TEXAS UTILITIES GENERATING COMPANY
P O BOX 1002 GLEN ROSE TEXAS 76043

April 17, 1984

Drs. L. R. Abramson and D. Lurie
Applied Statistics Branch
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Doctors:

Per your request, the concrete and steel liner data have been changed to reflect Unit 1 results only (see attached). As I stated in our phone conversation on April 2, all of the information which I have provided to you has been for primer only.

If you have any questions, I may be contacted at (817) 897-2981, Ext. 327 or (214) 979-8865.

Lisa Bielfeldt

L. M. Bielfeldt
Quality Engineering Supervisor

LMB/bll
Attachment

PROTECTIVE COATING BACKFIT INSPECTION PROGRAM

UNIT 1 PRIMER

I. Concrete

A. Total size (estimate): 185,000 sq. ft.

B. Total number adhesion tests: 1691

C. Total number adhesion test failures: 0

D. Total number recorded dft readings: 4623

E. Total number recorded dft readings failed: 101

II. Steel Liner

A. Total size (estimate): 145,000 sq. ft.

B. Total number adhesion tests: 405

C. Total number adhesion test failures: 2

D. Total number recorded dft readings: 1494

E. Total number recorded dft readings failed: 105

Rcvd
5/25/84
②BNL

TEXAS UTILITIES GENERATING COMPANY
P. O. BOX 1002 · GLEN ROSE, TEXAS 76043

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Lisa Bielfeldt bll

L. M. Bielfeldt
Quality Engineering Supervisor

LMB/bll
Attachment

PROTECTIVE COATING BACKFIT INSPECTION PROGRAM

UNIT 1 PRIMER

I. Concrete

A. Total size (estimate): 285,000 sq. ft.

B. Total number adhesion tests: 1691

C. Total number adhesion test failures: 0

D. Total number recorded dft readings: 4623

E. Total number recorded dft readings failed: 101

II. Steel Liner

A. Total size (estimate): 145,000 sq. ft.

B. Total number adhesion tests: 405

C. Total number adhesion test failures: 2

D. Total number recorded dft readings: 1494

E. Total number recorded dft readings failed: 105

TXX-4201
06/22/84

Allegation No. 44

It is alleged that the "nickel" test was not performed properly due to instructions received from QC supervisors. It is alleged that QC supervisors instructed QC inspectors to lay the nickel flat on the surface of the coating; then to lightly rub the nickel, as lightly as the inspector could, across the coating, to keep just enough pressure on the nickel so that it would not fall out from under the fingers.

Evaluation of Validity

We have investigated this allegation and determined that it is not correct. Of eleven coatings QC inspection personnel interviewed, all indicated that the "coin test" has been performed in the past and continues to be performed in accordance with the method described in coatings application procedures (CCP-30 and CCP-30A). CCP-30 Revision 12 Paragraph 3.3.1(f) contains the following sentence: "Carbo Zinc 11 is sufficiently cured for topcoat when the coating may be burnished rather than removed when rubbed with the flat portion of a smooth edged coin such as a nickel." CCP-30A Revision 4 Paragraph 3.3.1 (f) contains similar wording. It is our opinion that the "coin test" method described in CCP-30 and CCP-30A conforms with the preferred Carboline method for the coin test as described in the attached Carboline letter.

Safety Significance

None

Generic Implications on Other Systems or Contractors

Not applicable

Allegation 44

carboline

PROTECTIVE COATINGS
FOR CORROSION RESISTANCE • FIRE PROTECTION • WATERPROOFING

AREA CODE 314
644-1000

CABLE - CARBOCO - ST. LOUIS
TELEX- 44-7332

REPLY TO:
CARBOLINE COMPANY
1325 19th ST. - STE. 3-B
PLANO, TX. 75074
(214) 424-7512

Mr. Tom Kelley
EBASCO Services
Comanche Peak Nuclear Power Plant
P.O. Box 1002

Dear Tom:

Please be advised that the coin test procedure for checking the cure of Carbo Zinc 11 has been done in many different ways. I have been to Comanche Peak several times and demonstrated my favorite method, however. Instructions for the preferred method follow:

1. Use a quarter and lay it flat on the zinc primer.
2. Put heavy pressure on the coin with finger tips and rub the coin back and forth. (8-10times)

If the zinc primer is cured, the coin should leave a burnished, shiny appearance. If the Carbo Zinc 11 is not cured, it will not have a polished appearance.

I have demonstrated both situations (cured and not cured) to painters, foremen, engineers, and Q. C. personnel. If I can be of any further assistance, please let me know.

Sincerely,

Charles Rushing
North TX. Area Mgr.

cc. Steve Harrison

Mailed 4/12/84
Received 4/14/84

Allegation # 44

Oracle

carboline

PROTECTIVE COATINGS
FOR CORROSION RESISTANCE • FIRE PROTECTION • WATERPROOFING

AREA CODE 314
644 - 1000

CABLE - CARBOCO - ST. LOUIS
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4/12/84

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Sincerely,

Charles Rushing
North TX. Area Mgr.

cc. Steve Harrison

Mailed 4/17/84
Received 4/16/84

FOIA-85-59
A57

Rec'd @ BNL
4/20/84

Brown & Root, Inc.

P.O. BOX 1001 GLEN ROSE, TEXAS 76043

MESSAGE

To V. Lettieri
Brookhaven Nat'l Lab

DATE April 16, 1984

Re Allegation 44

Enclosed is a copy of a letter from Carboline describing the coin test to determine if the zinc primer is cured. Carboline's preferred method is to lay the coin flat on the zinc primed surface.

BY Jerome Fortel

INSTRUCTIONS TO SENDER:

1. SEND TO JOB FILE 2. SEND WHITE AND PINK COPIES WITH CARBON INTACT.

REPLY

DATE

SIGNED

INSTRUCTIONS TO RECEIVER:

1. WRITE REPLY 2. DETACH STUB. KEEP PINK COPY. RETURN WHITE COPY TO SENDER.

Gibbs & Hill, Inc.
11 Penn Plaza
New York, New York 10001
212 760-4438
Telex:
Domestic: 127636/968694
International: 428813/234475
A Dravo Company

#11; 3-5-84

Allegation #13

Jack

Rec'd 3/22/84 (2) w/ltr from Jerry Fulop

CONFIDENTIAL

GTN#68601

3-7-84

Texas Utilities Generating Company
Post Office Box 1002
Glen Rose, Texas 76043

Attention: Mr. J. B. George,
Vice President/Project Gen. Mgr.

Gentlemen:

TEXAS UTILITIES GENERATING COMPANY
COMANCHE PEAK STEAM ELECTRIC STATION
G&H PROJECT NO. 2323
REACTOR CORE CAVITY COATING ALLEGATION
REF: GTT-10210, FEBRUARY 27, 1984

At the request of TUSI the following additional information is provided to substantiate the conclusions presented in GTT-9572 and GTT-10210:

A break in the reactor coolant hot or cold leg will not flood the reactor cavity in the case of CPSES Units 1 and 2. This is becuase these units have specially designed orifice ring plates to obstruct fluid flow into the cavity. This design was implemented to prevent excessive uneven pressurization in the reactor cavity.

These orifice plates are located on the cavity wall penetration as shown on G&H Drawing 2323-S1-0547, Rev. 4, Sections 2-2, 2A-2A and 1A-1A. The reactor vessel nozzle connections to the piping are shown on G&H Drawing 2323-M1-0520, Rev. 4.

FOIA-85-59

A55

Attachments:

1. G&H Drawing 2323-S1-0547, Rev. 4

2. G&H Drawing 2323-M1-0520, Rev. 4

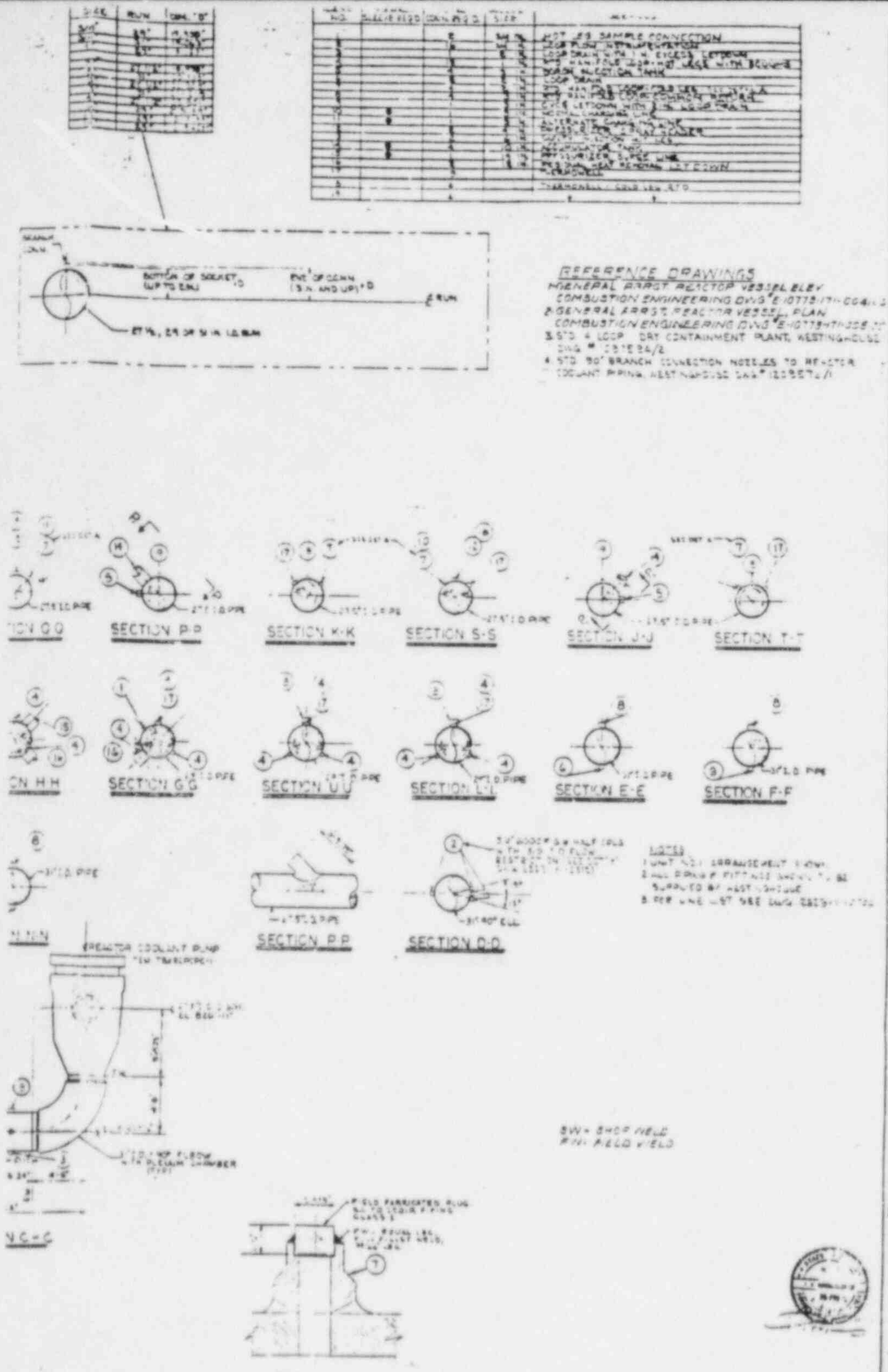
Very truly yours,

GIBBS & HILL, Inc.

REBa/MC:gw
1 Letter

Robert E. Ballard, Jr.
Project Manager

cc: J.T. Merritt (TUSI Site) 1L
M.R. McBay (TUSI Site) 1L



TEXAS UTILITIES SERVICES INC.
AGENT FOR
DALLAS POWER & LIGHT COMPANY
TEXAS ELECTRIC SERVICE COMPANY
TEXAS POWER & LIGHT COMPANY

COMANCHE PEAK S.E.S.

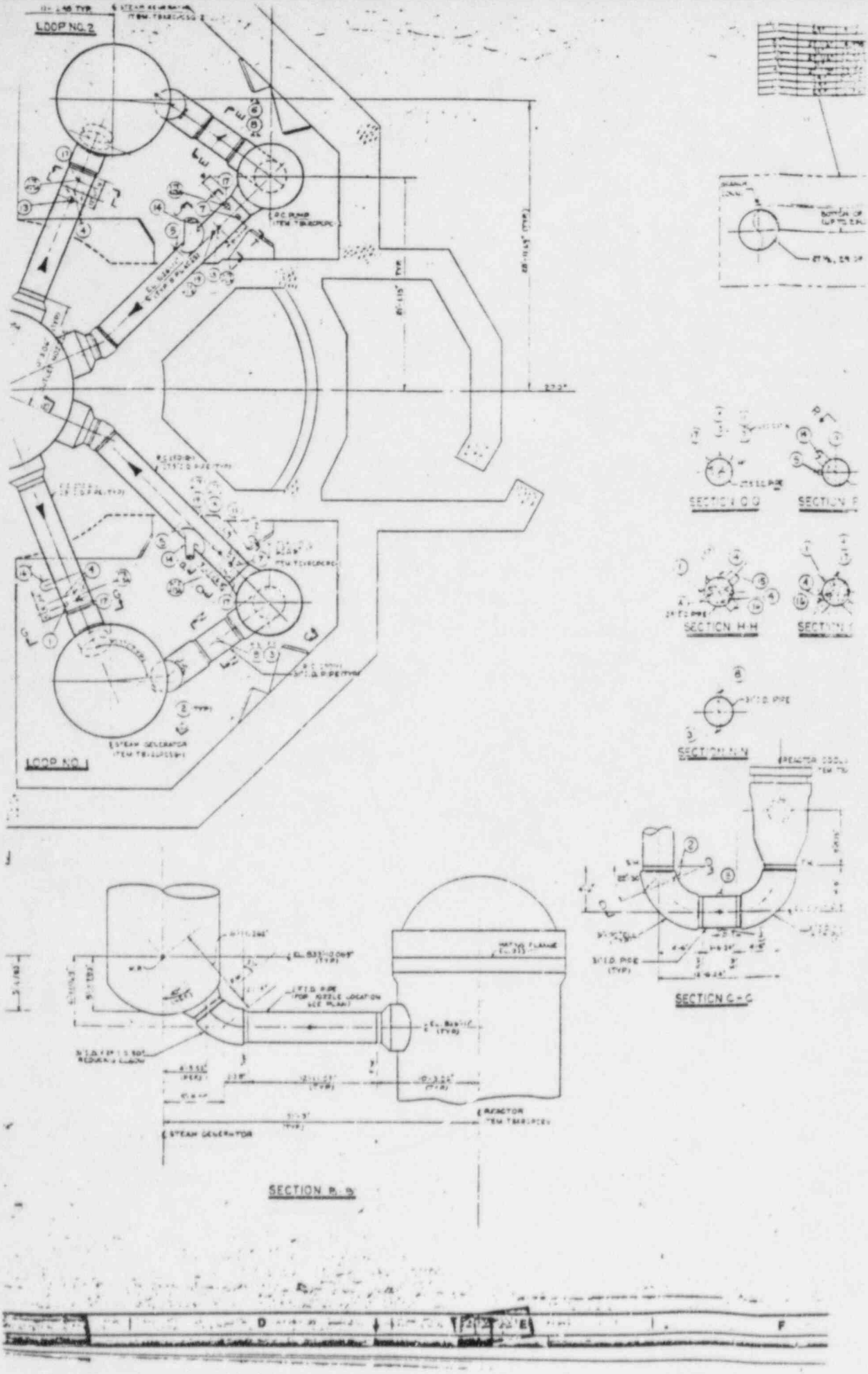
REACTOR COOLANT LOOP
LAYOUT & DETAILS

Gibbs & Hill Inc.

SCALE 1/4" = 1'-0"

2323-MI-0520

JOB NO. 2323 A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LOOP NO. 1
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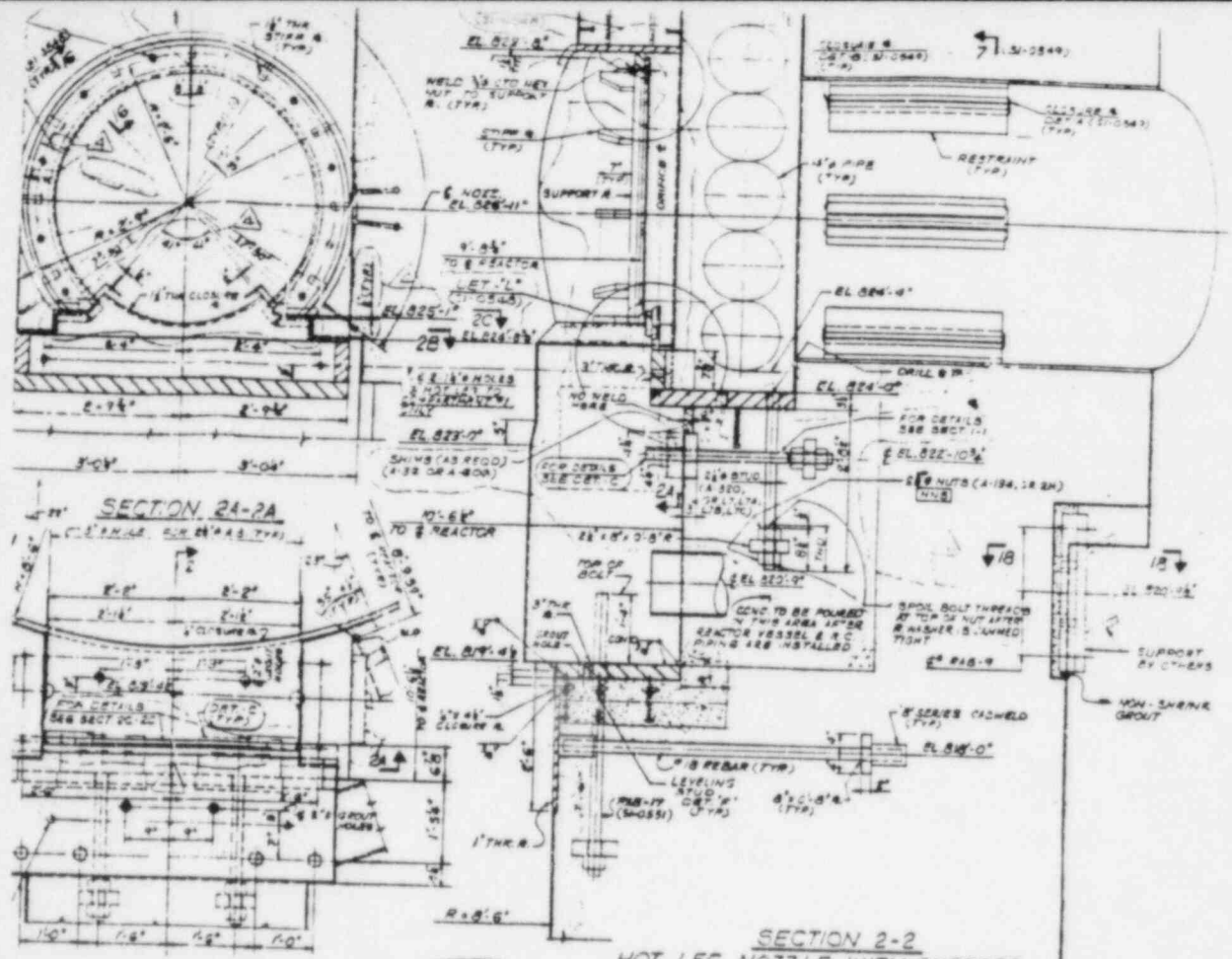
SECTION P
SECTION H-H
SECTION N-N
SECTION G-G
SECTION B-B
D
E
F

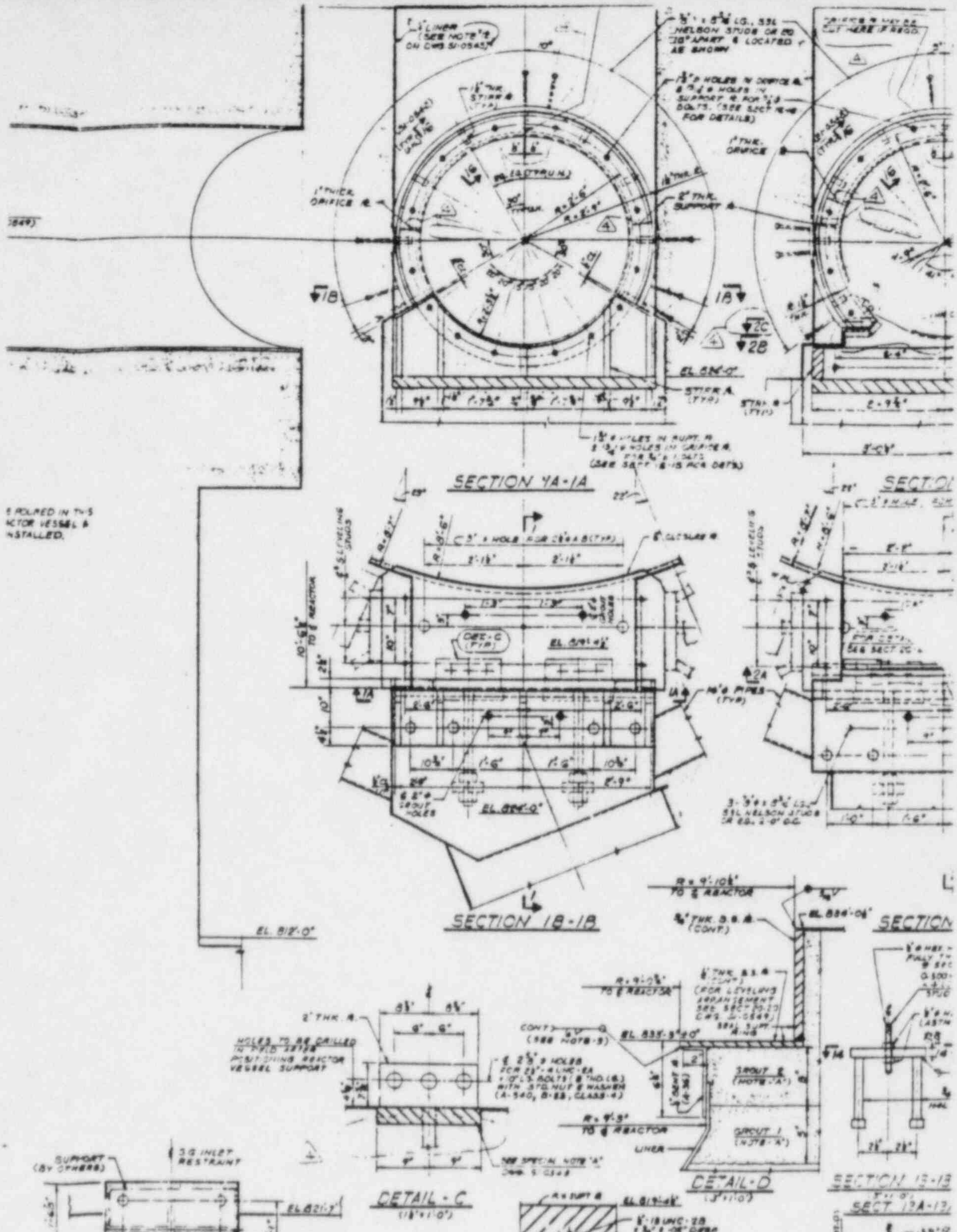


TEXAS UTILITIES SERVICES INC
AGENT FOR
DALLAS POWER & LIGHT COMPANY
TEXAS ELECTRIC SERVICE COMPANY
TEXAS POWER & LIGHT COMPANY

COMANCHE PEAK S.E.S.
1150 MW - 2300 MW INSTALLATION

R.B. INTERNAL STRUCT.
REACTOR CAVITY OUTLINE
SECTS & DETS. SH. 3

2323-SI-05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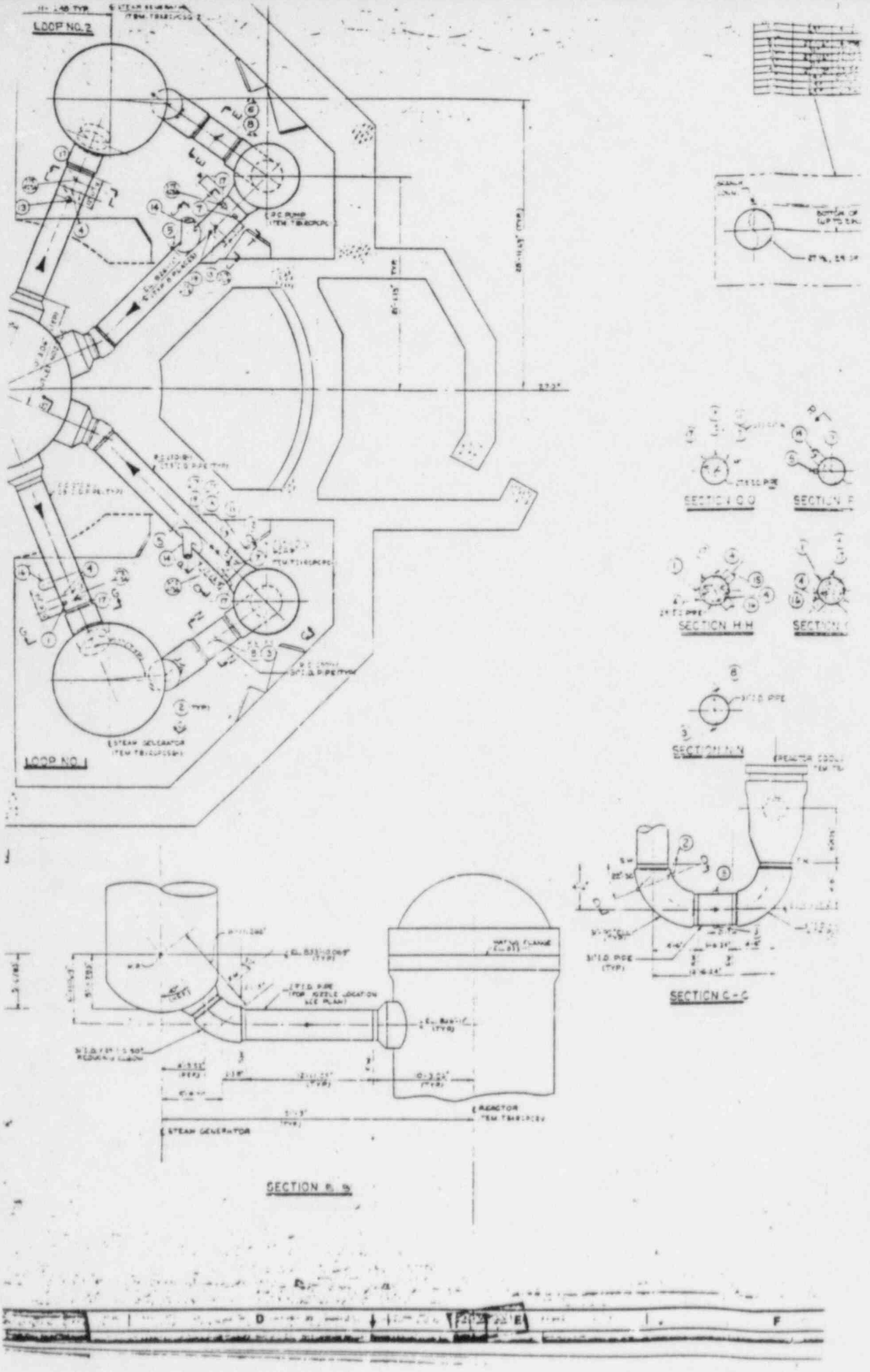
SECTION 1B-1B
EL. 812'-0"
DETAIL - C
DETAIL - D
SECTION 19-19
DETAIL 'F'
SECTION 13-13
SECTION 14-14
NOTE-'A'
C
D
E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SECTION P
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D
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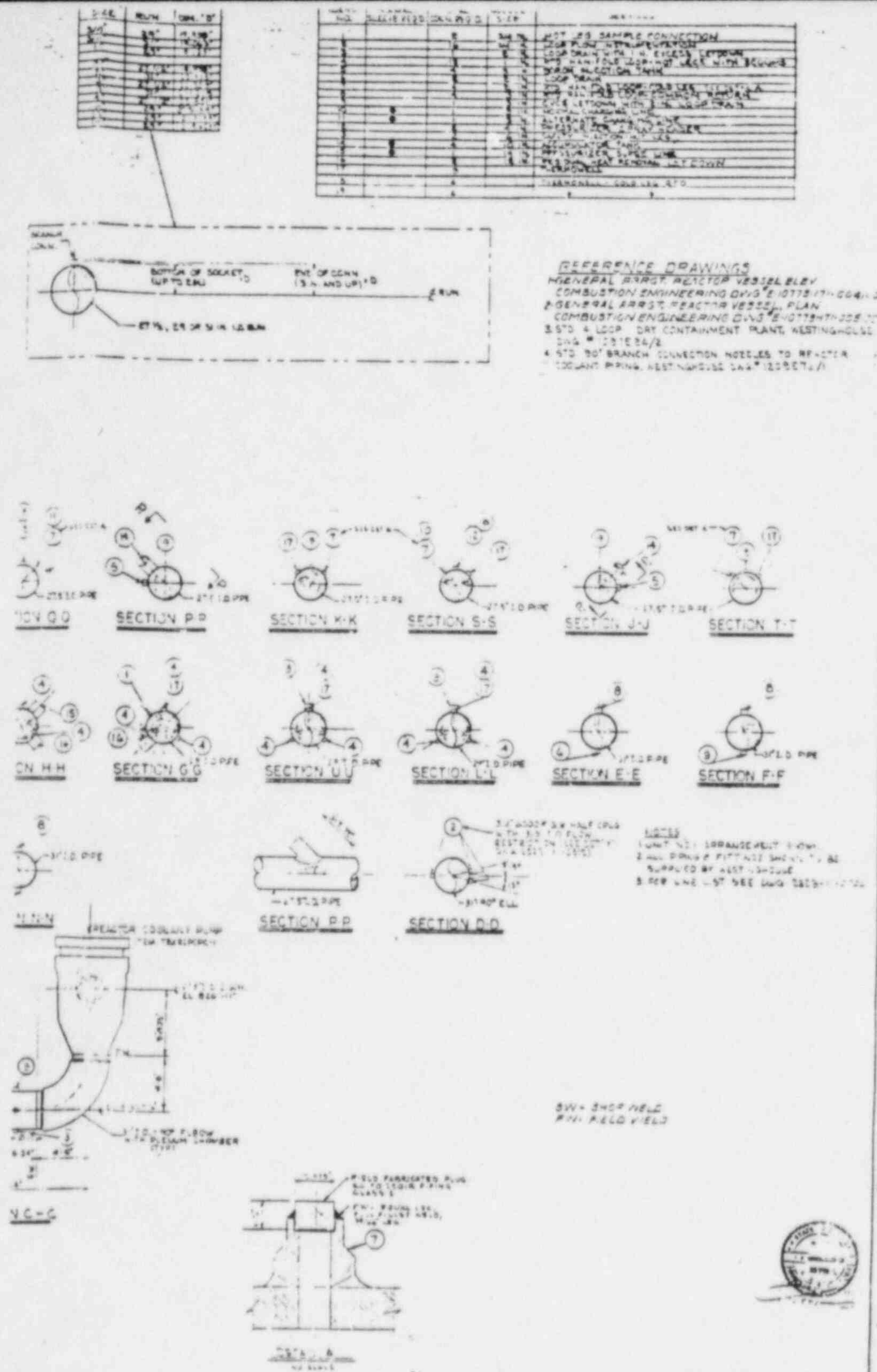
F



TEXAS UTILITIES SERVICES INC.
AGENT FOR
DALLAS POWER & LIGHT COMPANY
TEXAS ELECTRIC SERVICE COMPANY
TEXAS POWER & LIGHT COMPANY

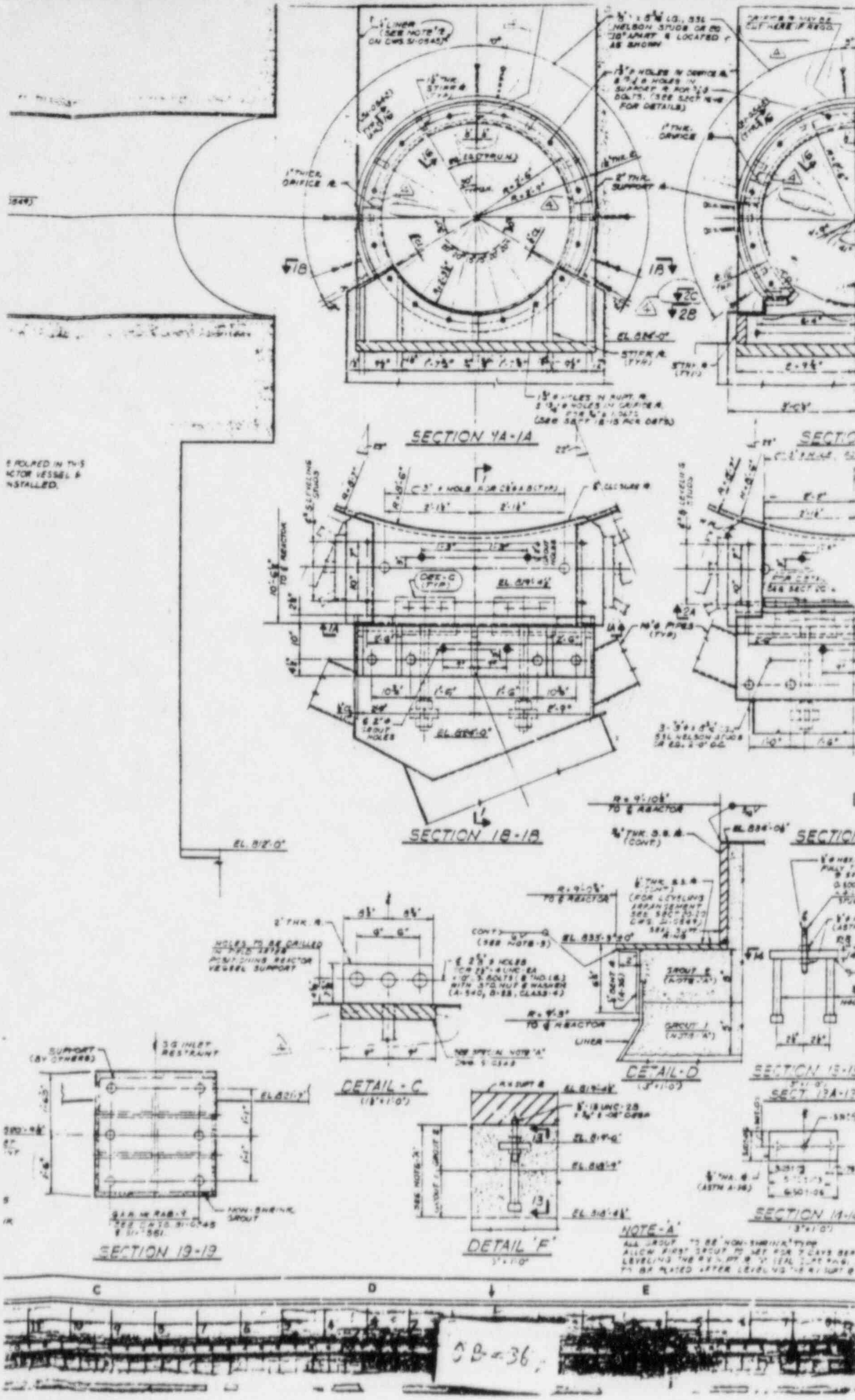
COMANCHE PEAK S.E.S.
1980-82 — 2300 MW INSTALLATION

REACTOR COOLANT LOOP LAYOUT & DETAILS

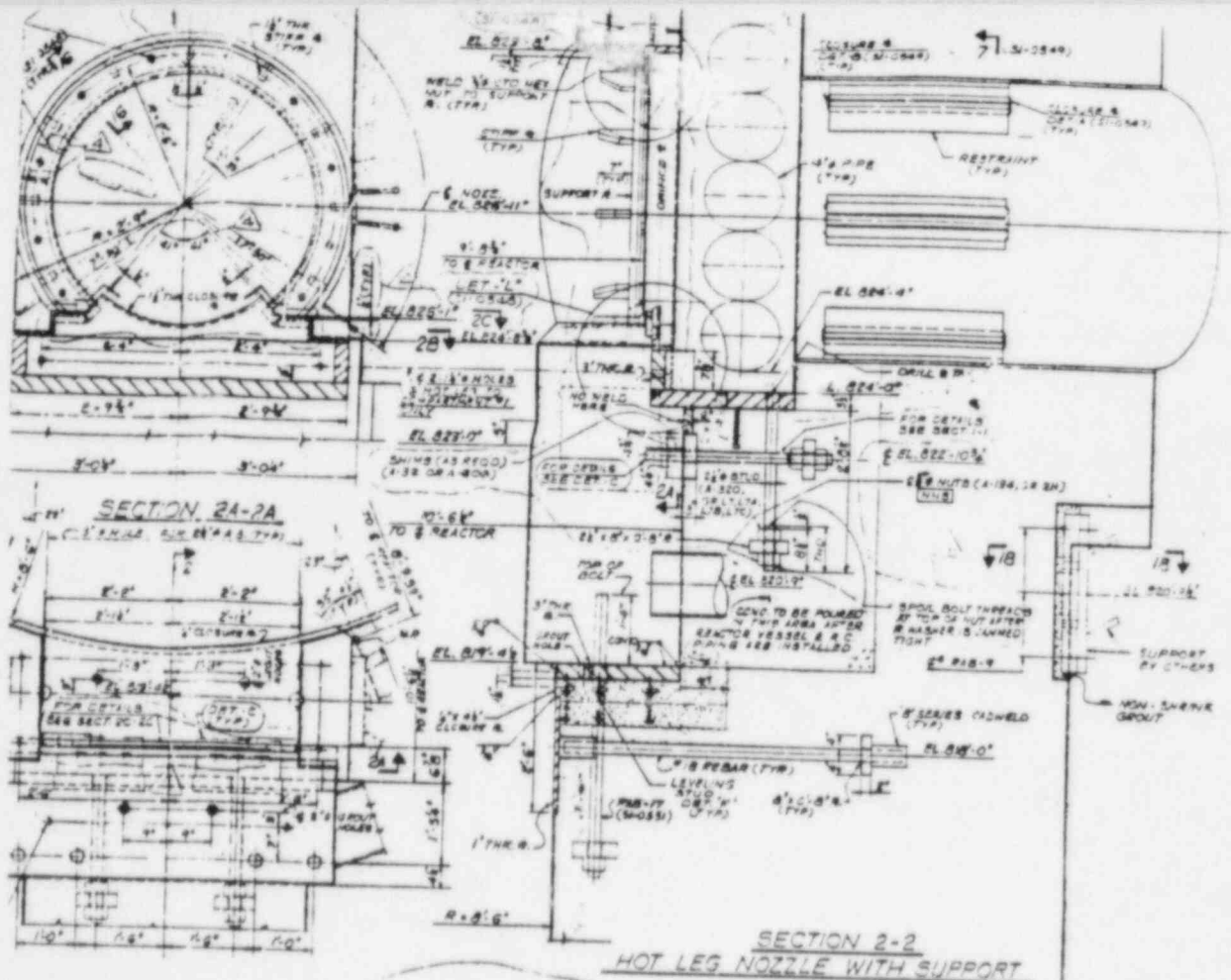
Gibbs & Hill Inc.

JOB NO. 2323 A

2323-MI-0520



SECTION 1A-1A
SECTION 1B-1B
DETAIL - C
DETAIL - D
SECTION 19-19
DETAIL 'F'
SECTION 13-13
SECTION 14-14
NOTE-'A'
EL. 812'-0"
C
D
E



TEXAS UTILITIES SERVICES INC
AGENT FOR
DALLAS POWER & LIGHT COMPANY
TEXAS ELECTRIC SERVICE COMPANY
TEXAS POWER & LIGHT COMPANY

COMANCHE PEAK S.E.S.
(1150 MW - 1300 MW INSTALLATION)

R.B. INTERNAL STRUCT.
REACTOR CAVITY OUTLINE
SECTS & DETS. SH. 3

2323-SI-05

TEXAS UTILITIES GENERATING COMPANY

OFFICE MEMORANDUM

To Jerry Firtel Glen Rose, Texas March 22, 1984

Subject Comanche Peak Unit 1

NRC Allegation Number 40
Input on Air Quality for Protective Coating Process

Two Ingersol-Rand SSR-2000 compressor Models 1200H supply air to Unit 1 Containment Building. These units contain moisture traps and filters which provide clean, useable air (see attached). Air leaving these units passes through three moisture and oil traps. Prior to the air being used, it goes through additional in line, procedurally required, filters/traps, or separators.

T. L. Mason
Quality Engineer

TLM/lp
Attachment

3/23/84 Rec'd from Tom Kelly - Allegation #40

FOIA-85-59
A56

Every Ingersoll-Rand SSR-2000 Rotary Screw Air Compressor package is complete with the following standard equipment.

Compression Module
Intake Air Filter
Dry type. 99.9% efficient 10 micron and above.

Compressor
Asymmetrical rotors, sealing strips, thrust offset pistons.

Electric Motor
460-575/60/3, open drip-proof flanged induction.

Integral Gear Drive
AGMA Class 12 gears, optimum speed, permanent alignment.

Hydraulic Support Module
Coolant Pump
Full flow gear type.

Coolant Filter
10 micron with pressure bypass.

Coolant Heat Exchanger
Integrally mounted air or water cooled. Air maximum 100°F, water maximum 90°F.

Coolant Temperature Control Valve
Fast warm-up and proper operating temperature.

Separator Element
2 stage molded fiberglass, 2 PSI Δ P as new.

Rigid Piping—Flared Fittings
Bundyweld or seamless steel with flared fittings and flexible connections.

Control Module
Starter
460-575/60/3 Full voltage starter. Control circuit transformer included. Protective starting control.

All components mounted in enclosed cabinet with lockable door.

Electrical Controls
All solid state printed circuit boards.

Capacity Regulation
On line/Off line with upper range modulation.

Protective Controls
Air and coolant pressure relief.

Air discharge check valve.

High air temperature shutdown [2].

High winding temperature shutdown [main motor].

Over current protection [motor & starter].

Control Panel
Power on indicator light.
Start-stop button.

Hour meter.

Air filter service indicator.

Coolant filter service indicator.

Air/coolant discharge temperature gauge.

Discharge air pressure gauge for separator element service indication.

Selector switch for load or no load operation.

Selector switch for on line/off line or modulating control.

Operational mode indicator lights.

Easy tilt out access to all components.

UL approved SSR-2000 starter and total integral control assembly meet the requirements for Underwriter Laboratories approval as applied in each SSR-2000 compressor.

Exclusive SSR Coolant
Specifically formulated for use in SSR-2000. Lubrication qualities far exceed standard petroleum base and synthetic oils. Initial charge of coolant fully warranted for one year operation in SSR-2000.

Enclosure
1 Single door access to all maintenance items.

Single air inlet and discharge connections provide for optional prefilters and addition of energy recovery system.

Enclosed 85 dB[A] sound level package available.

2 Enclosed 76 dB[A] sound attenuating canopy available.

3 Special package for unprotected outdoor installation.

System/Cooling
1 Built-in air or water cooled after-coolers through 1200 cfm with integral mounted moisture separator and trap
2 High ambient package
3 High altitude package
4 Low ambient package
5 Prefilter options for dusty/dirty environments
6 High cooling water temperature
7 Salt water coolers

Controls
1 ≪ACS≫—automatic control mode selector
2 Automatic start and stop
3 Safety shutdown annunciator panel
4 Sequence controller for multiple unit operation
5 Phase voltage relay
6 Power factor correcting capacitors, built-in
7 Voltage Options

Mobility
1 Lifting bail
2 Trailer mounting

Air Quality
Special non-lube package additions are available for use with the SSR-2000 compressor unit.

Air/Coolant Separation

The outstanding separation efficiency achieved in the SSR-2000 compressor (only 2 to 3 parts per million by weight absolute) is the direct result of intensive design and development in two distinct areas.

Tank Design

A unique and innovative vertically mounted separation tank has been specifically designed for the SSR-2000 to remove the majority of the compression fluid *before* it reaches the separation element.

A precisely engineered baffling system designed into the lower portion of the tank forces the air/fluid mixture to proceed through a series of 90° directional changes before reaching the element.

This «pre-cleaning» action removes the majority of the coolant from the air stream, reducing the load on the two stage element, and permitting it to do a better job of separation. The result is vastly improved air quality at discharge, as well as dramatically extended element life.

Vertical orientation of the separation tank also reduces – by approximately 50% – the amount of compression fluid required to charge the system at change time, further reducing costs.

Element Design

The SSR-2000 separation element combines the proven capability of an exclusive horizontal mounted fiberglass structure with the added effectiveness of two stages of separation.

The element works by direct inertial/mechanical means, with no absorption of the compression fluid. As a result, longer element life has been achieved *(average 10,000 hours before replacement)*, together with a new standard of discharge air quality *(only 2 to 3 parts per million by weight absolute)*.

The SSR-2000 element also has – by design – an extremely low pressure drop for a two stage separation element. This low pressure drop reduces the horsepower required to move the air through the element into the system, resulting in higher horsepower efficiencies and lower overall costs.

SSR-2000 Air/Coolant Separation System