025	7

1. Fit up and Cleanliness of Above:

SAT. (Results) Don R. Vaas (Inspector Signature) 1-12-81 (Date)

2. V.T. of Backing Strip Tack/Fillet Welds:

N/A (Results) N/A (Inspector Signature) N/A (Date)

3. Cleanliness of Channel, Liner, and B. Strip:

N/A (Results) N/A (Inspector Signature) N/A (Date)

4. Final V.T. of Channel Fillet Weld:

N/A (Results) N/A (Inspector Signature) N/A (Date)

5. Inside Fit Up and Cleanliness:

N/A (Results) N/A (Inspector Signature) N/A (Date)

6. V.T. of Fillet Prior to Grinding:

N/A (Results) N/A (Inspector Signature) N/A (Date)

7. Final V.T. of Inside Weld:

SAT. (Results) James W. Cole (Inspector Signature) 1-19-81 (Date)

PT & UT of Removal area for leak "SAT" JWC 1/7/81

8. Completion of Weld Inspection: (NDE PCC)

Sat (Results) James W. Cole (Inspector Signature) 1/20/81 (Date)

NCR M-18192
F2, 2C C+4+

206A

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-NB-5350 Attach. 5B

Final P.T. Level II Sat James W. Cole 1/19/81
RESULTS INSPECTOR SIGN. DATE

5c. Vacuum Box GASKET TYPE SOLUTION TYPE

36" L by 6" W rubber SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature 40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ___ Level II Inspector ✓ Date 1/20/81

NCR M-1819R2
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Brown & Root, Inc.

207A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1193 UNIT 1 PAGE 1 OF 2

WFR-00831	Fuel Bldg. Liner	S/S	1/2"	F186 to P70
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WPHL No.	Weld Proced.	Hold Point
BMD	D-5533	88025	1
BEN	D-5539	88025	7
BEN	D-5541	88025	7

1. Fit up and Cleanliness of Above:
   SAT. (Results) James W. Cole (Inspector Signature) 1-8-81 (Date)

2. V.T. of Backing Strip Tack/Fillet Welds:
   N/A (Results) N/A (Inspector Signature) N/A (Date)

3. Cleanliness of Channel, Liner, and B. Strip:
   N/A (Results) N/A (Inspector Signature) N/A (Date)

4. Final V.T. of Channel Fillet Weld:
   N/A (Results) N/A (Inspector Signature) N/A (Date)

5. Inside Fit Up and Cleanliness:
   N/A (Results) N/A (Inspector Signature) N/A (Date)

6. V.T. of Fillet Prior to Grinding:
   N/A (Results) N/A (Inspector Signature) N/A (Date)

7. Final V.T. of Inside Weld:
   SAT. (Results) James W. Cole (Inspector Signature) 1-19-81 (Date)

VT & PT on base L to PL "F186 removal area "SAT" JWC 1/8/81

8. Completion of Weld Inspection: (NDE PECO)
   Sat (Results) James W. Cole (Inspector Signature) 1/20/81 (Date)

NCR M-[illegible] Rev
FS [illegible]

207A

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-N8-8350 Attach. 5B

Final P.T. Level II Sat James W. Cole 1/19/81
RESULTS INSPECTOR SIGN. DATE

5c. Vacuum Box GASKET TYPE SOLUTION TYPE

18"L by 4"W rubber SNOOP

Pretest Cleaning Sat Pressure 25 Temperature >40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ___ Level II Inspector ✓ Date 1/20/81

Brown & Root Inc.

NCR M-18,962
19.A5.1441

208A
WELD NO.

S&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 1 OF 2

WFR-00831	Fuel Bldg. Liner	S/S	1" & 1/2"	F186
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5533	88025	1
BEN	D-5539	88025	7
BEN	D-5541	88025	7

1. Fit up and Cleanliness of Above:
   Sat. (Results) James W. Cole (Inspector Signature) 1-8-81 (Date)
2. V.T. of Backing Strip Tack/Fillet Welds:
   N/A (Results) N/A (Inspector Signature) N/A (Date)
3. Cleanliness of Channel, Liner, and B. Strip:
   N/A (Results) N/A (Inspector Signature) N/A (Date)
4. Final V.T. of Channel Fillet Weld:
   N/A (Results) N/A (Inspector Signature) N/A (Date)
5. Inside Fit Up and Cleanliness:
   N/A (Results) N/A (Inspector Signature) N/A (Date)
6. V.T. of Fillet Prior to Grinding:
   N/A (Results) N/A (Inspector Signature) N/A (Date)
7. Final V.T. of Inside Weld:
   SAT. (Results) James W. Cole (Inspector Signature) 1-19-81 (Date)
   PT & VT on removal area for base angle "SAT" JWC 1/8/81
8. Completion of Weld Inspection: (NDE PCC):
   Sat (Results) James W. Cole (Inspector Signature) 1/20/81 (Date)

NCR M-1512
pg. 24-44

208A

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5a. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-NB-8350 Attach. 8B

Final P.T. Level II Sat (RESULTS) James W. Cole (INSPECTOR SIGN.) 1/19/81 (DATE)

5c. Vacuum Box 36"L by 6"W GASKET TYPE rubber SOLUTION TYPE SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature 40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ___ Level II Inspector ✓ Date 1/20/81

Brown & Root, Inc.

NCR M-1819 (2)
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209A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1193 UNIT 1 PAGE 1 OF 2

WFR-00831	Fuel Bldg. Liner	S/S	1" & 1/2	F186
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5533	88025	1
BEN	D-5539	88025	7
BEN	D-5541	88025	7

1. Fit up and Cleanliness of Above:
   SAT. (Results) James W. Cole (Inspector Signature) 1-8-81 (Date)
2. V.T. of Backing Strip Tack/Fillet Welds:
   N/A (Results) N/A (Inspector Signature) N/A (Date)
3. Cleanliness of Channel, Liner, and B. Strip:
   N/A (Results) N/A (Inspector Signature) N/A (Date)
4. Final V.T. of Channel Fillet Weld:
   N/A (Results) N/A (Inspector Signature) N/A (Date)
5. Inside Fit Up and Cleanliness:
   N/A (Results) N/A (Inspector Signature) N/A (Date)
6. V.T. of Fillet Prior to Grinding:
   N/A (Results) N/A (Inspector Signature) N/A (Date)
7. Final V.T. of Inside Weld:
   SAT. (Results) James W. Cole (Inspector Signature) 1-9-81 (Date)
   PT & VT on removal area for base angle "SAT" JWC 1/8/81
8. Completion of Weld Inspection: (NDE PCCO):
   Sat (Results) James W. Cole (Inspector Signature) 1/20/81 (Date)

(NCR M-14 Rev
Pg. 56 of 44)

209A

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5a. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-N8-8350 Attach. 6B

Final P.T. Level II Sat James W. Cole 1/19/81
RESULTS INSPECTOR SIGN. DATE

5c. Vacuum Box GASKET TYPE SOLUTION TYPE

36"L by 6"W rubber SNOOP

Pretest Cleaning Sat. Pressure 2-5 Temperature >46° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ____ Level II Inspector ✓ Date 1/20/81

Brown & Root Inc

NCR M-1919 Rev 7
FB-29 of 44

210 A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 1 OF 2

WFB-00831	Fuel Bldg. LWEN	S/S	1 1/2	F186 to P66
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5533	88025	1
BEN	D-5539	88025	7
BEN	D-5541	88025	7

1. Fit up and Cleanliness of Above:
SAT. James W. Cole 1-8-81
Results Inspector Signature Date

2. V.T. of Backing Strip Tack/Fillet Welds:
N/A N/A N/A
Results Inspector Signature Date

3. Cleanliness of Channel, Liner, and B. Strip:
N/A N/A N/A
Results Inspector Signature Date

4. Final V.T. of Channel Fillet Weld:
N/A N/A N/A
Results Inspector Signature Date

5. Inside Fit Up and Cleanliness:
N/A N/A N/A
Results Inspector Signature Date

6. V.T. of Fillet Prior to Grinding:
N/A N/A N/A
Results Inspector Signature Date

7. Final V.T. of Inside Weld:
SAT. James W. Cole 1-19-81
Results Inspector Signature Date
PT & VT on removal area for base angle "SAT" JWC 1/8/81

8. Completion of Weld Inspection: (NDE PCCO)
Sat James W. Cole 1/20/81
Results Inspector Signature Date

NCR M-[illegible]
pg. 5 of 44

210A

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-N8-6350 Attach. 6B

Final P.T. Level II Sat James W. Cole 1/19/81
RESULTS INSPECTOR SIGN. DATE

5c. Vacuum Box GASKET TYPE SOLUTION TYPE

18"L by 4"W rubber SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature >40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ___ Level II Inspector ✓ Date 1/20/81

Brown & Root, Inc.

NCR M-18162
[illegible]

215B
WELD NO.

S&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1193 UNIT 1 PAGE 1 OF 2

WFB-00831 Drawing No. | Fuel Bldg Liner Pool | S/S Metal Type | 1" x 1/2" Mtl. Thk. | H186 to P66 PC. to PC.

[ ] Plate to Plate [ ] Insert to Plate [✓] Angle to Plate [ ] Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5525	88025	1
BMD	D-5538	88025	1
BMD	D-5540	88025	1
BMD	D-5548	88025	7

1. Fit up and Cleanliness of Above:
SAT. (Results) Dan R West (Inspector Signature) 1-12-81 (Date)

2. V.T. of Backing Strip Tack/Fillet Welds:
N/A (Results) N/A (Inspector Signature) N/A (Date)

3. Cleanliness of Channel, Liner, and B. Strip:
N/A (Results) N/A (Inspector Signature) N/A (Date)

4. Final V.T. of Channel Fillet Weld:
N/A (Results) N/A (Inspector Signature) N/A (Date)

5. Inside Fit Up and Cleanliness:
N/A (Results) N/A (Inspector Signature) N/A (Date)

6. V.T. of Fillet Prior to Grinding:
N/A (Results) N/A (Inspector Signature) N/A (Date)

7. Final V.T. of Inside Weld:
Sat (Results) James W. Cole (Inspector Signature) 1/19/81 (Date)
PT & VT on removal area for base angle "SAT" JWC 1/8/81

8. Completion of Weld Inspection: (NDE PCCO)
Sat (Results) James W. Cole (Inspector Signature) 1/20/81 (Date)

NCR M-14962
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215A
Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5a. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-N8-5350 Attach. 5B

Final P.T. Level II Sat James W. Cole 1/19/81
RESULTS INSPECTOR SIGN. DATE

5c. Vacuum Box GASKET TYPE SOLUTION TYPE
18" by 4" Rubber SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature 40° NDE Procedure 600

Solution Application Method Bottle Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ___ Level II Inspector ✓ Date 1/19/81

Brown & Root Inc.

NCR M-1819R1
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216A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 1 OF 2

WFB-00831	Fuel Bldg Liner	S/S	1" & 1/2"	H186
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5525	88025	1
BMD	D-5538	88025	1
BMD	D-5540	88025	1
BMD	D-5548	88025	7

1. Fit up and Cleanliness of Above:
Sat. Dan R. Vogt 1-12-81
Results Inspector Signature Date

2. V.T. of Backing Strip Tack/Fillet Welds:
N/A N/A N/A
Results Inspector Signature Date

3. Cleanliness of Channel, Liner, and B. Strip:
N/A N/A N/A
Results Inspector Signature Date

4. Final V.T. of Channel Fillet Weld:
N/A N/A N/A
Results Inspector Signature Date

5. Inside Fit Up and Cleanliness:
N/A N/A N/A
Results Inspector Signature Date

6. V.T. of Fillet Prior to Grinding:
N/A N/A N/A
Results Inspector Signature Date

7. Final V.T. of Inside Weld:
Sat. James W. Cole 1/19/81
Results Inspector Signature Date
PT & VT on removal area for base angle "SAT" JWC 1/8/81

8. Completion of Weld Inspection: (NDE P200)
Sat James W. Cole 1/20/81
Results Inspector Signature Date

NCR M-181 Rev
12-30-44

216A

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-N8-8350 Attach. 5B

Final P.T. Level II Sat. (RESULTS) James W. Cole (INSPECTOR SIGN.) 1/19/81 (DATE)

5c. Vacuum Box 36"L by 6"W GASKET TYPE rubber SOLUTION TYPE SNOOP

Pretest Cleaning Sat Pre ssure 2-5 Temperature >40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ___ Level II Inspector ✓ Date 1/20/81

Brown & Root Inc.

NCR M-18 Rev
pg. 33 of 44

217A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 1 OF of 2

WFB-00831	FUEL Bldg. LINER	S/S	1" & 1/2"	A186
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5525	88025	1
BMD	D-5538	88025	1
BMD	D-5540	88025	1
BMD	D-5548	88025	7

1. Fit up and Cleanliness of Above:

SAT	Don R. [illegible]	1-12-81
Results	Inspector Signature	Date

2. V.T. of Backing Strip Tack/Fillet Welds:

N/A	N/A	N/A
Results	Inspector Signature	Date

3. Cleanliness of Channel, Liner, and B. Strip:

N/A	N/A	N/A
Results	Inspector Signature	Date

4. Final V.T. of Channel Fillet Weld:

N/A	N/A	N/A
Results	Inspector Signature	Date

5. Inside Fit Up and Cleanliness:

N/A	N/A	N/A
Results	Inspector Signature	Date

6. V.T. of Fillet Prior to Grinding:

N/A	N/A	N/A
Results	Inspector Signature	Date

7. Final V.T. of Inside Weld:

SAT.	James W. Cole	1-19-81
Results	Inspector Signature	Date

PT: UT on Removal Area for Base Angle "SAT". JWC 1/9/81

8. Completion of Weld Inspection: (NDE P200)

Sat	James W. Cole	1/20/81
Results	Inspector Signature	Date

NCR M-18 Rev 3
Pg. 34 of 44

217A
Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5a. Penetrant Mfg. Magnaflux-Spotcheck X
Cleaner Mfg. Magnaflux-Spotcheck X
Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-N8-8350 Attach. 8B

Final P.T. Level II Sat. James W. Cole 1/19/81
RESULTS INSPECTOR SIGN. DATE

5c. Vacuum Box GASKET TYPE SOLUTION TYPE
36"L by 6"W rubber SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature 740° NDE Procedure 600
Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ___ Level II Inspector ✓ Date 1/20/81

Brown & Root Inc

NCR M-181 Rev 2
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813A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 1 OF 2

WFB-00831	Fuel Bldg Liner	S/S	1" & 1/2"	H186 to P72
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BMD	D-5525	88025	1
BMD	D-5538	88025	1
BMD	D-5540	88025	1
BMD	D-5548	88025	7

1. Fit up and Cleanliness of Above:
   Sat. (Results) Dan R. Vest (Inspector Signature) 1-12-81 (Date)

2. V.T. of Backing Strip Tack/Fillet Welds:
   N/A (Results) N/A (Inspector Signature) N/A (Date)

3. Cleanliness of Channel, Liner, and B. Strip:
   N/A (Results) N/A (Inspector Signature) N/A (Date)

4. Final V.T. of Channel Fillet Weld:
   N/A (Results) N/A (Inspector Signature) N/A (Date)

5. Inside Fit Up and Cleanliness:
   N/A (Results) N/A (Inspector Signature) N/A (Date)

6. V.T. of Fillet Prior to Grinding:
   N/A (Results) N/A (Inspector Signature) N/A (Date)

7. Final V.T. of Inside Weld:
   Sat. (Results) James W. Cole (Inspector Signature) 1-19-81 (Date)
   PT & UT on Removal Area for Burn Pgln. "Sat." JWC 1/9/81

8. Completion of Weld Inspection: (NDE PCCD)
   Sat. (Results) James W. Cole (Inspector Signature) 1/20/81 (Date)

NCR M-1816R2
R2.36 of 44

Page 2 of 2

218A

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5a. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-N8-5350 Attach. 5B

Final P.T. Level II Sat (RESULTS) James W. Cole (INSPECTOR SIGN.) 1/19/81 (DATE)

5c. Vacuum Box 18"L by 4"W GASKET TYPE rubber SOLUTION TYPE SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature 74° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ____ Level II Inspector ✓ Date 1/20/81

NCRM-18 Rev
Pg. 27 of 44

Brown & Root, Inc.

219A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 33-1193 UNIT 1 PAGE 1 OF 2

WFB-00831 Drawing No. | Fuel Bldg Liner Pool | S/S Metal Type | 1" : 1/2" Mtl. Thk. | M186 To P72 PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WPML No.	Weld Proced.	Hold Point
BEN	D-5399	~~88032~~ 88023 1-7A	1
BEN	D-5405	~~88032~~ 88023 1-7A	1
BMD	D-5525	88025	1
AEO	D-5531	88025	1
BEN	D-5541	88025	7
BEN	D-5547	88025	7

1. Fit up and Cleanliness of Above:
SAT. (Results) James W. Cole (Inspector Signature) 1-8-81 (Date)

2. V.T. of Backing Strip Tack/Fillet Welds:
N/A (Results) N/A (Inspector Signature) N/A (Date)

3. Cleanliness of Channel, Liner, and B. Strip:
N/A (Results) N/A (Inspector Signature) N/A (Date)

4. Final V.T. of Channel Fillet Weld:
N/A (Results) N/A (Inspector Signature) N/A (Date)

5. Inside Fit Up and Cleanliness:
N/A (Results) N/A (Inspector Signature) N/A (Date)

6. V.T. of Fillet Prior to Grinding:
N/A (Results) N/A (Inspector Signature) N/A (Date)

7. Final V.T. of Inside Weld:
SAT. (Results) James W. Cole (Inspector Signature) 1-19-81 (Date)

PT → VT of removal area for base angle + embed → SAT
DRV 12-15-80

8. Completion of Weld Inspection: (NDE PCCO)
Sat. (Results) James W. Cole (Inspector Signature) 1/20/81 (Date)

N.C.R. M-1819R2
Pg. 38 of 4

219A

Weld No.

Acceptance Std..
Gibbs & Hill 2323-SS-18

5a. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-NB-6350 Attach. 5B

Final P.T. Level II Sat (RESULTS) James W. Cole (INSPECTOR SIGN.) 1/19/81 (DATE)

5c. Vacuum Box 18"L by 4"W GASKET TYPE rubber SOLUTION TYPE SNOOP

Pretest Cleaning Sat Pre ssure 2-5 Temperature >40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ____ Level II Inspector ✓ Date 1/20/81

Brown & Root, Inc.

NCR M-1816 Rev
Pg. 39 of 44

220A
WELD NO.

S&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 1 OF 2

WFB-00831	Fuel Bldg. Liner	S/S	1" & 1/2	M186
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BEN	D-5399	88023 1-8-81 ~~88032~~ -2	1
BEN	D-5405	88023 1-8-81 ~~88032~~ -2	1
BMO	D-5525	88025	1
AEO	D-5531	88025	1
BEN	D-5541	88025	7

1. Fit up and Cleanliness of Above:
SAT. James W. Cole 1-8-81
Results Inspector Signature Date

2. V.T. of Backing Strip Tack/Fillet Welds:
N/A N/A N/A
Results Inspector Signature Date

3. Cleanliness of Channel, Liner, and B. Strip:
N/A N/A N/A
Results Inspector Signature Date

4. Final V.T. of Channel Fillet Weld:
N/A N/A N/A
Results Inspector Signature Date

5. Inside Fit Up and Cleanliness:
N/A N/A N/A
Results Inspector Signature Date

6. V.T. of Fillet Prior to Grinding:
N/A N/A N/A
Results Inspector Signature Date

7. Final V.T. of Inside Weld:
SAT. James W. Cole 7-19-81
Results Inspector Signature Date

PT + VT of removal area for base angle + embed. DRV 12-15-86 SAT

8. Completion of Weld Inspection: (NDE P200)
Sat James W. Cole 1/20/81
Results Inspector Signature Date

NCR M-18190
Pg. 46 of 44

220A

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5a. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-NB-8350 Attach. 8B

Final P.T. Level II Sat (RESULTS) James W. Cole (INSPECTOR SIGN.) 1/19/81 (DATE)

5c. Vacuum Box 36"L by 6"W GASKET TYPE rubber SOLUTION TYPE SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature >40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ____ Level II Inspector ✓ Date 1/20/81

NCRM-1819c
Pg 41 of 44

Brown & Root, Inc.

221 A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1193 UNIT 1 PAGE 1 OF 2

Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.
WFB-00831	Fuel Bldg Liner	S/S	1" & 1/2	M186

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WPHL No.	Weld Proced.	Hold Point
BEN	D-5399	88023 1-8-81 ~~88032~~	1
CEN	D-5405	88023 ~~88032~~	1
BMD	D-5525	88025	1
AED	D-5531	88025	1
REN	D-5547	88025	7

1. Fit up and Cleanliness of Above:
SAT. James W. Cole 1-8-81
Results Inspector Signature Date

2. V.T. of Backing Strip Tack/Fillet Welds:
N/A N/A N/A
Results Inspector Signature Date

3. Cleanliness of Channel, Liner, and B. Strip:
N/A N/A N/A
Results Inspector Signature Date

4. Final V.T. of Channel Fillet Weld:
N/A N/A N/A
Results Inspector Signature Date

5. Inside Fit Up and Cleanliness:
N/A N/A N/A
Results Inspector Signature Date

6. V.T. of Fillet Prior to Grinding:
N/A N/A N/A
Results Inspector Signature Date

7. Final V.T. of Inside Weld:
SAT. James W. Cole 1-19-81
Results Inspector Signature Date

PT + VT of removal area for base angle and embed. SAT, DRV 12-15-8

8. Completion of Weld Inspection: (NDE PECO)
Sat James W. Cole 1/20/81
Results Inspector Signature Date

NCR M-181 Rev
pg. 42 - 44

221A

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-NB-6350 Attach. 6B

Final P.T. Level II Sat (RESULTS) James W. Cole (INSPECTOR SIGN.) 1/19/81 (DATE)

5c. Vacuum Box 36"L by 6"W GASKET TYPE Rubber SOLUTION TYPE SNOOP

Pretest Cleaning Sat Pressure 2-5 Temperature >40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ____ Level II Inspector ✓ Date 1/20/81

NCR M-18192
Pg 43 of 44

Brown & Root, Inc.

223A
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 1 PAGE 2 OF 2

WFB-00831	Fuel Bldg. Liner	S/S	1" & 1/2	M 186 to P74
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFML No.	Weld Proced.	Hold Point
BEN	D-5399	~~88032~~ 88023 1-8-81	1
BEN	D-5405	~~88032~~ 88023 1-8-81	1
BMD	D-5525	88025	1
AED	D-5531	88025	1
BEN	D-5541	88025	7

1. Fit up and Cleanliness of Above:
SAT. James W. Cole 7-8-81
Results Inspector Signature Date

2. V.T. of Backing Strip Tack/Fillet Welds:
N/A N/A N/A
Results Inspector Signature Date

3. Cleanliness of Channel, Liner, and B. Strip:
N/A N/A N/A
Results Inspector Signature Date

4. Final V.T. of Channel Fillet Weld:
N/A N/A N/A
Results Inspector Signature Date

5. Inside Fit Up and Cleanliness:
N/A N/A N/A
Results Inspector Signature Date

6. V.T. of Fillet Prior to Grinding:
N/A N/A N/A
Results Inspector Signature Date

7. Final V.T. of Inside Weld:
SAT. James W. Cole 1-19-81
Results Inspector Signature Date

PT + VT of removal area for base angle and embed. SAT
DRV 12-15-80

8. Completion of Weld Inspection: (NDE PCCC)
Sat James W. Cole 1/20/81
Results Inspector Signature Date

NCR M-1819RE
P2-44 S44-

222A

Weld No.

Acceptance Std..
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

NDE Procedure
300-NB-5350 Attach. 6B

Final P.T. Level II Sat (RESULTS) James W. Cole (INSPECTOR SIGN.) 1/19/81 (DATE)

5c. Vacuum Box 18"L by 4"W GASKET TYPE rubber SOLUTION TYPE SNOOP

Pretest Cleaning Sat Pre ssure 2-5 Temperature >40° NDE Procedure 600

Solution Application Method BOTTLE Post Test Cleaning Sat

Gauge Serial Number 893 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ____ Level II Inspector ✓ Date 1/20/81

Attachment "D"

Figure 16.1-1

BROWN & ROOT, INC.
Quality Assurance Department
Nonconformance Report (NCR)
CPSES-35-1195

QA RECORD

NCR NO. M-1819 R.2

PAGE 1 OF 44

DRAWING/IDENTIFICATION	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
S.S. Liner Plate	WFB-00831	824'6-3/4" South Transfer Canal	N/A

NONCONFORMING CONDITION

DOCUMENT VIOLATED: SS-18 REV. 3 PARA. _____ TREND CATEGORY M-10

Fuel pool liner plates M-186, C-186, H-186 and F-186 shown on drawing WFB-00831 are bowed 1/8 to 3/16 inches along their longitudinal axis. Bowing occurred after liner plates were inspected and accepted by the QC inspector. The reason for the bowing has not been determined.
Revision 1:
Rewritten for clarity as the problem was redefined by Quality Control and construction.
Revision 2:
Reopen NCR to rework NCR - problem, as identified, has changed. The bow has increased to 1".

REPORTED BY:	DATE:	REVIEW/APPROVAL	DATE:	TIME:
Donald Vogt	11/12/79	JL Cenzwald	11/18/80	8:35 A

DISPOSITION RESPONSIBILITY:	DISPOSITION ASSIGNED TO:	CAR NO.:	ASME CODE ITEM:
D. C. Frankum			___ Yes XX No

DISPOSITION:
REWORK XX REPAIR ____ USE AS IS ____ SCRAP ____ RETURN TO VENDOR ____

Liner plate to be removed, flattened and reinstalled.

Work to be performed per traveler CE-80-237-8900 (copy attached).

CON. REVIEW/APPROVAL:	DATE:	QA/QC REVIEW:	DATE:
N/A CH	11-18-80	JL Cenzwald	11/24/80
ENG. REVIEW/APPROVAL:	DATE:	ANI REVIEW:	DATE:
RM Kissinger	11-18-80	N/A CH	11-24-80
QA/QC ENG/INSPR. VERIFICATION:	DATE:		
SRA JL Cenzwald	1/21/81		
ANI CONCURRENCE:	DATE:		
N/A CH	1-20-81		
QA REVIEW/CLOSURE:	DATE:		
SRA JL Cenzwald	1/21/81		

BROWN & ROOT, INC.
ENGINEERING DIVISION

(Nelm-1316 62 pg. 2 of 44)

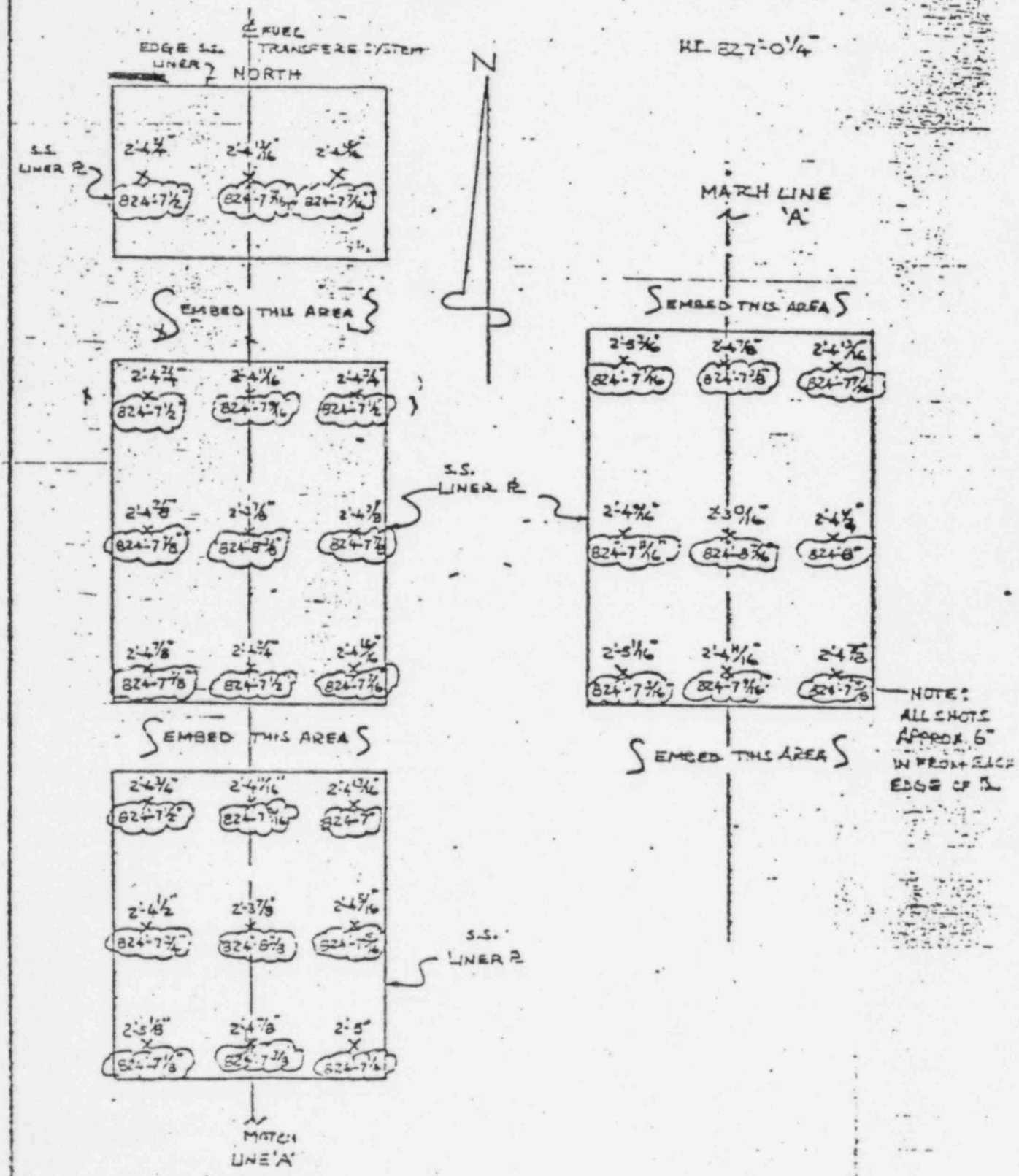
SHEET NO. 2 OF 7

CLIENT _____ JOB NO. _____

SUBJECT LINER PLATE – SOUTH PORTION OF CANAL

BASED ON _____ DRAWING NO. _____

COMPUTER _____ CHK'D. BY _____ APP'D. BY _____ DATE OCTOBER 28 19 82



Brown & Root, Inc.

Attachment "F"

ZUL INCORMATION UNIT

988
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 2 PAGE 1 OF 3

WFB00831 — Drawing No.
N. TRANS. CANAL — Pool
STAINLESS STEEL — Metal Type
7/16" — Mtl. Thk.
Angle to R A41 — PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	WFHL No.	Weld Proced.	Hold Point
AEO	D-080	88023	5
BAG	D-251	88023	5
BAF	D-255	88023	7
BAF	D-282	88023	7
BAG	D-717	88023	7
BAG	D-1378	88023	7
BAG	D-1438	88023	7

BROWN & ROOT
RECEIVED
MAR 10 1980
FILES NOTED
QUALITY ASSURANCE

PERM. PLT. RECORD
RTN L FILE LOC 17.1.99.7
SUBFILE LOC 988

1. Fit up and Cleanliness of Above:
NA — Results; NA — Inspector Signature; NA — Date

2. V.T. of Backing Strip Tack/Fillet Welds:
NA — Results; NA — Inspector Signature; NA — Date

3. Cleanliness of Channel, Liner, and B. Strip:
NA — Results; NA — Inspector Signature; NA — Date

4. Final V.T. of Channel Fillet Weld:
NA — Results; NA — Inspector Signature; NA — Date

5. Inside Fit Up and Cleanliness:
Sat. — Results; Mike Brooks — Inspector Signature; 8-27-79 — Date

6. V.T. of Fillet Prior to Grinding:
NA — Results; NA — Inspector Signature; NA — Date

7. Final V.T. of Inside Weld:
Sat. — Results; Robert J Karney — Inspector Signature; 2-26-80 — Date

8. Completion of Weld Inspection: (NDE P200)
Sat. — Results; James W. Cole — Inspector Signature; 3-6-80 — Date

A/4

BROWN & ROOT, INC.

QUALITY ASSURANCE DEPARTMENT

STAINLESS STEEL LINER INSPECTION TRAVLER/NDE REPORT

CP-QCI-2.11-1
Revision 1

JNC
3.3.80

PROJECT: CPSES JOB NO.: 35-1195 UNIT 2 PAGE 2 OF 3

DRAWING	POOL	MTL TYPE	MTL. THICKNESS
WFB00831	Fuel Bldg North Canal	SLS	3116"

WELD/ITEM NO. 988

PC. TO PC. ANGLE TO R A41

___ Plate to Plate
___ Insert to Plate
✓ Angle to Plate

NMR NO.	43903	43903	54066	54018	54079	61660	61672
WELD PROCEDURE	88023	88023	88023	88023	88023	88023	88023
WELDER SYMBOL	AIH	AIH	AFP	ATH	AFP	ATT	AFK
STAGE OF MANUFACTURE	Fit-UP	TACK B.S.	TACK B.S.	Final Channel	Channel	Flup to Box Assy	B.S. on Box Assy

DESCRIPTION(s) and INSPECTION REMARK(s)	RESULTS	INSPECTOR SIGNATURE	DATE
1. Fit up of Liner Plate to plate, angle, insert. Cleanliness of liner and backing	SAT	Sam Wilson	5-2-78
2a. V.T. of backing strip t.c./fillet welds.	SAT	Sam Wilson	5-2-78
2b. Cleanliness of channel, liner and backing strip.	SAT	Sam Wilson	5-2-78
3. Final V.T. on Channel Welds.	SAT	Sam Wilson	5-2-78
4. Liner Fit-up Verification. Cleanliness Verification.	SAT	Sam Wilson	5-2-78
5a. Final V.T.	X	X	X

Acceptance Crit.
Table 6 Rev. 13-SH-11

5b. Penetrant Mfg. Magnaflux-Spotcheck-Batch _____ Dwell Time _____

Cleaner Mfg. Magnaflux-Spotcheck-Batch _____

Developer Mfg. Magnaflux-Spotcheck-Batch _____ Developing Time _____

NDE Procedure
BCP-ND-5350 Attach. 63

Surface
As Welded _____ Ground _____ Other _____

Final P.T. _____ _____ _____

5c. Vacuum Box
_____ by _____ Gasket Type _____ Solution Type _____

Pre-test Cleaning _____ Preassure _____ Temperature _____ NDE Procedure 600 _____

Solution Application Method _____ Post Test Cleaning _____

Gauge Serial Number _____ Preassure Differential Maintained for _____ Sec. _____ Min.

Final V.B. _____

N/A - Not Applicable
Satisfactory ____ Unsatisfactory ____ INSPECTOR _____ DATE _____ CERT. LEVEL _____

988

Weld No.

Acceptance Std
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck

Cleaner Mfg. Magnaflux-Spotcheck

Developer Mfg. Magnaflux-Spotcheck

NDE Procedure
300-NB-5350 Attach. 6B

Final P.T. Level II SAT. (RESULTS) Robert F. Kanney (INSPECTOR SIGN.) 2-26-80 (DATE)

5c. Vacuum Box

		GASKET TYPE	SOLUTION TYPE
24"	by 5"	rubber	SNOOP

Pretest Cleaning Sat. Pre ssure 2-5 Temperature >40° NDE Procedure 600

Solution Application Method Squeeze B. Post Test Cleaning Sat.

Gauge Serial Number 898 Preassure Differential Maintained for 20 Sec. 0 Min.

Final V.B. James W. Cole

N/A - Not Applicable

Satisfactory ✓ Unsatisfactory ____ Level II Inspector JWC Date 3-5-80

SPEC,HAH,TUGCO

4

FIGURE 1.

COMANCHE PEAK STEAM ELECTRIC STATION
DESIGN CHANGE AUTHORIZATION

(WILL) (~~WILL NOT~~) BE INCORPORATED IN DESIGN DOCUMENTS DCA NO. 12,785

1. SAFETY RELATED DOCUMENT: XX YES _____ NO

2. ORIGINATOR: CPPE XX ORIGINAL DESIGNER _____

3. DESCRIPTION:

A. APPLICABLE SPEC/~~DWG/DOCUMENT~~ 2323-SS-18 REV. 3

B. DETAILS Change Section 6.4 of the referenced Specification to read as follows:

6.4 Weld Process

All seal welds between liner plates shall be made by the inert gas-shield ARC Welding Process. Embeds and leak chase welding may be done by either the shielded metal ARC Welding Process or the inert gas-shielded ARC Welding Process.

4. SUPPORTING DOCUMENTATION:

GHF-2241

5. APPROVAL SIGNATURES: JDC/sgf 3-25-82

A. ORIGINATOR: Jerry D. Crim DATE 3-25-82

B. DESIGN REPRESENTATIVE: R M Kissinger DATE 3-25-82

6. VENDOR TRANSMITTAL REQUIRED: YES _____ NO XX

7. STANDARD DISTRIBUTION:

ARMS (Original)	(1)
Quality Engineering	(1)
TS for Orig. Design.	(1)
Westinghouse-Site	(1)

JOB NO. 35-1195 DCA FORM 11-80

RECEIVED
MAR 26 1982

A/15

FUEL BUILDING

AFCO DWG. TRAVELERS

A 100 R	101	255
78	118	251
64	132	238
55	139	A-232 R
47	147	
42A	156	I have examined
25A	172	the travelers on this
A 20 R	A 180 R	page and found them
16A	188	all to be complete &
3A	193	correct & all signatures
15A	300	to be accurate. No
24A	287	discrepancy exists.
A-32 R	268	
47A	247	James Cole 8-13-82
63	225	"Jim"
70	223	
81	A-216 R	
97	211	
A-98 R	A-209 R	
100	203	
200	201	
183	216	
A 171 R	231	
157	239	
141	261	
124	266	
109	298	
102	299	

Travelers

199	122	53J
198	120	53
176	116	46
173	114	32
168	110	23
167	109	
165	104	
162	101	
155	93	
142	91	
141	90	
139	90J	
133	89	
126	80	
123	78	
72	70	
64	55	

These are Unit I Travelers. Drawing WRB10559.

Above referenced stainless steel liner travelers were reviewed for unsigned hold points + accuracy of signatures. To the best of my knowledge, no discrepancies were found.

Sam Wilkerson 8-13-82

A/17

C.HAH,TUGCO(2),AM(4)

CHANGE INDEX:OEI ____
: II ____
:III XX

COMANCHE PEAK STEAM ELECTRIC STATION
DESIGN CHANGE AUTHORIZATION

(~~WILL~~) (WILL NOT) BE INCORPORATED IN DESIGN DOCUMENT DCA NO. 18,035

1. SAFETY RELATED DOCUMENT: XX YES ____ NO

2. ORIGINATOR: CPPE XX ORIGINAL DESIGNER ____

3. DESCRIPTION:

A. APPLICABLE SPEC/~~DWG/DOCUMENT~~ 2323-SS-18 REV. 3

B. DETAILS

PROBLEM: Leaks were identified in the Fuel Building transfer canal per the NCR & Hydro Test listed below.

SOLUTION: Section 8.3 of 2323-SS-18 may be utilized for leak detection & final acceptance in lieu of Section 8.2.

35-1195
RECEIVED
JUL 08 1983
DOCUMENT CONTROL
7-8-83

4. SUPPORTING DOCUMENTATION:

NCR M-83-1311 R-2, Hydro Test Number XSF-058

DCA-15,668

5. APPROVAL SIGNATURES: CRH/sgr

A. ORIGINATOR: N M Crouse DATE 7-8-83

B. DESIGN REPRESENTATIVE: CR Haxton DATE 7-8-83

6. VENDOR TRANSMITTAL REQUIRED: YES ____ NO XX

7. STANDARD DISTRIBUTION:

ARMS (Original)	(1) Peter Bush-QA Spec. Spvr.	(1) DCA FORM 11-80
Quality Engineering	(1) Civil Engineering	(1) Admin. Rev 7-82
TS for Orig. Design	(1)	
Westinghouse-Site	(1)	

A/18

ORIGINAL

[redacted]

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the matter of:

INVESTIGATIVE INTERVIEW OF
ARVILL (J. R.) DILLINGHAM, JR.

Docket No.

Location: Glen Rose, Texas

Pages: 1 - 97

Date: Wednesday, August 24, 1983

Dupe
~~8410020308~~

TAYLOE ASSOCIATES
Court Reporters
1625 I Street, N.W. Suite 1004
Washington, D.C. 20006
(202) 293-3950

A/19

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

INVESTIGATIVE INTERVIEW

OF

ARVILL (J. R.) DILLINGHAM, JR.

Courtroom 2nd Floor
The Courthouse
Somervell County
Glen Rose, Texas

Wednesday, August 24, 1983

The interview commenced, pursuant to notice, at 1:40 p.m.

PARTIES PRESENT:

On Behalf of the NRC Office of Investigation:

RICHARD K. HERR, Investigator
H. BROOKS GRIFFIN, Investigator
Office of Investigation, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

On behalf of Citizens Associaton for Sound Energy:

JUANITA ELLIS, President
JERRY ELLIS
1426 S. Polk
Dallas, Texas 75224

- - -

1 P R O C E E D I N G S

2 whereupon,

3 ARVILL (J. R.) DILLINGHAM, JR.

4 having been first duly sworn by Investigator Herr, was

5 examined and testified as follows:

6 MR. GRIFFIN: For the record, this is an

7 interview of Arvill Dillingham, Jr.

8 You are not presently employed, are you, J.R.?

9 MR. DILLINGHAM: No.

10 MR. GRIFFIN: The location of this interview is

11 the courtroom of the Somervell County Courthouse in Glen

12 Rose, Texas.

13 Present at this interview are R. K. Herr,

14 H. Brooks Griffin, Arvill Dillingham, Mrs. Juanita Ellis

15 and Mrs. Ellis' husband, Jerry Ellis.

16 The subject of this interview concerns the

17 area of intimidation. Our questions today that we are

18 going to direct to you, J. R., will be as relates to your

19 previous employment at Comanche Peak on the subject of

20 intimidation. I know you provided affidavits to CASE and

21 everything like that and I know that some of these things

22 have already been addressed by the NRC.

23 MR. DILLINGHAM: Right, and I also want to

24 bring some other stuff up, too, that hasn't been brought

25 up.

MR. GRIFFIN: New stuff?

MR. DILLINGHAM: Oh, yes, new stuff.

MR. GRIFFIN: Okay. Well, we will make time for that.

J. R., when did you start work for Brown and Root?

MR. DILLINGHAM: It must have been somewhere in the neighborhood of 1970.

MR. GRIFFIN: And your job title?

MR. DILLINGHAM: I was a boilermaker.

MR. GRIFFIN: Who was your supervisor?

MR. DILLINGHAM: Dale Owens.

MR. GRIFFIN: When did you leave your employment with Brown and Root?

MR. DILLINGHAM: Well, I left once before in between time. I started to work with Brown and Root at the Sutton Plant in North Carolina and then as the job went on down I went to work with Southport on the Midford job. I just transferred right over.

MR. GRIFFIN: When did you come to Comanche Peak?

MR. DILLINGHAM: '75 I think it was.

MR. GRIFFIN: As a boilermaker?

MR. DILLINGHAM: Right.

MR. GRIFFIN: And when did you leave Brown and

Root?

MR. DILLINGHAM: Eleven months ago. I think it was September 1st, '82, somewhere in that neighborhood. It was seven weeks after this letter here -- (Indicating.)

MR. GRIFFIN: Were you terminated or did you leave of your own accord?

MR. DILLINGHAM: I left of my own accord. I was gave a choice either to go in another craft on my tools, which I knew nothing about the craft, or take a ROF, reduction of force. They said since I went to Houston and brought all that stuff up they don't need me no more in the boilermaking department or the millwright department.

MR. GRIFFIN: Tell me briefly, if you would, about the letter that you took to Houston. What were the nature of your concerns?

MR. DILLINGHAM: Well, it was people working out of procedures and people being unexperienced, like ten years ago they was doing stuff that was very dangerous on the North Carolina job because they didn't know anything about any type of construction work, much less nuclear, and I thought after ten years they should learn a little better and they come on this job here doing the same type of stuff.

MR. GRIFFIN: So your letter was to ---

MR. DILLINGHAM: My letter was to -- it got to

a point where I didn't want to be a part of it if Houston didn't know about it, and I thought if maybe Houston did know about it, it would be great and they would come down here and straighten it out. If they didn't, I didn't want to be a part of it anyway. When I went I knew I couldn't work back under these people again because you can't go squeal on your bosses and come right back and work under them.

So I went to Houston and talked to the president of Brown and Root and he told me he was coming down to Comanche Peak the next day and he made like he wouldn't say anything to these people about the letter. I dropped it off to his secretary. She called me at the motel room saying he was headed to Glen Rose but he wouldn't say anything about the letter and I was to meet him back at Houston on Friday. So I did.

So we talked and the first thing he said was we can't let this go to the papers. He started saying Atkins, Atkins went to Louisiana and he got run off. He got run off for lying. Well, that had nothing to do with this letter.

What happened is he came down here on this job and asked these people about me and they told him about me reporting some of the same stuff Atkins did, but the stuff he reported they took and put it behind the installation

1 warehouse I guess to be forgot about.

2 One day I was standing there and I seen these
3 supports laying there and it looked like the welds were
4 not properly welded, you know. I said somebody is trying
5 to fool somebody here. It looks like there should be a
6 full pin weld and they are not. They had a wide weld up
7 top and then be down to nothing and then it had a bead
8 going down.

9 So I went and checked the plans and sure
10 enough it said that this was supposed to be a full pin
11 weld. I stuck a stick up inside of it probably an inch to
12 an inch and a half and it was a partial pin. So I called
13 QC and got them down there and they told me, Randy Smith
14 goes J. R., what are you doing to us? He started choaking
15 me and just kidding around said oh, Chuck, he got run off
16 for the same stuff. I didn't know who Chuck was and
17 could care less. I said well, hell, it is simply, you
18 either change the print the way the weld is or you change
19 the welds to the print. It is no big deal.

20 So he was a supervisor and he told his hand,
21 just kidding him, he just said you take and, you know, put
22 red tags on it, and the little kid goes I am not going to
23 do it. I said well, hell, give it to me and I will put it
24 on there. It's no problem. You know, anybody can put red
25 tags on if they see a problem.

CB&I Supports Atchinson covered

1 So the next thing I know they went ahead and
2 red tagged them and everything. Well, they took me to
3 Franklin's office and told me, Franklin said I understand
4 you have got a problem with Tanley and you want to
5 transfer to startup, which I did. I already had a job and
6 everything to go to startup. You said you are going to
7 burn him and everything. You have been knowing stuff that
8 has been going on here for seven years and you are going
9 to burn him and everthing. So I said no, I am not going to
10 burn him and hemmed and hawed around a little bit.
11 So Tanley, we went for a ride and everything
12 and everything was cool. So the next day he come picked me
13 up and said, J. R., from now on when you find stuff like
14 that you come and report it to me.
15 MR. GRIFFIN: Is this Franklin?
16 MR. DILLINGHAM: No, this is George Tanley. He
17 is the superintendent. He said you come and report stuff
18 to me and I will get with the engineers and don't be too
19 hasty about going to QC with stuff like this. So he said
20 you go on down there and check out welds on some
21 installation support.
22 At the paint shop we had some welding to do on
23 it. So I went on down there and checked it out and went
24 back there and told them, I said, it looks like you better
25 carry you a bunch of red tags down there. I said it is

1 supposed to be full pin welds, and I said you can stick
2 pins through it, you know. They just jammed a piece of
3 metal together and they did a downhill weld and it just
4 had holes all in it, you know. It was pitiful, and the
5 metal is like a half-inch thick.
6 MR. GRIFFIN: Were these hangers that you were
7 looking at?
8 MR. DILLINGHAM: This was steam generator
9 supports to support this lagging. So he started cussing
10 and he said I told you to look at what we is supposed to
11 weld and not what has already been welded. See, it came in
12 and two pieces had already been welded on, and I said
13 well, you told me from now on when I find stuff that is
14 not up to par to tell you about it.
15 I said furthermore, I don't care if you stuck
16 it up your butt. You can do what you want to with it, you
17 know, because I did was report it to you and I feel like
18 it is not that big a safety hazard. If all of the
19 installation fell off the generators, you know, what the
20 hell, it might break a couple of instrumentation tubes.
21 MR. GRIFFIN: Do you know who did that welding?
22 MR. DILLINGHAM: It came in from a
23 subcontractor of Westinghouse.
24 MR. GRIFFIN: Vendor welds?
25 MR. DILLINGHAM: Right. Let me go ahead and

S.G. INSULATION SUPPORTS NON-SAFTY

finish the story because they took it all down. So I come around and showed him and he said oh, my God, I can weld better than that, you know. So he went and got the mechanical engineer who was Mr. Brown and they went down and looked at it. We went ahead and started installing it.

So they started putting little cartoons out about me being an inspector and everything. So I walked in their office and they all go, J. R., we got your paperwork and everything. So we set down in front of Mr. Brown's desk and Craig says something smart and George goes ah, let's take it easy on J. R. He says we got him worried, you know, we worried J. R., and I said, yes, you all have got me worried to death. Then George reached out and grabbed me by the leg and said we got old J. R. thinking our way now, and go yah, I said every time I see something messa up I just close my eyes.

Mr. Brown goes oh, by the way, we solved the problem of the bad welds, and I go yah. He said yes, we wrote Westinghouse a letter saying in the future to contact our subcontractors and tell them to strive for better craftsmanship. I said boy, you all really solved that problem, didn't you.

When I reported this to Brown and Root, to their investigation crew, they said even though the welds, and you probably read that, didn't look pretty and all

S. G. INSULATION SUPPORTS

1 this stuff, that it is acceptable to use it as it is.

2 Well TUGCO came in and they took it out. They

3 cut it out and threw it out and they was supposed to took

4 and completely rewelded everything. They gave it to, as

5 far as I know it now, to an outfit that just put in

6 temporary pipe stuff like to outhouses and stuff. A guy

7 named Ray, he did all the rework, and I understand it is

8 just a cosmetic touchup is what he did. In other words, he

9 didn't cut them out and put it back as a full pin weld. He

10 just touched up the holes and stuff.

11 MR. GRIFFIN: J. R., this story that you told

12 us, was this contained in your statements that you

13 provided already?

14 MR. DILLINGHAM: No, I just put it in the

15 letter. In other words, when I carried this letter to

16 Houston, I just told them to come down here and tell these

17 people to quit doing this stuff because it is getting to a

18 dangerous point because the fuel is coming in, and to tell

19 them it is not a Brown and Root policy and never has been

20 to do this kind of stuff and working against procedures.

21 MR. GRIFFIN: When did all this occur?

22 MR. DILLINGHAM: In August.

23 MR. GRIFFIN: August of '82?

24 MR. DILLINGHAM: Right, the 12th I think.

25 August the 12th I think it was.

B&R INVESTIGATE

1 MR. GRIFFIN: This is just right before you
2 left your psition?
3 MR. DILLINGHAM: It was seven weeks before I
4 was dismissed. They made like they was really going to do
5 something about it. I also told them of some problems in
6 North Carolina that could cost them. I made a figure of a
7 million dollars a day per unit, and I just said I don't
8 think Brown and Root can afford to pay this kind of money.
9 I said I know it is too late because a lot of the stuff us
10 under radiated water, but these people should have known
11 better, and I said personally I think they should go to
12 prison for some of it.
13 For instance, we had stainless steel liners
14 that had welds ---
15 MR. GRIFFIN: Hold it, J. R. The stuff that you
16 are going to tell us about in North Carolina, is this new
17 stuff or is this stuff that you have reported before to
18 the NRC or to CASE?
19 MR. DILLINGHAM: No, I never reported it to the
20 NRC. I reported it to CASE.
21 MR. GRIFFIN: Did CASE provide this?
22 MS. ELLIS: We sent the information in a
23 mailing to all the parties in our hearings.
24 MR. GRIFFIN: Including the NRC?
25 MS. ELLIS: Yes.

NONE

1 MR. GRIFFIN: Okay.

2 J. R., I know that you have provided documents

3 and affidavits. Have you ever testified before one of the

4 hearings?

5 MR. DILLINGHAM: No.

6 MR. GRIFFIN: I knew that you had provided

7 information for us, but it is not our purpose or our

8 intention here today to go back over all that testimony.

9 MR. DILLINGHAM: Well, the letter, the reason I

10 wanted to bring it up is because the NRC, there was this

11 one little statement they made that they seemed to like

12 it. Since I signed it and everything, you know, the letter

13 was up to par, that they seen no further use in

14 investigating the letter. See, I signed some papers saying

15 I was satisfied with the way everything was, and the

16 reason I signed the papers was because these people who I

17 brought names up was getting in trouble. I knew I was

18 leaving, but I brought a bunch of people's names up that

19 they didn't know I brought their name up. They called them

20 for interviews and they started getting, you know,

21 problems, busted back and laid off and run off and all

22 kind of stuff.

23 The reason I was happy with the letter was

24 because they made like they was going to come down here

25 and do something about it, you know. My signature was in

Nonc

1 the first week. That is how I signed the letter. I told
2 Mr. Dodd, I said now if you all are making a liar out of
3 me, I will go ahead. I don't care. I just want you all to
4 straighten it out.
5 Well, the clowns that, you know, denied all
6 this stuff, I said whatever you do don't put them on a lie
7 detector machine. I said it will ruin Brown and Root
8 because they are lying through their teeth and I will take
9 a lie detector test to that any day of the week, like the
10 false documentation and stuff like that.
11 MR. GRIFFIN: Okay.
12 MR. DILLINGHAM: Now some of this letter was
13 hearsay stuff, but the parts that I put in here that I
14 know about and they got up and lied about. These people of
15 course they are going to lie because they are the ones
16 that did it, you know.
17 While they had me in confinement after I had
18 already signed the letter I told Mr. Dodd, I said
19 undoubtedly they are not listening to you. They broke
20 three more procedures this morning, and he just ignored me
21 and went on by.
22 The reason he wanted me to sign the letter I
23 think so bad was because he was the project manager on the
24 North Carolina job and on this job both when a lot of the
25 bad stuff was did, the real costly stuff like reject

1 material used in concrete and all that stuff down there in
2 North Carolina. There was a weld, see, where it is
3 supposed to lose about a half ounce a year and it loses 65
4 pounds a second. We blocked off a gauge instead of
5 repairing a weld.
6 MR. GRIFFIN: Is this information contained in
7 your letter?
8 MR. DILLINGHAM: No, not all of it. We can get
9 back to that later.
10 MR. GRIFFIN: Let go into our reason for being
11 here. Like I said, I know you have made affidavits before
12 and the NRC has had an opportunity to look at some of
13 those.
14 I have a question for you. During the time
15 that you worked for Brown and Root at Comanche Peak did
16 anybody every attempt to intimidate you or were you ever
17 intimidated into either performing work that was defective
18 and you knew it was defective while you were doing it or
19 did you ever accept work that was defective?
20 MR. DILLINGHAM: Yes.
21 MR. GRIFFIN: Can you tell me about those
22 instances.
23 MR. DILLINGHAM: Well, it is in the letter
24 there also, about the welds on the diesel generators. See,
25 we get up there and we tell our people in a safety meeting

1 that whatever you do don't work against procedures or you
2 are fired if we catch you, you know.
3 MR. GRIFFIN: Who says that?
4 MR. DILLINGHAM: Supervision is telling their
5 people. Then we turn right around and we get in a jam
6 where something is holding up something and we want
7 something welded immediately, for instance, and instead of
8 going through the proper channels and getting everything
9 fixed up, they go ahead and weld it out of procedure. Just
10 like they told my people, either do it or hit the gate.
11 I had a piece of material where the
12 millwrights has gouged holes in it. We was welding on
13 another deal and they wanted a welder to jump down and
14 weld them up real quick without getting proper paperwork
15 to, you know, go down there to engineering and grind it
16 out and see how deep the gouge is and run an LP on it and
17 see if it is split or what.
18 So my foreman called me at 3:30 one Friday
19 evening ---
20 MR. GRIFFIN: Who is that?
21 MR. DILLINGHAM: Craig Flowes.
22 MR. GRIFFIN: Do you know how he spells that?
23 MR. DILLINGHAM: F-l-a-w-s, does that sound
24 right?
25 MR. GRIFFIN: F-l-o-w-e-s, maybe?

1 MR. DILLINGHAM: Probably so. But he says I
2 have got a problem, and I said what is your problem? He
3 says well, come down here. So I went down there and here
4 there is these people standing there. He says Lee Carnes
5 and George Tanley came through here and told these people
6 they better get this work welded by 5:30 or else and use
7 the rods they got. You know, it takes like a day or two to
8 get the correct paperwork, tube welding engineers and QC
9 and all that stuff. It is a Q item for the diesel
10 generator.
11 So I said well, did they tell you or else? I
12 knew I was going to Houston. I had been planning to go to
13 Houston for three years. He said to either do it or else.
14 I said well, go ahead and do it. He said you have got to
15 be kidding. I said no. I am going to Houston. I said go
16 ahead and do it if they they gave you a choice of either
17 doing it or hitting the gate.
18 MR. GRIFFIN: Flowes told you that?
19 MR. DILLINGHAM: Right.
20 MR. GRIFFIN: This is Flowes that made the
21 statement?
22 MR. DILLINGHAM: Yes.
23 MR. GRIFFIN: When was this, what time frame?
24 MR. DILLINGHAM: This is a week before I went
25 to Houston. It is in August, the first part of August. A

1 lot of times they told us to do stuff that I just wouldn't
2 even do. I would just agree along with him and go ahead
3 and do it right because they are unexperienced people and
4 they don't know what they are talking about 90 percent of
5 the time.
6 MR. HERR: Are you saying that Flowes was
7 intimidating?
8 MR. DILLINGHAM: The people under him was told
9 to do it or either hit the gate or else.
10 MR. HERR: Do you know who told the people
11 under him?
12 MR. DILLINGHAM: Lee Carnes and George Tanley
13 came through the diesel generators.
14 MR. HERR: And they told the men working
15 for ---
16 MR. DILLINGHAM: Craig Flowes, which Craig
17 worked for me, or else hit the gate. See what happened was
18 the millwrights was burning off some stuff and gouged
19 holes in the material. Well, they wanted it repaired
20 immediately before somebody seen it I guess.
21 MR. HERR: Now those men, they worked for you?
22 MR. DILLINGHAM: Right.
23 MR. HERR: Did those two guys ever threaten you
24 or intimidate you, or are you saying that that was
25 intimidating to you?

1 MR. DILLINGHAM: Mr. Tanley continuously told
2 me if I wouldn't do a certain job he would get somebody
3 that would. Like, for instance, this swipe test. You come
4 in the room and you clean the whole room. It is supposed
5 to be a certain class, like Class A, and then you get the
6 swipe test to come in there and your QC to come in there
7 and he picks out these three areas and he will check those
8 three areas and if they all check out good the whole room
9 is good, for instance.
10 Well, Tanley called me in his office and he
11 said, J. R., between me and you and that wall there I have
12 learned a little trick about this swipe test. He said the
13 first thing you do is you find out what three areas they
14 are going to check and you clean those three areas and
15 don't worry about the rest of it. I said if we are going
16 to do it that damn way, why do it at all. Let's just say
17 it is good. He said if you can't handle it I will get
18 somebody else that will.
19 It is like he says, like the false
20 documentation, you know, on the liner. He told me I had
21 better have that liner by the first of the year or else
22 hit the gate if I am not through by January 1st. Well,
23 here come Mickey Gerig and he says there ain't no way you
24 are going to do it. We have 850 travelers that is screwed
25 up.

?

1 So I went and seen Tanley and I said Tanley,
2 we have got all these travelers messed up and we can't do
3 it. He said you get your ass out in the field with these
4 people and we will take care of this paperwork. Well, in
5 order to take care of the paperwork I had to do the rework
6 where we had hold points jump where the fitup and cleanup
7 weren't bought off and all kind of stuff weren't did. I
8 did very little rework. In other words, the 850 or 550 all
9 at once became good and I just imagine it was false
10 signatures of QC because some QC personnel is no longer on
11 the job that was down there when the fitup was made and it
12 was already welded out.

? Pool LINER

13 MR. GRIFFIN: Were you there when this work was
14 accepted?
15 MR. DILLINGHAM: Right.
16 MR. GRIFFIN: In other words, it has been
17 bought off finally?
18 MR. DILLINGHAM: Well, I keep going back and
19 they are not doing very much work. They are trying to
20 audit it and are trying to find paperwork that they can't
21 find. They are trying to find weld numbers and just all
22 kind of stuff.

? Fuel Pool LINER

23 MR. GRIFFIN: You mean they have been doing
24 this since you left?
25 MR. DILLINGHAM: Yes.

MR. GRIFFIN: Did you get this information from people that are still working out there?

MR. DILLINGHAM: Craig Flowes. He is my foreman.

MR. GRIFFIN: Flowes told you this?

MR. DILLINGHAM: I asked him. I said are you all still working on the liner and he said no, not very much. We did this or we did that. There are some X-rays that was not made on a certain part of the liner in the transfer canal where your gate landings go in. It us under concrete now, but all at once they forgot about them.

POOL TRANSFER CANAL

Ronnie Webb, he still works out there. He worked for TUGCO. He was the foreman over that, the general foreman. When I took over he come told me. He said we have got a big mess-up down there and we have got some X-rays that haven't been made and it has already been poured. Well, I was going to get into it and they shut down all the liner. So they moved on to a different job. So there are X-rays that still ~~have not~~ been made. You have got hollow places in the concrete behind the liner walls.

MR. GRIFFIN: Let's go back to intimidation for a minute.

MR. DILLINGHAM: Okay.

MR. GRIFFIN: Besides Tanley and Carnes, did

1 anybody else out there ever threaten or intimidate or
2 harass you ---
3 MR. DILLINGHAM: Somebody threatened me on the
4 telephone. They called me up and said I was dead, you
5 know, after I went to Houston.
6 MR. GRIFFIN: Did you know who it was?
7 MR. DILLINGHAM: No.
8 MR. GRIFFIN: Did anybody ever threaten you out
9 there into accepting defective work or performing
10 defective work besides Carnes and Tanley?
11 MR. DILLINGHAM: Well ---
12 MR. GRIFFIN: I am trying to get an idea of how
13 many people threatened you and how many people harassed
14 you or intimidated you.
15 MR. DILLINGHAM: I didn't take too much
16 threatening off of anybody. In other words, me and Tanley
17 would have it out just like me and my brother would. As a
18 matter of fact, we liked each other a lot. A lot of times
19 I would take and tell him I was doing it the way he wants
20 it and I wouldn't be doing it that way at all. I would
21 just get him off peoples' back and off my back because he
22 really don't know what he is doing. He is not experienced
23 whatsoever.
24 MR. GRIFFIN: On how many occasions did you
25 actually perform or accept defective work would you say?

MR. DILLINGHAM: Oh Lord, let's see. I don't know how far you want to get into this, you know, as a fine line. Are you talking about extremely bad, like the condensers, for instance, we took air hammers and sledge hammers and beat tubes. That is a no-no. Anybody would know that. You take a copper-nickle tube about as thick as your wedding band and you take a 16 pound sledge hammer and drive them. We put ice on to shrink them and put them in the condenser. That is a no-no. You are supposed to ease them in with our hand so they can expand.

CONDENSER TUBES

MR. GRIFFIN: Was that particular instance in your testimony or in your affidavit?

MR. DILLINGHAM: No.

MR. GRIFFIN: That is new?

MR. DILLINGHAM: No, it is all new. We split tubes, belling the tubes and flaring them. We split tube sheets. I reported a tube sheet split to Westinghouse. They said oh, my God, you know, yeah, yeah, yeah, and all this stuff. The next day we had a meeting and we all went there and there must have been 45 or 50 people.

MR. GRIFFIN: When was this?

MR. DILLINGHAM: This was a couple of years ago.

MR. GRIFFIN: Where are these tube sheets?

MR. DILLINGHAM: They are in the condensers.

1 But anyway, we had a problem. So we got there with
2 Westhinghouse, and they go that is not a Westinghouse
3 problem. What problem? See, the day before they had a
4 problem that a tube sheet was cracked. Then all at once
5 they don't have no more problem because they called their
6 home office and they probably said you idiots, don't tell
7 them. So they said the only problem we have is the tubes
8 are not rolled up tight enough. I said, we are cracking
9 the tube sheets already and they are rolled at a minimum
10 and not a maximum. I said we would be in trouble if we had
11 to roll them to the max, or if we had to roll them over
12 the max, superroll them.
13 (At this point in the proceedings Mr.
14 Dillingham is referring to Dillingham Exhibit 1.)
15 Here is your water boxes right here and your
16 condensers. All right, in condenser A on the inlet end on
17 the west box and it is in three sections. You have got
18 some cracked tube sheets in here. Back there you have got
19 some cracked tube sheets. You have got overrolled tubes or
20 barely overrolled. They are supposed to be rolled 069
21 thousand is a perfect roll inside reading. They allow us
22 to go to 071 thousand. We went up 90-some thousands.
23 I had one hand come tell me and say my
24 expander run out. Manually he rolled it so tight the
25 expander and motor jumped off. They just pop them just

1 like popcorn.

2 It is the wrong type of condenser for the

3 wrong type steam generator to start off with. It was a $10

4 million goof-up. Westinghouse said wait a minute, I think

5 we can straight this problem out since it is air

6 condensers, which they went bankrupt and are no more in

7 the condenser business. They decided they had to

8 intergroove a tube sheet. They took an inch and a quarter

9 tube sheet and they cut it in half. They should have used

10 two tube sheets if they were going to do that and made it

11 twice as strong and not half.

12 MR. GRIFFIN: Are these things still there?

13 MR. DILLINGHAM: They are still there, yes. All

14 you got to do is go in there. It is really terrible. What

15 I would suggest doing is on the big ones like 90-some

16 thousand is cutting the tube out and look at your sheet.

17 There is a spider wed crack. I showed the people the

18 crack, and that is when I first starting getting the

19 pressure, this is about three years ago, after I reported

20 this stuff. I kept on insisting on this crack, and then

21 everybody would go oop, and Mike Eifter, he would go, you

22 know, J. R., I am not for sure they are cracked. I would

23 go I am not. You know, you can throw a cat through it, and

24 he goes no, no, no.

25 Well, undoubted TUGCO told him to back off.

They were talking about several years or rework and millions of dollars. So they are talking about time and they don't want nothing to stop this plant.

These tubes are titanium tubes and there should be twice as many support sheets in there and all that stuff. So they intergrooved the tube sheet and they still have got leaks over there on this section here and we are not supposed to have no leaks at all.

MR. HERR: She can't see "right there" -- (Indicating the reporter). So when you say section one, identify what you are pointing to.

MR. DILLINGHAM: Okay. Condenser B, Unit 1, west discharge water box and you have got a cracked tube sheet. Also, the tubes are overrolled severely.

On the east water box, condenser B, discharge end, you are heavily overrolled and you undoubtedly have got quite a few cracks in it. I can swear to that. I know you do because it swelled up so big.

Overroll on the west box, condenser A, Unit 1, discharge end.

East water box, discharge end, condenser A, you are still leaking, and overrolled.

The more you roll, the more they leak. They more they leak, the more you roll, and the more your roll, the more damage you are doing. They just went nuts with

it.

Condenser A, Unit 1, intake box, the west box, you have got cracked tube sheets.

It is very simple to check because I put little plugs in there. You can just take a wrench and just screw your two nuts loose and pull the plug out and look at it and put it right back in. It wouldn't take five minutes to look.

(Dillingham Exhibit 1 just referred to follows.)


EAST
WATER
BOX
West
water
BOX
South
END
Discharge
END
EAST
WATER
BOX
West
WATER
BOX
CONDENSER
A
UNIT
1
CONDENSER
B
UNIT
1
CRACKED
Tube
Sheets
North END
INLET END

MR. GRIFFIN: J. R., did anybody intimidate you into overrolling those things?

MR. DILLINGHAM: We had an engineer there from TUGCO saying get it a little more, get it a little more to my people. I went and told Tanley. I said they are killing that water box. Nobody had ever did the tube work before and nobody knew. They are experimenting with an item.

In the first place, the condenser wasn't a very good designed condenser, in my opinion. I have worked on them since I was 15 years old. These was I would say between 1 and 10 about a 6, you know, a so-so condenser. When they intergrooved their sheet, they made the sheet real, real thin.

MR. GRIFFIN: But did anybody tell you or instruct you to do that?

MR. DILLINGHAM: I was instructed not to stop leaks, for instance. I was rolling tubes and I was stopping the water box from leaking. I have got a water box over here leaking and it is still leaking. I go tell Tanley, and Tanley says how does that box look, and I said it looks good but the other one started leaking again, and I have got to get it. He goes goddamn, J. R., I can go there any day and make things better than they are. I don't want you to do that. I go I am just trying to stop the leaks, you know. You ain't supposed to have leaks.

NON SAFETY

Your river water leaks into, you know, that type steam generator and you can't allow no river water inside, lake water. So it is still leaking. My problem was I of course couldn't do a good job.

MR. GRIFFIN: You are saying it is still leaking today or it was still leaking when you left?

MR. DILLINGHAM: It was still leaking when I left and it is still leaking today because they didn't rework it.

MR. HERR: Who was the engineer?

MR. DILLINGHAM: Bob Joehanson.

MR. HERR: Let me get one thing straight. Excuse me for a second. Mr. Carnes and Mr. Tanley, were they your supervisors?

MR. DILLINGHAM: George Tanley was my supervisor.

MR. HERR: What was his title?

MR. DILLINGHAM: He was the superintendent of the millwright department.

MR. HERR: Who was the other guy, Carnes? What was his job title?

MR. DILLINGHAM: He was a three striper. I don't know where he come from. He don't know anything. He is supposd to be a millwright three striper.

MR. HERR: What is a three striper?

CONFIDENTIAL NON-SAFETY

MR. DILLINGHAM: He is next to the superintendent. It is senior general foreman is what they are.

MR. HERR: Carnes is a senior general foreman.

MR. DILLINGHAM: Right.

MR. HERR: Tanley is the superintendent.

MR. DILLINGHAM: Right.

MR. HERR: Which one did you work directly for?

MR. DILLINGHAM: Tanely. See, what it was was Tanley was over millwrights and boilermakers. I was a boilermaker general foreman. Carnes was a millwright general foreman. He had more millwright general foremans. Then he set Carnes up for a three striper, but he told me that Carnes was never over me because he didn't know what he was doing to start off with, and when he would come down there I would run him off. I went and seen George about it because he would tell my people to do all kinds of goofy stuff. Tanley said well, don't you worry about it. He is not over you, you know, but he thought he was.

MR. HERR: Carnes didn't necessarily intimidate your or threaten you, but it was Tanley who was the one?

MR. DILLINGHAM: Well, he would just continuously tell me to do it or he would get someone else to do it.

MR. HERR: Tanley kept saying that?

1 MR. DILLINGHAM: Right. He said, if you can't
2 do it and you have got a problem, I will get somebody else
3 that will do it, like the swipe test. I am just tell him
4 we should clean the whole thing.
5 MR. HERR: And you interpreted that to mean if
6 you didn't do what he wanted you to do that you would be
7 terminated?
8 MR. DILLINGHAM: Well, what he is doing the
9 whole time is he is taking people away from me and giving
10 them to these other general foremen that would do what he
11 wants. See, if you would go do things anyway you last a
12 long time, but if you start trying to go by the rules and
13 regulations, you don't last long. They start trying to
14 work you out of a job, you know.
15 MR. HERR: So you felt when you started losing
16 men that that was a form of intimidation to you because
17 you were bucking the system or trying to do it right?
18 MR. DILLINGHAM: Well, I am not saying that.
19 They took all my people at one time when I went to Houston
20 to report these things. When I come back all my people
21 were already taken away from me and they put me in
22 confinement for several weeks without anybody because I
23 went to report and had reported a bunch of stuff they were
24 doing.
25 MS. ELLIS: I think part of the problem we are

1 having here is maybe semantics. When you say intimidation,
2 J. R. doesn't intimidate well. He fought the system. I
3 think that is probably part of what the problem is here.
4 Intimidation the way you are talking about it, I don't
5 think is really what he is talking about.
6 MR. DILLINGHAM: If you are talking about they
7 stuck a gun to my head, no, they never did.
8 MR. GRIFFIN: No, we are not talking about
9 that. Did you ever perform defective work as a result of
10 intimidation? In other words ---
11 MR. DILLINGHAM: You mean rush a job or
12 half-way do it or just do it wrong.
13 MR. GRIFFIN: Do it wrong.
14 MR. DILLINGHAM: Well, just about everything
15 you do out here is wrong.
16 MR. GRIFFIN: Well, did you ever do anything
17 out there right then, or did everthing that you signed off
18 on, everything you performed, is it all wrong, or just a
19 portion of it wrong?
20 MR. DILLINGHAM: Some of it is wrong and some
21 of it is right.
22 MR. GRIFFIN: Okay.
23 MR. DILLINGHAM: For instance, we started out
24 pushing tube. We started out right pushing them. We pushed
25 65 tubes in one day and we had a hell of a time doing it.

1 Then he come down there and told my men if they didn't
2 push a thousand by the next day their ass was going out
3 the gate, and he is on the radio every five minutes all
4 the next day. I pushed to lunchtime and we got a hundred.
5 MR. GRIFFIN: This is Tanley?
6 MR. DILLINGHAM: Tanley, and he cussed and
7 raised hell and he said their ass is going out the gate.
8 He says you can stand here and tell me a hundred reasons
9 why they won't go, but he said if them sons of bitches
10 ain't in there and you don't put a thousand of them in
11 there tomorrow your goddamn ass is going out that gate.
12 That is what he told them.
13 So he sledge hammers and he beat them and he
14 got air guns and he beat them. He put ice on them. He
15 knows nothing about condensers. You don't do that stuff.
16 MR. HERR: Who did he tell?
17 MR. DILLINGHAM: Joe Snookhouse and Johnnie
18 Winham.
19 MR. HERR: Anybody else?
20 MR. DILLINGHAM: Well, they was working a bunch
21 of laborers.
22 MR. HERR: These two men that he told, did they
23 do what he said to do?
24 MR. DILLINGHAM: They tried to. I was down
25 there with them and we tried to push a thousand in or else

CONDENSERS NON-SAFETY

and we couldn't get a thousand in. At 5:30 he was still cussing and raising hell wanting to know if they have that thousand yet, and he wanted to know right then because he was going to run them off. So I finally went down there and told him I was tired of hearing about a thousand tubes. They ain't pushed a thousand in and they ain't going to and I didn't want to hear nothing else about it. It was just that simple.

MR. HERR: What did he say?

MR. DILLINGHAM: He drove off. He was in his truck, you know. He was in his truck and he was talking to me on the radio and he kept asking me did they have it, did they have it. He had been bugging me all day. I done pushed till 12 o'clock and I was about dead, you know. We knock off at 5:30.

He was still hollering up to 5 o'clock did they have it because he was still going to run them off. I told the people to do their best and if it didn't satisfy him they would be better going to another job anyway. So he kept on pounding, pounding and pounding. So I finally went down there and told him that I was tired of hearing about it. I said no, they ain't got a thousand, and furthermore they ain't going to get no thousand and I don't want to hear another damn word about it, you know.

MR. HERR: Did he fire them?

1 MR. DILLINGHAM: No, he drove off.

2 MR. HERR: The next day did he terminate these

3 two men?

4 MR. DILLINGHAM: No, he didn't. He got one of

5 them later, but not for that purpose.

6 MR. HERR: Do you kind of called him on it and

7 he didn't ---

8 MR. DILLINGHAM: Well, sometimes, yes.

9 Sometimes when a person don't perform right they give him

10 a real bad detail and then the first layoff he is gone.

11 MR. HERR: I see. In other words, set him up

12 for the future.

13 MR. DILLINGHAM: Right, just like the guy we

14 are going to talk to after while, he was set up for the

15 future because he refused to do stuff that is wrong. He

16 will tell you all that.

17 MR. GRIFFIN: What is the distinction. Maybe we

18 ought to stop here to make sure we are talking about the

19 same thing. When I am asking you about intimidation or

20 harassment, and I know there are a lot of disagreements

21 and I know the construction business is a tough business,

22 but we are interested in finding out whether anybody

23 besides Tanley threatened you or harassed you in some

24 manner that caused you to perform your work improperly,

25 out of procedure, to violate procedure or create defective

Nort

1 work on site. Now that is what we are interested in
2 finding out.
3 Obviously after you went to Houston you had a
4 lot of difficulty with these people out there and they
5 gave you a hard time as you have already discussed.
6 MR. DILLINGHAM: I just went into confinement.
7 It weren't a hard time. As a matter of fact, I enjoyed it.
8 I was drawing the same money.
9 MR. GRIFFIN: But what we are trying to find
10 out is who intimidated you or others out there that caused
11 them to perform improperly.
12 MR. DILLINGHAM: We was pushed to a point where
13 we was not doing it correctly. They always wanted to do a
14 certain amount that is impossible to do, and they don't
15 care how you do it, but they want it done.
16 MR. HERR: Who is they?
17 MR. DILLINGHAM: Tanley, and I am sure Charlie
18 Scruggs is the one that pushes Tanley. Just like QC, and I
19 can give you a real good example.
20 When I was first hired in there in 1974 or
21 1975 we was doing some Q work on some shear bars that goes
22 around your containment. It was '75. We was using rebar
23 and we was welding flat bar to it. Well, when the rebar
24 come in, and it is Q or QC, and they go out there and they
25 check it and they verify the heat number and all this

1 stuff. Well, when they get all the proper paperwork in and
2 get it documented, then they release it to us. How do we
3 know it is released? They go out and they paid a blue end
4 on it.
5 Well, we run out of rebar and here come a
6 truckload of rebar. It came in. We started cutting it up
7 and we starting using it. So here come QC. QC and Tanely
8 continuously had fights because Tanley didn't want to go
9 by their book and they was always bumping heads on it.
10 Here come the QC. He just walks in there and
11 he puts red tags on all the stuff that is not right. Well,
12 Tanley jumps in there and he just got on Tanley's butt. So
13 he called Charlie Scruggs. So here come Charlie Scruggs
14 down there, which is a little guy and this QC kid is real
15 big. So they started having it out, and he told this QC
16 man, he said you ain't nothing but a goddamn overgrown
17 punk with too much responsibility, and he said I ought to
18 just knock your goddamn brains out and he draws back on
19 him and he pushed him around for 30 minutes cussing him
20 because the guy was just doing his work and he was the
21 superintendent. Now that is typical.
22 MR. GRIFFIN: Did the QC inspector pull those
23 tags?
24 MR. DILLINGHAM: He had his people hurry up
25 with what they had to do and they pulled the tags off.

however, we did not stop working and we continued to work on it.

MR. GRIFFIN: So the QC inspector signed off on those, on the work?

MR. DILLINGHAM: Yes, eventually he signed it off.

MR. HERR: That is after he finished his inspection? He hurried up his inspection.

MR. DILLINGHAM: Well, he was getting his ass eat out. He had a whole bunch of people there painting the ends of it. I don't know where he got them. We didn't even stop. We just kept on working. We was supposed to have stopped until they made sure we was using the right heat number and all that stuff.

MR. GRIFFIN: What about this work you were talking about like the condenser box a while ago? Weren't there QC people around to inspect your work on that?

MR. DILLINGHAM: That is non-Q on this job, but on other jobs it is Q like South Texas.

MR. GRIFFIN: Who was the QC inspector back in '75?

MR. DILLINGHAM: Mike Robinson.

MR. GRIFFIN: Is he still out there?

MR. DILLINGHAM: No.

MS. ELLIS: You don't have any idea where he is

75 SALP

1 now?

2 MR. DILLINGHAM: No. Another good example was

3 setting the condensers. The BOP inspector come down and

4 checked the welds on it. He rejected all the welds. We had

5 a rig hooked up. He even rejected the factor welds. Mr.

6 Callicut. He said have you got a condenser in that hole

7 yet? I go no, I said it don't look like we are going to do

8 it either because a BOP inspector just turned down all the

9 welds. Boy he started cussing. He said I want that son of

10 a bitch's name and badge number.

11 So he started making calls. So I dropped back

12 to the guy and he just bought it off sitting in his

13 office. Well, as a matter of fact, it got to a point where

14 they wouldn't even come and look at none of the welds.

15 They would just buy them off.

16 MR. GRIFFIN: who is this guy again that bought

17 it off?

18 MR. DILLINGHAM: I don't know his name. He is

19 still out there. Barbee I think it the last name.

20 MR. GRIFFIN: Barbee?

21 MR. DILLINGHAM: Yes. He got run off of BOP and

22 I think he ended up in QC. I think he name was Barbee.

23 MR. HERR: What year was that?

24 MR. DILLINGHAM: This was probably '79 or '80

25 when we was setting Unit 2 condensers. Condenser A was

1 going in the hole, the bottom part.

2 MR. GRIFFIN: This is more non-Q work?

3 MR. DILLINGHAM: Non-Q, yes.

4 MR. GRIFFIN: Barbee, this is before he was a

5 QC inspector?

6 MR. DILLINGHAM: Yes. He was a BOP inspector.

7 MR. HERR: BOP?

8 MR. DILLINGHAM: Right.

9 MR. GRIFFIN: What is BOP? I don't know what

10 that is.

11 MR. DILLINGHAM: I don't know either.

12 MS. ELLIS: Balance of plant. You said that the

13 condensers here are non-Q, but they are Q at other plants?

14 MR. DILLINGHAM: They are Q in South Texas. It

15 is according if they want to make them Q or not. They are

16 safety related because you can't operate the plant without

17 the condenser. It is just that simple. For instance, that

18 is the reason you have got the intergroove in the tube

19 sheet because you cannot allow the water in the steam

20 generator because they got problems, you know. I don't

21 know how fast they can cool a reactor down if something

22 did happen to the condensers, like if tube sheets bust out

23 with water pressure or something.

24 I was going to show you how they weaken a tube

25 sheet, but I don't guess that is necessary.

1 MR. GRIFFIN: I think our people will
2 understand it.
3 MR. DILLINGHAM: Somewhere down here they had a
4 nice thick tube sheet to start off.
5 (Mr. Dillingham is leafing through his
6 notebook.)
7 This is a real good example. These tube
8 support sheets came in. We laid them on top of each other
9 and we put dowel pins in them. Some of the holes was
10 three-eighths of an inch off from the others, you know.
11 So I called Tanley and I told him, I said we
12 are going to have a problem here. These holes are way off.
13 Well, he calls Westinghouse, and Westinghouse says oh,
14 there is nothing to it. Tanley says, J. R., they are just
15 three-eighths of an inch off. I said well, you have got
16 three foot from the center of one sheet to the other, and
17 when you start off with three-eighths of an inch off you
18 are off quite a ways when you get to the other end, you
19 know, the three foot.
20 If you go three-eighths of an inch off, over
21 here you might be an inch and a half off, and by the time
22 you turn it back in then automatically you are going to
23 head the other way. So you are binding every sheet. You
24 are cutting into the tubes.
25 These tube support sheets are made with a

1 certain amount of clearance so that tube can work in there
2 without binding. They are cut in two here.
3 MR. GRIFFIN: Now what system is this?
4 MR. DILLINGHAM: This is Unit 1 and Unit 2 A
5 and B condensers, the main condensers. This is what I am
6 talking about. I am not talking nothing about the
7 Auxiliary condenser. Everything is the main condensers.
8 There is supposed to be something like 39 thousand
9 clearance in the tube support sheets so that your tubes
10 can expand in its track without binding. Now your main
11 tube sheet is 10 thousand before they roll these.
12 (Dillingham Exhibit 2, the document just
13 referred to, follows:)
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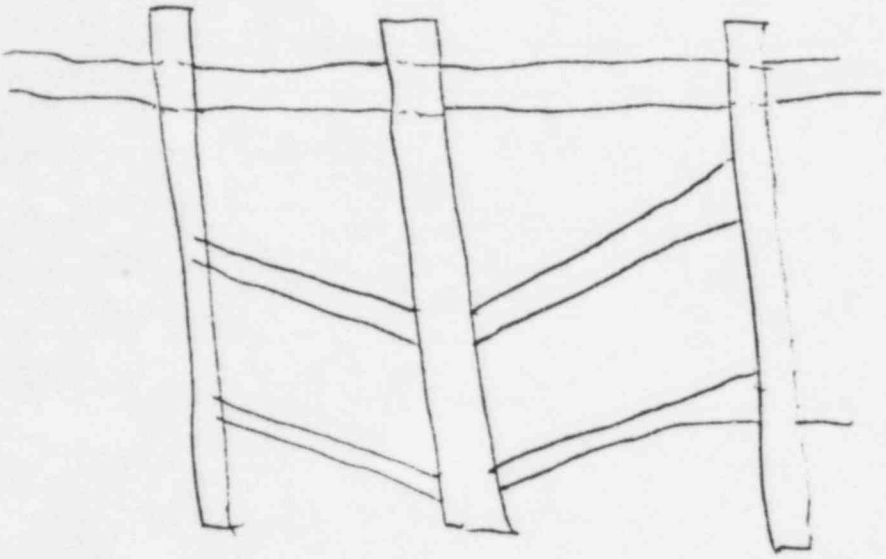
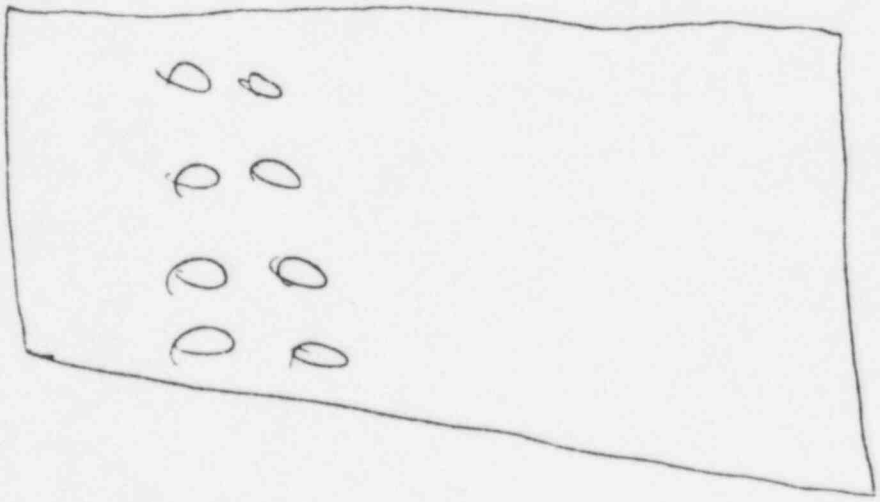
DILLINGHAM EXHIBIT NO. 2



Tube Support sheet



1 MR. GRIFFIN: J. R., you didn't discuss this
2 particular problem in your previous affidavits?
3 MR. DILLINGHAM: No, I didn't discuss it with
4 anybody because it seemed like when you bring up a problem
5 it is covered up. In my opinion, it is not corrected at
6 all. That is the reason I wanted to bring it out and I
7 would like to show people. They stuff here couldn't have
8 been covered up except by paperwork because you can go
9 down there any day of the week and read the inside
10 diameter of your tube and you know you are overrolled.
11 Everything that I could actually put my finger
12 on, like the letter, they automatically agree, just like
13 the light poles, you know. That is a 15 cent item I
14 brought up. Well, they jumped on that with both hands and
15 both feet and made a big deal out of it. They really
16 cleaned that up.
17 Well, you have got some spray pipes also down
18 in there. Well, it is going to be a bigger job to cut them
19 loose to do it. They haven't even mentioned that, see. I
20 think I mentioned that one in my affidavit. That goes in
21 the fuel pools. You have got four spray pipes that go down
22 in there. The holes of it was undersized and the pipe
23 department went in there and redrilled them and they used
24 cutting material, lube oil or some type of cutting oil and
25 they just pulled it off and there it was.

FUEL POOL

1 MR. GRIFFIN: And you said they already
2 corrected that?
3 MR. DILLINGHAM: No, they haven't, and they
4 probably won't until you tell them about it.
5 MR. GRIFFIN: But you have already provided
6 that in your affidavit?
7 MR. DILLINGHAM: I think so.
8 MS. ELLIS: About the light poles?
9 MR. DILLINGHAM: No, this is some more. The
10 light poles, they could take those out like so.
11 MS. ELLIS: I think the light poles are all
12 that you talked about I believe. I don't recall the other.
13 MR. DILLINGHAM: See, one day I want to set
14 down and just make a whole book of it, you know. But I
15 have always been so busy and I don't have the education
16 and I can't do it, you know.
17 MS. ELLIS: There was an investigation done by
18 the NRC Region IV Office about the things that were in
19 a newspaper article that were done.
20 MR. HERR: Excuse me, was that an investigation
21 or an inspection?
22 MS. ELLIS: It was an inspection I believe. I
23 don't think it was done by the investigators.
24 MR. HERR: Thank you.
25 MS. ELLIS: This is one of the things that

1 concerns us, and one of the things that concerns us about
2 any follow-up of this. We would much prefer that somebody
3 other than the Region IV inspectors go out and follow-up
4 on this.
5 MR. DILLINGHAM: On your inlet tube sheets.
6 They are 1/32nd flush, the tubes, and they are flared. If
7 they are sticking out, you get a build-up between your
8 tubes. So when we flared these we busted a lot of tubes,
9 or quite a few of them as a matter of fact.
10 Now this chart, and it sticks out, but we cut
11 them down like a half inch so it would look half way
12 decent. But when we was flaring these tubes they was
13 busting pretty bad, and the reason they was busted so bad
14 in this one area is because the counterbore in your tube
15 sheet where it allows the flare to flare out was way
16 overboard. So in order for us to flare it tight enough we
17 busted a tube, and the ones that didn't bust we hadn't
18 flared it tight enough. When you don't flare them tight
19 enough you get a build-up between your sheet and your
20 tubes and it eats the tube off.
21 Just like the job in North Carolina, we had
22 holes in all the tubes before we ever got the fuel in
23 there. The first two weeks it was eat up. So instead of us
24 repairing it, we had several months before the fuel came
25 in, they went ahead and poxied it in and used it as is and

1 they leaked for 12 years. They are still leaking, and they
2 dumped truckloads of sawdust in the intakes in trying to
3 stop the tubes from leaking. Now the radiation level is so
4 high on the turbine deck that you have to be dressed out
5 just like you are going in the reactor. They should shut
6 it down an retube it.
7 (Dillingham Exhibit 3, the document just
8 referred to, follows:)
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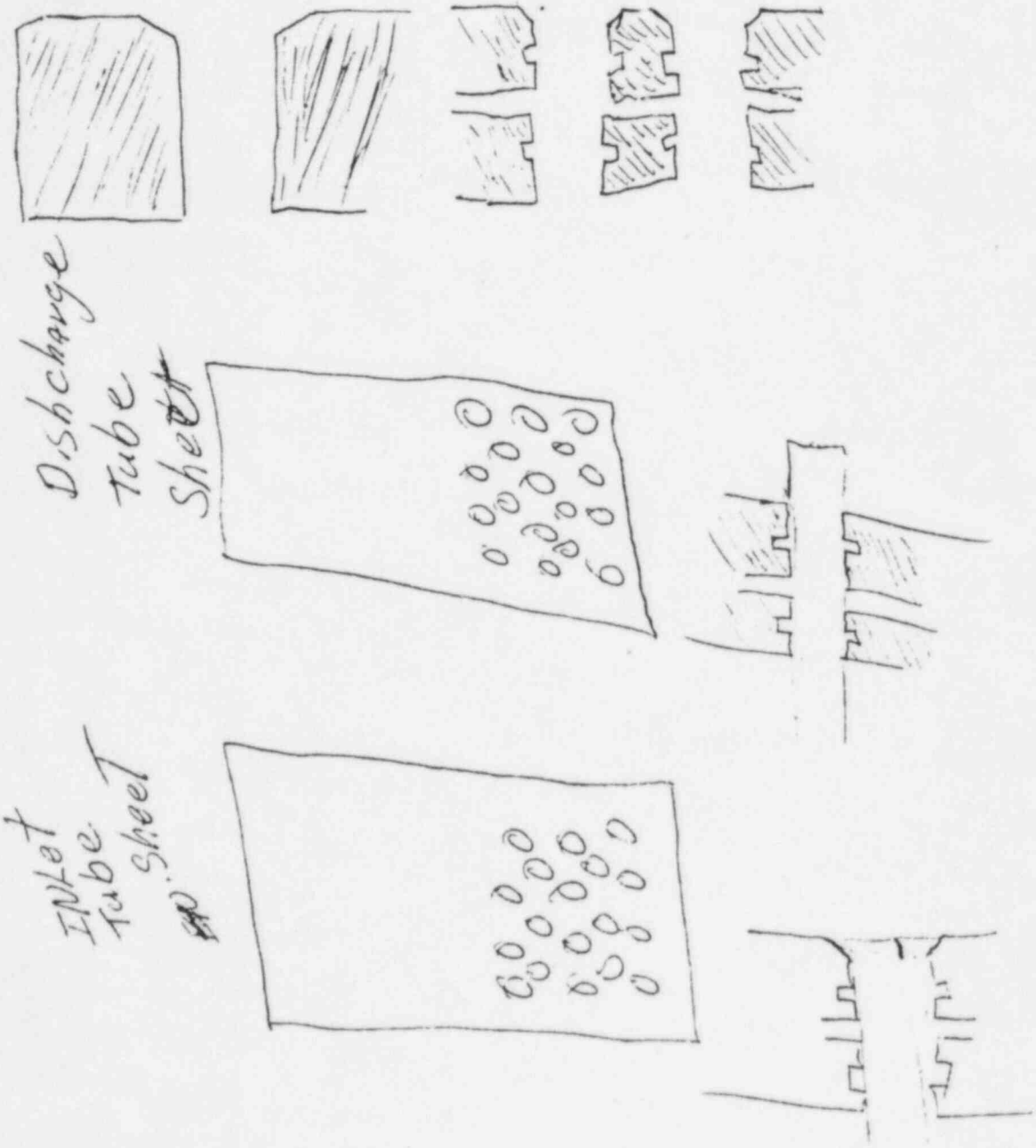
DILLINGHAM EXHIBIT NO. 3



1 MR. HERR: Where is this?

2 MR. DILLINGHAM: We have got cracks here on

3 these flares.

4 MR. HERR: What is the location of the plant?

5 MR. DILLINGHAM: The flare is the intake end of

6 all condensers and your water boxes.

7 MR. HERR: Is this in Glen Rose?

8 MR. DILLINGHAM: Yes, Glen Rose, Texas at

9 Comanche Peak. Most of them is in condenser A on the inlet

10 end east water box middle way of the sheet.

11 (Dillingham Exhibit 4 follows:)

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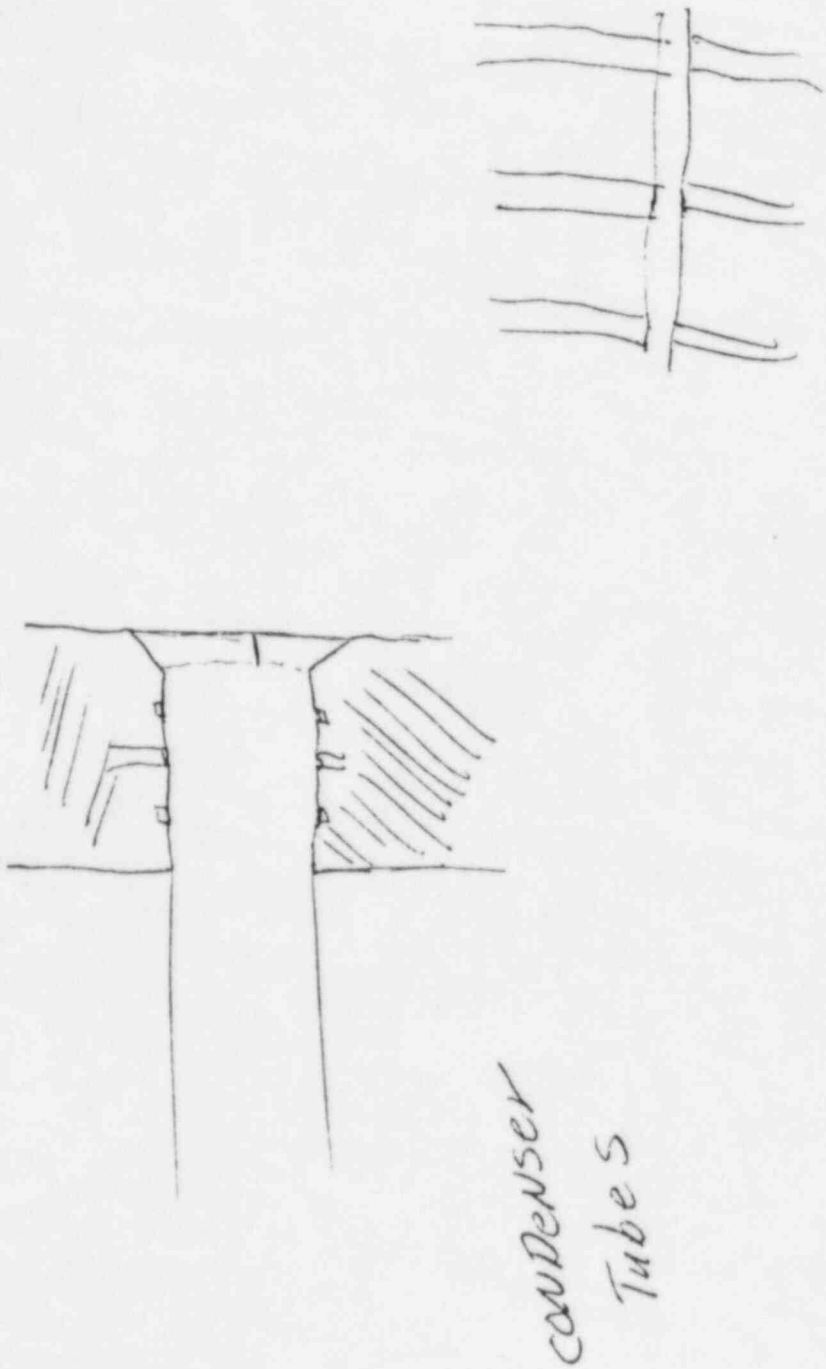
DILLINGHAM EXHIBIT NO. 4



1 MR. GRIFFIN: J. R., I think we have got enough
2 on that where our people can probably go out and look at
3 these.
4 MR. DILLINGHAM: Okay. We was welding the
5 condenser to the turbine. Again, I hate to bring up
6 experience, but when you are bringing this condenser up,
7 you set the condenser low, but when you set the turbine in
8 they can set it on the right elevation and not be in the
9 way of the condenser.
10 When you get your turbine perfect within so
11 many thousandths, you bring your condenser up to meet. You
12 don't make a contact with your turbine. You come up like a
13 quarter of an inch or an eighth of an inch with your
14 expansion joints. You have an expansion joint in between
15 it. Then you tie them together.
16 Well, the condenser was so heavy when you load
17 it with tubes and everything. It probably weighs 600 tons.
18 Well, we took all our jacks and put them on one end so we
19 had to rack it up. Of course, when you jack at one end it
20 throws it way in and then you pick the other side up and
21 it throws it way in.
22 So I told this general foreman, and I was just
23 foreman then, but I told the other foreman don't tie
24 anything to the turbine to the condenser. I said we are
25 going to go up and it is going to fall down, but when we

bring the other side up it will straighten back out and we will keep working it until we bring it up.

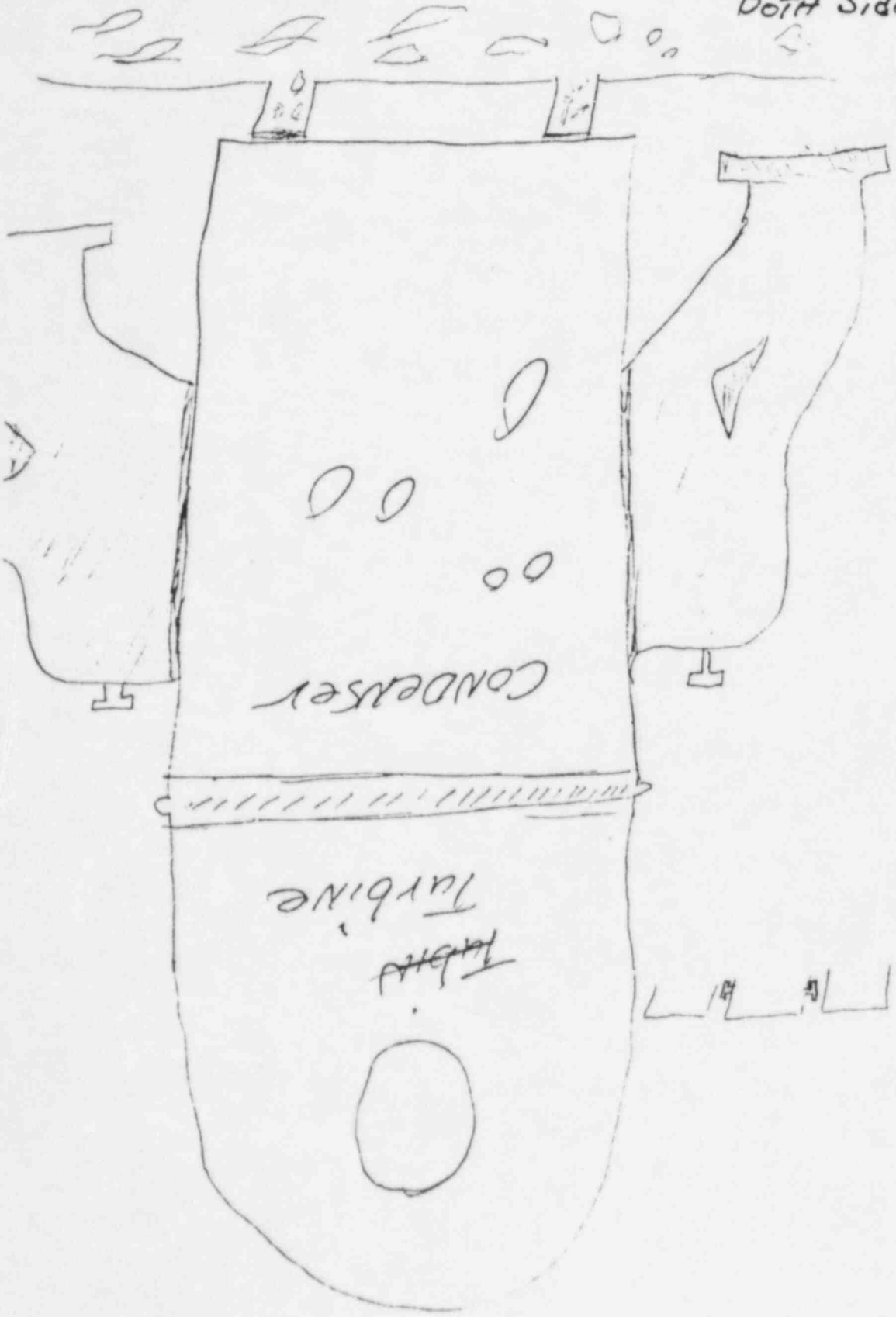
Well, this general foreman, he gets there and he starts welding all kind of stuff to hold it to keep from coming past it. Well, what we did was we jacked the turbine over. We went ahead and got it up. Well, instead of them making a final check to see whether they was in line or not, they just assumed they were and they was three-eighths of an inch off. So we welded it all together.

They took a reading and they was three-eighths of an inch off alignment. So they went up here and they took jacks and they started jacking and, boy, jacked it all the way over to where they want it and they release it, that little old expansion joint, and pulled it back. The little expansion joint was a one loop and it was an eighth of an inch thick and it had one little fillet weld on each side of it, real weak. They put several, several tons on it. I will show you what it looked like.

(Dillingham Exhibit 5A and 5B follows:)

DILLINGHAM EXHIBIT NO. 5A AND 5B

#5A
BOTH Sides



1 MR. GRIFFIN: J. R., where there engineers
2 involved in all this work?
3 MR. DILLINGHAM: No, a lot of it there weren't,
4 no.
5 MR. GRIFFIN: Your crew was down there putting
6 this turbine on top of this condenser?
7 MR. DILLINGHAM: Right.
8 MR. GRIFFIN: Is this a non-Q area also?
9 MR. DILLINGHAM: Right, it is non-Q. We are
10 down here throwing that turbine back. They started having
11 us jack it. We jacked it up and down putting all kind of
12 stress on it, and well sideways. You know, you can tear
13 that little expansion joint out.
14 So I finally told Stanley and the general
15 foreman over the turbine that I weren't going to jack it
16 no more without them giving me written permission to do it
17 or telling me to do it in writing because I says I might
18 want to work another j[illegible]wheres, and I said I will
19 never work for Brown and Root again if we rip it out, but
20 I might want to work another construction job, you know.
21 So finally they quit jacking it then.
22 Also, as we jacked the condenser up, the pipe
23 department was tied in with our pipe. They was also
24 supposed to take a pipe up with us, which they didn't do,
25 and we put a lot of stress on the pipe.

1 This right here is just showing ID of the
2 hole, the OD of the tube and OD of the tube and what it is
3 supposed to be like after we get through rolling it to be
4 a perfect roll.
5 MR. GRIFFIN: The condenser tubes?
6 MR. DILLINGHAM: Right, on the condenser. This
7 is the minimum we are supposed to roll them, the ID
8 reading.
9 MR. GRIFFIN: Can we have this also so we can
10 give it to the inspectors?
11 MR. DILLINGHAM: Yes.
12 MR. GRIFFIN: We would appreciate that because
13 if these guys can go right to the stuff and look at it, it
14 will sure be helpful.
15 (Dillingham Exhibit 6 follows:)
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Hole ID	Tube O.D.	Tube ID	Tube ID After Rolled
1.125	1.125	1.033	1.069

The Rolled we were Going For Which WAS The HALF WAY Point

We were Aloud 3 to 7 WALL Reduction

MIN. MAX

1.068 TO 1.071

CONDENSERS Tubes

A AND B

UNIT #1

DILLINGHAM EXHIBIT NO. 6

(The reporter noticed a drawing on the back side of Exhibit 5 and brought it to Mr. Dillingham's attention.)

MR. DILLINGHAM: (Referring to Exhibit 5B)Oh, this is the expansion joint I was talking about with the fillet welds. It is a real small stainless steel 1/8th expansion joint and it has got two small, little fillet welds there.

MR. GRIFFIN: Okay. I think we have got that down in the testimony.

MR. DILLINGHAM: We put several, several, I think two or three hundred tons against it.

Okay, stainless steel liners. This is like the reactor building and the fuel building. We are supposed to have a gap in here on our fit-ups. This is not in there.

MR. GRIFFIN: This is something new?

MR. DILLINGHAM: Yes.

MR. GRIFFIN: Okay.

MR. DILLINGHAM: We are supposed to have a gap in here no less than 3/16ths and no more than 3/8ths.

MR. HERR: Where is it? For the record, describe what it is.

MR. DILLINGHAM: This is a stainless steel liner. This is an embed floor plate to angle on the bottom and side plate to angle. I don't know exactly where, but

FUEL POOL

1 somewheres in there. I can tell you a person that probably
2 does know.
3 MR. HERR: Unit 1 or Unit 2?
4 MR. DILLINGHAM: Well, on the fuel building you
5 have just gone one, and for all I know it might be both
6 liners, but I can tell you the person's name that could
7 probably tell you because he is the one that did it.
8 MR. HERR: Who is that?
9 MR. DILLINGHAM: Bert Loefling.
10 Okay, when I made general foreman he comes
11 over and I asked how is everything going and he started
12 talking. He goes man, they have us welding. Instead of
13 putting a gap in there, they had it jammed together and
14 just together and just laid a heli-arc wire over it and
15 welded it out, you know, in other words, not make a full
16 pin weld. I said who in the hell had you do that, and he
17 said Bert Everett. He was the general foreman I replaced.
18 So I went and seen Bert, and I said, Bert, I
19 said I know you all didn't do it, but that welder said you
20 all laid heli-arc wire in there and welded it over because
21 your gap wasn't big enough. He goes well, J. R., we did. I
22 see it was on the top angle and that is below the water
23 level, and he goes, no, it was on the bottom, and I go
24 goddamn. He goes, I swear it won't happen again. I promise
25 you it won't happen again. I said well, I can guarantee it

1 won't happen again.

2 So I started to go to Tanley and then I

3 realized in North Carolina if I did I would probably have

4 gotten run off, and then I just wanted to see how far

5 these people was going. In North Carolina I thought

6 somebody would come along behind and straighten everything

7 out with little white gloves on and stuff, but that isn't

8 the way it worked. We was the ones doing it. So I just

9 wanted to see how far they would go and stuff.

10 So what you need to do is take a little UT

11 test and run along there and find the thickness of your

12 weld.

13 We also had a welder in there. He was a real

14 bad welder. He would cold lap it. He wouldn't let it

15 penetrate. Then when you weld it over, you could grind it

16 off and run your test on it and everything is great, but

17 it might not be as thick as a piece of paper. As a matter

18 of fact, I heard that Whalen Daniels went along behind us

19 and took a straight pin and stuck holes in it. He is still

20 there. I don't know whether he did or not, but his name is

21 Whalen Daniels.

22 MR. HERR: Why don't you draw an arrow where

23 the problem is on there.

24 (Dillingham Exhibit 7 follow:)

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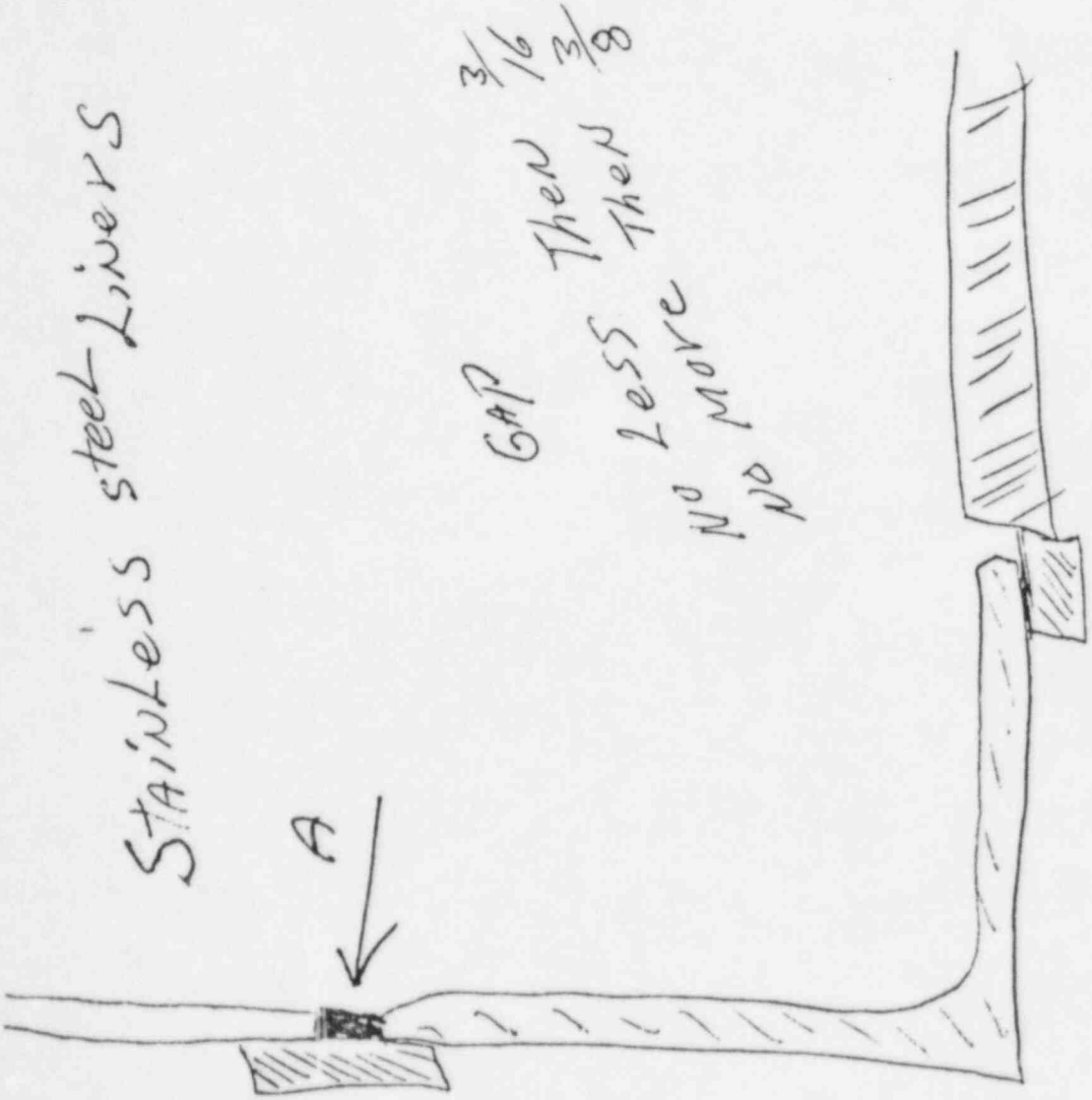
DILLINGHAM EXHIBIT NO. 7



1 MR. DILLINGHAM: I got one drawed out here.

2 Here is the problem right here. You are

3 supposed to have a gap like this one right here. You are

4 supposed to come in here and you are supposed to weld it.

5 You tack it and then you come back and you weld it here

6 and here and eventually you weld it until you weld it all

7 the way out and make one solid weld out of it and this is

8 just as strong as the rest of it.

9 MS. ELLIS: Why don't you put a little arrow

10 with an "A" or something like that.

11 MR. GRIFFIN: This is welding done on the

12 liner, right?

13 MR. DILLINGHAM: Right, the stainless steel

14 liner.

15 This is Item A. That is where it is supposed

16 to have been, which a lot of it is, but at certain places

17 it did like that. You have got you a little butt weld

18 there and you lay a little heli-arc wire along there and

19 you weld over it. Of course, when you weld over it you

20 get a little lump and then you grind it back off flush and

21 then you have got as thick as your fingernail, for

22 instance, and you can snap it.

23 That weld there you could take bulldozer and

24 hook the two together and you couldn't pull them in two.

25 This you could take and snap it with your finger, or just

1 the temperature of summer and winter will crack that.

2 MS. ELLIS: Why don't you make that "B".

3 MR. DILLINGHAM: "B", okay. Now Bert Loefling

4 can tell you where it is. Now you might want to check with

5 Whalen Daniels because after I left I checked with a guy

6 and he said Whalen come along behind us. He always carried

7 a straight pin in his cigarette and stuck holes in his

8 filter and smoked it. He said he took a little straight

9 pin after we run all our tests on it and, the LPs and the

10 vacuum box, and he come along behind us and he stuck holes

11 in the weld with that little pin. That is called a cold

12 lap right here.

13 (Dillingham Exhibit No. 6 follows:)

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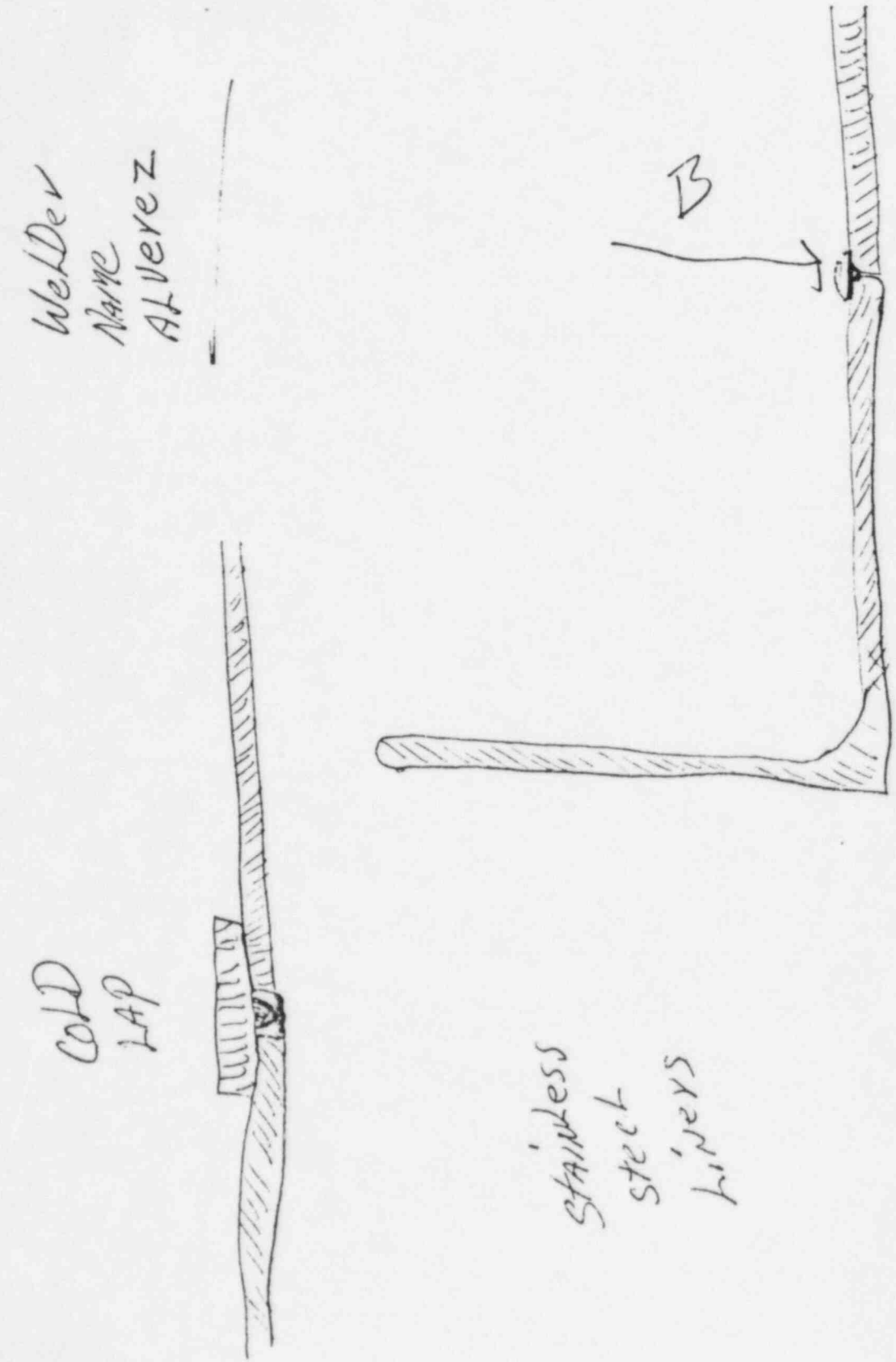
DILLINGHAM EXHIBIT NO. 8



MR. GRIFFIN: Was this work performed by members of your crew?

MR. DILLINGHAM: This was performed before I took over. I was running the condenser, and this is the liner. When they let Everett Clemming go I took over the stainless steel liner.

MR. HERR: What year was this?

MR. DILLINGHAM: Maybe '60. Well, Bert, he is still out there, Bert Loefling is.

Then I found out we got a welder down there, and all the welders complained about this guy, two of them.. They are cold lapping and not tying it in.

MR. HERR: What are the welders' names?

MR. DILLINGHAM: Averez is one of them. I don't know the other one's name. I think his name is Jonnson.

Well, Averez, he wanted to go in the pipe department. Well, he also went down on the condenser and he cut a hole that big -- (Indicating) -- and he stuck a piece of iron in there and welded it over. That is a no-no.

I seen the work he was doing and I went and asked the school how in the hell did he ever get out of school and I wanted him re-evaluated. I wanted them to check him out and he couldn't get it to pull all of his certifications. So they put him in there and they checked

1 him out and they agreed that he couldn't handle it. So
2 they was going to pull all his certification.
3 The superintendent told them, or the general
4 superintendent, if that man didn't have his certification
5 by the end of the week that their butts was gone.
6 MR. HERR: What is the name of the
7 superintendent?
8 MR. DILLINGHAM: You would have to check with
9 Golden or Fred Nichols, but I think the man's name was
10 James Callicut. Now this is what they told me. You can
11 check with Fred Nichols over at the school or the guy
12 called Golden because they agreed that the guy couldn't
13 weld and they was going to pull his certs.
14 In other words, he was certified to do
15 construction work and that is what we did. In order for
16 them to do pipe work they had to take a pipe test, which
17 is a little stricter test, and it had to be X-rayed. So he
18 couldn't even hardly do our work which was construction.
19 MR. HERR: So the superintendent ---
20 MR. DILLINGHAM: The general superintendent,
21 according to Fred Nichols or Golden, told them if that man
22 didn't have his certification for pipe by the end of the
23 week that they ass was gone.
24 MR. HERR: And they were the training people?
25 MR. DILLINGHAM: They were instructors at the

1 school, yes.

2 MR. HERR: What happened?

3 MR. DILLINGHAM: They gave him his

4 certification.

5 This is just one of my welders complained

6 after the job was did to me. His name is Mike Ratliff.

7 This is a transfer tube in the canal. It goes from the

8 canal fuel building to the reactor building.

9 In that tube you have got some welds in there

10 that is full pin welds. You are supposed to purge it, and

11 the full pin weld, it supposed to dip in a little right in

12 here. That is what it is supposed to look like. "A No. 2".

13 But as they started welding it sucked in on

14 them real bad. So they end up making a partial pin weld

15 out of it.

16 MR. GRIFFIN: How can we find these?

17 MR. DILLINGHAM: They only have got two of

18 them. You have got a penetration through the reactor going

19 into the fuel building. It is just a round transfer tube

20 is all it is and that is where your fuel leaves the

21 reactor and lays down and goes through that tube. You go

22 to your stainless steel liner.

23 MS. ELLIS: Is that Unit 1?

24 MR. DILLINGHAM: Unit 1 and Unit 2.

25 MR. HERR: Is that Q?

1 MR. DILLINGHAM: Q, yes.

2 (Dillingham Exhibit 9 follows:)

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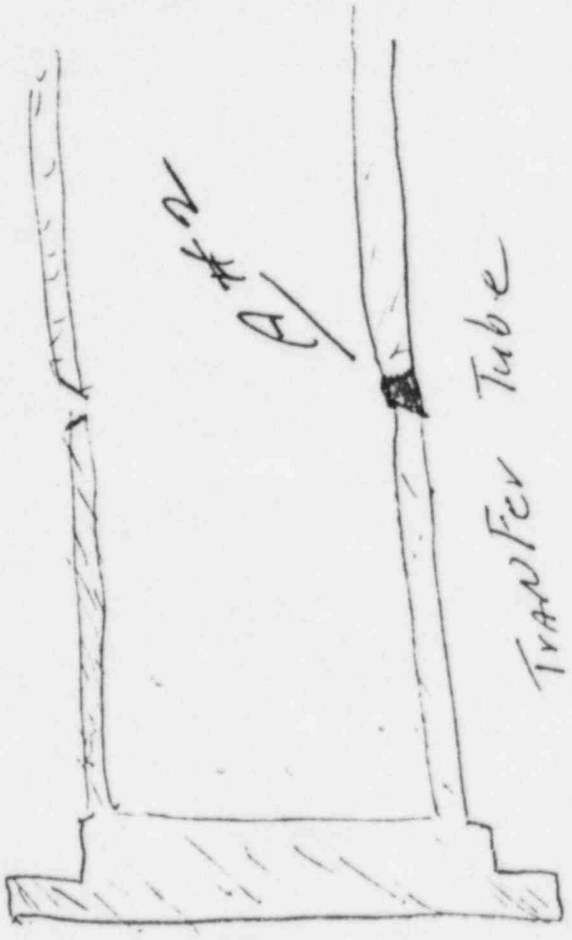
DILLINGHAM EXHIBIT NO. 9



1 MR. DILLINGHAM: Okay, this is your liner and
2 everything. Right here. This is a good one here.
3 (Dillingham Exhibit No. 10 follows:)
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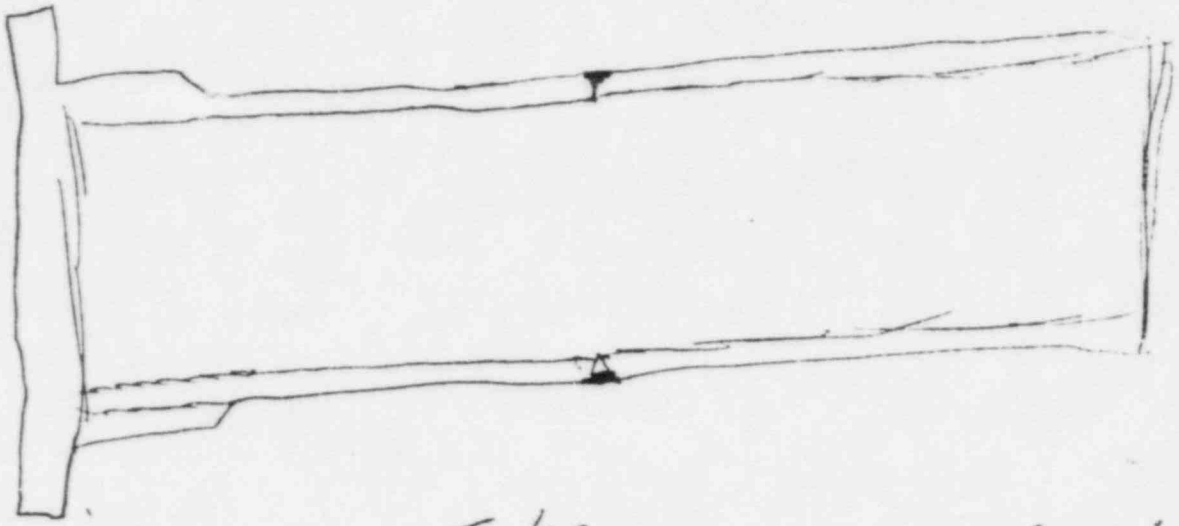
DILLINGHAM EXHIBIT NO. 10



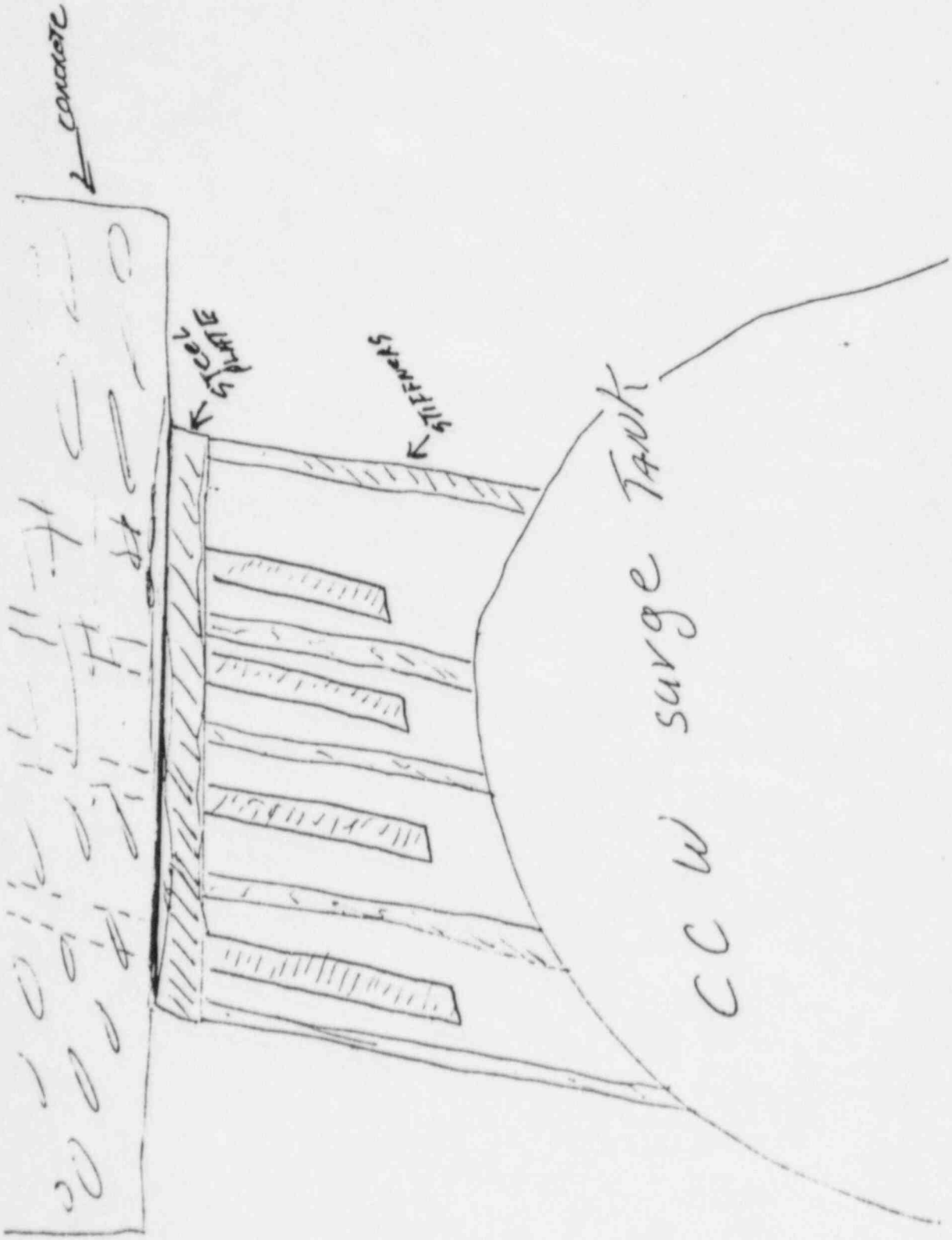
TRANFER Tube
CONTAINMENT to FUEL BUILDING

1 MR. DILLINGHAM: Here is another one where I
2 was told if I couldn't do it he would get somebody else
3 that would do it.
4 You have got some CCW surge tanks and they are
5 definitely Q.
6 MR. GRIFFIN: What is CCW?
7 MR. DILLINGHAM: Circulating water. These are
8 hanging from the ceiling and they are pretty heavy. They
9 weigh like 40 tons apiece and when they are full they
10 weigh like 70 tons. Well, you have got some anchor bolts
11 up here that suspend them in the air, you know.
12 Okay, they bolt it up they are supposed to go
13 up and meet concrete. This is your anchor bolt embedded in
14 the concrete. It is supposed to go up real snug and they
15 are supposed to torque it to foot-pounds.
16 MS. ELLIS: Do you know if those are hilty
17 bolts?
18 MR. DILLINGHAM: They are probably some type of
19 "J" bolt.
20 MR. HERR: Why don't you label that.
21 MR. DILLINGHAM: That is concrete, this is
22 steel and that is your bolts right here, and that is your
23 tank. That is your plate there, like your base plate which
24 is on top.
25 MS. ELLIS: What are these?

MR. DILLINGHAM: There are stiffeners right in here that support your tank. We had to come in and add more stiffeners and add a plate up here.

(Dillingham Exhibit No. 11 follows:)

DILLINGHAM EXHIBIT NO. 11



1 MR. DILLINGHAM: This is what your product is
2 supposed to look like. Well, when we got down there to do
3 our rework on it and just add some extra stiffeners and
4 some extra plate, I seen where Mr. Carnes' group come in
5 here and the bolt pattern wouldn't line up with their hole
6 pattern.
7 So instead of them plug welding their hole up
8 and moving their hole over, they took a hammer and beat
9 their stud over sideways. Of course, when they started
10 trying to bolt their tank up it started binding and
11 cutting into their stud. Well, they damaged it severely.
12 That is not the only problem. As they was
13 snugging these up they stretched these -- (Indicating).
14 They are supposed to be torqued to a certain deal, but
15 they pulled all these threads on these trying to get it
16 up. You know, you have still got a crack and you can still
17 see it probably right now.
18 MS. ELLIS: So the ones that were ---
19 MR. DILLINGHAM: The ones that were straight
20 is damaged because they were stretched. Now I know this,
21 that we had to come back and put plates on here,
22 stiffeners. So I told the men, I said just take one off,
23 put a plate on, put it back up and weld it out and then
24 take another one off. That way your tank won't come down
25 because it had all kinds of stuff welded to it.

So here come one of my crew and I said now it has got to be torqued. Every so many foot pounds it supposed to be torqued. He said we are torquing out before we ever get up. In other words, here is a nut down here torquing out because all the threads are stretched on it. They stretched the threads here and galled it when they backed off. I told him, I said get you as chaser nut and run over it. That is the only thing you can do and go in and snug it up.

But, anyway, I told Tanley, I said man, I said that whole tank needs to come down and we need to move the hole over. We should have put a pull test on the stud and checked the strength to see if it would withstand a certain amount of poundage.

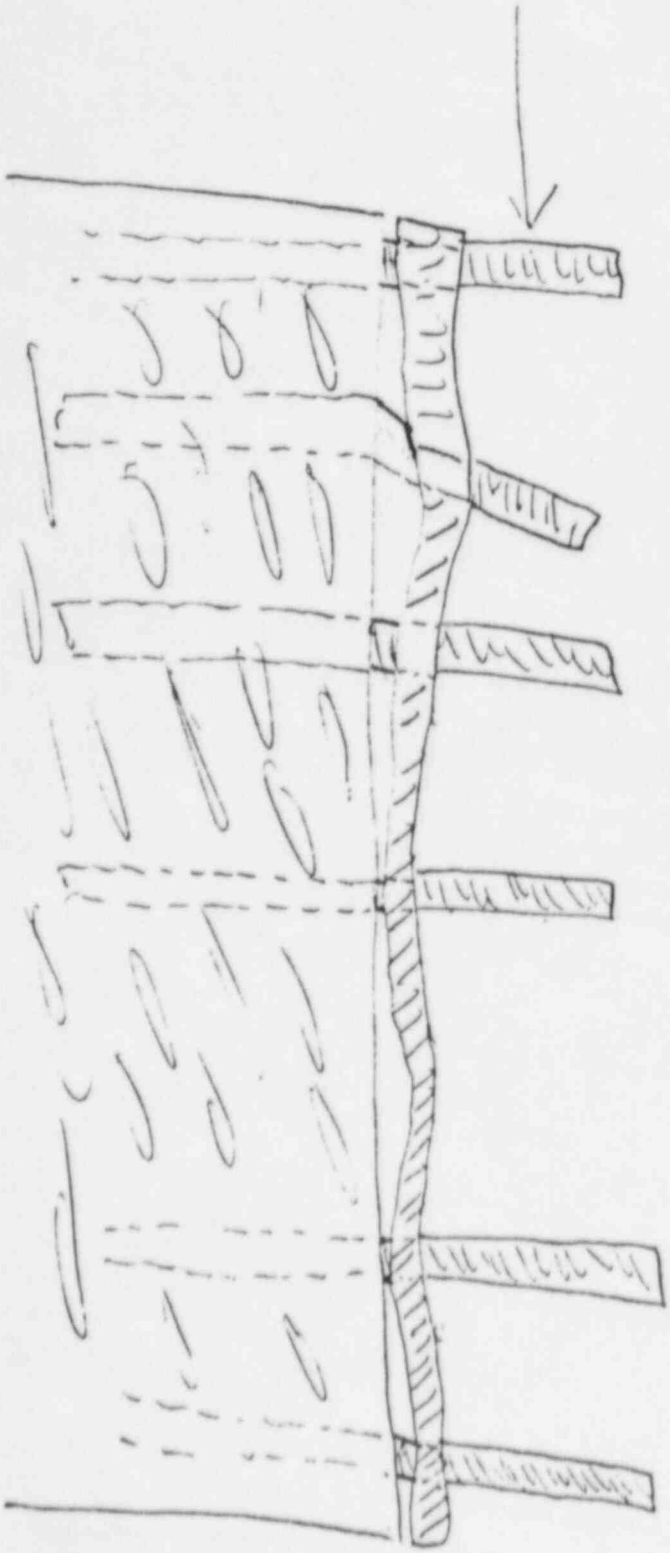
That is when he said, J. R., if you can't do that, I will get somebody that can, you know. He don't like me to bring up problems. So it is still there.

That is very simple. All you have got to do is go down and take a flashlight and shine it and you can see it.

Also, you are supposed to have a certain amount of plate here for expansion, and I am sure you will be body bound on a lot of them.

Dillingham Exhibit No. 12 follows:)

DILLINGHAM EXHIBIT NO. 12



Unit # 1 AN 2
CCW SURGE Tank

MR. DILLINGHAM: Okay, here is one here. This is kind of funny. My foreman, Craig Flowes, when he was working on his tools like three or four years ago, he loaned a pipe fitter a crowbar and the pipe fitter dropped it down in a pipe in the reactor core. Well, I tried for two years to get it out, and they always said well, we will have a pipe journeyman down there and you show him where it is at. I would get down there and well, J. R., we are really busy today, and this went on for a couple of years.

So I finally told them, and they sent me to Westinghouse and Westinghouse said well, in the end we are going to send a little TV camera down in there and we are going to look all around. So that solved that problem.

Okay, the stainless steel liner hollow places. We was making a pour and I was down there making sure nobody stepped on the embed, and this is around the reactor core and the floor and everything and the stainless steel liner. I had a hammer in my belt and I just pulled it off and laid it up on the bracing, the stiffeners in there and when it hit the wall it is real hollow in there. So I tapped and they had already poured the concrete above this area.

So I called Tanley and told him we have got a problem, that we have got a hollow place in the concrete

1 wall. Well, he brought I think Billie Ward down there.
2 Well, they send this colored guy, Picket, down there, the
3 general foreman over concrete and he sends the foreman
4 down there. Well, they tell me you stay with them until
5 you get the problem solved, or if I can help them in any
6 way to do it.
7 So Picket tells this foreman, he says, now I
8 am going to go up there and we are going to vibrate this
9 area for 45 minutes and they are still pouring and it is
10 still wet and you don't say what it is. Just say either it
11 is there or it is not there.
12 So he goes and boy they vibrate and they
13 vibrate and they vibrate. So he says now is it, and he
14 says no, still there. So he says we are going to do it 45
15 more minutes. So this goes on again, and of course your
16 concrete, they are getting higher up and it is getting
17 harder.
18 So he hollers down there again now is it, and
19 he says no, it is still there. Well, he says we are going
20 to do it for an hour. So they did it for an hour. He
21 hollered down and said how is it? He said it is still
22 there. So he says well, it is that old Japanese metal,
23 that is what it is, you know. So that solved that problem.
24 MR. HERR: What year is this?
25 MR. DILLINGHAM: You can look at the concrete

pour. This is in Unit 1 I think, the liner, the year when they made the next pour from the floor up I think it was. You know, you made it up to a floor and you would let it cure and then you made your next pour and then a next.

MS. ELLIS: This was Unit 1 around the reactor?

MR. DILLINGHAM: I think it was Unit 1. I have got the area here marked out where it was at.

(Pause while Mr. Dillingham looks through his papers.)

MR. DILLINGHAM: Well, it was right over here on the wall anyway. I guess it is probably six foot off the floor. You can mark it right in this area here. Put Unit 1. I am pretty sure it was Unit 1. You have got the elevation. Well, I have got it marked right here.

See, you have got the little round end down there. That is at a certain elevation. Then this is your core area where your reactor sits down here. Then your next drop down where like your lower internals go in here. It is in that area, right up there on the wall. But you can take a hammer and tap on the wall until you find a hollow place. I am pretty sure that is the one it was.

MR. HERR: The elevation?

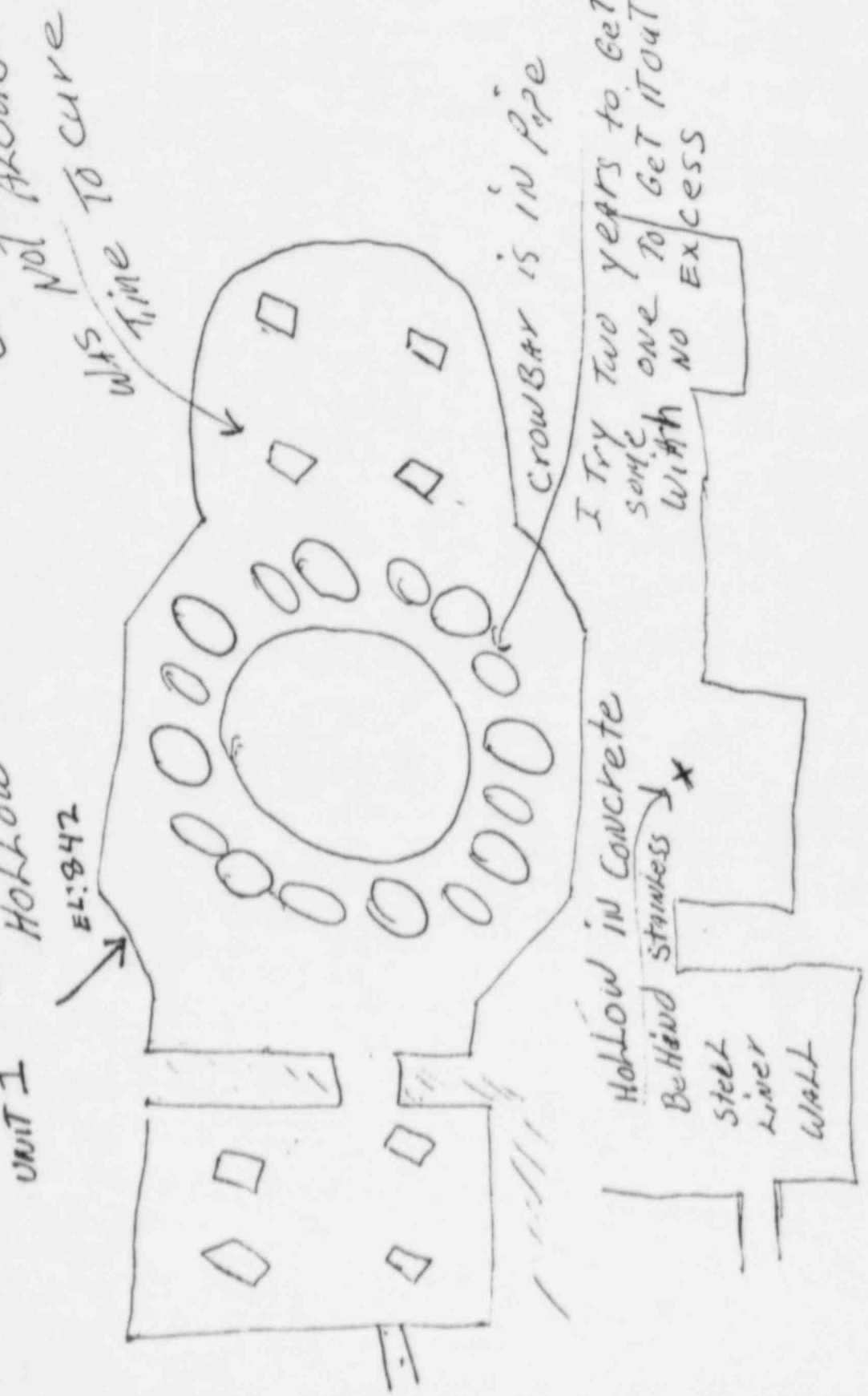
MR. DILLINGHAM: It is 834 and add 8 to that, 842. Let's just go with 842 for the heck of it.

I was standing up on the bracing and I could

reach it. So when you are standing on the floor it should be from the shoulder up, somewheres along that area. But it is real hollow and you can find it.

(Dillingham Exhibit 13 follows:)

DILLINGHAM EXHIBIT NO. 13



1 MS. ELLIS: If they had trouble finding
2 something like that, could you show them where it is?
3 MR. DILLINGHAM: Oh, yes.
4 Now here is another deal I put in here about
5 the concrete, you know, where we set equipment on concrete
6 where it wasn't allowed the correct time for curing and
7 stuff like that. Right here, and I believe it is where
8 your lower internals go. You upper one end and you lower
9 the other.
10 Well, when we took that framework out and we
11 started to put our floor down, one of these embeds here
12 where your upper or lower set was had a real bad hollow
13 place in it. You know, most of the time they kind of patch
14 it up with some kind of stuff. This was real deep so they
15 put concrete in there. Well, it is supposed to have a
16 certain amount of time for that concrete to set, and they
17 also got some type of paste they put on there on the floor
18 where the line goes. The paint department put it on there.
19 It looks kind of like paint, but it is not paint. It is
20 what the paint department puts on there to kind of build
21 it up so many mils.
22 Well, this right here, the upper and lower
23 internals was coming in. They didn't want to store them in
24 the warehouse any more. They wanted to get them off the
25 train or truck and get them in the hole now.

1 So I went and told Bubba George. He was the
2 general foreman over the contract. I said, damn, you know
3 how Tanley is. I said that idiot is wanting us to put the
4 floor plate down. I said you have got a curing time on
5 that. He says well, you know, J. R., QC let us get away
6 with a lot of stuff. He said wait until everybody leaves
7 and then we will go ahead with it. So we went ahead with
8 it.

9 MR. GRIFFIN: When was this?

10 MR. DILLINGHAM: Well, you can check the pour
11 or you can check the weld cards on when we put this floor
12 down on the liner. That is probably now you can do it.
13 They might not have even used the pour card, but you can
14 check the time that this was poured or repaired here and
15 the time we welded. We sign our weld cards and they sign
16 their pour cards and you can see how many days in between
17 that was.

18 We had some floor plates that buckled inside
19 the fuel building with some of that stuff stuck to it. I
20 think I put in there that we put some of that floor plate
21 down without correct time for curing time, you know. But
22 it is very easy to check. All you have to do is check the
23 pour cards and check the weld cards when we welded it.

24 Okay, rebar. Everett, that was the general
25 foreman who got busted back, and I had him setting a piece

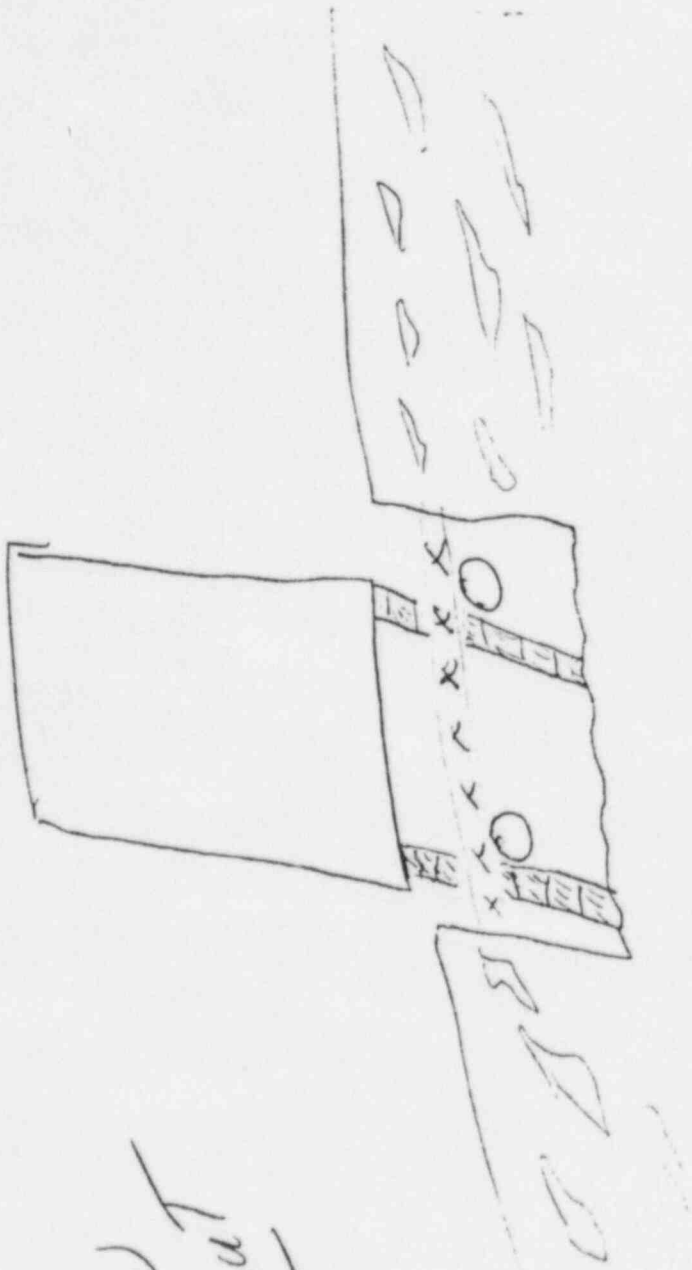
of equipment. I told him, I said make sure you get some shim and come off your concrete floor and shim it level. He goes, we will just weld off the rebar. I said weld off the rebar, you have got to be kidding. That is a no-no welding rebar. He goes ah, we did it all the time when we were on the liner, and he was the general foreman over it.

Now this is just a for instance, but you might check with Mr. Cobb, Harold Cobb, the welder and he might know of people welding on rebar which that stictly is a no-no. He was working with Everett down there when Everett set it. I asked Cobb about it and he kind of laughed like he either had been doing it or knowed somebody who had been doing it. But the ex-general foreman just told me they did it all the time, you know, like bracing off of rebar or welding something do it.

I just wanted to thow that in there.

(Dillingham Exhibit 14 follows:)

DILLINGHAM EXHIBIT NO. 14



Welding Rebar to cobb knew about it

1 MS. ELLIS: He said they were doing it where?

2 MR. DILLINGHAM: Over on the stainless steel

3 liner area inside of the containment. He said we do it all

4 the time over there, you know.

5 Let's see. I guess that is about it.

6 Now I know a lot more. I believe it was me and

7 Mr. Flowes, you see, I knew I was going to Houston quite a

8 time before I left, but one day we decided we would just

9 jot down some mistakes, you know, little mistakes like

10 this and we were just going to make a little list to see

11 how many we could think of right offhand. So this just

12 consists of the millwright department, which is the

13 millwrights and boilermakers, and the concrete department.

14 We either come up with 29, 59 or 79. I am not for sure. My

15 list was in my desk and he might know where it is at, but

16 we was just going to make up some things that we thought

17 was strictly against the rules so I could bring that up

18 later.

19 I kind of felt like that Houston might handle

20 it the way they did. That is the reason I just sent them

21 that little letter there or carried it to them. I put some

22 stuff in there like the gray tape around the shims, you

23 know. I didn't actually see that, but the guy brought it

24 up in our class, they was giving a classs and everything,

25 and everybody laughed about it, you know.

1 MR. GRIFFIN: I may have to call you or we may
2 have to get one of the inspectors to call you, whoever
3 addresses some of these things that you have raised today.
4 We may have to ask you some more questions.
5 MR. DILLINGHAM: Okay. On this statement we
6 sent in there about the torquing of the nuts and the
7 helper that designed the hanger intentionally wrong so he
8 could see where they had been checking while he designed
9 the hangers, is there any way we can get him to show you
10 all these areas do you think?
11 MR. GRIFFIN: What is his name?
12 MR. DILLINGHAM: Well, I don't want to bring no
13 names up. He said he didn't want to go to no hearing, but
14 he would like to take you all down and show you. He would
15 like to have a showing. He says he knows about them
16 standing on pipe and where they beat pipe in with a sledge
17 hammer and caved the side in on pipe more than half inch
18 and stuff like that.
19 MS. ELLIS: You can tell him off the record.
20 (Whereupon, a short recess was taken.)
21 MR. HERR: Back on the record.
22 MR. DILLINGHAM: All right, do you want to talk
23 about the concrete? I think you already looked at Mr.
24 Witt's statement about the concrete where they used reject
25 material from the concrete pours.

1 MR. HERR: Was that information previously
2 provided to the NRC?
3 MR. DILLINGHAM: Right.
4 MR. GRIFFIN: Well, let's not go into that.
5 MR. DILLINGHAM: This is another man here.
6 MS. ELLIS: Let me ask you something. You all
7 will be looking at all of the stuff that has been filed
8 already, right, in his affidavits and so forth?
9 MR. GRIFFIN: Are you talking about in relation
10 to intimidation? I am not going back over all the
11 testimony that has ever taken place at Comanche Peak prior
12 to this date.
13 MR. DILLINGHAM: Mine had never been brought up
14 to anybody. Everybody is just satisfied that all of mine
15 is okay and they just kind of put it in file 13
16 undoubtedly. Nobody has ever commented on it.
17 MS. ELLIS: Well, I just wanted to find out if
18 somebody is going to look at the concerns that he has
19 raised.
20 MR. GRIFFIN: It is my understanding, Mrs.
21 Ellis that many of these affidavits and ASLB testimony
22 have been looked at by the NRC inspectors.
23 MS. ELLIS: Okay. This is one of the problems.
24 We are not at all satisfied with their investigation.
25 MR. HERR: Inspection?

1 MS. ELLIS: Inspection. How do we get
2 investigators then to investigate them?
3 MR. GRIFFIN: Well, it doesn't do any good for
4 me to go out and look at stainless steel liners because I
5 don't know what the procedures are or what is required.
6 MS. ELLIS: Isn't there somebody else within
7 the NRC that can go out and inspect these things outside
8 the Region IV office? There must be somebody else after
9 looking at other areas of the country?
10 MR. DILLINGHAM: Wouldn't it be to the NRC's
11 advantage that this stuff wouldn't be brought up on
12 account if the plant was shut down they might be out of a
13 job, you know? No, really, because over the past few years
14 a lot of them has been completed and a lot of them has
15 been cancelled. I am sure you all don't go to a little
16 room somewheres and draw your money.
17 MR. GRIFFIN: The point I am trying to make,
18 Mrs. Ellis and J. R., is that things that have already
19 been brought up and have already been provided to the NRC
20 have already been inspected, evaluated and a report has
21 been prepared. We are not going back into those.
22 MS. ELLIS: No, wait. There is another aspect
23 of this that you are probably not aware of. If you read
24 that inspection report or whatever, and supposedly it was
25 an investigation of his allegations, whether it was done

1 by inspectors or whatever, but if you read that report you
2 will see that they say that they did not look at any of
3 the things that Brown and Root supposedly looked at. They
4 did not investigate anything that was brought up in the
5 phone conversation that J. R. talked to the utility about.
6 This is in the report itself. It says they did not look at
7 those things. Somebody needs to look at those things and
8 what do we have to do to get the investigators to look at
9 them?
10 MR. HERR: Mrs. Ellis, don't you think that
11 that question should be more properly proposed to the
12 Board rather than to us?
13 MS. ELLIS: I am trying to pose it to anybody I
14 can get to answer it. I tried to pose it to the Board and
15 the Board just turned us down on answering it.
16 MR. HERR: Well, if the Board turned you down,
17 we can't, you know, but are you suggesting that you would
18 prefer to have inspectors from other regions inspect the
19 allegations or the cases presented?
20 MS. ELLIS: Yes.
21 MR. HERR: Well, I think the proper format or
22 platform would be the Board and not Mr. Brooks and I.
23 MR. GRIFFIN: We are here today working on a
24 single investigation about intimidation of Brown and Root
25 employees. Now we are not here to go back over all the

1 testimony of past hearings and everything. We could sit
2 here and talk for days about what has gone before because
3 I have seen some of the testimony and it is several feet
4 thick.

5 MR. DILLINGHAM: Yes, but nothing has ever been
6 done about any statement I made. For instance, the guy I
7 am talking about that would like to show them this
8 problem, it looked to me like somebody said look, you
9 either tell me the guy's name or you either get him down
10 there and let him show us. Well, they don't care. They
11 already filed that as being investigated, you know, but
12 none of it has been investigated.

13 MR. GRIFFIN: We have gone over some new
14 testimony today, J. R., and we will have an opportunity
15 now to go look at that. If you have provided testimony in
16 the past that the inspectors from what they were provided
17 could not go and locate those items, then the chances are
18 that maybe they couldn't do anything about it.

19 MR. DILLINGHAM: They could have asked me
20 though. They didn't waste no time stopping here in Glen
21 Rose. They said Mr. Witt left the State of Texas, and his
22 office is a few hundred yards right from where they go by
23 every morning. You can look in the phone book and they
24 have got five Witt's in the phone book and two of them is
25 his number. One is his office and one is his home number.

I would bet you could get on that phone and find him in a just a few minutes.

MR. GRIFFIN: I am not familiar with Mr. Witt. My investigation has not led to Mr. Witt as far as intimidation.

MR. DILLINGHAM: It was a pretty serious statement though.

MR. GRIFFIN: I think we have got the wrong forum here for going back over previous testimony and prior affidavits. That was not our purpose in coming down here today. You have new testimony that you were willing to give and this will be transmitted to our inspectors for technical evaluation.

MR. DILLINGHAM: See, that is the reason that people don't like to come forward because if they come to the NRC with a problem, there is nothing did about it and then they have got the chance of losing their jobs or messing their livelihood up, you know, like in the past and be made idiots out of. I don't know why the NRC acts like they are the defense attorney for the power company. They jump in there and start pounding on people immediately and that don't sound right. It doesn't look like they want to get down to the problem.

MR. GRIFFIN: Can we go off the record for a minute.

1 (Discussion off the record.)

2 MR. HERR: Back on the record.

3 MS. ELLIS: Go through everything you said in

4 your affidavit about going to Houston, about being put in

5 the cage, about being shot at, about your cat's head being

6 cut off.

7 MR. DILLINGHAM: Okay. That stuff there really,

8 you know, is the truth, but some of it is embarrassing.

9 Really it is so childish they way some people do things.

10 I went to Houston to report this. I walked in

11 there and told Mr. Feehan. I gave his secretary the letter

12 and she showed it to him. Well, immediately he flew to

13 Glen Rose. She said you need to meet him in Glen Rose on

14 Friday or he will be back here tomorrow or he will be back

15 here Friday. I said well, I will just wait here and meet

16 him in his office on Friday.

17 She said he promised he wouldn't say nothing

18 about the letter because I told her on the phone and I

19 asked her to tell him not to say nothing about me being

20 down there at that time.

21 Well, when he come back from Glen Rose, back

22 up there, he already knew my life's story. See, he has

23 already mentioned the letter and everything else because

24 when he said oh, Atkins, oh, Atkins, you know, and all

25 this stuff about the weld. He knew about Chuck Atkins

1 finding some bad welds and he knew about me finding the
2 same welds, which I don't even know Chuck and I wouldn't
3 know him if he walked in that door. So he related me and
4 Chuck as being together is what he did because he said are
5 you in our QC program? I said, no, sir, I don't have no
6 education. He said it sounds like you are real educated to
7 me and you should be in our QC program. He kept on
8 hounding about QC and do you think there was a QA and a QC
9 problem.
10 MR. GRIFFIN: J. R., do you think he was
11 unhappy about the fact that you had gone to Houston with
12 this letter?
13 MR. DILLINGHAM: Yes.
14 MR. GRIFFIN: Is this the basis for his
15 statements to you?
16 MR. DILLINGHAM: Well, the statements let me
17 know that old Chuck was a liar, and to me it seemed like
18 he was trying to tell me I am a liar, too, you know, and
19 they are going to make a liar out of me like they did old
20 Chuck. You know, I could care less because I wasn't never
21 intending to work for Brown and Root again anyway.
22 MR. GRIFFIN: Okay.
23 MR. DILLINGHAM: So they said you think there
24 is a QA and a QC problem, and I go no. They think it was.
25 I said you shouldn't have to have one person standing over

1 another person all the time. I said you have got a
2 thousand workers and you have a thousand people watching
3 them and why don't you have the thousand people watching
4 do the work. You can't trust nobody.
5 So anyway, these people down here weren't even
6 supposed to know I was in Houston. When I come back in on
7 Monday morning, the next Monday morning from the Friday,
8 and we have got a chain in command board up there. You
9 have got assistants and you have got general foremen,
10 which I fell under the general foremen list, and I had two
11 foremen under me and I had pushers under me and I had
12 journeymen and I had helpers and so forth.
13 Okay, when we get ready for a layoff we
14 discuss ahead of time who is going to be laid off and we
15 pull their name off the board. From under each foreman
16 percentage-wise, each man gives up two or three people and
17 we stick it on the bottom of the board. That means they
18 are floating and come Friday or Thursday they are laid
19 off.
20 Well, when I come back my name was took off
21 the board and stuck on the bottom on a floating list. The
22 first week I was gone I was scheduled to work Unit 1
23 because you had to turn in the people's names that was
24 going to be working Unit 1 because the fuel was coming in
25 and everything. Well, when they found out I was in Houston

1 they pulled my name off that list. I was the general
2 foreman and of course I had to be all over the place, you
3 know.
4 Anyway, so I come back and I go in the field
5 with my people. Well, the started flying in at 3 o'clock
6 that morning, according to one of the people, out of
7 Houston. So they called me in there and they set me down
8 and they got four people that asked me questions. They got
9 Jack Dodd, he is the good guy, and they got their lawyer.
10 He kept saying I am not trying to put words in your mouth,
11 but what, you know, and he would twist his hands this way.
12 Well, they got this QA and QC head honcho over there, and
13 they go well, you think it is QC or you think it is QA.
14 Well, they have got Mr. Calicutt here writing all this
15 down.
16 Okay, they start out and Mr. Dodd asked a
17 question. They lawyer, he asked a question. This QC guy,
18 you think it is QA or QC, you know. Well, would you please
19 repeat that question. Well, they was putting everything
20 down just like they wanted it.
21 If Mr. Dodd said do you think that wall is
22 green, and it might be pink, and I would say no, and he
23 was asking me a question over here that I was supposed to
24 be saying yes to and I would be saying no. So they was
25 giving me the third degree. When Mr. Feenan said old

1 Chuck, I knew right then there was something wrong that
2 first time.
3 MR. GRIFFIN: You knew that they were receptive
4 to the information you had provided?
5 MR. DILLINGHAM: Right, and I knew that they
6 was trying to make things sound the way they wanted them
7 to sound. They didn't come in there and say now, J. R.,
8 you have got problems here in these letters and what is
9 the people's name and all this stuff. They started
10 questioning me about everything. Now, this problem here,
11 are you sure it was on a Thursday or on a Friday, you
12 know, just everything had to be perfect and everybody else
13 looked good, you know.
14 I had one guy that was supposed to verify that
15 they told him to weld or hit the gate, Mr. Bell, and he
16 did. He went in there and he was a good witness. He is an
17 old man and everything. I said you ask Mr. Bell and he
18 will tell you what happened. He walked in there and they
19 asked him do you think this plant is safe or unsafe? He
20 said I don't know.
21 He come back out and I said well, did you tell
22 them? He said, hell, they asked if the plant was safe or
23 unsafe and I didn't know what to tell them, and I go oh,
24 shit. So I went and told everybody else, I said to back
25 off. I said we can't compete against that million dollar

1 mouth piece. I said they are ripping us apart.

2 MR. GRIFFIN: So they didn't address your

3 concerns at all.

4 MR. DILLINGHAM: Not really. It was just all

5 phony. Just like I told Jack Dodd, when I signed the

6 paper, they called me in on I think it was on a Friday. I

7 was drunk. I had to sign my name I think eleven times, for

8 instance. First I told them, I said oh, my Lord -- you

9 see, Mr. Witt had a problem and he was going to go to the

10 newspaper, but I said don't go to the newspaper. I am

11 going to Houston and maybe they don't know about it. I

12 didn't know what his problem was. I didn't even ask him.

13 Well, when they come down and started

14 investigating I went over to Mr. Witt's house and come to

15 find out what his problem was could cause billions of

16 dollars in my opinion if they chipped that concrete out.

17 So, boy, I got real scared then, and I said well these son

18 of a guns might just kill me.

19 So I had a little kid, I couldn't write, to

20 write a note and I put in my pocket just in case they

21 killed me off. I said I had my notarized statements in two

22 different States besides Texas and if anything happens to

23 me this stuff would be brought up. I think I have got the

24 note right here. I just figured they would kill me in

25 something that serious. Like I knew what happened in North

1 Carolina and that cost them a million dollars a day per
2 unit. So I got kind of upset there.
3 MR. HERR: When you say they indicated, can you
4 be a little more specific?
5 MR. DILLINGHAM: Brown and Root.
6 MR. HERR: Anybody in particular or just the
7 company?
8 MR. DILLINGHAM: The company itself. In other
9 words, a $200 pistol is a lot cheaper than a billion
10 dollar contract.
11 (At this point in the proceedings Mr.
12 Dillingham took a piece of paper from his wallet and
13 handed it to Mr. Griffin.)
14 MR. DILLINGHAM: That is what I had that kid
15 write out because I was pretty scared they were going to
16 knock me off at that point. So then I knew I had better
17 sign that paper and get them away before somebody else got
18 hurt or thought they could get hurt.
19 MS. ELLIS: Do you think that should be read
20 into the record? You want to keep that, don't you?
21 MR. DILLINGHAM: Yes.
22 MS. ELLIS: Do you want me to just read this
23 into the record?
24 MR. DILLINGHAM: You can if you want to.
25 MS. ELLIS: "As you men know, before I came to

1 Houston I went to North Carolina, South Port and Florida
2 and met some friends who knew a lot about the B&R cover-up
3 in North Carolina and here. We swore under oath and had it
4 notorized. If anything happens to me it will go to the
5 NRC."

6 MR. DILLINGHAM: At that period of time I
7 thought the NRC would do something about it.

8 Anyway, I knew I had better sign that paper
9 then. Mr. Witt's brother told me about -- well, he told me
10 later. Witt told me about they have got some sensors in
11 the dam that tells when the dam moves or not and it got
12 run over by a bulldozer, one of them did, and broke off.
13 So they took and held it up and packed dirt around it.

14 So I told Mr. Dodd, I said, Lord, I said I
15 will go ahead and sign them papers. I said as it stands
16 right now you have got to replace both reactors and
17 rebuild a dam. So they called me in on Friday and I was
18 pretty well tanked up. I had been drinking all night and
19 all day, which I would still have signed even if I had
20 been stone sober. So boy he goes through everything can't
21 be perfect. He would read it to me and he would say now do
22 you agree to this or do you disagree, you know. I said,
23 well, I will tell you, you can go ahead and make a liar
24 out of me, like I told you. All I want to do is for you
25 people to come down here and stop these people from doing

1 this stuff. I said I was leaving anyway.

2 That is when I told them, I said now these

3 guys are lying through their teeth, and whatever you do

4 don't give them a lie detector test. I was telling him

5 that I was taking the fall for it and they are liars,

6 which they are. I would take a lie detector test any day

7 of the week that the statements I made are true and they

8 lied through their teeth on it.

9 So I told them if you don't mind, I would like

10 to take two more weeks' vacation, of my vacation. Doug, do

11 you think it would be all right if J. R. takes two more

12 weeks? Oh, yes, go ahead. Meanwhile he gave me a

13 handwritten letter, this is the second week, where they

14 were really proud of me for going to Houston and for from

15 now on to try to hold my problems down here, you know, and

16 I am a real good Joe, but two or three times they say to

17 try to hold my problems down here.

18 So I go on vacation and I figure everything

19 would be cooled off, and I come back out there and, boy, I

20 am ready to go to work. So I went around to all my people

21 to see what has been happening in the last two weeks, you

22 know. The next thing I know here come a guy, I have been

23 looking for you everywhere. Get to the shop. They are

24 looking for you everywhere. So I go to the shop and this

25 general foreman, Al Moore, he come up to me and goes, J.

1 R., I don't know how to tell you this. He said, it is
2 pretty damn dirty of James Callicut and George Tanley.
3 They don't have guts enough to tell you, but you are
4 confined to the shop.
5 So I had a little cage in there where I kept
6 my stuff. So they told me to get in the cage and just make
7 like I was doing something. That was the first week. But
8 anyway I was confined to the shop the second week. But the
9 first week while they was investigating, they told me to
10 go over there and get in that cage and make like I was
11 just doing something just while they investigated. So I
12 stood there about three hours and I felt like an idiot,
13 you know, and I thought somebody would by here and throw
14 me a banana in a minute.
15 MR. GRIFFIN: Do you think that your
16 confinement to the shop was because of your letter to
17 Houston?
18 MR. DILLINGHAM: Of course it was. If it
19 weren't for that letter to Houston I would still be there.
20 MR. GRIFFIN: You see, I am here to interview
21 you and I want to know exactly what you think was the
22 purpose behind it.
23 MR. DILLINGHAM: The purpose behind it was to
24 keep me out away from the plant because I was bringing up
25 stuff. When I saw something I would tell it like it was.

1 Are we going to fix it or are we going to change the
2 print, for instance, to how it is. In other words, if we
3 are going to put it out here it is going to be right, and
4 they didn't like that at all because they gave me a ride
5 and talked to me about stuff like that.
6 MR. GRIFFIN: Okay. What happened next?
7 MR. DILLINGHAM: When I was being interviewed
8 by TUGCO, they got ahold of the letter and they
9 interviewed me, and I thought TUGCO is going to really get
10 it. They did do a little more than Brown and Root. This
11 guy goes now, J. R., this is Tony Vega, our only concern
12 is to build that plant safely. We have to operate this
13 thing for 40 years and we want it safe even if it cost a
14 million dollars. So I say well, this guy is all right, you
15 know. He said now I can promise you that nothing will
16 happen to these people that you bring up, you know, the
17 names of these people. Of course, that wasn't the way it
18 was.
19 So then he starts out about the swipe test. I
20 was telling him about the swipe test, you know, about
21 Tanley saying between me and you and the wall and leaning
22 the little trick about it, you know, to find out what
23 three areas they are going to do. Also, one of the kids
24 pops up and asks the QC what three areas he was going to
25 check. He says, I can't tell you that, and they just

1 through checking the reactor. He says, well the other guy
2 told us, you know, in the reactor. So they had been doing
3 it.
4 Let's see, where was I?
5 MR. GRIFFIN: You were saying you were confined
6 to the shop. What happened next?
7 MR. DILLINGHAM: So I go back there and I am
8 standing there. Tony also told me if you start being
9 harassed, you let me know. I said, okay. So I called him
10 up. I went in there and used Calicutt's phone and called
11 Dallas and I go, I think I am being harassed. He says what
12 do you mean. I go well, I come back off vacation and I
13 don't have no people. They pulled all my people and have
14 me standing in the shop. He says well, how many people
15 have you got in the shop? I said I don't have nobody. He
16 said goddamn. Let me get ahold of my people. So he hung
17 up.
18 So about 3:30 Franklin, he is the project
19 manager, he called me to his office. He goes I understand
20 that you don't know what you are supposed to be doing. He
21 said I guarantee that either George Tanley or James
22 Calicutt is going to tell you what to do. So they come in
23 there and George says, J. R., you are confined to this
24 tool room here, a little tool room in the shop, until this
25 is over with, and he takes off.

1 So I get in the tool room. So I am sitting
2 there and drawing pictures. So I see people there trying
3 to load heavy equipment. So I get out and help them and I
4 sweep the floors. So they undoubtedly see I am having a
5 pretty good time, you know, and they was trying to
6 torture me.
7 So here come Tanley and he calls me into his
8 office. J. R., I want you to sign these papers. I
9 understand you have been talking to people and holding
10 them up from work. I want you to sign these papers so you
11 will not talk to nobody and nobody will talk to you. I go
12 I am not going to talk to nobody. He said, I want you to
13 sign this. I said you can't hear? I wanted it for my
14 record. So I signed it. So then that record where he lied
15 in there, and I signed it. So the next day I brought it
16 for him and I said I have got some shit here I want you to
17 sign and you lied about, brother. So he goes, I will look
18 at them later and he took off.
19 So I called Houston and I told them, Mr. Rice.
20 I had been trying to get ahold of Mr. Doud and he was out
21 of the state, you know. So Mr. Rice, I think he is the
22 second in command in Brown and Root, I said this is J. R.
23 You call TUGCO, you call TUGCO. If I worked for TUGCO, I
24 would call TUGCO; if I worked for Brown and Root, I would
25 call Brown and Root; if I worked for the Federal

1 Government, I would call the Federal Government. You call
2 TUGCO. I go well, I said I tried to call you guys first
3 and you all weren't there. Do you think we are going to
4 sit by this goddamn phone and wait on you to call?
5 Well, I guess you are trying to discourage me
6 to make me quit. He said well, maybe you are finally
7 getting the idea. I said, well, I will tell you, as long
8 as you son of a bitch pay me general foreman's wages, I
9 will sit in this little tool room forever. He said we will
10 see about that. So that next Monday morning they give me a
11 choice.
12 MR. GRIFFIN: So is it fair to characterize
13 that when you first raised our concerns, that that is when
14 the harassment started?
15 MR. DILLINGHAM: The pressure started. The
16 first deal they thought they had me controlled was the
17 condensers. I wouldn't admit that the tube sheet was not
18 cracked. Everybody kept on saying that is a scratch, and
19 you know it is a scratch. I said, no, it is a crack. I
20 even run an LP on it. I took a flashlight and shined it in
21 one hole and you could see through it, the spider web. But
22 I never did admit that it wasn't a crack. So I started to
23 get kind of a little pressure then. I guess Tanley told
24 them well, he is okay, you know.
25 MR. GRIFFIN: Am I right in characterizing your

1 previous testimony here today that Tanley on numerous
2 occasions threatened you with termination and pressured
3 you into doing work that you didn't think was right?
4 MR. DILLINGHAM: No. I would say that it was
5 not up to standards and definitely wasn't up to my
6 standards. I don't know about whose standards they were up
7 to, but we weren't allowed time to do thinks right and
8 didn't have enough manpower many times to do things right.
9 MR. GRIFFIN: Did he intimidate you through
10 these actions or were you intimidated into doing work
11 improperly?
12 MR. DILLINGHAM: Right. Yes. He told me that I
13 didn't do it, he would get somebody else to do it.
14 MR. GRIFFIN: Okay. Then once you took this
15 letter to Houston you were harassed by a number of people
16 on site.
17 MR. DILLINGHAM: I was actually threatened on
18 the telephone. They said I was dead on the job. I was shot
19 at in Bay City from a holicopter undoubtedly. The car I
20 was standing by had a bullet hole through the fender. My
21 cat was deheaded, which sounds ridiculous, you know, but
22 things like that started happening. I am always on the
23 move. I don't ever stay in one place too long.
24 MR. GRIFFIN: But the things that you knew
25 specifically, people made statements to you that you knew

1 to be harassment to make you leave your position with
2 Brown and Root or to punish you for having taken the
3 letter to Houston, is that your belief?
4 MR. DILLINGHAM: Right, because they told me,
5 they said, J. R., you can either take this green hot and
6 go in the pipe department on your tools, that is the only
7 opening we have got, or you can off. He said since all
8 this happened, since you went to Houston and all this come
9 up that we no longer need you in the millwright
10 department. That was James Callicut who told me that and
11 he was the general superintendent, George's boss.
12 MR. GRIFFIN: Okay.
13 MR. DILLINGHAM: Franklin told me I was
14 confined to the shop. When Vega called Franklin, Franklin
15 called me down to his office and he told me that
16 undoubtedly I didn't know what I was supposed to be doing.
17 He said you are confined to that shop until this long,
18 timesome investigation is over with. Well, when I called
19 Houston, or when I called Mr. Rice, I go I think if I
20 should be confined to the shop until this investigation is
21 over with, that these people I put the charges against
22 should also be confined because they still are breaking
23 procedures. He goes, what investigation? As far as I am
24 concerned it has been over with. So it was over the first
25 week when I signed that paperwork. So the rest of the time

1 they were trying to make it rough on me so I would quit,
2 you know.
3 MR. GRIFFIN: And you eventually when they gave
4 you the choice of switching positions and either going
5 back to your tools ---
6 MR. DILLINGHAM: Well, I had a lawyer. I
7 didn't know what to do. I knew when I signed that paper
8 agreeing to go on my tools that they had me then. So I
9 went to see my lawyer. He is just a little young kid to
10 see what to do. He said, I don't know. What do you think
11 you ought to do? I said, oh, Lord. So I want back and told
12 them, I said well, my lawyer said I wouldn't look good
13 wearing a green hat and adios, you know.
14 MR. GRIFFIN: Okay. So even though you left
15 voluntarily, it was under pressure. You were discouraged
16 and you were harassed and you know that your ---
17 MR. DILLINGHAM: Right. People came by and said
18 they were going to throw me a banana and all kind of bull.
19 MR. GRIFFIN: Have you got any other questions?
20 MR. HERR: Only one. You said the people were
21 going to throw you down.
22 MR. DILLINGHAM: No, throw a banana to me in
23 that cage.
24 MR. HERR: Oh, I am sorry. I misunderstood
25 that. I have no questions. Well, just one more. Are there

any other occasions that you can think of ---

MR. DILLINGHAM: Not right now, but I know there are hundreds of them because it is continuous pressure from day one on.

MR. HERR: Are there any other people that you can identify that either harassed or intimidated you or threatened you?

MR. DILLINGHAM: Not right out, no.

MR. HERR: Thank you.

MR. GRIFFIN: J. R., have you given this statement to us today freely and voluntarily?

MR. DILLINGHAM: Right.

MR. GRIFFIN: Is there anything further that you would like to add for the record?

MR. DILLINGHAM: Not at this time, but there is quite a bit more I want to bring out.

MR. GRIFFIN: Are most of these other things of a technical nature as opposed to further information on intimidation?

MR. DILLINGHAM: Right.

MR. HERR: Are these new items or are these old items?

MR. DILLINGHAM: They will be new items, yes.

MR. HERR: Well, we can discuss new items.

MR. DILLINGHAM: Well, right now I can't

1 remember all of them. Heck, we are talking about hundreds
2 of them. See, I don't have the education and I can't jot
3 everything down and stuff like that.
4 MR. GRIFFIN: Well, I thank you then, Mr.
5 Dillingham.
6 (Whereupon, at 3:25 p.m., the investigative
7 interview of Arvill (J. R.) Dillingham concluded.)
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CERTIFICATE OF PROCEEDINGS

This is to certify that the attached proceedings of the Investigative Interview of Arvill (J. R.) Dillingham, Jr., before the Office of Investigation at the Somervell County Courthouse in Glen Rose, Texas, held on Wednesday, August 24th, 1983, commencing at 1:40 p.m., was held as herein appears, and that this is the original transcript for the file of the Office of Investigation, Region IV.

Mary C. Simons

Official Reporter - Typed

Mary C Simons

Official Reporter - Signature

SPEC,HAH,TUGCO(2),AM

CHANGE INDEX: OEI ____
: II ____
: III XX

COMANCHE PEAK STEAM ELECTRIC STATION
DESIGN CHANGE AUTHORIZATION

(WIDDD) (WILL NOT) BE INCORPORATED IN DESIGN DOCUMENT DCA NO. 18,035 Rev. 1

1. SAFETY RELATED DOCUMENT: XX YES ____ NO

2. ORIGINATOR: CPPE XX ORIGINAL DESIGNER ____

3. DESCRIPTION:

A. APPLICABLE SPEC/DWG/DOCUMENT 2323-SS-18 REV. 3

B. DETAILS

PROBLEM: Leaks were identified in the Fuel Building transfer canal per the NCR & Hydro Test listed below.

SOLUTION: Section 8.3 of 2323-SS-18 may be utilized for leak detection. Final acceptance after repair may be by vacuum box testing in lieu of Section 8.2.

35-1195
RECEIVED
SEP 12 1983
DOCUMENT CONTROL

4. SUPPORTING DOCUMENTATION:

NCR M-83-1311 R-3, Hydro Test Number XSF-058

DCA-15,668

5. APPROVAL SIGNATURES: CRH/sgr 9-12-83

A. ORIGINATOR: CRHooton DATE 9-12-83

B. DESIGN REPRESENTATIVE: RMTissington DATE 9-12-83

6. VENDOR TRANSMITTAL REQUIRED: YES ____ NO XX

7. STANDARD DISTRIBUTION:

ARMS (Original)	(1) Peter Bush-QA Spec. Spvr.	(1)	DCA FORM 11-80
Quality Engineering	(1) Civil Engineering	(1)	Admin. Rev 7-82
TS for Orig. Design	(1)		
Westinghouse-Site	(1)		

A/20

BRANDT DEPOSITION (TESTIMONY) 8/16/84 - EXAMINED AT HEARING 9/10-9/21/84

Mr. Allen?

A. 6/29/83.

Q. That's four days after the date of his original complaint; is that right?

A. Right.

Q. It's your recollection it was an intervening weekend; is that right?

A. To the best of my recollection, it would be easily discernable upon seeing a calendar. I do believe that I convened the meeting on the first work day on which everyone involved was at the job site.

EXAMINATION

BY MR. WATKINS:

Q. Mr. Brandt, are you familiar with the spent fuel pool in the transfer canal associated with the spent fuel pool?

A. Yes, I am.

Q. Could you briefly describe the basic function of the spent fuel pool and the transfer canal?

A. The transfer canal is used in transferring both new fuel from the new fuel pool to the reactor vessel during fueling operations and is used to transport spent fuel from the

1 reactor to the spent fuel pool during refueling
2 operations. The spent fuel pool is used to store
3 spent fuel.
4 Q. Are you familiar, Mr. Brandt, with the
5 liner plates associated with the transfer canal
6 and the spent fuel pool?
7 A. Yes. They're stainless steel plates
8 welded together to form a canal or in the case of
9 a spent fuel pool to form a pool.
10 Q. Is welding on these liner plates an ASME
11 item or a non-ASME item?
12 A. It's non-ASME.
13 Q. Are the welds on the stainless steel
14 liner plate in the transfer canal or the spent
15 fuel pool safety related welds?
16 A. Yes, they are.
17 Q. In what sense?
18 A. They're considered by the design
19 engineer to be safety related.
20 Q. Mr. Brandt, are the welds on the
21 stainless steel fuel pool liner plate or the
22 transfer canal structural welds?
23 A. No.
24 Q. What is the purpose of the welds in the
25 liner plate?

1 A. The purpose of welds between adjacent
2 liner plates is to form a continuous liner to
3 preclude the possibility of the irradiated water
4 from seeping out of the liner into the concrete
5 which surrounds the liner.
6 Q. Essentially, therefore, the welds are
7 simply designed to ensure that the spent fuel pool
8 and the transfer canal hold water; is that
9 correct?
10 A. Yes. In fact, the design specification
11 for these welds requires only that the welds be
12 made, that they be smooth enough to allow
13 decontamination, that they be liquid penetrant
14 tested to give some assurance that the surface is
15 smooth enough to allow decontamination, and that
16 they be vacuum box tested to assure that they're
17 water tight.
18 Q. Mr. Brandt, are these welds in any way
19 directly related to the operation of the nuclear
20 reactor?
21 A. They in no way affect either the safe
22 operation of the nuclear reactor or the safe shut-
23 down of the nuclear reactor.
24 Q. Mr. Brandt, do you recall a time in 1983
25 in connection with stainless steel liners in which

1 a QC inspector or inspectors were asked to sign
2 traveler hold points based on NDE chits?
3 A. Yes, I do.
4 Q. Would you explain your recollection of
5 that event?
6 A. It was during the time of the fuel
7 building turnover that we realized that some of
8 the Unit 2 liner plate travelers were incomplete
9 in that the fit-up inspection hold point on the
10 traveler itself was not signed and yet the weld
11 was completed. This activity during the time
12 frame in which the travelers were generated was
13 performed by ASME QC inspectors. At the time of
14 the fuel building turnover, a box of documents was
15 brought to my office and it was explained to me
16 that since it was a non-ASME activity now and that
17 my inspectors performed this inspection, that I
18 should address the unsigned fit-up hold points.
19 Q. For the record, Mr. Brandt, would you
20 state the capacity in which this box of documents
21 was brought to you.
22 A. At that time, I was the non-ASME QA/QC
23 supervisor.
24 Q. What was in this box of documents?
25 A. The travelers for the Unit 2 liner.

1 Q. What was your response?

2 A. I responded to Mr. C. C. Randall that he

3 should go get with Ted Blixt and Jim Ragan as the

4 activity had been an ASME activity and that the

5 ASME QC people should resolve the problem.

6 Q. What position did Mr. Blixt hold at that

7 time?

8 A. It was -- Blixt was the Quality

9 Engineering Supervisor.

10 Q. And what job did Mr. Ragan hold at that

11 time?

12 A. Mr. Ragan was the ASME QC supervisor for

13 night shift.

14 Q. What did Mr. Randall do pursuant to your

15 instruction?

16 A. Mr. Randall, I assume, discussed the

17 matter with Mr. Blixt. To expedite the

18 resolution, I offered George Willis to Mr. Blixt

19 to assist in the review. At the time the

20 travelers were generated, Mr. Willis was the ASME

21 QC superintendent.

22 Q. And what happened?

23 A. Travelers were reviewed, where possible

24 inspection chits were located for the missing

25 inspections, the travelers were signed off noting

1 that they were a late entry, the signature was
2 based on the existence of an NDE chit for that
3 inspection which had been signed by a certified
4 inspector and the chit was attached to the
5 traveler.
6 Q. Mr. Brandt, in the circumstance that you
7 described, is it appropriate for a QC inspector to
8 sign a hold point based on an NDE chit signed by
9 another inspector?
10 A. Yes, provided that it's clearly
11 indicated that the inspector is signing not for
12 the inspection but for a verification that
13 evidenced that the inspection was performed by a
14 certified inspector. I have no problem with that
15 practice.
16 Q. How would the inspector signing the hold
17 point on the basis of other documentation indicate
18 that that inspector had not actually performed the
19 inspection?
20 A. The inspector would indicate that the
21 entry was a late entry based on the existence of
22 an NDE chit and attach the chit to the traveler.
23 Q. Mr. Brandt, do you know whether a
24 non-conformance report was written with respect to
25 the travelers and accompanying chits that you have

1 described?

2 A. Yes, it was.

3 Q. I show you a copy of a two-page document

4 marked for identification as Brandt Exhibit 18,

5 and ask you if that is the NCR to which you refer?

6 A. Yes, it is.

7 Q. Mr. Brandt, do you know whether that NCR

8 went through a subsequent revision?

9 A. Yes, it did.

10 Q. Mr. Brandt, I show you another two-page

11 document marked as Brandt Exhibit 19 and ask you

12 if that is Rev. 1 of the original NCR that you

13 have identified?

14 A. Yes, it is.

15 Q. Mr. Brandt, who wrote those NCR's?

16 A. Revision 0 was written by Randall Smith

17 and Clair Randall.

18 Q. Is that C. C. Randall?

19 A. Yes, it is. Revision 1, although it

20 indicates reported by Randall Smith and C. C.

21 Randall, was a revision to delete the word

22 "random", and the revision was made by George

23 Willis.

24 Q. As you understand it, Mr. Brandt, what

25 was the nature of the non-conforming condition

1 identified in these NCR's?

2 A. There was some question in Mr. Smith and

3 Mr. Randall's minds as to whether the inspection

4 chits was for the fitup of the weld between the

5 seam caused by the fitup of the two plates or

6 whether the inspection chit was for the fitup of

7 the backing strip to the two plates. For this

8 reason, it was reported that the fitup can't be

9 verified as being performed.

10 Q. Was that NCR subsequently dispositioned?

11 A. Yes, it was.

12 Q. What was the basis for the disposition?

13 A. The disposition reads, "Subject welds

14 are seam welds utilized to provide leak tightness

15 of the liner. Acceptability of the welds shall be

16 based on vacuum box and hydrostatic tests."

17 Essentially, what this is indicating, what I had

18 earlier stated, the welds are non-structural,

19 their only purpose is to provide a leak-tight

20 barrier between the irradiated water and the

21 concrete. And acceptability of the welds was to

22 be based solely on the satisfactory performance of

23 vacuum box and hydrostatic tests.

24 Q. Mr. Brandt, does your signature appear

25 on either of these documents?

1 A. Yes, it does.

2 Q. On which does it appear?

3 A. It appears on Revision 0 as authorizing
4 the NCR under the block entitled QE review or
5 approval, and also under disposition verification
6 and closure. On Revision 1, it appears under QE
7 review and approval of the disposition.

8 Q. What does your signature on the QE
9 review and approval mean?

10 A. It indicates that the disposition is
11 both technically satisfactory and meets all QA and
12 regulatory requirements.

13 Q. Mr. Brandt, what is a vacuum box test?

14 A. A vacuum box test is performed by
15 applying a soap solution to a weld, covering the
16 weld with a box called a vacuum box, hooking the
17 box up to a vacuum pump and applying a vacuum to
18 the box. If the weld has any leaks in it to where
19 air can pass from one side of the weld to the
20 other, it will draw air through the weld causing
21 the soap film to bubble.

22 Q. Mr. Brandt, referring again to the two
23 NCR's, would you define the location of the liner
24 plate for which the non-conforming condition was
25 identified?

A. It states Unit 2 reactor building.

Q. Can you be more specific?

A. It's talking about the refueling cavity in the reactor Unit 2.

Q. Mr. Brandt, did the NCR or the travelers to which the NCR's relate in any way involve the spent fuel pool?

A. No. Not to my knowledge.

Q. Did the NCR's or the travelers to which they relate refer in any way to the transfer canal?

A. Yes, they did.

Q. Mr. Brandt, is the transfer canal the same thing as the refueling cavity?

A. Yes, it is.

Q. And is the refueling cavity that to which this NCR relates?

A. Yes, it does.

Q. Going back to vacuum box testing, Mr. Brandt, have vacuum box tests been performed on the vacuum box liner plate welds?

A. They've been performed on some of the welds in the Reactor 2 cavity. I don't believe they've been performed on all welds as of this date.

1 Q. Will they be eventually performed on all
2 welds?
3 A. Yes, they will.
4 Q. Mr. Brandt, what is hydrostatic tests
5 with reference to the liner plate welds?
6 A. In this reference, the hydrostatic tests
7 refers to filling the cavity with water and
8 examining the cavity for leaks.
9 Q. Have hydrostatic tests been performed on
10 the liner plate to which these NCR's relate?
11 A. No, they have not.
12 Q. Will they be performed?
13 A. Yes, they will.
14 Q. Mr. Brandt, were vacuum box and
15 hydrostatic tests tests that were specifically
16 imposed to respond to these NCR's?
17 A. No, they were part of the original
18 specification.
19 Q. Mr. Brandt, do you know who signed the
20 travelers associated with these liner plate welds
21 based on the NDE chits that you earlier discussed?
22 A. Sue Ann Neumeyer did a lot of them.
23 Q. In signing those hold points, was she
24 performing an inspection function?
25 A. No, she was not.

1 Q. What function was she performing?
2 A. Document review function.
3 Q. In your judgment, would it have been
4 necessary for the person signing the hold point on
5 the basis of the NDE chits to have been a Level II
6 inspector?
7 A. Only to the extent to interpret that the
8 NDE chit was for the weld in question. If it was
9 clear that the weld reflected on the NDE chit was
10 the same as the weld on the traveler, no, it's a
11 clerical function.
12 MR. WATKINS: That will conclude my
13 examination of Mr. Brandt. The Applicant now
14 moves that Brandt Exhibits 18 and 19 be recieved
15 in evidence.
16 EXAMINATION
17 BY MR. DOWNEY:
18 Q. Mr. Brandt, in response to questions put
19 to you by Mr. Roisman on cross examination, you
20 testified about your meetings -- or meeting with
21 Jack Pitts on the day of the T-shirt incident. Do
22 you recall that testimony?
23 A. Yes, I do.
24 Q. Is Mr. Pitts still employed at Comanche
25 Peak?

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

INVESTIGATIVE INTERVIEW

OF

ARVILL (J. R.) DILLINGHAM, JR.

Courtroom 2nd Floor
The Courthouse
Somervell County
Glen Rose, Texas

Wednesday, August 24, 1983

The interview commenced, pursuant to notice, at 1:40 p.m.

PARTIES PRESENT:

On Behalf of the NRC Office of Investigation:

RICHARD K. BERR, Investigator
H. BROOKS GRIFFIN, Investigator
Office of Investigation, Region IV
U. S. Nuclear Regulatory Commission
611 Ryan Plaza Drive
Suite 1000
Arlington, Texas 76011

On behalf of Citizens Association for Sound Energy:

JUANITA ELLIS, President
JERRY ELLIS
1426 S. Polk
Dallas, Texas 75224

- - -

1 P R O C E E D I N G S

2 Whereupon,

3 ARVILL (J. R.) DILLINGHAM, JR.

4 having been first duly sworn by Investigator Herr, was

5 examined and testified as follows:

6 MR. GRIFFIN: For the record, this is an

7 interview of Arvill Dillingham, Jr.

8 You are not presently employed, are you, J.R.?

9 MR. DILLINGHAM: No.

10 MR. GRIFFIN: The location of this interview is

11 the courtroom of the Somervell County Courthouse in Glen

12 Rose, Texas.

13 Present at this interview are R. K. Herr,

14 B. Brooks Griffin, Arvill Dillingham, Mrs. Juanita Ellis

15 and Mrs. Ellis' husband, Jerry Ellis.

16 The subject of this interview concerns the

17 area of intimidation. Our questions today that we are

18 going to direct to you, J. R., will be as relates to your

19 previous employment at Comanche Peak on the subject of

20 intimidation. I know you provided affidavits to CASE and

21 everything like that and I know that some of these things

22 have already been addressed by the NRC.

23 MR. DILLINGHAM: Right, and I also want to

24 bring some other stuff up, too, that hasn't been brought

25 up.

1 MR. GRIFFIN: New stuff?

2 MR. DILLINGHAM: Oh, yes, new stuff.

3 MR. GRIFFIN: Okay. Well, we will make time for

4 that.

5 J. R., when did you start work for Brown and

6 Root?

7 MR. DILLINGHAM: It must have been somewhere in

8 the neighborhood of 1970.

9 MR. GRIFFIN: And your job title?

10 MR. DILLINGHAM: I was a boilermaker.

11 MR. GRIFFIN: Who was your supervisor?

12 MR. DILLINGHAM: Dale Owens.

13 MR. GRIFFIN: When did you leave your

14 employment with Brown and Root?

15 MR. DILLINGHAM: Well, I left once before in

16 between time. I started to work with Brown and Root at the

17 Sutton Plant in North Carolina and then as the job went on

18 down I went to work with Southport on the Midford job. I

19 just transferred right over.

20 MR. GRIFFIN: When did you come to Comanche

21 Peak?

22 MR. DILLINGHAM: '75 I think it was.

23 MR. GRIFFIN: As a boilermaker?

24 MR. DILLINGHAM: Right.

25 MR. GRIFFIN: And when did you leave Brown and

1 Root?

2 MR. DILLINGHAM: Eleven months ago. I think it

3 was September 1st, '82, somewhere in that neighborhood. It

4 was seven weeks after this letter here -- (Indicating.)

5 MR. GRIFFIN: Were you terminated or did you

6 leave of your own accord?

7 MR. DILLINGHAM: I left of my own accord. I was

8 gave a choice either to go in another craft on my tools,

9 which I knew nothing about the craft, or take a ROF,

10 reduction of force. They said since I went to Houston and

11 brought all that stuff up they don't need me no more in

12 the boilermaking department or the millwright department.

13 MR. GRIFFIN: Tell me briefly, if you would,

14 about the letter that you took to Houston. What were the

15 nature of your concerns?

16 MR. DILLINGHAM: Well, it was people working

17 out of procedures and people being unexperienced, like ten

18 years ago they was doing stuff that was very dangerous on

19 the North Carolina job because they didn't know anything

20 about any type of construction work, much less nuclear,

21 and I thought after ten years they should learn a little

22 better and they come on this job here doing the same type

23 of stuff.

24 MR. GRIFFIN: So your letter was to ---

25 MR. DILLINGHAM: My letter was to -- it got to

1 MR. DILLINGHAM: Mr. Tanley continuously told
2 me if I wouldn't do a certain job he would get somebody
3 that would. Like, for instance, this swipe test. You come
4 in the room and you clean the whole room. It is supposed
5 to be a certain class, like Class A, and then you get the
6 swipe test to come in there and your QC to come in there
7 and he picks out these three areas and he will check those
8 three areas and if they all check out good the whole room
9 is good, for instance.
10 Well, Tanley called me in his office and he
11 said, J. R., between me and you and that wall there I have
12 learned a little trick about this swipe test. He said the
13 first thing you do is you find out what three areas they
14 are going to check and you clean those three areas and
15 don't worry about the rest of it. I said if we are going
16 to do it that damn way, why do it at all. Let's just say
17 it is good. He said if you can't handle it I will get
18 somebody else that will.
19 It is like he says, like the false
20 documentation, you know, on the liner. He told me I had
21 better have that liner by the first of the year or else
22 hit the gate if I am not through by January 1st. Well,
23 here come Mickey Gerig and he says there ain't no way you
24 are going to do it. We have 850 travelers that is screwed
25 up.

1 So I went and seen Tanley and I said Tanley,
2 we have got all these travelers messed up and we can't do
3 it. He said you get your ass out in the field with these
4 people and we will take care of this paperwork. Well, in
5 order to take care of the paperwork I had to do the rework
6 where we had hold points jump where the fitup and cleanup
7 weren't bought off and all kind of stuff weren't did. I
8 did very little rework. In other words, the 650 or 550 all
9 at once became good and I just imagine it was false
10 signatures of QC because some QC personnel is no longer on
11 the job that was down there when the fitup was made and it
12 was already welded out.
13 MR. GRIFFIN: Were you there when this work was
14 accepted?
15 MR. DILLINGHAM: Right.
16 MR. GRIFFIN: In other words, it has been
17 bought off finally?
18 MR. DILLINGHAM: Well, I keep going back and
19 they are not doing very much work. They are trying to
20 audit it and are trying to find paperwork that they can't
21 find. They are trying to find weld numbers and just all
22 kind of stuff.
23 MR. GRIFFIN: You mean they have been doing
24 this since you left?
25 MR. DILLINGHAM: Yes.

1 MR. GRIFFIN: Did you get this information from
2 people that are still working out there?
3 MR. DILLINGHAM: Craig Flowes. He is my
4 foreman.
5 MR. GRIFFIN: Flowes told you this?
6 MR. DILLINGHAM: I asked him. I said are you
7 all still working on the liner and he said no, not very
8 much. We did this or we did that. There are some X-rays
9 that was not made on a certain part of the liner in the
10 transfer canal where your gate landings go in. It us under
11 concrete now, but all at once they forgot about them.
12 Ronnie Webb, he still works out there. He
13 worked for TUGCO. He was the foreman over that, the
14 general foreman. When I took over he come told me. He said
15 we have got a big mess-up down there and we have got some
16 X-rays that haven't been made and it has already been
17 poured. Well, I was going to get into it and they shut
18 down all the liner. So they moved on to a different job.
19 So there are X-rays that still have not been made. You
20 have got hollow places in the concrete behind the liner
21 walls.
22 MR. GRIFFIN: Let's go back to intimidation for
23 a minute.
24 MR. DILLINGHAM: Okay.
25 MR. GRIFFIN: Besides Tanley and Carnes, did

(The reporter noticed a drawing on the back side of Exhibit 5 and brought it to Mr. Dillingham's attention.)

MR. DILLINGHAM: (Referring to Exhibit 5B)Oh, this is the expansion joint I was talking about with the fillet welds. It is a real small stainless steel 1/8th expansion joint and it has got two small, little fillet welds there.

MR. GRIFFIN: Okay. I think we have got that down in the testimony.

MR. DILLINGHAM: We put several, several, I think two or three hundred tons against it.

Okay, stainless steel liners. This is like the reactor building and the fuel building. We are supposed to have a gap in here on our fit-ups. This is not in there.

MR. GRIFFIN: This is something new?

MR. DILLINGHAM: Yes.

MR. GRIFFIN: Okay.

MR. DILLINGHAM: We are supposed to have a gap in here no less than 3/16ths and no more than 3/8ths.

MR. HERR: Where is it? For the record, describe what it is.

MR. DILLINGHAM: This is a stainless steel liner. This is an embed floor plate to angle on the bottom and side plate to angle. I don't know exactly where, but

1 somewheres in there. I can tell you a person that probably
2 does know.
3 MR. HERR: Unit 1 or Unit 2?
4 MR. DILLINGHAM: Well, on the fuel building you
5 have just gone one, and for all I know it might be both
6 liners, but I can tell you the person's name that could
7 probably tell you because he is the one that did it.
8 MR. HERR: Who is that?
9 MR. DILLINGHAM: Bert Loefling.
10 Okay, when I made general foreman he comes
11 over and I asked how is everything going and he started
12 talking. He goes man, they have us welding. Instead of
13 putting a gap in there, they had it jammed together and
14 just together and just laid a heli-arc wire over it and
15 welded it out, you know, in other words, not make a full
16 pin weld. I said who in the hell had you do that, and he
17 said Bert Everett. He was the general foreman I replaced.
18 So I went and seen Bert, and I said, Bert, I
19 said I know you all didn't do it, but that welder said you
20 all laid heli-arc wire in there and welded it over because
21 your gap wasn't big enough. He goes well, J. R., we did. I
22 see it was on the top angle and that is below the water
23 level, and he goes, no, it was on the bottom, and I go
24 goddamn. He goes, I swear it won't happen again. I promise
25 you it won't happen again. I said well, I can guarantee it

1 won't happen again.

2 So I started to go to Tanley and then I

3 realized in North Carolina if I did I would probably have

4 gotten run off, and then I just wanted to see how far

5 these people was going. In North Carolina I thought

6 somebody would come along behind and straighten everything

7 out with little white gloves on and stuff, but that isn't

8 the way it worked. We was the ones doing it. So I just

9 wanted to see how far they would go and stuff.

10 So what you need to do is take a little UT

11 test and run along there and find the thickness of your

12 weld.

13 We also had a welder in there. He was a real

14 bad welder. He would cold lap it. He wouldn't let it

15 penetrate. Then when you weld it over, you could grind it

16 off and run your test on it and everything is great, but

17 it might not be as thick as a piece of paper. As a matter

18 of fact, I heard that Whalen Daniels went along behind us

19 and took a straight pin and stuck holes in it. He is still

20 there. I don't know whether he did or not, but his name is

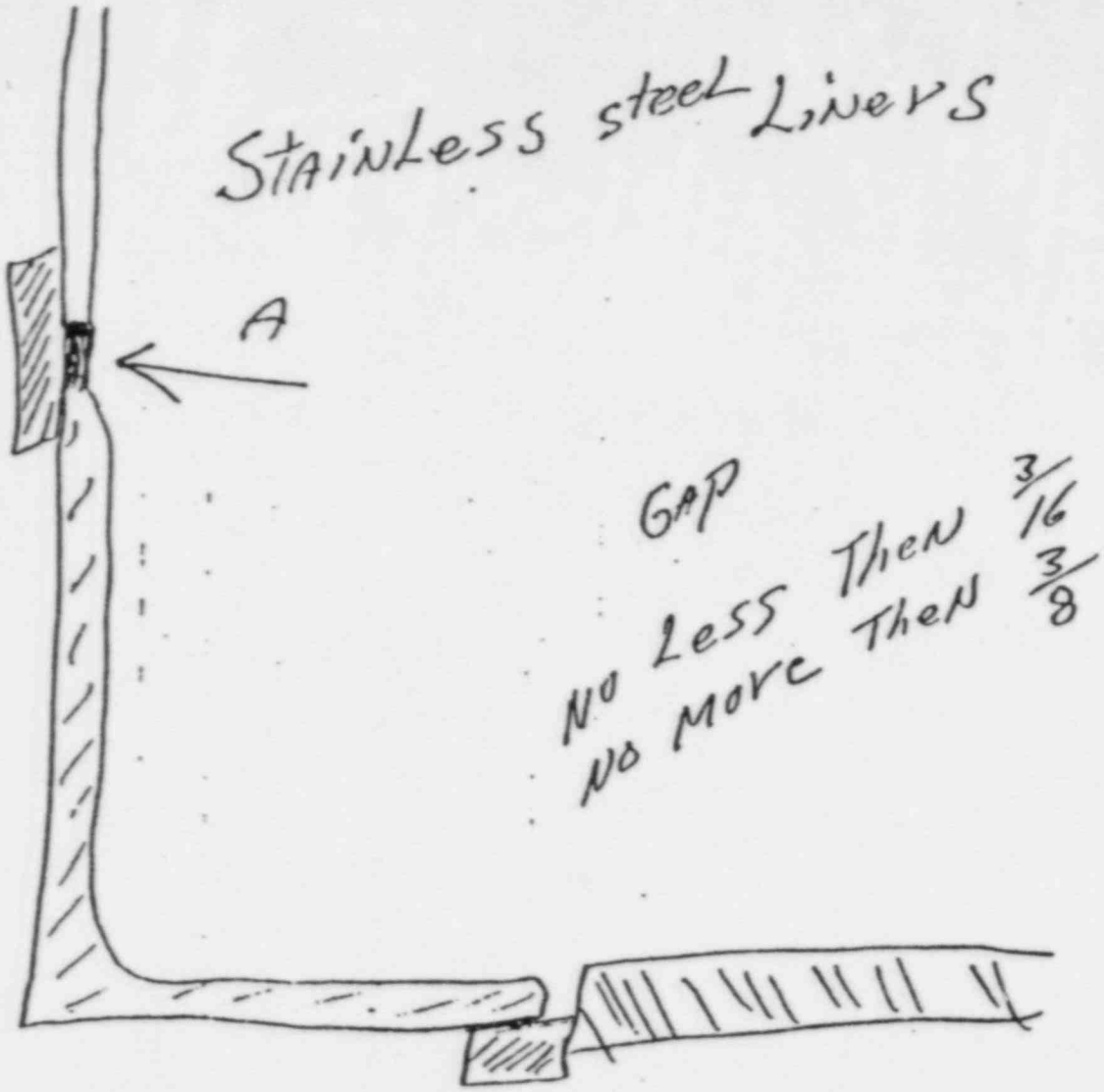
21 Whalen Daniels.

22 MR. HERR: Why don't you draw an arrow where

23 the problem is on there.

24 (Dillingham Exhibit 7 follows:)

25


Stainless steel Liners
A
GAP
No Less Then 3/16
No More Then 3/8

1 MR. DILLINGHAM: I got one drawed out here.
2 Here is the problem right here. You are
3 supposed to have a gap like this one right here. You are
4 supposed to come in here and you are supposed to weld it.
5 You tack it and then you come back and you weld it here
6 and here and eventually you weld it until you weld it all
7 the way out and make one solid weld out of it and this is
8 just as strong as the rest of it.
9 MS. ELLIS: Why don't you put a little arrow
10 with an "A" or something like that.
11 MR. GRIFFIN: This is welding done on the
12 liner, right?
13 MR. DILLINGHAM: Right, the stainless steel
14 liner.
15 This is Item A. That is where it is supposed
16 to have been, which a lot of it is, but at certain places
17 it did like that. You have got you a little butt weld
18 there and you lay a little heli-arc wire along there and
19 you weld over it. Of course, when you weld over it you
20 get a little lump and then you grind it back off flush and
21 then you have got as thick as your fingernail, for
22 instance, and you can snap it.
23 That weld there you could take bulldozer and
24 hook the two together and you couldn't pull them in two.
25 This you could take and snap it with your finger, or just

1 the temperature of summer and winter will crack that.

2 MS. ELLIS: Why don't you make that "B".

3 MR. DILLINGHAM: "B", okay. Now Bert Loefling

4 can tell you where it is. Now you might want to check with

5 Whalen Daniels because after I left I checked with a guy

6 and he said Whalen come along behind us. He always carried

7 a straight pin in his cigarette and stuck holes in his

8 filter and smoked it. He said he took a little straight

9 pin after we run all our tests on it and, the LPs and the

10 vacuum box, and he come along behind us and he stuck holes

11 in the weld with that little pin. That is called a cold

12 lap right here.

13 (Dillingham Exhibit No. 8 follows:)

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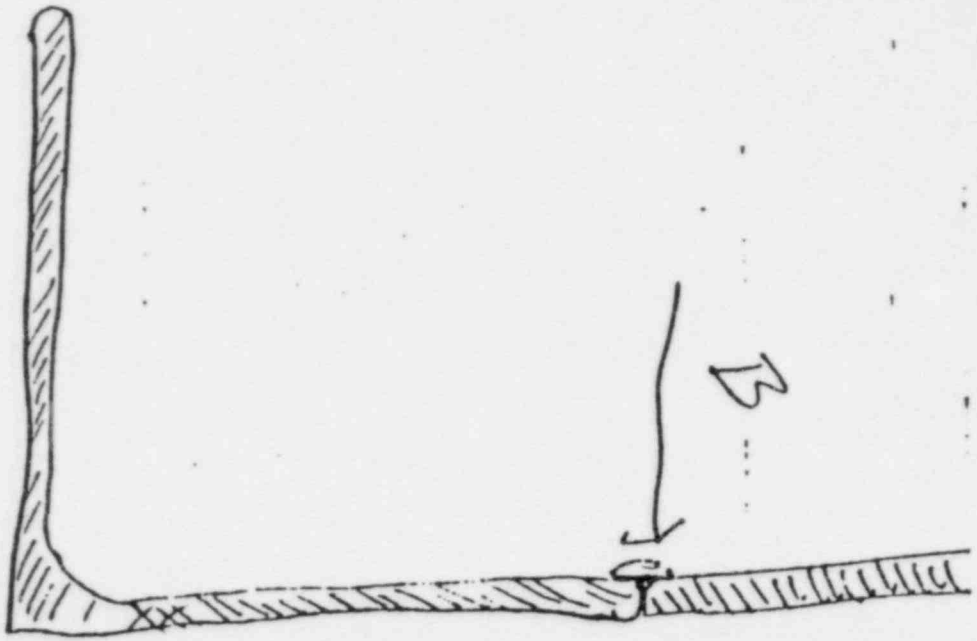
COLD
LAP

WeLDer
Name
ALVerez

Stainless
steel
Liners



1 MR. GRIFFIN: Was this work performed by
2 members of your crew?
3 MR. DILLINGHAM: This was performed before I
4 took over. I was running the condenser, and this is the
5 liner. When they let Everett Clemming go I took over the
6 stainless steel liner.
7 MR. HERR: What year was this?
8 MR. DILLINGHAM: Maybe '80. Well, Bert, he is
9 still out there, Bert Loefling is.
10 Then I found out we got a welder down there,
11 and all the welders complained about this guy, two of
12 them.. They are cold lapping and not tying it in.
13 MR. HERR: What are the welders' names?
14 MR. DILLINGHAM: Averez is one of them. I don't
15 know the other one's name. I think his name is Jonnson.
16 Well, Averez, he wanted to go in the pipe
17 department. Well, he also went down on the condenser and
18 he cut a hole that big -- (Indicating) -- and he stuck a
19 piece of iron in there and welded it over. That is a
20 no-no.
21 I seen the work he was doing and I went and
22 asked the school how in the hell did he ever get out of
23 school and I wanted him re-evaluated. I wanted them to
24 check him out and he couldn't get it to pull all of his
25 certifications. So they put him in there and they checked

1 him out and they agreed that he couldn't handle it. So
2 they was going to pull all his certification.
3 The superintendent told them, or the general
4 superintendent, if that man didn't have his certification
5 by the end of the week that their butts was gone.
6 MR. HERR: What is the name of the
7 superintendent?
8 MR. DILLINGHAM: You would have to check with
9 Golden or Fred Nichols, but I think the man's name was
10 James Callicut. Now this is what they told me. You can
11 check with Fred Nichols over at the school or the guy
12 called Golden because they agreed that the guy couldn't
13 weld and they was going to pull his certs.
14 In other words, he was certified to do
15 construction work and that is what we did. In order for
16 them to do pipe work they had to take a pipe test, which
17 is a little stricter test, and it had to be X-rayed. So he
18 couldn't even hardly do our work which was construction.
19 MR. HERR: So the superintendent ---
20 MR. DILLINGHAM: The general superintendent,
21 according to Fred Nichols or Golden, told them if that man
22 didn't have his certification for pipe by the end of the
23 week that they ass was gone.
24 MR. HERR: And they were the training people?
25 MR. DILLINGHAM: They were instructors at the

1 school, yes.

2 MR. HERR: What happened?

3 MR. DILLINGHAM: They gave him his

4 certification.

5 This is just one of my welders complained

6 after the job was did to me. His name is Mike Ratliff.

7 This is a transfer tube in the canal. It goes from the

8 canal fuel building to the reactor building.

9 In that tube you have got some welds in there

10 that is full pin welds. You are supposed to purge it, and

11 the full pin weld, it supposed to dip in a little right in

12 here. That is what it is supposed to look like. "A No. 2".

13 But as they started welding it sucked in on

14 them real bad. So they end up making a partial pin weld

15 out of it.

16 MR. GRIFFIN: How can we find these?

17 MR. DILLINGHAM: They only have got two of

18 them. You have got a penetration through the reactor going

19 into the fuel building. It is just a round transfer tube

20 is all it is and that is where your fuel leaves the

21 reactor and lays down and goes through that tube. You go

22 to your stainless steel liner.

23 MS. ELLIS: Is that Unit 1?

24 MR. DILLINGHAM: Unit 1 and Unit 2.

25 MR. HERR: Is that Q?

1 MR. DILLINGHAM: Q, yes.

2 (Dillingham Exhibit 9 follows:)

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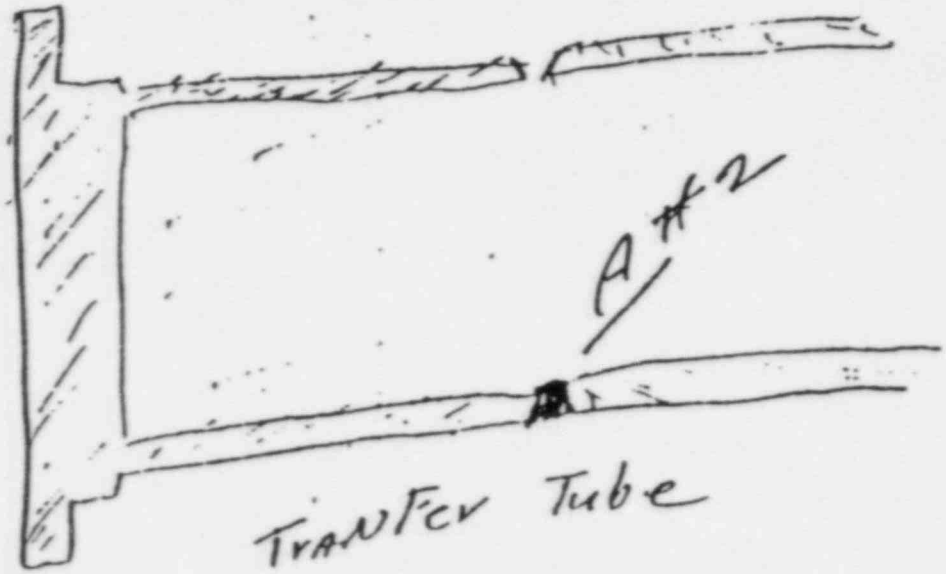
A #2
TRANSFER Tube

1 MR. DILLINGHAM: Okay, this is your liner and
2 everything. Right here. This is a good one here.
3 (Dillingham Exhibit No. 10 follows:)
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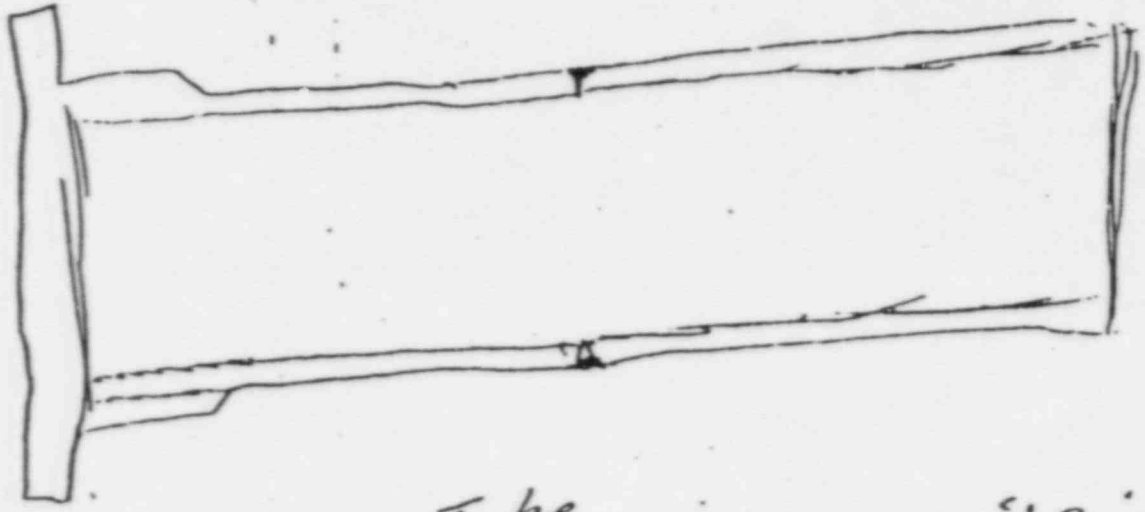
DILLINGHAM EXHIBIT NO. 10



Transfer Tube
containment to Fuel Building

1 MR. DILLINGHAM: Okay, here is one here. This
2 is kind of funny. My foreman, Craig Flowes, when he was
3 working on his tools like three or four years ago, he
4 loaned a pipe fitter a crowbar and the pipe fitter dropped
5 it down in a pipe in the reactor core. Well, I tried for
6 two years to get it out, and they always said well, we
7 will have a pipe journeyman down there and you show him
8 where it is at. I would get down there and well, J. R., we
9 are really busy today, and this went on for a couple of
10 years.
11 So I finally told them, and they sent me to
12 Westinghouse and Westinghouse said well, in the end we are
13 going to send a little TV camera down in there and we are
14 going to look all around. So that solved that problem.
15 Okay, the stainless steel liner hollow places.
16 We was making a pour and I was down there making sure
17 nobody stepped on the embed, and this is around the
18 reactor core and the floor and everything and the
19 stainless steel liner. I had a hammer in my belt and I
20 just pulled it off and laid it up on the bracing, the
21 stiffeners in there and when it hit the wall it is real
22 hollow in there. So I tapped and they had already poured
23 the concrete above this area.
24 So I called Tanley and told him we have got a
25 problem, that we have got a hollow place in the concrete

1 wall. Well, he brought I think Billie Ward down there.
2 Well, they send this colored guy, Picket, down there, the
3 general foreman over concrete and he sends the foreman
4 down there. Well, they tell me you stay with them until
5 you get the problem solved, or if I can help them in any
6 way to do it.
7 So Picket tells this foreman, he says, now I
8 am going to go up there and we are going to vibrate this
9 area for 45 minutes and they are still pouring and it is
10 still wet and you don't say what it is. Just say either it
11 is there or it is not there.
12 So he goes and boy they vibrate and they
13 vibrate and they vibrate. So he says now is it, and he
14 says no, still there. So he says we are going to do it 45
15 more minutes. So this goes on again, and of course your
16 concrete, they are getting higher up and it is getting
17 harder.
18 So he hollers down there again now is it, and
19 he says no, it is still there. Well, he says we are going
20 to do it for an hour. So they did it for an hour. He
21 hollered down and said now is it? He said it is still
22 there. So he says well, it is that old Japanese metal,
23 that is what it is, you know. So that solved that problem.
24 MR. HERR: What year is this?
25 MR. DILLINGHAM: You can look at the concrete

1 pour. This is in Unit 1 I think, the liner, the year when
2 they made the next pour from the floor up I think it was.
3 You know, you made it up to a floor and you would let it
4 cure and then you made your next pour and then a next.
5 MS. ELLIS: This was Unit 1 around the reactor?
6 MR. DILLINGHAM: I think it was Unit 1. I have
7 got the area here marked out where it was at.
8 (Pause while Mr. Dillingham looks through his
9 papers.)
10 MR. DILLINGHAM: Well, it was right over here
11 on the wall anyway. I guess it is probably six foot off
12 the floor. You can mark it right in this area here. Put
13 Unit 1. I am pretty sure it was Unit 1. You have got the
14 elevation. Well, I have got it marked right here.
15 See, you have got the little round end down
16 there. That is at a certain elevation. Then this is your
17 core area where your reactor sits down here. Then your
18 next drop down where like your lower internals go in here.
19 It is in that area, right up there on the wall. But you
20 can take a hammer and tap on the wall until you find a
21 hollow place. I am pretty sure that is the one it was.
22 MR. HERR: The elevation?
23 MR. DILLINGHAM: It is 834 and add 8 to that,
24 842. Let's just go with 842 for the heck of it.
25 I was standing up on the bracing and I could

1 reach it. So when you are standing on the floor it should
2 be from the shoulder up, somewheres along that area. But
3 it is real hollow and you can find it.
4 (Dillingham Exhibit 13 follows:)
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FORM DHE-5

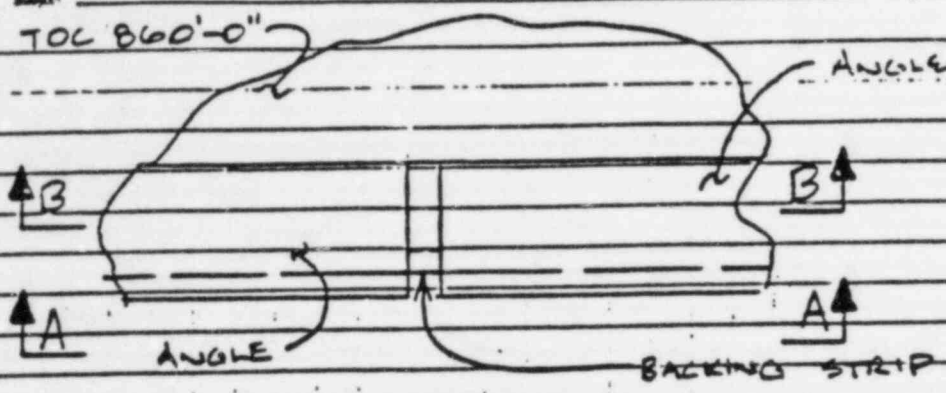
TEXAS UTILITIES SERVICES INC
COMANCHE PEAK

DALLAS POWER & LIGHT COMPANY
TEXAS ELECTRIC SERVICE COMPANY
TEXAS POWER & LIGHT COMPANY

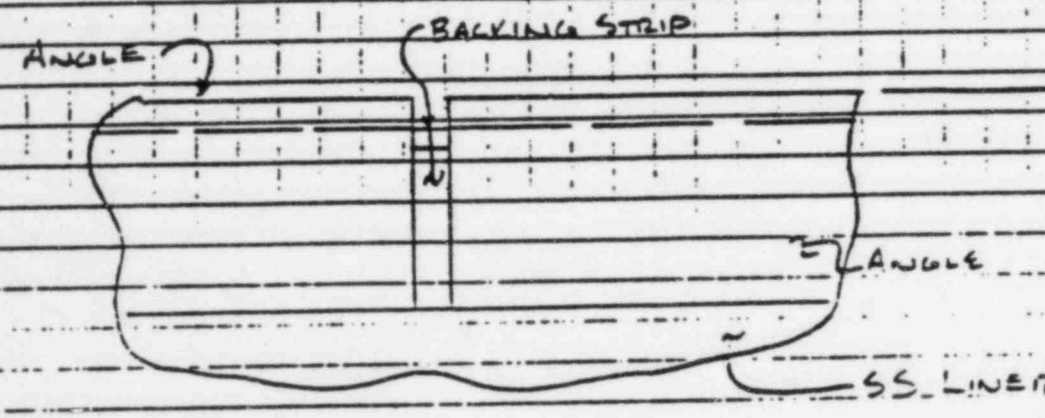
E-E-E

Originator: TALIAFERRO

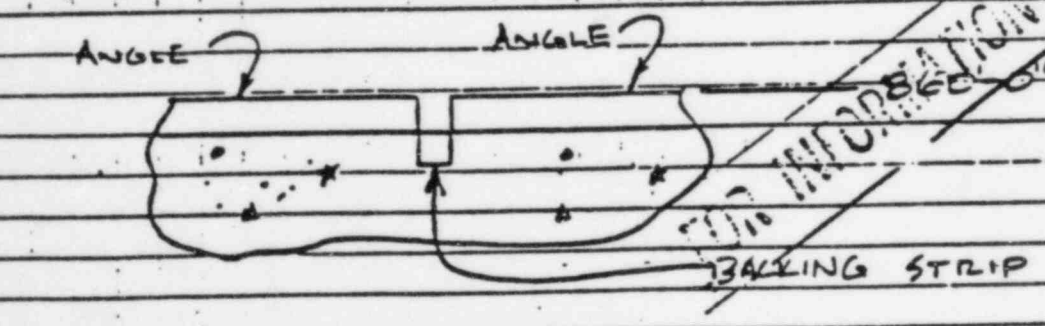
Subject: DISPOSITION [CONT'D]



PLAN



SECT A-A



SECT B-B

FORM DHE-5

TEXAS UTILITIES SERVICES INC
COMANCHE PEAK S.E.S.
Agent For
DALLAS POWER & LIGHT COMPANY
TEXAS ELECTRIC SERVICE COMPANY
TEXAS POWER & LIGHT COMPANY

Subject: DISPOSITION [CONT'D]

REWORK PROCEDURE

1. THIS PROCEDURE IS TO DESCRIBE THE ACTIVITIES NECESSARY TO REPLACE THE BACKING STRIP WHICH WAS REMOVED BY GRINDING.

2. THE BACKING STRIP(S) INSTALLED PER THIS PROCEDURE MAY BUTT UP AGAINST EXISTING BACKING STRIP(S) THAT THE Q.C. INSPECTOR HAS DEEMED ACCEPTABLE. IT IS NOT NECESSARY TO WELD THE 2 SECTIONS OF BACKING STRIP TOGETHER. HOWEVER CRAFT MAY TACKWELD THE 2 SECTIONS TOGETHER TO EXPEDITE INSTALLATION.

3. REPLACEMENT BACKING BAR INSTALLED PER THIS PROCEDURE IS TO BE 1/8" MIN. THICKNESS X LENGTH REQ'D. IT IS TO BE STAINLESS STEEL.

4. IN THE AREAS DOCUMENTED BY PG. 1 OF THIS NCR THAT NEED A BACKING BAR, THE CRAFT IS TO REMOVE EXISTING CONCRETE AND MISC. WELD FILLER MAT'L IN EXACTLY THE SAME SHAPE AS THE NEW BACKING BAR. GRINDING, CHIPPING AND DRILLING ARE ALL ACCEPTABLE MEANS OF REMOVING EXISTING CONCRETE AND MISC. WELD FILLER MAT'L.

5. THE FINAL CONFIGURATION OF BACKING BAR RELATIVE TO THE ANGLE ARE TO BE AS SHOWN ON PG 2. VOIDS DEEPER THAN 1/16" ARE NOT PERMITTED UNDER THE BACKING BAR.

6. PG. 2 SHOWS ONLY THE CONFIGURATION OF NEW BACKING BAR. SUITABLE EXISTING BACKING BARS EXISTS IN SOME AREAS AND WILL NOT BE AS PICTURED ON PAGE 2. THIS IS ACCEPTABLE.

7. NEW BACKING STRIPS MAY BE TACKWELDED TO THE ANGLE TO EXPEDITE CONSTRUCTION.

Brown & Root Inc.

FOR INFORMATION ONLY

15

FIGURE

WELD NO.

BAR STAINLESS STEEL LINER INSPECTION TRAVELER

PROJECT: CPSES JOB NO.: 35-1195 UNIT 2 PAGE 1 OF 2

2401 A	Reactor Liner #2 Stainless steel	3/16	B27 to B26
Drawing No.	POOL / METAL TYPE	MTL. THK.	PC. to PC.

☑ PLATE TO PLATE ☐ INSERT TO PLATE ☐ ANGLE TO PLATE ☐ OTHER

WELDER SYMBOL	WER NO.	WELD PROCED.	HOLD POINT
AFG	A008107	88023	Final Hdp
AFG	~~A008107~~ A008107	88023	2+3
ACH	A008155	88023	4
ARN	A008205	88023	4
AMS	A008246	88023	4
AEO	A017488	88023	4
AUC	A021350	88023	4
ATR	A068711	88023	4
ATR	A068738	88023	4
AAK	A068863	88023	4
AMS SJZ	D-1224	99020	1
HS	D-1240	99020	1
CC	D-1502	88023	5
CD	D-1837	88023	5

Inside

1. Fit up and cleanliness of above:

Sat.	Don R. Wood	12-5-79
RESULTS	INSPECTOR SIGNATURE	DATE

2. V.T. of backing strip tack/fillet welds:

Sat	Phil Davis	8-31-78
RESULTS	INSPECTOR SIGNATURE	DATE

3. Cleanliness of channel, liner, and backing strip:

Sat.	Phil Davis	8-31-78
RESULTS	INSPECTOR SIGNATURE	DATE

4. Final V.T. of channel fillet weld:

SAT.	Larry Wilhem	10-19-78
RESULTS	INSPECTOR SIGNATURE	DATE

5. Final V.T. of inside weld:

SAT		
RESULTS	INSPECTOR SIGNATURE	DATE

Completion of weld inspection:

RESULTS	INSPECTOR SIGNATURE	DATE

FOR INFORMATION ONLY

B&R Stainless Steel Liner Inspection Traveler

QI-QP-11.14-6 REV. _

PROJECT: CPSES JOB NO: 35-1195 UNIT 2 PAGE ____ OF ____

BR-2401-A Drawing No. | Reactor Liner-#2 Pool | Stainless Steel Metal Type | 3/16 Mtl. Thck. | PB26 to PB27 PC. to PC.

☑ Plate to Plate ☐ Insert to Plate ☐ Angle to Plate Other _____

Welder Symbol	WFML No.	Weld Proced.	Hold Point

1. Fit up and Cleanliness of Above

Results Inspector Signature Date

2. V.T. of Backing Strip Tack/Fillet Welds:

Results Inspector Signature Date

3. Cleanliness of Channel, Liner, and B. Strip:

Results Inspector Signature Date

4. Final V.T. of Channel Fillet Weld:

Results Inspector Signature Date

5. Seam Weld Fit Up and Cleanliness:

Results Inspector Signature Date

6. Final V.T. of Welds for Surface Preps.

Results Inspector Signature Date

7. Final P.T. and Vacuum Box of Seams (See Weld Inspection Sheet)

Results Inspector Signature Date

8. Completion of Weld Inspection: QI-QP-11.14-6

Inspector Signature Date

FOR INFORMATION ONLY

15
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

Weld Inspection Sheet Page ___ of ___

Acceptance Std.
Gibbs & Hill 2323-SS-1B

7a. Penetrant Mfg. Magnaflux-Spotcheck _____

Cleaner Mfg. Magnaflux-Spotcheck _____

Developer Mfg. Magnaflux-Spotcheck _____

NDE Procedure
_____

Final P.T. Level II _____ _____ _____
RESULTS INSPECTOR SIGN. DATE

7b. Vacuum Box GASKET TYPE SOLUTION TYPE

_____ by _____ _____ _____

Pretest Cleaning ____ Pressure ____ Temperature ____ NDE Procedure
_____

Solution Application Method _____ Post Test Cleaning _____

Gauge Serial Number _____ Pressure Differential
Maintained for _____Sec. _____Min.

Final V.B. _____

N/A - Not Applicable

Satisfactory _____ Unsatisfactory _____ Level II Inspector _____ Date _____

(65)

FOR INFORMATION ONLY

WILLOWBROOK DEPT.

D-1240

Drawing No. 1515 2401A

WELD FILLER MATERIAL LOG Weld No. N/A

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
15	12/6/74	.045 ER.308	AHS	99020 4/4	434788	2 Rolls	1 Roll	Lawrence Wall
28	↓	↓		↓	↓	↓	↓	Lawrence Wall
~~14~~	↓	↓	↓	↓	↓	↓	↓	Lawrence Wall
~~19~~	↓	↓	↓	↓	↓	↓	↓	Lawrence Wall

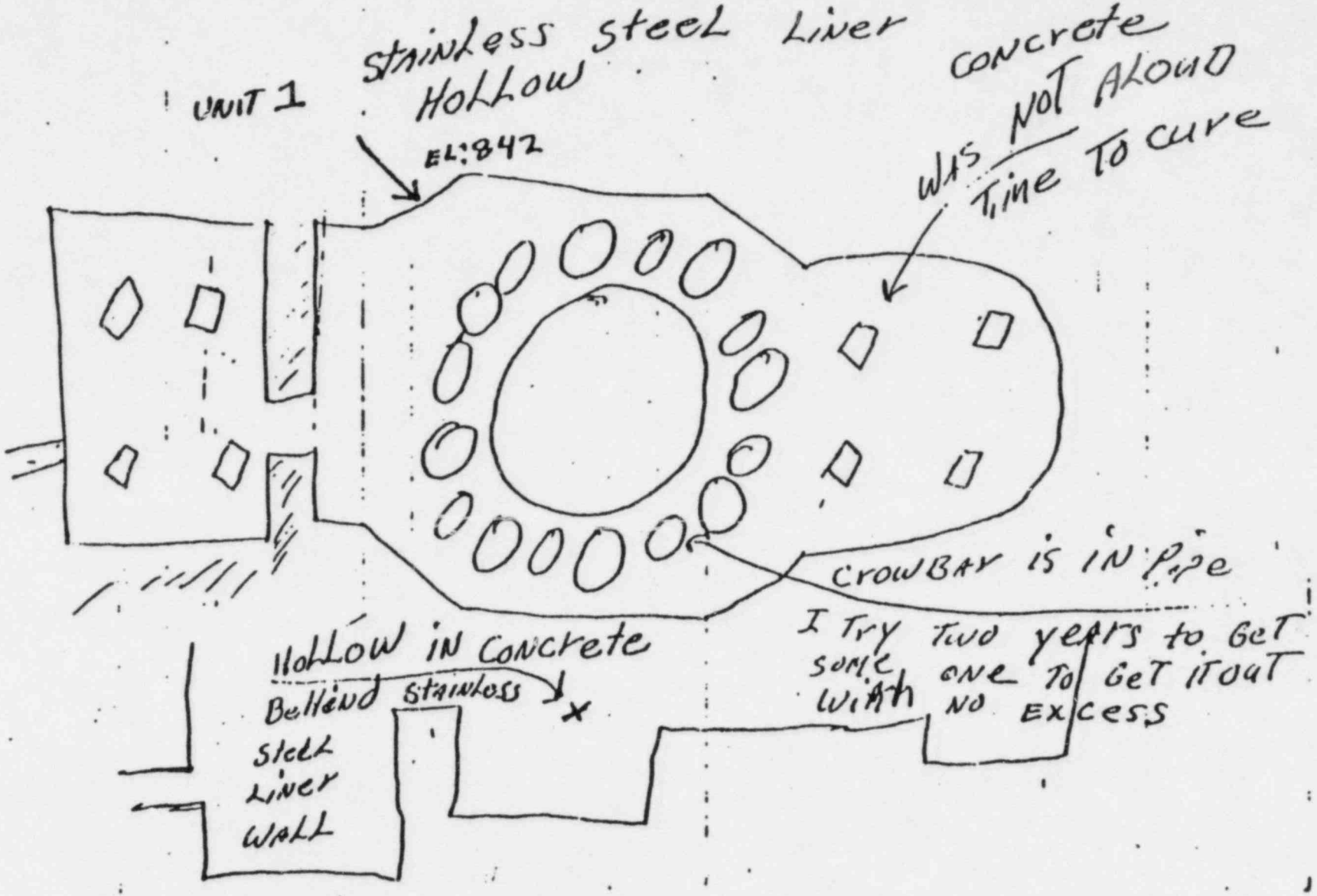
FOR INFORMATION ONLY

Drawing No. 08 24016

WELD FILLER MATERIAL LOG Welo No. 116

D-1224

WELD NO.	DATE	SIZE/CLASS	WELDER SYMBOL	WPS/ICN #	HEAT/LOT # or CODE #	AMT. ISS.	AMT. RT'D.	ISSUANCE APPROVAL
15	12/5/79	.045 ER308	AIZ	99020 4/4	434788	1 roll	0	[illegible]
↓	↓	↓	AHS	↓	↓	↓	↓	[illegible]
15	3/10/83	3/32 ER308	CFA	88025 5.2	463516	10	9	[illegible] R358
15	3/10/83	3/32 ER308	CCA	88025 5.2	463516	15	2	[illegible] R434
15	3/17/83	3/32 ER308	CFA	88025 5.2	463516	15	3	[illegible] R566


UNIT 1
Stainless steel Liner
Hollow
EL:842
concrete
was NOT ALOUD
Time To cure
crowBAR is IN Pipe
I Try Two years to Get
some one To Get it out
with NO EXCESS
Hollow IN Concrete
Behind Stainless
Steel
Liner
WALL

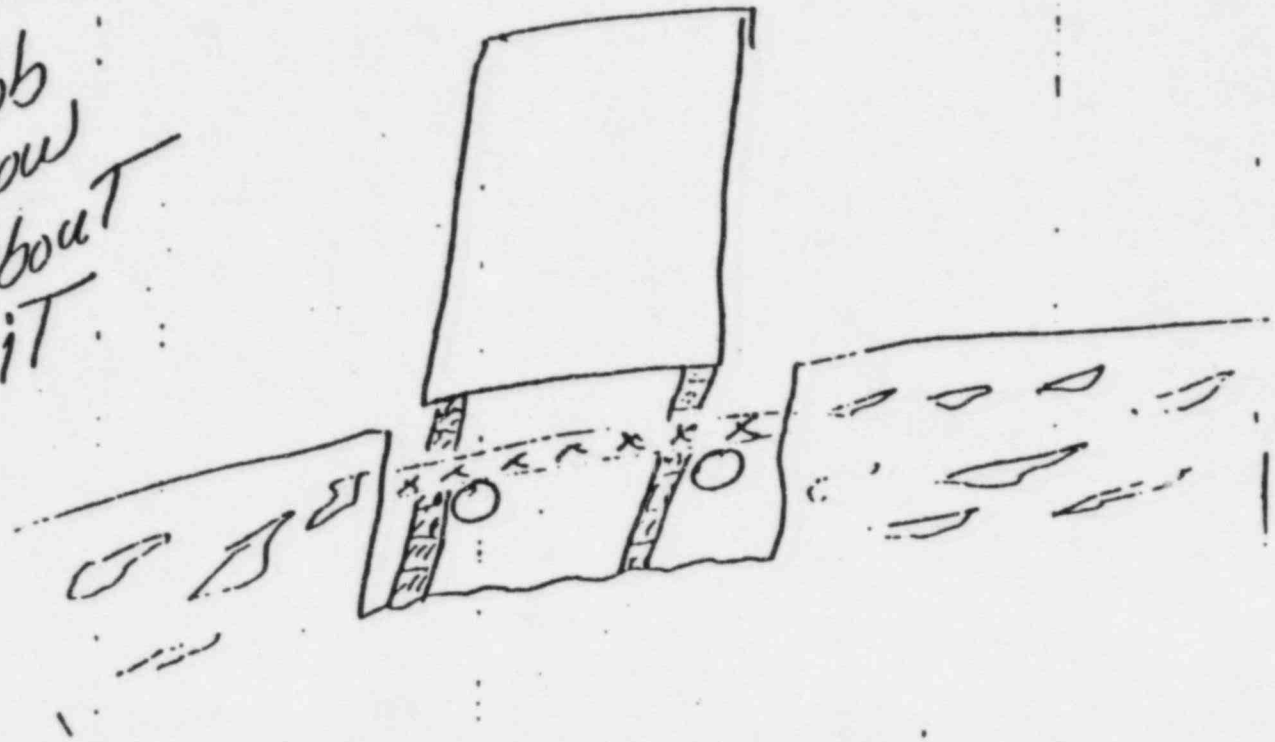
1 MS. ELLIS: If they had trouble finding
2 something like that, could you show them where it is?
3 MR. DILLINGHAM: Oh, yes.
4 Now here is another deal I put in here about
5 the concrete, you know, where we set equipment on concrete
6 where it wasn't allowed the correct time for curing and
7 stuff like that. Right here, and I believe it is where
8 your lower internals go. You upper one end and you lower
9 the other.
10 Well, when we took that framework out and we
11 started to put our floor down, one of these embeds here
12 where your upper or lower set was had a real bad hollow
13 place in it. You know, most of the time they kind of patch
14 it up with some kind of stuff. This was real deep so they
15 put concrete in there. Well, it is supposed to have a
16 certain amount of time for that concrete to set, and they
17 also got some type of paste they put on there on the floor
18 where the line goes. The paint department put it on there.
19 It looks kind of like paint, but it is not paint. It is
20 what the paint department puts on there to kind of build
21 it up so many mils.
22 Well, this right here, the upper and lower
23 internals was coming in. They didn't want to store them in
24 the warehouse any more. They wanted to get them off the
25 train or truck and get them in the hole now.

1 So I went and told Bubba George. He was the
2 general foreman over the contract. I said, damn, you know
3 how Tanley is. I said that idiot is wanting us to put the
4 floor plate down. I said you have got a curing time on
5 that. He says well, you know, J. R., QC let us get away
6 with a lot of stuff. He said wait until everybody leaves
7 and then we will go ahead with it. So we went ahead with
8 it.
9 MR. GRIFFIN: When was this?
10 MR. DILLINGHAM: Well, you can check the pour
11 or you can check the weld cards on when we put this floor
12 down on the liner. That is probably how you can do it.
13 They might not have even used the pour card, but you can
14 check the time that this was poured or repaired here and
15 the time we welded. We sign our weld cards and they sign
16 their pour cards and you can see how many days in between
17 that was.
18 We had some floor plates that buckled inside
19 the fuel building with some of that stuff stuck to it. I
20 think I put in there that we put some of that floor plate
21 down without correct time for curing time, you know. But
22 it is very easy to check. All you have to do is check the
23 pour cards and check the weld cards when we welded it.
24 Okay, rebar. Everett, that was the general
25 foreman who got busted back, and I had him setting a piece

1 of equipment. I told him, I said make sure you get some
2 shim and come off your concrete floor and shim it level.
3 He goes, we will just weld off the rebar. I said weld off
4 the rebar, you have got to be kidding. That is a no-no
5 welding rebar. He goes ah, we did it all the time when we
6 were on the liner, and he was the general foreman over it.
7 Now this is just a for instance, but you might
8 check with Mr. Cobb, Harold Cobb, the welder and he might
9 know of people welding on rebar which that stictly is a
10 no-no. He was working with Everett down there when Everett
11 set it. I asked Cobb about it and he kind of laughed like
12 he either had been doing it or knowed somebody who had
13 been doing it. But the ex-general foreman just told me
14 they did it all the time, you know, like bracing off of
15 rebar or welding something do it.
16 I just wanted to thow that in there.
17 (Dillingham Exhibit 14 follows:)
18
19
20
21
22
23
24
25

WeLDing
To ReBar

cobb
KNOW
AbouT
iT



1 MS. ELLIS: He said they were doing it where?

2 MR. DILLINGHAM: Over on the stainless steel

3 liner area inside of the containment. He said we do it all

4 the time over there, you know.

5 Let's see. I guess that is about it.

6 Now I know a lot more. I believe it was me and

7 Mr. Flowes, you see, I knew I was going to Houston quite a

8 time before I left, but one day we decided we would just

9 jot down some mistakes, you know, little mistakes like

10 this and we were just going to make a little list to see

11 how many we could think of right offhand. So this just

12 consists of the millwright department, which is the

13 millwrights and boilermakers, and the concrete department.

14 We either come up with 29, 59 or 79. I am not for sure. My

15 list was in my desk and he might know where it is at, but

16 we was just going to make up some things that we thought

17 was strictly against the rules so I could bring that up

18 later.

19 I kind of felt like that Houston might handle

20 it the way they did. That is the reason I just sent them

21 that little letter there or carried it to them. I put some

22 stuff in there like the gray tape around the shims, you

23 know. I didn't actually see that, but the guy brought it

24 up in our class, they was giving a classs and everything,

25 and everybody laughed about it, you know.

FUEL BUILDING

AFCO DWG. & TRAVELERS

A 100 R	101	255
78	118	251
64	132	238
55	139	A-232 R
47	147	
42A	156	
25A	172	
A 20 R	A 180 R	
16A	188	
3A	193	
15A	300	
24A	287	
A-32 R	268	
47A	247	
63	225	
70	223	
81	A-216 R	
97	211	
A-98 R	A-209 R	
100	203	
200	201	
183	216	
A 171 R	231	
157	239	
141	261	
124	266	
109	298	
102	297	

I have examined the travelers on this page and found them all to be complete & correct & all signatures to be accurate. No discrepancy exists.

James Cole 8-13-80
"Jim"

Travelers

199	122	53J
198	120	53
176	116	46
173	114	32
168	110	23
167	109	
165	104	
162	101	
155	93	
142	91	
141	90	
139	90J	
133	89	
126	80	
123	78	
72	70	
64	55	

These are Unit I Travelers. Drawing WRB1055'

ABOVE REFERENCED STAINLESS STEEL LINER TRAVELERS WERE REVIEWED FOR UNSIGNED HOLD POINTS + ACCURACY OF SIGNATURES. TO THE BEST OF MY KNOWLEDGE, NO DISCREPANCIES WERE FOUND.

Sam Wilkerson 8-13-8

CASE Form A

FIGURE 3

FIGURE 3

B&R STAINLESS STEEL LINER INSPECTION TRAVELER

WELD NO.

PROJECT: CPSES JOB NO.: 35-1195 UNIT ___ PAGE ___ OF ___

DRAWING NO. POOL METAL TYPE MTL. THICKNESS PC. TO PC.

☐ PLATE TO PLATE ☐ INSERT TO PLATE ☐ ANGLE TO PLATE ☐ OTHER _____

WELDER SYMBOL	WMR NO.	WELD PROCED.	HOLD POINT

1. Fit up and cleanliness of above:

RESULTS INSPECTOR SIGNATURE DATE

2. V.T. of backing strip tack/fillet welds:

RESULTS INSPECTOR SIGNATURE DATE

3. Cleanliness of channel, liner, and backing strip:

RESULTS INSPECTOR SIGNATURE DATE

4. Final V.T. of channel fillet weld:

RESULTS INSPECTOR SIGNATURE DATE

5. Final V.T. of inside weld:

RESULTS INSPECTOR SIGNATURE DATE

Completion of weld inspection.

RESULTS INSPECTOR SIGNATURE DATE

ANG	POOL	MTL TYPE	MTL. THICKNESS	CASE Form B
ELD/ITEM NO.	PC. TO PC.		= Plate to Plate = Insert to Plate = Angle to Plate	

WMK NO. _____
WELD PROCEDURE _____
WELDER SYMBOL _____
STAGE OF MANUFACTURE _____

DESCRIPTION(s) and INSPECTION REMARK(s)	RESULTS	INSPECTOR SIGNATURE	DATE
1. Fit up of Liner Plate to plate, angle, insert Cleanliness of liner and backing			
2a. V. T. of backing strip tack/fillet welds			
2b. cleanliness of channel, liner and backing strip			
3. Final V. T. on Channel Welds			
4. Liner Fit-up Verification Cleanliness Verification			
5a. Final V. T.			

Acceptance Std.
Gibbs & Hill 2323-SS-18

FOR INFORMATION ONLY

5b. Penetrant Mfg. Magnaflux	Spotcheck Batch	Dwell Time	
Cleaner Mfg. Magnaflux	Spotcheck Batch		
Developer Mfg. Magnaflux	Spotcheck Batch	Developing Time	
NDE Procedure 300-NB-5250 Attach. 6B	Surface As Welded Ground Other		
Final P. T.			

5c. Vacuum Box _____ by _____	Gasket Type	Solution Typ	
Pretest Cleaning	Preassure	Temperature	NDE Procedure 603
Solution Application Method		Post Test Cleaning	
Gauge Serial Number		Preassure Differential Maintained for _____ Sec. _____ Min	
Final V. B.			

N/A - Not Applicable
Satisfactory_____ Unsatisfactory_____ INSPECTOR_____ DATE_____ CERT. LEVEL_____

FIGURE 3

Brown & Root, Inc.

WELD NO. _____

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT _____ PAGE _____ OF _____

Drawing No. _____ Pool _____ Metal Type _____ Mil. Thk. _____ PC. to PC. _____

☐ Plate to Plate ☐ Insert to Plate ☐ Angle to Plate ☐ Other _____

Welder Symbol	W.P.S. No.	Weld Proced.	Hold Point

1. Fit up and Cleanliness of Above:

Results _____ Inspector Signature _____ Date _____

2. V.T. of Backing Strip Tack/Fillet Welds:

Results _____ Inspector Signature _____ Date _____

3. Cleanliness of Channel, Liner, and B. Strip:

Results _____ Inspector Signature _____ Date _____

4. Final V.T. of Channel Fillet Weld:

Results _____ Inspector Signature _____ Date _____

5. Inside Fit Up and Cleanliness:

Results _____ Inspector Signature _____ Date _____

6. V.T. of Fillet Prior to Grinding:

Results _____ Inspector Signature _____ Date _____

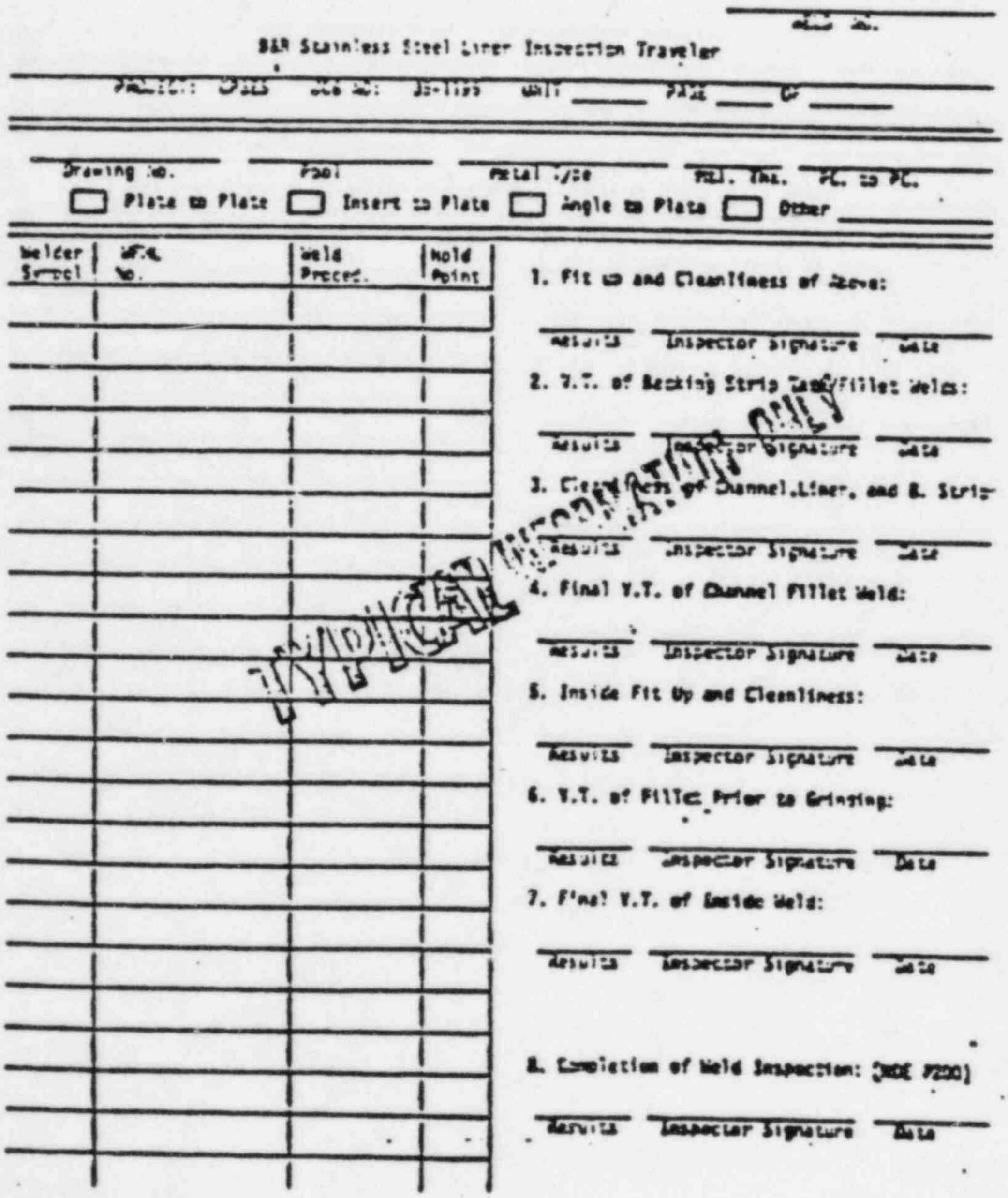
7. Final V.T. of Inside Weld:

Results _____ Inspector Signature _____ Date _____

8. Completion of Weld Inspection: (NDE P200)

Results _____ Inspector Signature _____ Date _____

ATTACHMENT 1



Traveler No.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT _____ PAGE ____ OF _____

Drawing No. | Pool | Metal Type | Mat. Thk. | PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☐ Angle to Plate ☐ Other _________

Welder Symbol	WPS No.	Weld Proced.	Hold Point

1. Fit up and Cleanliness of Above:

Results Inspector Signature Date

2. V.T. of Backing Strip Tack/Fillet Welds:

Results Inspector Signature Date

3. Cleanliness of Channel, Liner, and B. Strip

Results Inspector Signature Date

4. Final V.T. of Channel Fillet Weld:

Results Inspector Signature Date

5. Inside Fit Up and Cleanliness:

Results Inspector Signature Date

6. V.T. of Fillet Prior to Grinding:

Results Inspector Signature Date

7. Final V.T. of Inside Weld:

Results Inspector Signature Date

8. Completion of Weld Inspection: (NDE 7200)

Results Inspector Signature Date

TYPICAL INFORMATION ONLY

Brown & Root Inc.

ATTACHMENT 4

WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1155 UNIT 2 PAGE 1 OF 3

BB2401A	Reactor Liner 2	Stainless Steel	3/16"	Top Angle F R H20
Drawing No.	Pool	Metal Type	Mtl. Thk.	PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate ☐ Other

Welder Symbol	W.M.R. No.	Weld Proced.	Hold Point
BEN	A162855	88023	1
BDA	A162881	88023	2
BEN	A162911	88023	2
AXK	A16899	88023	2
BCC	D-021	88023	2
BEN	D-027	88023	2
BEN	D-035	88023	2
BCC	D-043	88023	1,5
BEN	D-065	88023	1.5
CCG	B-153	88025	1,5
CCG	B-195	88025	1,5
CCG	B-206	88025	5

1. Fit up and Cleanliness of Above:

Reverified Sat.	D.D. [illegible]	12-30-81
Sat.	Don R. Vogt	7-12-79
Results	Inspector Signature	Date

2. V.T. of Backing Strip Tack/Fillet Welds:

Sat.	Don R. Vogt	7-16-79
Results	Inspector Signature	Date

3. Cleanliness of Channel, Liner, and B. Strip:

NA	NA	NA
Results	Inspector Signature	Date

4. Final V.T. of Channel Fillet Weld:

NA	NA	NA
Results	Inspector Signature	Date

5. Inside Fit Up and Cleanliness:

NA	NA	NA
Results	Inspector Signature	Date

6. V.T. of Fillet Prior to Grinding:

NA	NA	NA
Results	Inspector Signature	Date

7. Final V.T. of Inside Weld:

SAT		
Results	Inspector Signature	Date

8. Completion of Weld Inspection: (

Results	Inspector Signature

FOR INFORMATION

FIGURE 3

S2
WELD NO.

B&R STAINLESS STEEL LINER INSPECTION TRAVELER

PROJECT: CPSES JOB NO.: 35-1195 UNIT #2 PAGE 2 OF 3

24014	Reactor Liner #2	Stainless steel	3/16	H20 to Angle
Drawing No.	POOL	METAL TYPE	MTL. THK.	PC. to PC.

☐ PLATE TO PLATE ☐ INSERT TO PLATE ☑ ANGLE TO PLATE ☐ OTHER

WELDER SYMBOL	WER NO.	WELD PROCED.	HOLD POINT
AAR	A017192	88023	Final fit up
ARD	A017210	88023	Final fit up
ATR	A017217	88023	2

1. Fit up and cleanliness of above:

RESULTS | INSPECTOR SIGNATURE | DATE

2. V.T. of backing strip tack/fillet welds:

Sat. | S.M. McCoy | 9.15.78
RESULTS | INSPECTOR SIGNATURE | DATE

3. Cleanliness of channel, liner, and backing strip:

N/A | N/A | N/A
RESULTS | INSPECTOR SIGNATURE | DATE

4. Final V.T. of channel fillet weld:

N/A | N/A | N/A
RESULTS | INSPECTOR SIGNATURE | DATE

5. Final V.T. of inside weld:

RESULTS | INSPECTOR SIGNATURE | DATE

FOR INFORMATION ONLY

Completion of weld inspection:

RESULTS | INSPECTOR SIGNATURE | DATE

CLEANLINESS verified where ACCESSABLE
MN 7-18-78

WELD NO. 56

BSF Stainless Steel Liner Installation Traveler

QI-QP-11.14-6 REV.

PROJECT: CPSES JOB NO: 35-1195 UNIT 2 PAGE ____ OF ____

BR-2401-A Drawing No. | Reactor Liner-#2 Pool | STAINLESS STEEL Metal Type | 1/4" TO 3/16" Mtl. Thck. | TOT ANGLE TO H2O PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate Other _____

Welder Symbol	WFML No.	Weld Proced.	Hold Point

1. Fit up and Cleanliness of Above

   Results Inspector Signature Date

2. V.T. of Backing Strip Tack/Fillet Welds:

   Results Inspector Signature Date

3. Cleanliness of Channel, Liner, and B. Strip:

   Results Inspector Signature Date

4. Final V.T. of Channel Fillet Weld:

   Results Inspector Signature Date

5. Seam Weld Fit Up and Cleanliness:

   Results Inspector Signature Date

6. Final V.T. of Welds for Surface Preps.

   Results Inspector Signature Date

7. Final P.T. and Vacuum Box of Seams (See Weld Inspection Sheet)

   Results Inspector Signature Date

8. Completion of Weld Inspection: QI-QP-11.14-6

   Inspector Signature Date

52
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

Weld Inspection Sheet Page ___ of ___

Acceptance Std.
Gibbs & Hill 2323-SS-18

7a. Penetrant Mfg. Magnaflux-Spotcheck _____

Cleaner Mfg. Magnaflux-Spotcheck _____

Developer Mfg. Magnaflux-Spotcheck _____

NDE Procedure

_____

Final P.T. Level II

	RESULTS	INSPECTOR SIGN.	DATE

7b. Vacuum Box GASKET TYPE SOLUTION TYPE

_____ by _____ _____ _____

Pretest Cleaning ____ Pressure ____ Temperature ____ NDE Procedure

_____

Solution Application Method _____ Post Test Cleaning _____

Gauge Serial Number _____ Pressure Differential Maintained for _____Sec. _____Min.

Final V.B. _____

N/A - Not Applicable

Satisfactory _____ Unsatisfactory _____ Level II Inspector _____ Date _____

NON DESTRUCTIVE TEST INSPECTION R EST	FOREMAN Fowles	TIME/DATE 35 12/30/81

WELDOR: N/A

DRAWING # EB.2401 A

INSP. REQ.					FIELD WELD # 52
	CLEAN	✓	FIT-UP		V.B.
	VISUAL		L.P.		
	FINAL				WFML :

COMMENTS:

INSPECTOR : R. Stuson ACCEPT: ✓ DATE: 12/30/81

NON DEST. TIVE TEST INSPECTION REQUEST

FOREMAN

TIME

DATE 9/1/72

WELDER: See Below

DRAWING # 401A GB P#2

INSP. REQ. CLEAN ☐ FIT-UP ☐ FIELD WELD JT. # 132

VISUAL ☐ L.P. ☐ V.B.

FINAL ☐

COMMENTS: 1 sup & end of 1 angle

WMR: A017182 ARE

A017210 ARD

INSPECTOR: L. D. K. Vo-2

ACCEPT: ✓

DATE: 7-13-71

TIME	DATE
	9/13/78

NON DESTRUCTIVE TEST INSPECTION REQUEST

FOREMAN

WELDER: See Below

DRAWING # 2401A BB P#2

FIELD WELD JT. # 52

INSP. REQ.			
	CLEAN ☐	FIT-UP ☐	V.B.
	VISUAL ☐	L.P. ☐	
	FINAL ☐		

WMR: A017182 AAR
A017210 ARD

COMMENTS: Test fit up & Circumferential Plate to angle

INSPECTOR: Don R. Vogt

ACCEPT: ✓

DATE: 9-13-78

FW # 52

SCF ___ DS ✓ ___

MILLWRIGHT DEPT.

B- 183

Serial No. N/A

Drawing No. BB240/A

Heat No. N/A

Item No.	Date	Size/Class	Heat Symbol	Division	Heat/Lot or Code	Amt. Req.	Qty. Rec'd.	Inspector Approval
52	12/29/81	3/32 ER308	CCb	88025 4-2	463516	40	6	R-1006
52	7/12/84	3/32 ER308	B20	88025 5-2	463516	15	13	Jack Stanford R-030
52	8/17/84	3/32 ER308	BFF	88025 5-2	463516	40	29	Jack Stanford R-027

FOR INFORMATION ONLY

COMANCHE PEAK STEAM ELECTRIC STATION

INSPECTION REPORT

SHEET ___ OF ___

INC. 2-1-1-79

ITEM DESCRIPTION	IDENTIFICATION NO.	SYSTEM, STRUCTURE DESIGNATION
[illegible]	FW52/BB2401A	[illegible]

SPEC. NO.	REV.	REF. DC DOC. & REV. & CHANGE NO.	MEASURE OR TEST EQUIP. IDENT. NO.
[illegible]	C	[illegible]	[illegible]

☐ IN PROCESS INSPECTION ☐ PRE INSTALLATION VERIFICATION ☐ INSTALLATION INSPECTION ☒ FINAL INSPECTION ☐ PRE TEST INSPECTION

INSP. RESULTS

☒ INSPECTION COMPLETED, ALL APPLICABLE ITEMS SATISFACTORY

☐ INSPECTION COMPLETED, UNSATISFACTORY ITEMS LISTED BELOW

QC INSPECTOR [signature] DATE 8/14/84

ITEM NO.	INSPECTION ATTRIBUTES	SAT	UNSAT	DATE	QC SIGNATURE
	Area cleaned and backing strip located in proper location				
	(1) hold tag Removed [illegible] 8/14/84	✓			

REMARKS (DWGS, SPECS, ETC.)

FOR INFORMATION

RELATED NCR NO.	L.R. CLOSED	DATE	SIGNATURE
MSA-200018	☐		QC INSPECTOR

B1/01 8/84

TEXAS UTILITIES GENERATING CO

MANCHE PEAK STEAM ELECTRIC S TION
NONCONFORMANCE REPORT (NCR)

NCR NO
MK-200087

UNIT	STRUCTURE/SYSTEM	ITEM/COMPONENT	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO
2	[illegible]	[illegible]	DB24U1F	[illegible]	NA

REPORTING PERSONNEL

NONCONFORMING CONDITION

FW-52 had the Fit up/Cleanliness (Block #1) signed off SAT on both 7/12/79 and 12/31/81. ON 8/17/84 welding Resumed on this weld AND the Cleanliness was ignored. Procedure Requires 4" ON EACH SIDE of weld to be Degreased & Cleaned AND this was not DONE Prior to welding

(SEE Attached sketch for AREAS welded on 8/17/84)

1 Hold TAG APPLIED

REFERENCE DOCUMENT: QI-QP 11.14-6 REV 6 PARA 3.42

REPORTED BY: Lou Tessier [signature] [signature] DATE: 8 21 184

OE

QE REVIEW/APPROVAL: D.T. Ott DATE: 8 23 84

ACTION ADDRESSEE: Bill Wright DEPARTMENT:

ACTION ADDRESSEE

DISPOSITION: REWORK ____ REPAIR ____ USE AS IS ✓ SCRAP ____

Q.C. is to perform a P.T. examination of the affected weld area and if sat. the weld may be used as is. The engineering craftsman shall also be satisfied to the requirements by foldpoints and drawing.

FOR INFORMATION ONLY

ENG. REVIEW/APPROVAL: B. Wright DATE: 9 5 84

OE

QE REVIEW APPROVAL: D.T. Ott DATE: 9 5 84

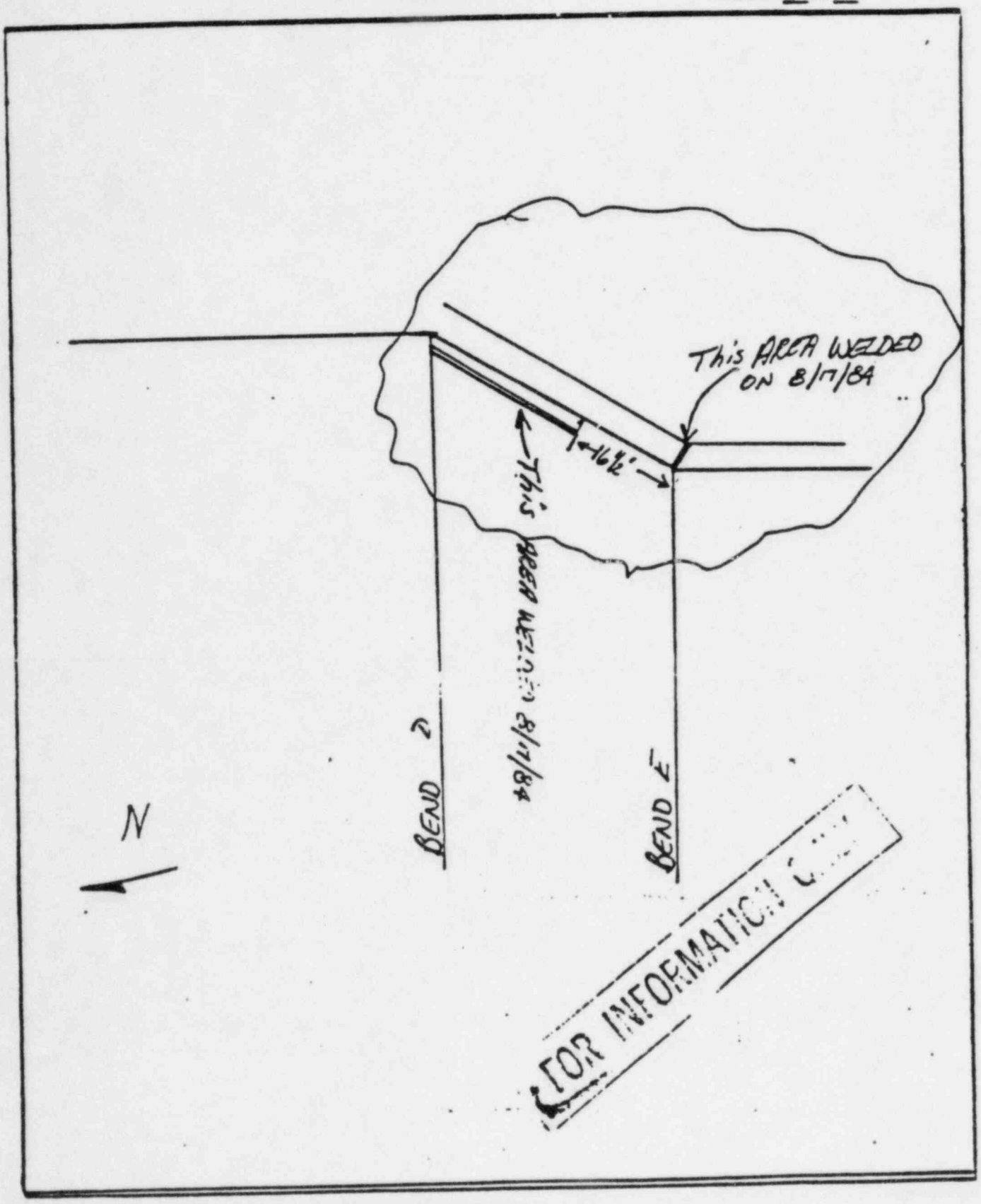
DISPOSITION VERIFICATION & CLOSURE: DATE: / /

COMMENTS:

COMANCHE PEAK STEAM ELECTRIC STATION
NONCONFORMANCE REPORT NCR.

(Continuation Sheet)

Sheet 2 of 2



TEXAS UTILITIES GENERATING CO

MANCHE PEAK STEAM ELECTRIC S[illegible]ION
NONCONFORMANCE REPORT (NCR)

NCR NO [illegible]

UNIT	STRUCTURE/SYSTEM	ITEM/COMPONENT	TAG/ID NUMBER	LOCATION ELEVATION	NCR NO.
[illegible]	[illegible]	W-52	[illegible]	[illegible]	

REPORTING PERSONNEL

NONCONFORMING CONDITION

During a Visual Insp. I found a 3/4" X 1/8" gap between the backing strip behind FW-52 and the backing strip on the 3X3X1/4" Angle above (same FW) this weld.

(SEE ATTACHED SKETCH FOR DETAILS)

1 Hold TAG Applied

CCP-38

REFERENCE DOCUMENT: Q1 QP 11.14-6 REV 6 PARA 3.4.2

REPORTED BY: Lou Tessier [signature] RBE C.C. [signature] DATE: 8 [illegible] 84

OE

QE REVIEW/APPROVAL: D.T. Ost DATE: 8/23/84

ACTION ADDRESSEE Bill Wright DEPARTMENT

ACTION ADDRESSEE

DISPOSITION:

REWORK ____ REPAIR ____ USE AS IS ✓ SCRAP ____

- since [illegible] requirement that intervening backing strips be continuous therefore, if there is no evidence of discontinuities the weld may be used as is.

FOR INFORMATION ONLY

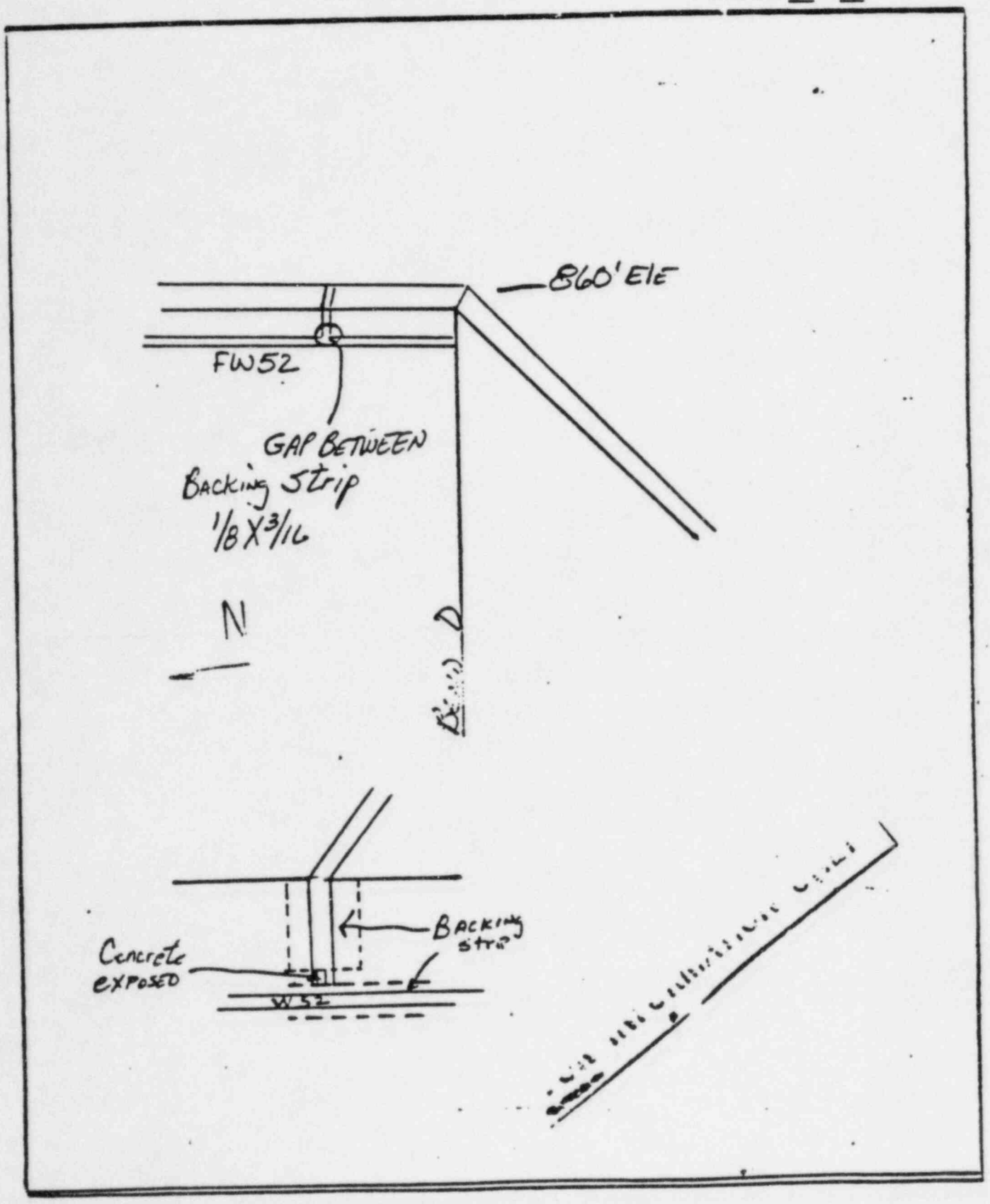
ENG. REVIEW/APPROVAL B. Wright DATE: 9/5/84

OE

QE REVIEW APPROVAL: D.T. Ost DATE: 9/5/84

DISPOSITION VERIFICATION & CLOSURE: DATE: / /

COMMENTS:


860' ELE
FW52
GAP BETWEEN
Backing Strip
1/8 X 3/16
N
Backing strip
Concrete exposed
W52

TEXAS UTILITIES GENERATING CO

COMANCHE PEAK STEAM ELECTRIC STATION
NONCONFORMANCE REPORT (NCR)

NCR NO 1984-200018 1

SYSTEM	ITEM COMPONENT	PAGE NUMBER	LOCATION OF ELEVATION	BIF NO
2 Reactor Cavity	Weld 52 SS Liner	EL'RB 2		N/A

REPORTING PERSONNEL

NONCONFORMING CONDITION

The Backing Strip was ground thru exposing Concrete for APPROX. 5" on W#52

REFERENCE DOCUMENT: QI-QP11.14-6 REV 6 PARA 3.1.4.5

REPORTED BY: L TESSIER DATE: 8/14/84

QE

QE REVIEW/APPROVAL: [signature] DATE: 8/14/84

ACTION ADDRESSEE DEPARTMENT

ACTION ADDRESSEE

DISPOSITION:

REWORK ____ REPAIR ____ USE AS IS ✓ SCRAP ____

NOT A NONCONFORMING CONDITION

CLEANING OF WELD GROOVE AREA BY CHIPPING AND BRUSHING, BACKING STRIP WAS FOUND TO BE IN PLACE AS REQUIRED.

NOTE: THE EXPOSED CONCRETE AS REFERENCED ABOVE WAS IN THE GROOVE ON TOP OF THE BACKING STRIP.

[signature] 8/14/84 Void [signature] 8/14/84

FOR INFORMATION ONLY

ENG. REVIEW/APPROVAL DATE: / /

QE

QE REVIEW APPROVAL: "VOID" Michael D. Warner DATE: 8/15/84

DISPOSITION VERIFICATION & CLOSURE: DATE: / /

COMMENTS:

RI ISSUED TO VOID NCR. SEE ~~ATTACHED~~ SEE BELOW I.R. ~~#2 2021078~~ 2 0021079

TEXAS UTILITIES GENERATING CO

MANCHE PEAK STEAM ELECTRIC STATION
NONCONFORMANCE REPORT (NCR)

NCR NO [illegible]
Pg 1/2

UNIT	STRUCTURE SYSTEM	ITEM COMPONENT	TAG OR NUMBER	LOCATION OR ELEVATION	[illegible]
2	[illegible] Liner	Weld #52	Reactor Cavity	[illegible]	

REPORTING PERSONNEL

NONCONFORMING CONDITION

The Backing Strip is Removed By Grinding, Exposing the Concrete for Approx. 5" Long on weld #52.

1) Hold TAG Applied

REFERENCE DOCUMENT: QI-QP11.14-6 REV 6 PARA 3.1.4.5

REPORTED BY: L. Tessier / Jimmie Duncan / Rick Cooper DATE: 7/18/84

OE

QE REVIEW/APPROVAL: D.T. Ott DATE: 7/19/84

ACTION ADDRESSEE: ~~Bill WRIGHT~~ Hooton / TRIESTE DEPARTMENT: Engineering

ACTION ADDRESSEE

DISPOSITION:

REWORK ✓ REPAIR ____ USE AS IS ____ SCRAP ____

Install new backing strip in the effected area per sketches & procedure given on the attachment sheets.

Ray V Jelieferro 8-2-84

ENG. REVIEW/APPROVAL: James Matthews DATE: 8/2/84

OE

QE REVIEW APPROVAL: Michael O. Wasney DATE: 8/3/84

DISPOSITION VERIFICATION & CLOSURE: DATE: / /

INFORMATION ONLY

COMMENTS:

Brown & Root, Inc.

INSPECTION REPORT

PLANT CODE	SYSTEM CODE	COMPONENT CODE
[illegible]	5-10	11-16

TAG SPIN IDENT NO	DRAWING SPECIFICATION NO	SERIAL NO
A B C D E F	G (UNITS) H (UNITS) I	J (UNITS)
17-52		

PURCHASE ORDER NUMBER	VEND CODE
[illegible]	70-73

MRR NUMBER	RIR NUMBER	VENDOR'S HEAT/LOT/BATCH NO.	COUNT / UNITS QUANTITY	PURCH'S DR NO.	RLS/HOLD NO / CODE STATUS	INPUT DATE
74-79	80-86	88-96	98-105	106-111	112-121	122-127

PURPOSE AND TYPE OF INSPECTION/SURVEILLANCE: To verify WMR & WFML's issued to field weld #52 - (BB 2401A).

RESULTS OF INSPECTION / SURVEILLANCE: After replacement of top angle, the backing strip was welded completely to prevent concrete from getting into seam. The following WMR and WFML's were used for this purpose:

WMR -	~~A162[illegible]~~	~~[illegible]~~
WFML -	D-021	BCC ✓
	D-027	BEN ✓
	D-035	BEN ✓
	D-043	BCC ✓
	D-065	BEN ✓
WMR	A162960	AXK ✓
WMR	A162999	AXK ✓

NCR NO. N/A

Robert F. Kearney
QC ENGINEER/INSPECTOR

DATE 6-26-80 RFK 6-26-80

CA-15 (1-1-0)(4-1-77)

FOR INFORMATION ONLY

NON DESTRUCTIVE TEST INSPECTION REQUEST

FOREMAN _____ TIME _____ DATE 8/5/11

WELDER: [illegible]

DRAWING # 2401 H [illegible]

INSP. REQ.: CLEAN ☐ FIT-UP ☐ FIELD WELD JT.# 75
VISUAL ☐ L.P. ☐ V.B. _____
FINAL ☐

COMMENTS: First Fit up: [illegible] of Plate to Plate

WMR: H00 1107 AFG

INSPECTOR: Phil Dave ACCEPT: ✓ DATE: 8-11

FOR INFORMATION ONLY

NON DESTRUCTIVE TEST INSPECTION REQUEST

FOREMAN

TIME

DATE 8/31/74

WELDER: McMasters AFG

DRAWING # 2401 A BBQ R#2

INSP. REQ. CLEAN ☐ FIT-UP ☐ FIELD WELD JT.# 15

VISUAL ☐ L.P. ☐ V.B.

FINAL ☐

COMMENTS: First Fit up & Cleanliness of Plate to Plate

WMR: A008107 AFG

INSPECTOR: Phil Davis ACCEPT: ✓ DATE: 8-31-74

Brown & R

FOR INFORMATION ONLY

118
WELD NO.

B&R STAINLESS STEEL LINER INSPECTION TRAVELER

PROJECT: CPSES JOB NO.: 35-1195 UNIT Cont. 2 PAGE 1 OF 2

3B 2401A — Drawing No.
Cerro Liner #2 — POOL
Stainless Steel — METAL TYPE
3/16" — MTL. THK.
~~RA31 to RE25~~ — PC. to PC.

A. ☑ ~~PLATE TO PLATE~~ ☐ INSERT TO PLATE ☑ ANGLE TO PLATE ☑ OTHER R D25 TO L A37

DER BOL	WMR NO.	WELD PROCED.	HOLD POINT
EN	A007517	88023	First Fit, 2,3
EN	A007532	88023	4
EM	A007541	88023	4
T	B371A	88025	1
T	B382A	88025	1
G	B398	88025	1

1. Fit up and cleanliness of above:

SAT. — RESULTS; N.D. Stinson — INSPECTOR SIGNATURE; 2-3-82 — DATE

2. V.T. of backing strip tack/fillet welds:

SAT — RESULTS; Larry Wilson — INSPECTOR SIGNATURE; 8-11-78 — DATE

3. Cleanliness of channel, liner, and backing strip:

SAT — RESULTS; Larry Wilson — INSPECTOR SIGNATURE; 8-11-78 — DATE

4. Final V.T. of channel fillet weld:

SAT — RESULTS; Larry Wilson — INSPECTOR SIGNATURE; 8-11-78 — DATE

5. Final V.T. of inside weld:

SAT. — RESULTS; INSPECTOR SIGNATURE; DATE

Completion of weld inspection:

RESULTS; INSPECTOR SIGNATURE; DATE

FOR INFORMATION ONLY

SOP ___ QS ✓ M ___

N/A

BB 2401A

MILLWRIGHT DEPT.

B- 398

118

118	1/24/82	732 / ER308	CCG	88025 / 4-3	463516	40	4	X-038
118	3/30/83	3/32 / ER308	ABF	88025 / 5-2	463516	10	6	Alhouse / R490

NON DESTRUCTIVE ST
INSPECTION REQUEST

FOREMAN _____

WELDER: OWENS ARN

DRAWING # B.B 2401 A

Reactor #2

INSP. REQ. CLEAN ☐ FIT-UP ☐ FIELD WELD JT. # 118
VISUAL ☐ L.P. ☐ V.B. _____
FINAL ☐

COMMENTS: Fit up & Cleanliness

WMR: A007517 ARN

INSPECTOR: S.M. McCoy ACCEPT: ✓ DATE: 8-10-78

FOR INFORMATION ONLY

NON DESTRUCTIVE TEST
INSPECTION REQUEST

FOREMAN Fuller

DATE 1-22-82

WELDOR: N/A

DRAWING # BB2401A

INSP. REQ.	CLEAN	✓	FIT-UP		FIELD WELD # 118
	VISUAL		L.P.		V.B.
	FINAL				WFML :

COMMENTS:

Casing

INSPECTOR : [signature] ACCEPT: ✓ DATE: 1-22-82

FOR INFORMATION ONLY

NON DESTRUCTIVE TEST
INSPECTION REQUEST

FOREMAN: Fewles

TIME/DATE: 1-22-82

WELDOR: N/A

DRAWING #: BB2461A

INSP. REQ.						
	CLEAN	✓	FIT-UP		FIELD WELD #	118
	VISUAL		L.P.		V.B.	
	FINAL					

COMMENTS:

WFML:

INSPECTOR: [signature]

ACCEPT: ✓

DATE: 1-22-82

FOR INFORMATION ONLY

118
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

QI-QP-11.14-6 REV.

PROJECT: CPSES JOB NO: 35-1195 UNIT 2 PAGE ____ OF ____

BB-2401-A Drawing No. | Reactor Liner #2 Pool | STAINLESS STEEL Metal Type | 3/16" Mtl. Thck. | BOTTOM ANGLE TO PLATE PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☑ Angle to Plate Other A37 TO D25

Welder Symbol	WFML No.	Weld Proced.	Hold Point

1. Fit up and Cleanliness of Above

Results Inspector Signature Date

2. V.T. of Backing Strip Tack/Fillet Welds:

Results Inspector Signature Date

3. Cleanliness of Channel, Liner, and B. Strip:

Results Inspector Signature Date

4. Final V.T. of Channel Fillet Weld:

Results Inspector Signature Date

5. Seam Weld Fit Up and Cleanliness:

Results Inspector Signature Date

6. Final V.T. of Welds for Surface Preps.

Results Inspector Signature Date

7. Final P.T. and Vacuum Box of Seams (See Weld Inspection Sheet)

Results Inspector Signature Date

8. Completion of Weld Inspection: QI-QP-11.14-6

Inspector Signature Date

FOR INFORMATION ONLY

118
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

Weld Inspection Sheet Page ___ of ___

Acceptance Std.
Gibbs & Hill 2323-SS-18

7a. Penetrant Mfg. Magnaflux-Spotcheck _____

Cleaner Mfg. Magnaflux-Spotcheck _____

Developer Mfg. Magnaflux-Spotcheck _____

NDE Procedure

_____

Final P.T. Level II _____ _____ _____
RESULTS INSPECTOR SIGN. DATE

7b. Vacuum Box GASKET TYPE SOLUTION TYPE

_____ by _____ _____ _____

Pretest Cleaning ____ Pressure ____ Temperature ____ NDE Procedure

_____

Solution Application Method _____ Post Test Cleaning _____

Gauge Serial Number _____ Pressure Differential Maintained for _____Sec. _____Min.

Final V.B. _____

N/A - Not Applicable

Satisfactory _____ Unsatisfactory _____ Level II Inspector _____ Date _____

FOR INFORMATION ONLY

1091
WELD NO.

B&R Stainless Steel Liner Inspection Traveler

Weld Inspection Sheet Page ___ of ___

Acceptance Std.
Gibbs & Hill 2323-SS-1B

7a. Penetrant Mfg. Magnaflux-Spotcheck _____

Cleaner Mfg. Magnaflux-Spotcheck _____

Developer Mfg. Magnaflux-Spotcheck _____

NDE Procedure

_____

Final P.T. Level II _____ _____ _____
RESULTS INSPECTOR SIGN. DATE

7b. Vacuum Box GASKET TYPE SOLUTION TYPE

_____ by _____ _____ _____

Pretest Cleaning ____ Pressure ____ Temperature ____ NDE Procedure

_____

Solution Application Method _____ Post Test Cleaning _____

Gauge Serial Number _____ Pressure Differential Maintained for _____Sec. _____Min.

Final V.B. _____

N/A - Not Applicable

Satisfactory _____ Unsatisfactory _____ Level II Inspector _____ Date _____

FOR INFORMATION ONLY

WELD NO. 1091 *

B&R Stainless Steel Liner Inspection Traveler

QI-QP-11.14-6 REV.

PROJECT: CPSES JOB NO: 35-1195 UNIT 2 PAGE ____ OF ____

BB-2401-A (Drawing No.) Reactor Liner #2 (Pool) STAINLESS STEEL (Metal Type) 1/4" TO 1/4" (Mtl. Thck.) E4 TO G4 (PC. to PC.)

☐ Plate to Plate ☐ Insert to Plate ☐ Angle to Plate Other ANGLE TO ANGLE

Welder Symbol	WFML No.	Weld Proced.	Hold Point

1. Fit up and Cleanliness of Above

Results Inspector Signature Date

2. V.T. of Backing Strip Tack/Fillet Welds:

Results Inspector Signature Date

3. Cleanliness of Channel, Liner, and B. Strip:

Results Inspector Signature Date

4. Final V.T. of Channel Fillet Weld:

Results Inspector Signature Date

5. Seam Weld Fit Up and Cleanliness:

Results Inspector Signature Date

6. Final V.T. of Welds for Surface Preps.

Results Inspector Signature Date

7. Final P.T. and Vacuum Box of Seams (See Weld Inspection Sheet)

Results Inspector Signature Date

8. Completion of Weld Inspection: QI-QP-11.14-6

Inspector Signature Date

* THIS TRAVELER ORIGINATED TO
SETTLE REQUIREMENTS OF N.C.R. MFW-XXX-19

FOR INFORMATION ONLY

PEAK STEAM ELECTRIC STATION
NONFORMANCE REPORT (NCR)

NCR No. M-84- 00669

UNIT	STRUCTURE/SYSTEM	ITEM/COMPONENT	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
2	Reactor Cavity	welds SS. Liner	BB-2401A	860' RB#2 A19	N/A

REPORTING PERSONNEL

NONCONFORMING CONDITION

During Document Review of the welds on splices on angles on the lower section of Liner it was noted that the Vacuum Box Space had been N/A'ED and the Completion of Weld Inspection had been signed off as Complete. A portion of these welds are pressure boundries AND ARE Required to have Vacuum Box Performed. The following Welds ARE Affected by this Document: W-1087, 1088, 1089, 1090, 1091, 1092, 1144 and 1145

1 Hold Tag APPLIED

REFERENCE DOCUMENT: QI-QP 11.14-6 REV 6 PARA 3.4.4

REPORTED BY: Louis Tessier DATE: 2/27/84

QE

QE REVIEW/APPROVAL: Bill Compean DATE: 2/27/84

ACTION ADDRESSEE Kissinger DEPARTMENT

ACTION ADDRESSEE

DISPOSITION:

REWORK XXX REPAIR ____ USE AS IS ____ SCRAP ____

The holdpoint for performing vacuum box inspection shall be reinstated and the vacuum box shall be performed by QC.

ENG. REVIEW/APPROVAL D.P. Patankar / B. Wright DATE: 4/18/84

QE REVIEW APPROVAL: D. T. Ott DATE: 4/19/84

DISPOSITION VERIFICATION & CLOSURE: DATE: / /

COMMENTS:

RA Issued to delete W#1145

FOR INFORMATION ONLY

GENERATING CO.

PEAK STEAM ELECTRIC STATION
NONCONFORMANCE REPORT (NCR)

NCR No. M84-00669 △1

UNIT	STRUCTURE/SYSTEM	ITEM/COMPONENT	TAG/ID NUMBER	LOCATION OR ELEVATION	RIR NO.
2	Reactor Cavity	Welds S.S. Liner	BB2401A	560' RB2 AC 19	N+

REPORTING PERSONNEL

NONCONFORMING CONDITION

During Document Review of traveler on S.S. Liner welds, it was noted that Step 7 had not been Performed as required AND Step 8 was signed as Complete. These welds Are pressure boundries and Require Vacuum Box Testing.

The following welds are Affected by this NCR: W-1057, 1088, 1089, 1090, 1091, 1092 and 1144. The traveler # & Weld # ARE The Same.

One hold tag Applied.

REFERENCE DOCUMENT: QI-QP 11.14-6 REV 6 PARA 3.4.4

REPORTED BY: Lou Tessier / Jimmie Duncan DATE: 6/1/84

QE

QE REVIEW/APPROVAL: Bill Cunningham DATE: 6/1/84

ACTION ADDRESSEE DEPARTMENT

ACTION ADDRESSEE

DISPOSITION:

REWORK ✓ REPAIR ____ USE AS IS ____ SCRAP ____

THE HOLDPOINT FOR PERFORMING VACUUM BOX TEST SHALL BE RE-ESTABLISHED AND THE VACUUM BOX TEST PERFORMED BY QC.

ENG. REVIEW/APPROVAL: Gary Maedgen DATE: 8/3/84

QE REVIEW APPROVAL: D.T. Ott DATE: 8/7/84

DISPOSITION VERIFICATION & CLOSURE: DATE: / /

COMMENTS:

△1 Issued to delete W#1145

FOR INFORMATION ONLY

1091

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

MDE Procedure
QI-QAP 10.2-1 REV. Q

Final P.T. Level II Sat. James W. Cole 2/13/81 JWC 2/13/81
RESULTS INSPECTOR SIGN. DATE

5c. Vacuum Box GASKET TYPE SOLUTION TYPE

_____ by _____ _____ _____

Pretest Cleaning _____ Pressure _____ Temperature ___ MDE Procedure QI-QAP-10.2-6 REV. Q

Solution Application Method _____ Post Test Cleaning _____

Gauge Serial Number _____ Pressure Differential Maintained for _____ Sec. _____ Min.

Final V.S. N/A James W. Cole

(N/A) - Not Applicable

Satisfactory _____ Unsatisfactory _____ Level II Inspector ✓ Date 2/13/81

FOR INFORMATION ONLY

PERM. PLT. RECORD

RTA L | FILE LOC 7293.7

SUBFILE LOC # 1091

1091
WELD NO.

S&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1155 UNIT 2 PAGE 1 OF 2

WRB-10559/BB-2401A	REACTOR LINER #2	STAINLESS STEEL	1/4" to 1/4" *see below
Drawing No.	Pool	Metal Type	Mtl. Thk. PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☐ Angle to Plate ☑ Other L to L

Welder Symbol	WFHL No.	Weld Proced.	Hold Point
AEO	D-5687	88025	1,7

BROWN & ROOT, INC.
RECEIVED
JAN 13 1982
FILES NOTES
QUALITY

1. Fit up and Cleanliness of Above:
Sat. / James W. Cole / 2/12/81
Results / Inspector Signature / Date

2. V.T. of Backing Strip Tack/Fillet Welds:
N/A / N/A / N/A
Results / Inspector Signature / Date

3. Cleanliness of Channel, Liner, and L. Strip:
N/A / N/A / N/A
Results / Inspector Signature / Date

4. Final V.T. of Channel Fillet Weld:
N/A / N/A / N/A
Results / Inspector Signature / Date

5. Inside F. Up and Cleanliness:
N/A / N/A / N/A
Results / Inspector Signature / Date

6. V.T. of Fillet Prior to Grinding:
N/A / N/A / N/A
Results / Inspector Signature / Date

7. Final V.T. of Inside Weld:
Sat. / James W. Cole / 2/13/81
Results / Inspector Signature / Date

* splice in embed L
JWC 3/6/81

8. Completion of Weld Inspection: QI-QAP 11.2-7 REV. 0
Sat. / James W. Cole / 3/6/81
Results / Inspector Signature / Date

FIGURE 3

NONDESTRUCTIVE TEST INSPECTION REQUEST	FOREMAN	TIME	DATE

WELDER: _____

DRAWING #: _____

INSP. REQ.	CLEAN	FIT-UP	FIELD WELD JT.#
	VISUAL	L.P.	V.B. _____
	FINAL		

COMMENTS: WMR. _____

_____

_____

_____

INSPECTOR: _____ ACCEPT: _____ DATE: _____

NON DESTRUCTIVE TEST INSPECTION REQUEST

FOREMAN

TIME

DATE 9/13/78

WELDER: See Below

DRAWING # 2401A BB P#2

INSP. REQ. CLEAN ☐ FIT-UP ☐ FIELD WELD JT. # 52
VISUAL ☐ L.P. ☐ V.B.
FINAL ☐

COMMENTS: First fit up & 1" Conlinear Pipe 1" Plate to angle

WMR: A017182 AAR
A017210 ARD

INSPECTOR: Don R. Vogt ACCEPT: ✓ DATE: 9-13-78

NON DESTRUCTIVE TEST INSPECTION REQUEST

FOREMAN

TIME

DATE 10-17-78

WELDER: Justice AEU

DRAWING # BB 2401A

INSP. REQ. CLEAN ☐ FIT-UP ☐ FIELD WELD JT.# 235
VISUAL ☐ L.P. ☐ V.B.
FINAL ☐

COMMENTS: First fit up and Examination of Conduit to Plate

WMR: A068850 AEU

INSPECTOR: JM McG ACCEPT: ✓ DATE: 10-18-78

See TR page 16,751 for tallies of Weld Nos. 1-175.

FOR INFORMATION ONLY

1091

Weld No.

Acceptance Std.
Gibbs & Hill 2323-SS-18

5b. Penetrant Mfg. Magnaflux-Spotcheck X

Cleaner Mfg. Magnaflux-Spotcheck X

Developer Mfg. Magnaflux-Spotcheck X

MDE Procedure
QI-QAP 10.2-1 REV. Q

Final P.T. Level II Sat. James W. Cole 2/13/81 2/13/81
RESULTS INSPECTOR SIGN. DATE

5c. Vacuum Box GASKET TYPE SOLUTION TYPE

_____ by _____ _____ _____

Pretest Cleaning _____ Pressure ____ Temperature ____ MDE Procedure QI-QAP-10.2-6 REV. Q

Solution Application Method _____ Post Test Cleaning _____

Gauge Serial Number _____ Pressure Differential Maintained for _____ Sec. _____ Min.

Final V.B. N/A James W. Cole

N/A - Not Applicable

Satisfactory _____ Unsatisfactory ____ Level II Inspector ✓ Date 2/13/81

FOR INFORMATION ONLY

PERM. PLT. RECORD

RTN L FILE LOC 7293.7

SUBFILE LOC 1091

1091

WELD NO.

B&R Stainless Steel Liner Inspection Traveler

PROJECT: CPSES JOB NO: 35-1195 UNIT 2 PAGE 1 OF 2

WRB-10559/BB-2401A	REACTOR LINER #2	STAINLESS STEEL	1/4" to 1/4" *see below
Drawing No.	Pool	Metal Type	Mtl. Thk. PC. to PC.

☐ Plate to Plate ☐ Insert to Plate ☐ Angle to Plate ☑ Other L to L

Welder Symbol	WPQL No.	Weld Proced.	Hold Point
960	D-5 687	88025	1,7

BROWN & ROOT, INC.
RECEIVED
JAN 13 1982
FILES NOTED
QUALITY ASSURANCE

1. Fit up and Cleanliness of Above:
Sat. / James W. Cole / 2/12/81
Results / Inspector Signature / Date

2. V.T. of Backing Strip Tack/Fillet Welds:
N/A / N/A / N/A
Results / Inspector Signature / Date

3. Cleanliness of Channel, Liner, and Back Strip:
N/A / N/A / N/A
Results / Inspector Signature / Date

4. Final V.T. of Channel Fillet Weld:
N/A / N/A / N/A
Results / Inspector Signature / Date

5. Inside Fit Up and Cleanliness:
N/A / N/A / N/A
Results / Inspector Signature / Date

6. V.T. of Fillet Prior to Grinding:
N/A / N/A / N/A
Results / Inspector Signature / Date

7. Final V.T. of Inside Weld:
Sat. / James W. Cole / 2/13/81
Results / Inspector Signature / Date

* splice in embed L
JWC 3/6/81

8. Completion of Weld Inspection: QI-QAP 12.2-7 REV. 0
Sat. / James W. Cole / 3/6/81
Results / Inspector Signature / Date

FIGURE 3

NONDESTRUCTIVE TEST INSPECTION REQUEST	FOREMAN _____	TIME	DATE

WELDER: _____

DRAWING #: _____

INSP. REQ.	CLEAN	FIT-UP	FIELD WELD JT.#
	VISUAL	L.P.	V.B. _____
	FINAL		

COMMENTS: WMR. _____

_____

_____

_____

INSPECTOR: _____ ACCEPT: _____ DATE: _____

Dr. Walter H. Jordan
881 W. Outer Drive
Oak Ridge, Tennessee 37830

Ms. Ellen Ginsberg, Law Clerk
U.S. Nuclear Regulatory Commission
4350 East/West Highway, 4th Floor
Bethesda, Maryland 20814

Nicholas S. Reynolds, Esquire
Bishop, Liberman, Cook,
Purcell & Reynolds
1200 17th Street, N.W.
Washington, D.C. 20036

Stuart Treby, Esquire
Geary S. Mizuno, Esquire
Office of Executive Legal Director
U.S. Nuclear Regulatory Commission
Maryland National Bank Building
Room 10105
4350 East/West Highway, 4th Floor
Bethesda, Maryland 20814

Docketing & Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Renea Hicks, Esquire
Assistant Attorney General
Environmental Protection Division
Supreme Court Building
Austin, Texas 78711

Mrs. Juanita Ellis
President, CASE
1426 S. Polk
Dallas, Texas 75224

Anthony Z. Roisman BC

ANTHONY Z. ROISMAN
Trial Lawyers for Public Justice
2000 P Street, N.W., Suite 611
Washington, D.C. 20036
(202) 463-8600

NON DESTRUCTIVE TEST INSPECTION REQUEST

FOREMAN

TIME | DATE 9/13/78

WELDER: See Below

DRAWING # 2401A BB P#2

INSP. REQ. CLEAN ☐ FIT-UP ☐ FIELD WELD JT. # 52
VISUAL ☐ L.P. ☐ V.B.
FINAL ☐

COMMENTS: First fit up & 1" Continuous fp 1" Plate to angle

WMR: A017182 AAR
A017210 ARD

INSPECTOR: Don R. Vogt ACCEPT: ✓ DATE: 9-13-78

NON DESTRUCTIVE TEST INSPECTION REQUEST

FOREMAN

TIME | DATE 10-17-78

WELDER: Jouture AEU

DRAWING # BB 2401A

INSP. REQ. CLEAN ☐ FIT-UP ☐ FIELD WELD JT. # 235
VISUAL ☐ L.P. ☐ V.B.
FINAL ☐

COMMENTS: First fit up and Cleanliness of Embed to Plate

WMR: A068850 AEU

INSPECTOR: J.M. McCoy ACCEPT: ✓ DATE: 10-18-78

See TR page 16,751 for tallies of Weld Nos. 1-175.

NOTE: Minns / Bachmann / Karman / Rothschild / Stratton / Barrett / Rothschild / Stratton / OGC

September 27, 1984

850263

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

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

CASE's Evidence Of A Quality Control Breakdown

Ms. Sue Ann Neumeyer testified that on March 3, 1983 she was instructed to "sign off" on approximately 140 travelers which were missing signatures. (See CASE's Preliminary Proposed Findings of Fact (PPFF) Nos. 1 - 20) She did so, under protest, noting with an asterisk and explanation what her signature on certain lines did and did not mean. As a conscientious quality control inspector she was deeply concerned about the implications and impropriety of the task put before her. Applicant's explanation, offered through C. Thomas Brandt, is that Ms. Neumeyer's concerns were without foundation -- even if she had been pressured into signing the missing hold points. (See prefiled testimony of C.T. Brandt, dated August 16, 1984.

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Applicant's argument is without foundation. After the production of the travelers for Unit 2 Refueling Building there is no question that Ms. Neumeyer had every reason to be apprehensive about the condition of the liner plates and the specific assignment she was given by her supervisor.

Months before Ms. Neumeyer's testimony in July 1984 on this incident in the Atomic Safety and Licensing Board hearings on harassment and intimidation she reported the information to the Nuclear Regulatory Commission's Office of Investigation (OI). OI investigators apparently never reviewed the stainless steel liner plate travelers which were the subject of her concern, neither did the Technical Review Team (TRT).

During the September 1984 hearings on this issue Applicant produced approximately 1300 travelers, including some of those signed off by Ms. Neumeyer and another Quality Control Inspector Fred Evans on March 3, 1983.

A review of the travelers demonstrates that at least as to the fabrication and installation of the stainless steel liner plates there has been a complete quality control breakdown. We find no evidence that the breakdown is limited to the Unit 2 refueling cavity, since the construction and quality procedures control apply to Unit 1, Unit 2, the transfer canal and Refueling Building.

In fact there is increasing evidence that the problems identified below regarding Unit 2 are equally applicable to Unit 1. (See Attachment 1, Interview of Avril Dillingham by the Office of Investigations (OI), August 24, 1983; Attachment 2,

Handwritten memorandum of James Cole and Larry Wilkerson, dated August 13, 1982, which appear as Attachment "H" to Brown & Root's internal investigation of complaints raised by Mr. Dillingham; and also Staff Exhibit 120 regarding a 1979 IE inspection into allegations by former welders of problems with the fuel pool, etc.)

This evidence also indicates that both the NRC and Applicant have been aware of the significant problems regarding the construction, inspection, and documentation of the liner plates in both units since the beginning of work on this project.

Finally, CASE asserts that neither the Applicant's explanation nor their resolution of this problem are credible.

In particular, our preliminary research into the technical merits reveals that the vacuum box test and penetrant test are unacceptable substitutes for insuring that the weld was clean -- that is, free from foreign materials. These welds must last the lifetime of the reactor and the damage caused by impurities in a weld cannot be detected by vacuum box, hydrostatic or penetrant test. The impurities may not manifest themselves for months or years, but when the impurities "eat their way out" of unclean welds it is likely that the impurity will extend to the liner plate also.

The importance of the welds in the refueling cavities cannot be underestimated. On August 24, 1984 IE Bulletin No. 84-03 was issued regarding the refueling cavity water seal. Its purpose was to

(1) notify addressees of an incident in which the refueling cavity water seal failed and rapidly drained the refueling cavity, and (2) request certain actions to assure that fuel uncovery during refueling remains an unlikely event.

Although the incident involved the failure of the refueling cavity water seal it nonetheless draws attention to the dangers which could result from water seal failures.

No fuel was being transferred at the time of this seal failure. If, however, fuel had been in transfer at the time, it could have been partially or completely uncovered with possible high radiation levels, fuel cladding failure and release of radioactivity. In addition, if the fuel transfer tube had been open, the spent fuel pool could have drained to a level which would have uncovered the top of the fuel.

The liner plates are also susceptible to being hit or jostled by the fuel as it moves through the canal, and refueling cavity and into the spent fuel pool. Because of this it is important that the structural integrity of the welds be adequate. Further, the NRC requires that the fuel pool and other cavities be seismically qualified, and therefore dictate that all quality assurance requirements of Appendix B to 10 C.F.R. Part 50 be applied to these structures and components.1/

1. Violations of Federal Regulations

Applicant violated at a minimum of three specific criterion of 10 C.F.R. Appendix B in its failure to adequately control the work, inspections, and documentation relating to the stainless steel liner plates.

1/ NRC Regulatory Guide 1.29, Revision 3, September 1978.

10 C.F.R. 50 Appendix B - Criteria V, Criteria VI and Criteria VIII states:

Criteria V: Instructions, Procedures, and Drawings. Instructions, procedures, or drawings shall include appropriate quantitive or acceptance criteria for determining that important activities have been satisfactorily accomplished.

Criteria VI: Document Control. These measures shall assure that documents, including changes, are reviewed for adequacy and approved for release by authorized personnel and are distributed to and used at the location where the prescribed activity is performed.

Criteria VIII: Identification and control of Materials, Parts and Components. These measures shall assure that identification of the item is maintained by heat number, part number, serial number, or other appropriate means, either on the item or on records traceable to the item as required throughout fabrication, erection, installation, and use of the item.

a. The failure to use the correct S/S Liner traveler testified to by Brandt was a violation of Criteria V, VI, and VIII.

b. The lack of sufficient documentation violates Criteria VI.

c. The lack of QC verification and supporting documentation violates Criteria V, VI, VIII, and includes all the categories.

d. The failure to include all supporting documentation WMRs and WPMLs in the welding package is a violation of Criteria VIII that requires identification and traceability of materials used, and to prevent the use of incorrect or defective material, parts, and components.

e. There is no adequate traceability for any of the welding packages reviewed.

2. Violations of CPSES Procedures

Applicant disregarded the clear instructions contained in its own procedures for the conduct of inspection on the liner plates.

a. From at least 11/29/77 until 1/4/79 Applicant used the wrong traveler form (admitted by Brandt), failed to enter NDE chits on the traveler each day when used and failed to put the chits in the QA vault daily as required by CP-QCI-2.11-1 Rev. 0, 1 & 2, Section 3.1.1 (note) and used a chit for fit-up and cleanliness when no chit for that inspection was authorized by the procedures in effect for that period (see CP-QCI-2.11-1 & 35-1195-CCP-38).

b. No QC procedure published since 1/4/79 authorizes the use of NDE chits to record fit-up and cleanliness inspections having been performed. Procedures require that sign-off for all inspections included on the eight line traveler be on the authorized eight-line traveler (see e.g. QI-QP-11.14-6 (Rev. 1) Section 3.8) although this was not followed in many instances and even today unauthorized and uncontrolled chits are being used to record inspections.

c. With adoption of QI-QAP-11.1-4 in 12/26/79 Applicant had no QC authorized traveler form for stainless steel liner inspections and no chit forms for any inspection

since this procedure deleted any reference to 35-1195-CCP-38 and does not include any traveler or chit forms.

d. As of March 26, 1982 and per QI-QP-11.14-6 (Rev. 0-6), Section 3.5 (in Rev. 0) the issuance and distribution of inspection travelers were to be governed by 35-1195-CCP-38, which contains no instructions on issuance or distribution of travelers (see Section 3.4.2. (p. 5 of 18)). In addition the March 26, 1982 instruction for inspections is woefully inadequate compared to the level of detail and guidance on the conduct of the inspection contained in its predecessors and successors.

e. QI-QP-11.14-6 (Rev. 4 & 5) does not contain any traveler form at all although it is allegedly included as an attachment. See pp. 3 of 6 - 6 of 6. This condition continued from June 17, 1983 until January 10, 1984 (Rev. 6).

f. All forms authorized and/or used for inspection of stainless steel liners and all instructions required a <u>fit up</u> and cleanliness inspection for all welds. The NCR dispositioned the inspection deficiency only as to cleanliness and not as to fit-up. Thus the NCR does not fully address the entire problem.

g. QI-QP-11.14-6 Rev. 1 through 6 requires QC Inspections to be documented on the S/S Inspection Travelers, and that NDE performed for holdpoints not included on the S/S Liner Inspection Travelers is to be documented on NDE sheets.

Prior to this procedure CP-QCI-2.11-1 required QC verification to be documented on the traveler, and the test results for VT, PT and VB test were to be documented on S/S Liner NDE reports.

Supporting documentation showing the results of VT, PT and VB test are missing from over 50 percent of the S/S Liner Travelers. (They are too numerous to list, but see travelers 2A, 221 and 589 for examples.)

3. Specific Categories of Discrepancies in the Stainless Steel Liner Plate Documentation

a. Category One

The five line form (hereafter referred to as Case Form A (CF-A),2/ an example is attached as Attachment 3) was signed in numerous different ways. These differing approaches included double signatures, dates different for the signatures, different explanations for what the signatures meant, and single signatures with no explanation of what inspection the single signature denotes. (Examples of four traveler packages are included for ease of explanation only, Nos. 52, 15, 118, 1091)

2/ The first form (Case Form A) is a construction form which is designated as Figure 3 first appearing in Interim Change Notice 2 to Construction Procedure 35-1195-CCP-38, Rev. 2, issued in August 1978. Prior to the issuance of the form the QC hold points were designated on Page 5A, Section 3.4.1, "QC Hold Points" in Rev. 2 of the same procedure issued December 8, 1977.

Case Form B is the form designated in Quality Instruction CP-QCI-11-1, Attachment 4A.

Case Form C is the eight-line form first appearing in Interim Change Notice 3 to Construction Procedure 35-1195-CCP-38, Rev. 2, issued in August 1978.

Case Form D is the eight-line form appearing as Attachment 1 to Rev. 0 of QI-QP 11.14-6, March 26, 1982.

Examples of this can be found in 15, 110, 118(incl.), 6, 7, 8, 36, 84, 130, 142.

As a result of this discrepancy it is impossible, on the face of the document, to determine what inspection the signature (or signatures) in line one on Form A is supposed to indicate was performed.

According to CP quality control procedures (QCI 2.11-1), in effect from December 1977 through January 1979 (incorporating the time period of Construction Procedure 35-1195-CCP-38 Rev. 2), the quality control inspectors were supposed to be inspecting the work done on the liner plates and documenting the inspections on Stainless Steel Liner Inspection Traveler NDE Report (Attachment A to QCI 2.11-1, hereinafter referred to as Case Form B, incorporated as Attachment 5).

The QCI required a five step, two point inspection of fit-up and cleanliness as follows:

1. Fitup and Cleanliness Inspection

   a. Verify that the fit-up gap between plates or plates to angle or plates to inserts, etc. is within a minimum of three-sixteenths inch (3/16") and a maximum of three-eighths inch (3/8") or as otherwise specified on fabrication drawings.

   b. Verify that the plates, angles and/or inserts to be welded have been mechanically cleaned a minimum of one inch (1") back from the weld prep and that a minimum of three inches (3") has been degreased.

   c. Verify that the piece being fitted into place is the correct piece and that it conforms to applicable drawings.

* * *

4. Fit-Up and Cleanliness Verification After Concrete Placement

   a. Verify that the fit-up gap between liner material has been maintained within a minimum of three-sixteenths inch (3/16") and a maximum of three-eighths inch (3/8").

   b. Verify that the linear material to be seam welded has been mechanically cleaned a minimum of one inch (1") and degreased a minimum of three inches from the weld prep.

* * *

As a result of the discrepancy between the spaces provided on Case Form A and the requirements of the quality control instructions, there is no assurance, based on whatever Case Form A indicates, that the inspections required by the QC instructions were ever performed.

b. Category Two

Welds were signed off as completed without QC verification for Step 5, which requires Seam Weld Fit-up and Cleanliness verification. The traveler (Case Form A) shows that welds were done for Step 5 by indicating "SAT", but no QC verification or signature is shown. These weld travelers indicate the original Fit-up and Cleanliness was done in 1979 and welding resumed in 1983 without verification and preparation required by procedure.

Examples of this can be found in 15, 52, 118 (see also TR. 16,748 and 16-751-752).

This is a violation of Criterion V, VI, and VIII of 10 C.F.R. Appendix B (infra). It is also a violation of CPSES QC procedure 2.11-1, Section 3.1.1.(4) and (5).

c. Category Three

Not all travelers have attached chits which are alleged to verify that the QC inspections were performed, although there are signatures on line one of Form A which indicate QC has performed an inspection on that weld.

Examples of this can be found in 7, 19, 81, 877, 878, 879 (see also TR. 16,748).

Even if one would accept the argument of the Applicant that inspections are verified on construction chits (Figure 3, Rev. 2 (CCP 35-1195-CCP 38, Dec. 8, 1977), the failure of the inclusion of the chit is a violation of CPSES QC procedure 2.11.1, Section 3.1.1 (note) which required that NDE Reports (although not the same chit used by QC) be forwarded to the vault daily as "status indicators".

d. Category Four

Almost all of the chits reviewed have the explanation of the inspection allegedly performed written on "the chit" (Figure 3, Rev. 2, 35-1195-CCP-38, December 8, 1977) in one of two handwritings.

Examples are incorporated as Attachment 6; tallies for weld numbers 1-175 appear at TR. 16,751.

The "comments" section on the chits occasionally does have what appear to be original comments on them. (See TR. 16,751 for numbered examples)

Ms. Sue Ann Neumeyer testified that the explanation was not on the chit on March 3, 1983. (TR. 59,773) The absence of that

comment at that time would be consistent with the prescribed purpose of that chit in CPSEC 35-1195-CCP-38, Rev. 2, December 8, 1977, Section 3.4.2 which states:

> The form shown in Figure 3 shall be used in the above noted hold points as notification to QC to perform inspection.

The use of this form to verify the completion of an inspection is a violation of Criterion V, VI and VIII of 10 C.F.R. Appendix B, as well as a volation of CPSES QCI 2.11.1.

e. Category Five

Inconsistency of the use of Case Form A or Form C to document QC inspections from 1977-1982.

Case Form C, an eight-line traveler issued by craft in Interim Change Notice 3 to 35-1195-CCP-38, Rev. 2 was apparently also used by QC inspectors during the 1978-1979 to 1982 time frame. The use of this form also violated CPSES QC instruction. In numerous cases there are no craft NDT chits attached to these forms at all.

Examples of the use of the eight-line Form C can be found in 2A, 15, 52, 118, 1091(incl.), 205.

As with Category Numbers 1-4 the use of this form violates Criterion V, VI and VIII of 10 C.F.R. Appendix B.

f. Category Six

The documentation provided is not complete. That is, the "traveler packages" do not contain all documentation which is required by regulation and procedure to substantiate that work

was done as prescribed, with correct materials, by certified welders, and inspected by qualified inspectors. There are numerous instances where traveler packages either do not contain weld filler material logs (WFMLs) at all, or penetrant test verification reports, or no weld material ~~records~~ requisitions (WMRs).

Examples of those are found in 877, 878, 879 (see also TR. 16,752-753).

This is a violation of Criterion V, VI and VIII of 10 C.F.R. Appendix B.

It also violates both site quality control procedures and the Applicant's explanation.

g. Category Seven

A review of the weld filler material logs indicate some instances where inspections were performed on a certain hold point prior to the issuance of the weld rod which would precede the making of the weld.

Examples of this include 2A, 15, 34, 52(incl.), 61, 62, 110, 118.

This is a violation of both 10 C.F.R. Appendix B and of all relevant CPSES quality control procedures.

Not so. One only

h. Category Eight

Signatures are often missing from lines on the travelers (all Forms) which indicate "SAT". The "SAT" seems to indicate the hold point has been complied with but there are no signatures, therefore it is impossible to accept that the

inspection was performed, and totally impossible to determine who performed the inspection or test. The result is that those welds must be considered indeterminate.

Examples of this can be found in 15, 52(incl.), 115, also 126, 137 - Lines 7 and 8 on the Form C/D with "SAT" but no signatures, 62, 81, 205, 225 - Line 5 says SAT for the VT inspection but no signature. (see also Category One)

i. Category Nine

Jimmie Duncan, Jim Cole and Jack Hawford's signatures appear frequently through groups of hundreds of the travelers as the sole QC inspector on this project, as well as the weld rod issues.

It appears incredulous that either Mr. Duncan or Mr. Cole could have actually performed the large measure of inspections they have verified, or that Mr. Hawford could have issued thousands of controlled weld rods in a single day.

Further, if their work was a document review and correction there is no explanation on the face of the documents or in any of the supporting documentation which would suggest a legitimate explanation for the bulk work performed by Mr. Duncan or Mr. Cole.

Further, neither Mr. Cole nor Mr. Duncan's name appears on the ASME QC inspectors list raising the inference that the work, whatever it was, is totally rejectable since the liner plates were designated as safety-related and therefore required at least the original work to be performed by qualified ASME inspectors.

Finally, we understand that Mr. Cole was terminated for falsification of documentation. If that is correct, and we have a good faith belief that it is, all of Mr. Cole's work on these travelers is invalidated.

Traveler numbers 400-499, 500-599, 600-699, 700-799, 800-899 should be reviewed in their entirety.

4. Failure to Properly Disposition NCRs Regarding Discrepancies With the Stainless Steel Liner Plates

Applicant has failed to adequately address the indeterminate status of the affected welds on the stainless steel liner plates, even though the condition has been identified at least four separate times since late March 1983.

a. NCR M83-00795 3/

This NCR identifies that the quality of the forty-eight waterside welds in Refueling Building #2 are indeterminate because the Fitup and Cleanliness inspections cannot be verified as being performed.

The NCR does not identify the discrepancy as a generic problem, which it was. Nor does the disposition require that the review of welds be expanded to determine the root cause of the problem, or include engineering evaluation of the requirements for the potential for rust-through during the lifetime of the weld if the weld could not have passed cleanliness.

3/ Also Brandt Exhibits 18 and 19 , another revision of this NCR dated in August 1984 is attached with Attachment 4. It is unclear why the revised NCR (Brandt 19) was again revised in August 1984.

b. A review of the Stainless Steel Liner Travelers disclosed that an NCR has recently been written against welds that had been signed off years ago as "late entry" using old NDE chits as verification that Step 1 had been completed for the required Fit-up/Cleanliness inspection of the inside (waterside) welds. The NCR stated that the use of these old NDE chits was not sufficient to verify QC inspection, making the condition of the welds indeterminate.

Yet, the disposition of the NCR stated only that the welds are seam welds utilized to provide leak tightness of the liner, and that their acceptability would be based on the outcome of Vacuum Box and Hydrostatic Test. (NCR M83-0079, dated 3/17/84, Attachment 4)

c. Another NCR was written that also applies. This NCR states that Step 5 (inside Fit-up and Cleanliness) of these welds lacks QC verification, again leaving acceptability of the welds indeterminate until they are Vacuum Box Tested. (NCR M83-01000, Attachment 4)

d. NCR M84-00669 Rev. 1

On June 11, 1984, during another document review of the stainless steel liner welds "it was noted that step 7 on Form D had not been performed as required." Yet, the next step was signed as complete. The disposition again was to perform the vacuum box test, although curiously the disposition says to "reestablish" the hold point for that test. Also the two travelers for weld number 1091 reveal several unsettling discrepancies.

First, the traveler (a Form D) does contain signatures of lines one, seven and eight. Those signatures make it appear as if the inspections were performed in the proper chronological order -- that is there appears to be no basis for this NCR. Yet there is also a traveler (Form C) with no signatures or dates which contains the explanation by asterisk that "This traveler originated to satisfy the requirements of NCR m84-00669." Since the NCR wasn't written until June of this year the new attached traveler form must have been included in the package after June 1984, after the original traveler had already been placed in the permanent plant record vault on January 13, 1982. The discrepancy, whatever it was, was not discovered until a June 1984 document review.

e. NCR #200087-200088, NCR #84-200018

As late as August 1984 numerous problems were being discovered on these welds. A document review on Field Weld #52 discovered that (1) welding has resumed in 1984 while the cleanliness requirement was ignored (NCR #200087); (2) that the backing slip had a gap behind it (NCR #200088); and (3) that the backing slip was ground through exposing concrete from 5 on FW53 (NCR #84-200018, Rev.1).

The September 5, 1984 disposition does not address the reason the cleanliness issue was ignored or the extent of the problem, but only requires a PT test for the particular weld in question (#52).

The travelers in this package, Form A reveals no signature on line one, although the WMR log indicates the first fit-up was done during this time period and the chit indicates "First fitup and cleanliness" done September 13, 1978, but includes a comment, without signature or date, that on 7/18/79 cleanliness was verified "where accessable." Form D contains no signatures, and Form C contains two signatures on line one with two dates.

5. Quality Control Breakdown in Construction Inspection and Documentation

One thing is undeniably clear about this incident. Ms. Sue Ann Neumeyer's fears about not being involved in highly irregular and possibly illegal activity were well grounded. It appears from a review of the documents, the NCRs and their individual resolutions, the internal Brown & Root investigations of welder complaints and the Staff's review of Brown & Root explanations that since the welding and inspection on the liner plates began there have been serious problems with construction, inspection, quality control procedures and documentation.

More significantly, in each case the Applicant either deliberately or negligently failed to recognize the seriousness and extent of the problem. Instead Applicant engaged in, and continues to engage in, "damage control" and cover-up of this quality control breakdown.

The seriousness of the delinquent and callous manner in which this incident has been handled cannot be explained away by Applicant.

CASE believes that it is not mere coincidence that Applicant has refused to provide the remainder of the Neumeyer-Evans travelers. Neumeyer testified she and Evans signed off documentation from the Unit I fuel pool and transfer canal. Obviously Applicant is continuing its attempts to delude the public and the NRC by creating the false impression that the quality control breakdown was limited to only the Unit 2 refueling building. Yet, the testimony of employees since 1977 is to the contrary. In the face of the indeterminate and potentially dangerous situation which would be created by fuel loading in Unit 1 Applicant continues to disregard its responsibilities toward both the public and the Nuclear Regulatory Commission. This attitude is illustrative of this Applicant's gross disrespect for the regulations which could have and should have prevented this situation from ever existing.

Ironically, on the eve of fuel load, Applicant is discovering that the unheeded claims and warnings of both construction workers and quality control inspectors were indeed like canaries in the coal mine.

Respectfully submitted,

Anthony Z. Roisman

ANTHONY Z. ROISMAN
Trial Lawyers for Public Justice
2000 P Street, N.W., Suite 611
Washington, D.C. 20036
(202) 463-8600

Counsel for CASE

cc: Service List

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

Attachment 1

DATE: March 7, 1984

REPORT OF INVESTIGATION

TITLE: COMANCHE PEAK STEAM ELECTRIC STATION: ALLEGED INTIMIDATION OF QC PERSONNEL

SUPPLEMENTAL NO. DN 50-445/50-446

CASE NUMBER: 4-84-006

CONTROL OFFICE: OI FIELD OFFICE: REGION IV STATUS: CLOSED

PERIOD OF INVESTIGATION: August 3, 1983 - October 27, 1983

REPORTING INVESTIGATOR:
H. Brooks Griffin, Investigator
Office of Investigations Field Office, Region IV

PARTICIPATING PERSONNEL:
Richard K. Herr, Director
Office of Investigations Field Office, Region IV

Wendel E. Frost, Investigator
Office of Investigations Field Office, Region IV

REVIEWED BY:
Richard K. Herr, Director
Office of Investigations Field Office, Region IV

William J. Ward, Director
Division of Field Operations
Office of Investigations

Roger Fortuna, Deputy Director
Office of Investigations

APPROVED BY:
Ben B. Hayes, Director
Office of Investigations

September 27, 1984

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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CERTIFICATE OF SERVICE

By my signature below, I hereby certify that true and correct copies of CASE's CASE's Evidence of a Quality Control Breakdown have been sent to the names listed below this 27th day of September, 1984, by: Express mail where indicated by *; Hand-delivery where indicated by **; and First Class Mail unless otherwise indicated.

Administrative Judge Peter B. Bloch
U.S. Nuclear Regulatory Commission
4350 East-West Highway, 4th Floor
Bethesda, Maryland 20814

Herbert Grossman
Alternate Chairman
ASLB Panel
U.S. Nuclear Regulatory Commission
4350 East-West Highway, 4th Floor
Bethesda, Maryland 20814

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

Dr. Walter H. Jordan
881 W. Outer Drive
Oak Ridge, Tennessee 37830

Ms. Ellen Ginsberg, Law Clerk
U.S. Nuclear Regulatory Commission
4350 East/West Highway, 4th Floor
Bethesda, Maryland 20814

Nicholas S. Reynolds, Esquire
Bishop, Liberman, Cook,
Purcell & Reynolds
1200 17th Street, N.W.
Washington, D.C. 20036

Stuart Treby, Esquire
Geary S. Mizuno, Esquire
Office of Executive Legal Director
U.S. Nuclear Regulatory Commission
Maryland National Bank Building
Room 10105
4350 East/West Highway, 4th Floor
Bethesda, Maryland 20814

Docketing & Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Renea Hicks, Esquire
Assistant Attorney General
Environmental Protection Division
Supreme Court Building
Austin, Texas 78711

Mrs. Juanita Ellis
President, CASE
1426 S. Polk
Dallas, Texas 75224

Anthony Z. Roisman BC

ANTHONY Z. ROISMAN
Trial Lawyers for Public Justice
2000 P Street, N.W., Suite 611
Washington, D.C. 20036
(202) 463-8600

September 27, 1984

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Bethesda, Maryland 20814

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Oklahoma State University
Stillwater, Oklahoma 74074

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881 W. Outer Drive
Oak Ridge, Tennessee 37830

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U.S. Nuclear Regulatory Commission
4350 East/West Highway, 4th Floor
Bethesda, Maryland 20814

Nicholas S. Reynolds, Esquire
Bishop, Liberman, Cook,
Purcell & Reynolds
1200 17th Street, N.W.
Washington, D.C. 20036

Stuart Treby, Esquire
Geary S. Mizuno, Esquire
Office of Executive Legal Director
U.S. Nuclear Regulatory Commission
Maryland National Bank Building
Room 10105
4350 East/West Highway, 4th Floor
Bethesda, Maryland 20814

Docketing & Service Section
Office of the Secretary
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Renea Hicks, Esquire
Assistant Attorney General
Environmental Protection Division
Supreme Court Building
Austin, Texas 78711

Mrs. Juanita Ellis
President, CASE
1426 S. Polk
Dallas, Texas 75224

Anthony Z. Roisman

ANTHONY Z. ROISMAN
Trial Lawyers for Public Justice
2000 P Street, N.W., Suite 611
Washington, D.C. 20036
(202) 463-8600

ROUTING AND TRANSMITTAL SLIP

Date 11/19/84

TO: (Name, office symbol, room number, building, Agency/Post)	Initials	Date
1. C. D. Richards		
2.		
3.		
4.		
5.		

Action	File	Note and Return
Approval	For Clearance	Per Conversation
As Requested	For Correction	Prepare Reply
Circulate	For Your Information	See Me
Comment	Investigate	Signature
Coordination	Justify	

REMARKS

As per your call and reference to two of Reinmuth's (IE) memo; I confirm that all fuel pool liner plates need not be classified as Cat. I structures as long as the concrete structure supporting them is a Category I structure and a leak chase system is provided for these fuel pool liners.

DO NOT use this form as a RECORD of approvals, concurrences, disposals, clearances, and similar actions

FROM: (Name, org. symbol, Agency/Post)

Frank Rinaldi

Room No. P-538

Phone No. x28965

5041-102

OPTIONAL FORM 41 (Rev. 7-76)
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