ROBERT GUILD
ATTORNEY AT LAW
2135½ Devine Street
COLUMBIA, SOUTH CAROLINA 29205
TELEPHONE 803-254-8132

March 12, 1985

Director, Office of Administration
U.S. Nuclear Regulatory Commission
Washington, DC 20555

FREEDOM OF INFORMATION ACT REQUEST

FOIA-85-173
rec'd 3/18/85

Freedom of Information Act Request

Dear Sir or Madam:

This is a request under the Freedom of Information Act as amended, 5 U.S.C. 552 and the Commission's regulations, 10 C.F.R. Part 9.

I hereby request a copy of any and all records in your agency's possession or subject to its control regarding the October 6, 1984 Affidavit of Chan Van Vo, also known as Van Vo Davis, the concerns expressed in that Affidavit by Chan Van Vo, and your agency's action, response to and investigation of those concerns and the content of that Affidavit, including, but not limited to any and all documents regarding these subjects which are the basis for Inspection Reports 50-400/84-43, dated 12/14/84 and 84-45, dated 1/11/85.

The FOIA also provides that if only a portion of a file or record is exempt from release, the remainder must be released. I therefore request that I be provided with all non-exempt portions which are reasonably segregable. I, of course, reserve my right to appeal the witholding or deletion of any information.

I am prepared to pay reasonable costs for locating the requested documents and reproducing them. The Act does provide, however, that you must reduce or waive fees under certain circumstances. The information sought here will primarily benefit the public since it relates to concerns regarding the safety of construction of the Shearon Harris Nuclear Power Plant, and is sought for use in the pending operating license proceeding for this facility by citizen intervenors who have raised claims regarding Chan Van Vo's concerns. I therefore, ask you to waive any fees.

If you have any questions regarding this request please telephone me at the above number.

As provided in the Act and your Regulations, I will expect to receive a reply within ten working days.

Sincerely,

Robert Guild

~~8504220442~~ 4p.

UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30323

FEB 13 1985

U.S. NRC
1985 FEB 14 AM 8 24
OFFICE OF INVESTIGATIONS
FIELD OFFICE, REGION II

MEMORANDUM FOR: Paul R. Bemis, Director, DRS
Roger D. Walker, Acting Director, DRP
James Y. Vorse, Director, Atlanta Field Office, OI
Bruno Uryc, Investigation/Allegation Coordinator

FROM: Bradley W. Jones, Regional Counsel

SUBJECT: DEPOSITION OF CHAN VAN VO

On February 26, 1985 at 10:00 a.m. in Raleigh, North Carolina, a deposition of Chan Van Vo will be taken by CP&L as part of the ongoing licensing proceeding. This will be a good opportunity for the Staff to ask Mr. Van Vo, through ELD's representative, questions which might be of use in our ongoing review of concerns raised by Mr. Van Vo relative to the Shearon Harris Nuclear Plant. Mr. Van Vo's testimony at the deposition will be under oath. If there are questions the individuals reviewing Mr. Van Vo's concerns would like asked, they should be given to me no later than February 20, 1985. Also, if there is a desire to attend the deposition on the part of Region II personnel, that should be communicated to me as soon as possible.

Bradley W. Jones

cc: J. Olshinski
C. Barth, ELD
J. Moore, ELD

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~~A137~~
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A142

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

OFFICE OF
INVESTIGATIONS

DOL, P.O. BOX 27486
RALEIGH, N.C. 27611

FTS 699-5494
5417

ASSIGNED TO
ASST AREA DIRECTOR
DONALD ALLMAN

672-4190
4736

(919) 755-4190
JAMES V. WITHER
ASST. AREA DIRECTOR

MR Area Director ?
STEWART, DOL
672-4190
Trd Bldg
310 Dinwiddie Ave
Bldg Room 408
Greensboro

137

1.137

/

JIM PRINCE,
D.O.L. WAGE/HOUR

ROOM 408
FED. BLDG
310 NEW BERN AVE,
RALEIGH N.C.

STREET
ADDRESS
FOR D.O.L.
IN RALEIGH

A137

NRC Form 307 (11-82)

ALLEGATION DATA FORM

Instructions on reverse side

U.S. NUCLEAR REGULATORY COMMISSION

RECEIVING OFFICE

1. Facility(ies) Involved: (If more than 3, or if generic, write GENERIC)

(Name) Harris Nuclear Plant — Docket Number (if applicable): 050 00400; 050 00401; 050 00402

2. Functional Area(s) Involved: (Check appropriate box(es))

- [ ] operations
- [X] construction
- [ ] safeguards
- [ ] other (Specify) _____
- [ ] onsite health and safety
- [ ] offsite health and safety
- [ ] emergency preparedness

3. Description: (Limit to 100 characters)

ALLEGED FALSIFICATION OF QA DOCUMENTATION

4. Source of Allegation: (Check appropriate box)

- [ ] contractor employee
- [X] licensee employee
- [ ] NRC employee
- [ ] organization (Specify) _____
- [ ] other (Specify) _____
- [ ] security guard
- [ ] news media
- [ ] private citizen

5. Date Allegation Received: MM DD YY: 10 25 84

6. Name of Individual Receiving Allegation: (First two initials and last name) L.L. Robinson

7. Office: OIRZ

ACTION OFFICE

8. Action Office Contact: (First two initials and last name) B. Uryc

9. FTS Telephone Number: 242-4193

10. Status: (Check one)

- [X] Open, if followup actions are pending or in progress
- [ ] Closed, if followup actions are completed

11. Date Closed: MM DD YY

12. Remarks: (Limit to 50 characters)

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13. Allegation Number: Office Year Number: RII-84-A-0143 A139

Rev. 3
9/81

Exhibit 1
TP-17

CAROLINA POWER & LIGHT COMPANY

SHEARON HARRIS NUCLEAR POWER PLANT

DISCREPANCY REPORT

RFT 1-6270.002
DR No. M-403

Item/Activity Description	Unit	Location or Placement No.
FLANGE CONNECTION	1	ISO # 1-WS-96

Violated Section of Specification, Drawing, Procedure or Other	Reporting Construction Inspector
WP-129 R/3 Pan 333 - TP-53R/0 ParA- 434	Neal Stafford 8-25-83

Nonconformance Details: Page 1 of 1

Bolting material on flange connections TR1-230-1WS96-1 & TR1-226-1WS96-2 requires bolting material of studs to be A 193 B7 and nuts to be A 194 2H. Bolting material used was from P.O 40924. Upon search of P.O in vault there was no record of C.M.T.R. nor P.O. on file. UPON A CHECK WITH PURCHASING P.O. 40924 WAS FOR NON-Q BOLTING MATERIAL. WP-129 FLH. 4 HAS BEEN VOIDED ON THIS CONNECTION BY THE C.I. SUPERVISOR, HOWEVER AS OF TODAY THE FLANGED CONNECTION HAS NOT BEEN DISASSEMBLED.

Item Evaluation Per AP-IX-16:

☑ Not Reportable Per Paragraph 3.3.1.2
☐ Item Traveler Required

Walter J Suba — Construction Inspection Supervisor — 8-26-83 Date

Corrective Action & Resolution Details: (Attach supporting documentation.)

Attached Documents (Specify)

Principal Discipline Engineer — Date

Distribution:

Original Jim Smith
Principal Discipline Engineer

cc Senior Resident Engineer
CI Unit Supervisor
QA/QC Unit Supervisor
NRC Resident Inspector
Penn. State Coll.

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Resolution Verified:

Construction Inspector — Date

Resolution Accepted:

Construction Inspection Supervisor — Date

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CAROLINA POWER & LIGHT COMPANY

CLEAR PLANT CONSTRUCTION DEPARTMENT

PURCHASE ORDER

SHEARON HARRIS NUCLEAR POWER PLANT
P O BOX 101 S R # 1134
NEW HILL, N C 27562 0101

PURCHASE ORDER NUMBER
H-40924

ORDER NUMBER MUST APPEAR ON ALL INVOICES CORRESPONDENCE SHIPPING PAPERS AND CARTONS

ORDER DATE	SHIPMENT PROMISED BY	SHIP VIA	FOB	TERMS	REQ NO	BUYER CODE
11-23-82	12/7/82 ~~As Released~~	DW	JS	1%-10 N/30	40924	EW

SUPPLIER

Interlock Division
602 Industrial Ave.
Greensboro, NC 27403

IMPORTANT INSTRUCTIONS

1 ADDRESS ORIGINAL & (2) COPIES OF YOUR ITEMIZED INVOICE TO THE ABOVE ADDRESS ATTENTION ACCOUNTS PAYABLE DEPARTMENT

2 ATTACH ORIGINAL BILL OF LADING OR SHIPPING RECEIPT TO INVOICE

3 INVOICE MUST SHOW ITEM NUMBER SHOWN ON PURCHASE ORDER

4 WHEN PREPAID ATTACH ORIGINAL TRANSPORTATION RECEIPT

5 EACH DISCOUNT PERIOD WILL DATE FROM RECEIPT OF INVOICE CORRECTLY EXECUTED

ITEM	DESCRIPTION	QUANTITY	UNIT	NET UNIT PRICE	TOTAL PRICE
	Confirming telephone order of 11-23-82 to Larry Stanley DO NOT DUPLICATE				
	Items 1-67 are alloy stud bolts with 2 heavy hex nuts each.				
	Bolts: ASTM A-193 Gr. B7				
	Nuts: ASTM A-194 Gr. 2H				
1	1/2" Dia. x 2 1/2" Lg.	360	ea.	[redacted]	[redacted]
2	1/2" Dia. x 2 3/4" Lg.	100	ea.	[redacted]	[redacted]
3	1/2" Dia. x 3" Lg.	400	ea.	[redacted]	[redacted]
4	1/2" Dia. x 3 1/4" Lg.	20	ea.	[redacted]	[redacted]
5	1/2" Dia. x 7 3/4" Lg.	10	ea.	[redacted]	[redacted]
6	5/8" Dia. x 2 3/4" Lg.	10	ea.	[redacted]	[redacted]
7	5/8" Dia. x 3" Lg.	60	ea.	[redacted]	[redacted]
8	5/8" Dia. x 3 1/4" Lg.	740	ea.	[redacted]	[redacted]
9	5/8" Dia. x 3 3/8" Lg.	8	ea.	[redacted]	[redacted]
10	5/8" Dia. x 3 1/2" Lg.	975	ea.	[redacted]	[redacted]

N.C. SALES TAX CERTIFICATION REGISTRATION NO. 7

USE & CHARGE

Nuclear Welding Material -
Buildings & Systems

The above order is subject to all instructions, terms and conditions set forth on the face and reverse side hereof. This Order expressly limits acceptance to the terms stated herein, and any additional or different terms proposed by the Seller are rejected unless assented to in writing.

CAROLINA POWER & LIGHT COMPANY

BY _____

DATE _____

A138

NOTE: [illegible] acceptance of this Order [illegible] returned to attention of the Site Pro[illegible]

CAROLINA POWER & LIGHT COMPANY
SHEARON HARRIS NUCLEAR POWER PLANT CONSTRUCTION DEPARTMENT

PURCHASE ORDER
CONTINUATION SHEET

PURCHASE ORDER NUMBER

ITEM	DESCRIPTION	QUANTITY	UNIT	NET UNIT PRICE	TOTAL PRICE
11	5/8" Dia. x 3 5/8" Lg.	48	ea.		
12	5/8" Dia. x 3 3/4" Lg.	850	ea.		
13	5/8" Dia. x 4 1/4" Lg.	12	ea.		
14	5/8" Dia. x 4 5/8" Lg.	8	ea.		
15	5/8" Dia. x 4 3/4" Lg.	110	ea.		
16	5/8" Dia. x 5 7/8" Lg.	12	ea.		
17	5/8" Dia. x 6" Lg.	40	ea.		
18	5/8" Dia. x 6 1/4" Lg.	10	ea.		
19	5/8" Dia. x 6 3/4" Lg.	60	ea.		
20	3/4" Dia. x 3 1/4" Lg.	12	ea.		
21	3/4" Dia. x 3 3/4" Lg.	24	ea.		
22	3/4" Dia. x 4" Lg.	500	ea.		
23	3/4" Dia. x 4 1/4" Lg.	340	ea.		
24	3/4" Dia. x 4 3/8" Lg.	12	ea.		
25	3/4" Dia. x 4 3/4" Lg.	70	ea.		
26	3/4" Dia. x 5" Lg.	265	ea.		
27	3/4" Dia. x 5 1/4" Lg.	230	ea.		
28	3/4" Dia. x 5 1/2" Lg.	32	ea.		
29	3/4" Dia. x 6 1/4" Lg.	32	ea.		
30	3/4" Dia. x 6 3/8" Lg.	70	ea.		
31	3/4" Dia. x 6 1/2" Lg.	125	ea.		

ALL TERMS AND CONDITIONS ON THE FACE AND REVERSE SIDE OF THE SIGNED SHEET ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON

A138

CAROLINA POWER & LIGHT COMPANY

WER PLANT CONSTRUCTION DEPARTMENT

P.O. BOX 101 - ... 1134

... Hill, N. C. 27562

PURCHASE ORDER
CONTINUATION SHEE

PURCHASE ORDER NUMBE

...24

ITEM	DESCRIPTION	QUANTITY	UNIT	NET UNIT PRICE	TOTAL PRICE
32	3/4" Dia. x 8" Lg.	48	ea.		
33	3/4" Dia. x 9 1/2" Lg.	12	ea.		
34	3/4" Dia. x 12 1/4" Lg.	45	ea.		
35	7/8" Dia. x 5 3/4" Lg.	40	ea.		
36	7/8" Dia. x 5 7/8" Lg.	20	ea.		
37	7/8" Dia. x 6" Lg.	16	ea.		
38	7/8" Dia. x 7 7/8" Lg.	20	ea.		
39	7/8" Dia. x 8 1/4" Lg.	110	ea.		
40	7/8" Dia. x 10 1/2" Lg.	10	ea.		
41	7/8" Dia. x 12" Lg.	60	ea.		
42	7/8" Dia. x 14 3/4" Lg.	18	ea.		
43	1" Dia. x 3 1/8" Lg.	4	ea.		
44	1" Dia. x 3 1/4" Lg.	8	ea.		
45	1" Dia. x 5 3/4" Lg.	10	ea.		
46	1" Dia. x 5 7/8" Lg.	12	ea.		
47	1" Dia. x 6 1/4" Lg.	78	ea.		
48	1" Dia. x 6 5/8" Lg.	20	ea.		
49	1 Dia. x 12 ...	30	ea.		
50	1 1/8" Dia. x 6 1/4" Lg.	40	ea.		
51	1 1/8" Dia. x 7" Lg.	38	ea.		
52	1 1/8" Dia. x 7 3/4" Lg.	216	ea.		

ALL TERMS AND CONDITIONS ON THE FACE AND REVERSE SIDE OF THE SIGNED SHEET ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON

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CA OLINA POWER & LIGHT COMPANY
WER PLANT CONSTRUCTION DEPARTMENT

CONTINUATION SHEET

P.O. BOX 101 - [illegible]
NEW HILL, N. C. 27562

PURCHASE ORDER NUMBER
[illegible]-40224

EM	DESCRIPTION	QUANTITY	UNIT	NET UNIT PRICE	TOTAL PRICE
3	1 1/8" Dia. x 11" Lg.	96	ea.	[redacted]	[redacted]
4	1 1/8" Dia. x 14" Lg.	38	ea.	[redacted]	[redacted]
5	1 1/4" Dia. x 6 3/4" Lg.	24	ea.	[redacted]	[redacted]
6	1 1/4" Dia. x 7 3/4" Lg.	50	ea.	[redacted]	[redacted]
7	1 1/4" Dia. x 8" Lg.	20	ea.	[redacted]	[redacted]
8	1 1/4" Dia. x 11 1/2" Lg.	24	ea.	[redacted]	[redacted]
9	1 1/4" Dia. x 13 1/4" Lg.	3	ea.	[redacted]	[redacted]
0	1 3/8" Dia. x 9 3/4" Lg.	105	ea.	[redacted]	[redacted]
1	1 3/8" Dia. x 10" Lg.	48	ea.	[redacted]	[redacted]
2	1 3/8" Dia. x 10 1/4" Lg.	20	ea.	[redacted]	[redacted]
[redacted]	1 1/2" Dia. x 9" Lg.	520	ea.	[redacted]	[redacted]
4	1 1/2" Dia. x 9 1/4" Lg.	10	ea.	[redacted]	[redacted]
5	1 1/2" Dia. x 10 3/4" Lg.	24	ea.	[redacted]	[redacted]
6	1 5/8" Dia. x 11 1/4" Lg.	24	ea.	[redacted]	[redacted]
7	1 3/4" Dia. x 4" Lg.	12	ea.	[redacted]	[redacted]
	Items 68-76 are alloy tap end studs with 1 [illegible] nut each. - Hex Head Nuts				
3	3/8" Dia. x 3 1/2" Lg.	76	ea.	[redacted]	[redacted]
9	7/8" Dia. x 3 7/8" Lg.	[illegible]	ea.	[redacted]	[redacted]
70	1" Dia. x 4" Lg.	76	ea.	[redacted]	[redacted]
71	1" Dia. x 4 1/4" Lg.	140	ea.	[redacted]	[redacted]

L TERMS AND CONDITIONS ON THE FACE AND REVERSE SIDE OF THE SIGNED SHEET ARE EFFECTIVE COVERING THE ABOVE ITEMS AS
HOUGH REPEATED HEREON.

A138

CAROLINA POWER & LIGHT COMPANY
WER PLANT CONSTRUCTION DEPARTMENT
P.O. BOX 101 - NEW HILL, N. C. 27562

CONTINUATION SHEE

PURCHASE ORDER NUMBE
[redacted]-40924

ITEM	DESCRIPTION	QUANTITY	UNIT	NET UNIT PRICE	TOTAL PRICE
72	1 1/8" Dia. x 4 3/8" Lg.	12	ea.	[redacted]	[redacted]
73	1 1/8" Dia. x 4 3/4" Lg.	76	ea.	[redacted]	[redacted]
74	1 1/8" Dia. x 4 7/8" Lg.	86	ea.	[redacted]	[redacted]
75	1 1/8" Dia. x 5" Lg.	156	ea.	[redacted]	[redacted]
76	1 1/2" Dia. x 6 3/4" Lg.	76	ea.	[redacted]	[redacted]
					[redacted]

All material covered by this purchase order must be furnished in accordance with the following specifications.

Stud bolts shall be threaded full length, bolts shall have hexagonal heads and be threaded full length. Both shall conform to ANSI B18.2.1 dimensions.

Nuts shall be heavy series hex conforming to ANSI B18.2.1 dimensions.

Nominal diameters 1" and smaller shall be to coarse-thread series and larger than 1" shall be 8-thread series. Stud bolts and bolts shall be to ANSI B1.1 Class 2A external threads. Nuts shall have ANSI B1.1 Class 2B internal threads.

Material shall be ASTM A-193 Grade B7 for stud bolts or bolts and ASTM A-194 Grade 2H for nuts (or ASTM A-307 Grade B when specified).

[redacted]

Acknowledge receipt and acceptance of this purchase order by return mail. By signing the [illegible] copy of this purchase order [illegible] Division certifies that all material is supplied in accordance with referenced specifications.

- Quantities shipped may vary ±10%.
- [illegible] Meter

[illegible]

ALL TERMS AND CONDITIONS ON THE FACE AND REVERSE SIDE OF THE SIGNED SHEET ARE EFFECTIVE COVERING THE ABOVE ITEMS AS THOUGH REPEATED HEREON

A138

CA-1
6/15/83
Rev. 11

CAROLINA POWER & LIGHT COMPANY
CORPORATE QUALITY ASSURANCE DEPARTMENT

DEFICIENCY AND DISPOSITION REPORT
(Procedure CQC-2)

DDR No. 1875
Page 1 of 36
RFT No. ~~5105~~ 5,175,016,017,021,023*

Item/Activity Name or Description	Shop Order	Code Class	Quantity	Unit	Quality Assurance No (PO & Item No.)
Bus Duct, Transformers	N/A	1E & nuclear designed	7 - Bus Duct 4 - Transformers	1	QA-435122

Material, Heat or Other Identification No.	Supplier or Manufacturer	Type of Procurement
See below	Gould - Brown - Boveri Carlsont PA.	☐ CP&L PO ☐ Transfer ☒ A-E PO ☐ NSSS PO

Violation (Specification, Drawing, Procedure or Other)	NCR No.	Reporting Inspector
Brown - Boveri Lic: Howe weld spec, AWS-D9.1	N/A	Jacky Burkam 8-17-8

Deficiency Details:

Weld inspection revealed deficiencies in Bus Duct and Transformers listed below.

Bus Duct # CC-1 Sect. 1, CC-1 Sect. 3
CC-1 Sect. 5+6, CC-1 Sect. 6+7, CC-1 Sect. 26
CC-2 Sect. 27, CC-2 Sect. 2.

Transformer # 101, 102, 1E1, 1E2.

See attached weld reports for deficiency details.

RFT No's
* 5,175,016,017,021,023

DDR Evaluation

- ___ Construction Phase
- X Engineering Phase
- ___ QA Program Violation
- X Specification Deviation
- ___ Procedural Deviation
- X Unacceptable Workmanship
- X Damage/Defect
- ___ Other ___
- ___ Not Reportable*

Eval. By -	Site QA/QC	QA Engr.	HPES	NPCD

Date ___

* Under Evaluation by HPES

[signature] ✓ 8-18-8
QA/QC Specialist/Engineer Date

(19 Hold Tags Applied) Note - Bus Duct installed in inaccessible Area - Tag.

Final Disposition: Hold Tags Removed ☐

Remarks:

Accepted By: ___ ___
QA/QC Specialist/Engineer Date

Verified By: ___ ___
QA/QC Inspector Date

Reviewed By: ___ ___
QA/QC Specialist/Engineer Date

Distribution:

Orig - Director - QA/QC SHNPP
- Proj. Gen. Mgr./Sr. Res. Engr.
- Gen. Mgr. (SU/Operations)
- Initiating QA/QC Specialist
- Accounting
- Mgr. - QA/QC - Harris Plant
- ☒ Mgr. HPES ☒ Lee Williams
- ☒ Start-Up C Engr.
- ☐ NSSS Site Rep.
- ☐ ANI
- ☐ NR Resident Inspector
- ☒ CA - Learn Left

ANI Concurrence (ASME Code Section III Items Only):

___ ___
Authorized Nuclear Inspector Date

Report Closed:

___ ___
Director - QA/QC - Harris Plant Date

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~~RIR/NCR~~ DDR 1875

Date 8-17-83

QA Number 435122

Drawing No. 52522-L932 Rev 0

Inspector Mikekaz, Bushner

Specialist [illegible]

Weld Spec. Brown-Boveri In-House Weld Spec.

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Sect. 1		1	I		R.Stk.1 - there is no weld symbol on drawing for these joints, R. has 3 fillet welds on both sides of angle typ. 2 places (weld size, length and deficiency are noted below)
			I	IF OL	① R.Stk.1 - 1/16" to 1/8" fillet 1 1/4" long with IF 3/16" long, OL totaling 1" long, 6 3/8" center to center to weld ②.
			I	OL	② R.Stk.1 - 1/8" fillet 1 3/16" long with OL 7/16" long, 6 3/4" center to center to weld ③
			I	OL CT, UWM	③ R.Stk.1 - 1/8" fillet 1 3/16" long with OL totaling 3/16" long, CT 1/16" DIA., UWM 1/4" long
			I	OL IF	④ R.Stk.1 - 1/8" fillet 2 1/8" long with OL totaling 3/16" long, IF 1/16" long, 7 1/4" center to center to weld ⑤.
			I	OL IF	⑤ R.Stk.1 - 1/8" fillet 1 5/8" long with OL totaling 1/4" long, IF totaling 1/4" long, 6 3/8" center to center to weld ⑥.
			I	IF OL	~~R.Stk.1~~ ⑥ R.Stk.1 - 3/16" fillet 1 1/2" long with IF 1/8" long, OL 3/16" long.
			I	IF OL, CT	⑦ R.Stk.1 - 1/8" & 3/16" fillet 1 3/16" long with IF totaling 1/4" long, OL 1/8" long, CT 1/16" DIA., 6 3/4 center to center to weld ⑧

LEGEND:

Type Of Welds	
I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug - Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations			
AS	Arc Strike	NPD	Not Per Design
AW	Added Weld	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Linear)
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	TWL	Total Weld Length
IT	Insufficient Throat	UC	Undercut
IW	Insufficient Weld	US	Undersize
IWS	Incorrect Weld Symbol	UWM	Unconsumed Weld Material
LI	Linear Indication	WI	Weld Inaccessible
MT	Melt Through		

A138

~~NIR/NCR~~/DDR 1875

Date 8-17-83

QA Number 435122 Drawing No. 52522-L932 Rev O

Inspector Eike Kirz, Buckner Specialist [illegible] Weld Spec. [illegible]

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Sect 1		1	I	IF CT	(8) ⅛ 5 ★ R 1 - ⅛" fillet 1½" long with IF ⅜" long CT 3/16" DIA, 7" center to center of weld (9)
			I	IF OL	(9) ⅛ 5 ★ R 1 - ⅛" fillet 1⅜" long with IF 3/16" long, OL totaling 3/16".
			I	AS IF OL	(10) ⅛ 5 ★ R 1 - ⅛" fillet 1⅝" long with AS 3/16" long, IF totaling ¼" long, OL 3/16" long, 6½" center to center to weld (11).
			I	UC OL	(11) ⅛ 5 ★ R 1 - ⅛" fillet 1½" long with UC > 1/32" X ¼" long, OL ⅛" long, 7⅛" center to center to weld (12).
			I	IF OL, CT	(12) ⅛ 5 ★ R 1 - ⅛" to 3/16" fillet 2" long with IF totaling ¾" long, OL 3/16" long and CT ⅛" DIA
			I, II	NPD AS, OL IT, US CT, UWM UC, OL IF	(13) ⅛ 2 ★ R 1 - drawing requires a square groove weld 2¾" long ground flush on one side (panel side), also a ⅛" fillet all around. The ⅛" fillet weld cannot be made on panel side or opposite side of butt joint. Actual weld is a groove weld on the panel side 2¾" long but is ground flush, it is 1/32" to 1/16" above flush. Opposite side of butt joint is a groove weld 1⅝" long with AS 3/16" long, OL ¼" long. R. has ⅛" fillet totaling 5" in length with IT 1/16" X 1½" long, US 1/16" X 1" long, CT 1/16" DIA. 2 places, UWM ⅛" long 2 places, UC > 1/32" X ¼" long, OL 3/16" long and IF totaling ⅜" long (see next page)

LEGEND:

Type Of Welds

- I Fillet
- II Square Groove
- III V - Groove
- IV Single Bevel
- V Flare Bevel
- VI Flare - V
- VII Plug or Slot
- VIII Spot
- IX Stud

Weld Deficiencies and Specification Violations

- AS Arc Strike
- AW Added Weld
- BMR Base Metal Reduction
- CR Crack
- CT Crater
- EC Excessive Convexity
- IC Internal Concavity
- IF Incomplete Fusion
- IT Insufficient Throat
- IW Insufficient Weld
- IWS Incorrect Weld Symbol
- LI Linear Indication
- MT Melt Through
- NPD Not Per Design
- NW Not Welded
- OL Overlap
- PO Porosity
- SI Slag Inclusion
- SP Spatter (Cluster of Linear)
- SS Surface Slag
- TWL Total Weld Length
- UC Undercut
- US Undersize
- UWM Unconsumed Weld Material
- WI Weld Inaccess bl[illegible]

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RIR/NCR/DDR 1875

Date 8-17-83

QA Number 735122 Drawing No. 52522-6932 Rev 0

Inspector Mike Kagy, Buchanan Specialist Rhuttenus Weld Spec. Brown-Boveri IN-HOUSE WPS #16

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Sect 1		1	I, II	NW	Pc. 2 & Pc. 1 - (continued) There is 5 3/4" of material which is NW at joint Pc. has a total combined weld length of 9 3/16" long. V.T.U
			I II	NPD	Pc 2 & Pc. 1 - drawing requires a square groove weld 2 3/4" long ground flush on one side (panel side), also a 1/8" fillet all around. The 1/8" fillet weld cannot be made on the panel side or opposite side of butt joint, Actual weld is a groove on the panel side 2 3/4" long but is not ground flush 360°, it is 1/16" above flush. Pc has 1/4" fillet totaling 2 7/16"
				IF	in length with IF totaling 7/8" long,
				UC	UC = 1/32" X 7/16" long. There is 10 7/16"
				NW	of material which is NW at joint. Pc. has a total combined weld length of 4 5/16".
			I, V	NPD	Pc. 4 & Pc. 1 - drawing requires a 1/8" fillet 1 1/2" long on 5" centers both sides, Pc. 4 has 1 flare bevel weld on 1 side 4 places type. Pc. 4 is 14 1/2" long.. (These add welds on other side are added be
			I,	NPD	Pc. 4 & Pc. 1 - welds are on 12" centers 1 place, 12 1/4" centers 2 places and 12 1/2" centers 1 places.
			I	IF, OL UC, IW	Pc. 4 & Pc. 1 - IF 1/4" long, OL 1/4" long, UC 1/32" X 7/16" long, IW by 1/8" long. (1 3/8" TWL)

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
MT	Melt Through
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Inaccessable

A138

QA Number 435-122 Drawing No. 52522-L732 Rev 0

Inspector Mike King, Buchanan Specialist [illegible] Weld Spec. Brown-Boveri / In-House Weld Spec.

Mark Number	Rev.	Quan Recyd.	Type Weld	Def.	Details
CC-1 - Seat 1		1	I	AS, SP UWM	(1) R4&R1 - AS 1/4" long, UWM 1/4" long, SP (1 1/2" TWL)
			I	OL	(3) R4&R1 - OL 3/16" long (1 1/2" TWL)
			I	UWM	(13) R4&R1 - UWM 3/8" long (1 1/2" TWL)
			V	IF	(14) R4&R1 - IF 1/8" long (1 3/8" TWL)
			V	UC, IF	(20) R4&R1 - UC = 1/32" x 3/16" long, IF 1/16" long (1 3/4" TWL)
			I	AS, IW	(21) R4&R1 - AS 1/16" long, IW by 1/4" long, (1 1/2" TWL)
			I	AS, UC EC, OL	(22) R4&R1 - AS 1/4" long, UC = 1/32" x 1/4" long, EC 3/16" long, OL 1/4" long (1 1/2" TWL)
			I	OL, IW	(23) R4&R1 - OL 1/8" long, IW by 1/8" long, (1 3/8" TWL).
			I	IF	(24) R4&R1 - IF 1/4" long (2" TWL)
			V	IP	(25) R4&R1 - incomplete penetration 1/8" (2" TWL)
			V	OL, IT CT	(26) R4&R1 - OL 3/16" long, IF 1/8" long, CT 1/16" DIA. (1 3/4" TWL)
			II	UC, IF OL	(3) R3&R1 - UC = 1/32" x 3/16" long 2 places, IF 1/8" long OL 3/4" long (2 1/4" TWL)
			II	AS, IF OL, BMR	(8) R3&R1 - AS 1/4" long, IF 3/16" long, OL totaling 3/8" long, BMR = 1/32" x 1/2" long 2 places (2 1/4" TWL)

LEGEND:

Type Of Welds
- I Fillet
- II Square Groove
- III V - Groove
- IV Single Bevel
- V Flare Bevel
- VI Flare - V
- VII Plug or Slot
- VIII Spot
- IX Stud

Weld Deficiencies and Specification Violations
- AS Arc Strike
- AW Added Weld
- BMR Base Metal Reduction
- CR Crack
- CT Crater
- EC Excessive Convexity
- IC Internal Concavity
- IF Incomplete Fusion
- IT Insufficient Throat
- IW Insufficient Weld
- IWM [illegible]
- LI Linear [illegible]
- MT Melt Th[illegible]
- NPD Not Per Design
- NW Not Welded
- OL Overlap
- PO Porosity
- SI Slag Inclusion
- SP Spatter (Cluster of Linear)
- SS Surface Slag
- TWL Total Weld Length
- UC Undercut
- US Undersize
- UWM Unconsumed Weld Material
- [illegible] Weld Inaccessible

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~~NIR/NCR~~/DDR 1875

Page [illegible]

Date 8-17-[illegible]

QA Number 435122 Drawing No. 52522-L932 Rev 0

Inspector Mike King, Buchanan Specialist [illegible] Weld Spec. [illegible]

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 - Sect 1		1	II	IF, SP UWM	(22) R.J&R.1 - IF totaling ½" long, UWM 3/16" long SP (2¼" TWL)
			II	UC, IF	(23) R.J&R.1 - UC 1/32" X ½" long, IF 1" long (2¼" TWL)
			II	OL	(21) R.1 - OL ¼" long, (1¼" TWL)
			II	IF	(22) R.1 - IF ⅛" long (1¼" TWL)

LEGEND:

Type Of Welds

- I Fillet
- II Square Groove
- III V - Groove
- IV Single Bevel
- V Flare Bevel
- VI Flare - V
- VII Plug or Slot
- VIII Spot
- IX Stud

Weld Deficiencies and Specification Violations

- AS Arc Strike
- AW Added Weld
- BMR Base Metal Reduction
- CR Crack
- CT Crater
- EC Excessive Convexity
- IC Internal Concavity
- IF Incomplete Fusion
- IT Insufficient Throat
- IW Insufficient Weld
- IWS Incorrect Weld Symbol
- LI Linear Indication
- MT Melt Through
- NPD Not Per Design
- NW Not Welded
- OL Overlap
- PO Porosity
- SI Slag Inclusion
- SP Spatter (Cluster of Linear
- SS Surface Slag
- TWL Total Weld Length
- UC Undercut
- US Undersize
- UWM Unconsumed Weld Material
- WI Weld Inaccessable

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~~NIR/NCR~~/DDR 1875

Date 8-17-87

QA Number 435122 Drawing No. 525222910

Inspector James H Jackson D. Cook Specialist Phillips Weld Spec. Groove - Gouge to bare metal spec

Mark Number	Rev.	Quan Recvd	Type Weld	Def.	Details
CC 1-3			I	US	① Both Pc. 5's to Pc 1 US 1/8" for 7" each TWL 7" EACH.
			I	US	② Pc. 6 to Pc. 1 US 1/4" for 5 places TWL 1½" EACH.
			I	UC	③ Pc. 5 to Pc 1 UC > 1/32" in 2 places 1/4" long each.
			I	US	④ Both Pc. 5's to Pc 1 in corner US 1/8" 4 places TWL 3" each
			I	IF	⑤ Pc. 5 to Pc. 1 in corner has I.F 1/32" 1/4 long, 2 places.
			I	UC	⑥ Pc 5 to Pc 1 has UC > 1/32" ~~5 places TWL~~ for 1/4" long.
			I	UC	⑦ Pc. 4's to Pc 1 has UC > 1/32" 5 places TWL 1½" EACH.
			I	US	⑧ Pc. 4's to Pc 1 has US 1/16" for 3 places TWL 1½" EACH.
			II	UWM	⑨ Pc 3 to Pc. 1 has UWM
			II	~~UC~~ EC UWM	⑩ Pc 3 to Pc 1 has UC > 1/32" Also UWM, EC 1 place 1/4" long.

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
MT	Melt Through
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Inaccessible

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Date 8-17-83

QA Number 435122 Drawing No. 5252224-910

Inspector James D. Jackson D.J.C. Specialist [illegible] Weld Spec. [illegible]

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
C.C-1-3			II	OL	(11) Pc. 3 to Pc. 1 has OL 1/8" long
			II	IF UWM	(12) Pc 3 to Pc. 1 has IF 1/8" long Also UWM
			II	UC IF	(13) Pc. 3 to Pc. 1 has UC > 1/32" Also IF 2 places
			II	IF	(14) Pc 3 to Pc. 1 has IF 5/32", total of 3 places.
			I	IF	(17) Pc. 2 to Pc 1 IF 1/8", 2 places.
			I	US	(18) Pc 2 to Pc 1 US > 1/32" X 1" long TWL 1"
			I	UC	(19) Pc. 2 to Pc. 1 has UC > 1/32" 2 places
			I	CT	(20) Pc. 4 to Pc. 1 has CT 2 places, TWL 1 1/2" EACH
					Note - The one weld on back side of Pc. 4's to Pc 1 drawing calls for 1/8" fillet but should be A Flare bevel.

LEGEND:

Type Of Welds

- Fillet
- Square Groove
- V - Groove
- Single Bevel
- Flare Bevel
- Flare - V
- Plug or Slot
- Spot
- Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike	NPD	Not Per Design
AW	Added Weld	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Linear)
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	TWL	Total Weld Length
IT	Insufficient Throat	UC	Undercut
IW	Insufficient Weld	US	Undersize
IWS	Incorrect Weld Symbol	UWM	Inconsistent Weld Material
LI	Linear Indication	WI	Weld Inaccessible
MT	Melt Through		

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Date 8-17-83

[illegible] Number 435122 Drawing No. 819354 Rev 4, 525221916 Rev 0, 872003 Rev 0

Inspector Mike King, Buckner Specialist [illegible] Weld Spec. [illegible]

Mark Number	Rev.	Quan Req'd	Type Weld	Def.	Details
CC-1 Sect 5 + 6		1	I, V	NPD	R 4 to R 1 - drawing requires a 1/8" fillet 1 1/2" long on 5" centers both sides, R 4 have 1 flare bevel weld on 1 side 8 places typ., R 4 is 14 1/2" long. (these welds on other side are noted below)
			I, V	NPD	R 4 to R 1 - welds are on 10" centers 3 places, 9" centers 3 places and 10 1/2" centers 2 places.
			I	IF US	① R 4 to R 1 - has IF 1/8" long and is US 1/32" X 1 1/2" long. (1 1/2" TWL)
			I	OL, IF UC, IW US	① R 4 to R 1 - has OL 1/4" long, IF 1/16" long, UC = 1/32" deep x 1/4" long, IW by 1/16" and US 1/32" X 1 3/4" long (1 3/4" TWL)
			I	OL, IW US	① R 4 to R 1 - has OL 1/4" long, IW by 1/2" and is US 1/32" X 1" long. (1" TWL)
			I	UC, CT	① R 4 to R 1 - has UC = 1/32" deep X 1/4" long, CT 1/16" DIA., IW by 1/2" and is US 1/32" X 1" long. (1" TWL)
			V	UC US	① R 4 to R 1 - has UC = 1/32" deep X 3/4" long and is US 1/16" to the tangent point 1 1/2" long (1 1/2" TWL)
			V	UC, US	① R 4 to R 1 - has UC = 1/32" X 1 1/2" long and is US 1/16" to the tangent point 1 1/2" long (1 1/2" TWL)
					① R 4 to R 1 - has IF 1/16" long, US 1/32" X 1 1/2" long (1 1/2" TWL)

LEGEND:

Type Of Welds	
I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike	NPD	Not Per Design
AW	Added Weld	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Linear)
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	TWL	Total Weld Length
IT	Insufficient Throat	UC	Undercut
IW	Insufficient Weld	US	Undersize
IWS	Incorrect Weld Symbol	UWM	Unconsumed Weld Material
LI	Linear Indicators	WI	Weld Inaccessible
MT	Melt Through		

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Date 8-17-...

.. Number 435122 — Drawing No. 819354 Rev 4, 52522L916 Rev 0, 877003 ...

Inspector Mike King, Buckner — Specialist Rhett ... — Weld Spec. ...

Mark Number	Rev.	Quan Requ'd.	Type Weld	Def.	Details
CC-1 Seat 5 & 6		1	I	IF, OL, IW, US	(8) R.4 A.R.1 - has IF 1/4" long, OL 3/16" long, IW by 1/16" and in US 1/32" × 1 1/8" long (1 1/8" TWL)
			I	IW, US	(9) R.4 A.R.1 - has IW by 1/16" and in US 1/32" × 1 1/8" long (1 1/8" TWL)
			I	AS, UC, IW, US	(10) R.4 A.R.1 - has AS 3/16" long, UC + 1/32" × 3/16" long, IW by 1/16" and in US 1/32" × 1 1/8" long (1 1/8" TWL)
			V	UC, US	(11) R.4 A.R.1 - has UC + 1/32" deep × 1 1/4" long and in US 1/16" to the tangent point × 1 5/8" long (1 5/8" TWL)
			V	IW, US, UC	(12) R.4 A.R.1 - has UC + 1/32" deep × 1" long, IW by 1/16" US 1/32" to the tangent point × 1 1/4" long [illegible] (1 1/4" TWL)
			I	OL, EC, US	(13) R.4 A.R.1 - has OL 1/2" long, EC 1/4" long and in US 1/32" × 1 1/2" long (1 1/2" TWL)
			I	OL, US	(14) R.4 A.R.1 - has OL 1/4" long and in US 1/32" × 1 1/2" long (1 1/2" TWL)
			I	IF, OL, IW, US	(15) R.4 A.R.1 - has IF 1/2" long, OL 1/4" long, IW by 1/16" long and in US 1/32" × 1 1/4" long (1 1/4" TWL)
			I	IF, IW, US	(16) R.4 A.R.1 - has IF 1/2" long, IW by 1/16" and in US 1/32" × 1 1/4" long (1 1/4" TWL)

LEGEND:

Type Of Welds
- I Fillet
- II Square Groove
- III V - Groove
- IV Single Bevel
- V Flare Bevel
- VI Flare - V
- VII Plug or Slot
- VIII Spot
- IX Stud

Weld Deficiencies and Specification Violations
- AS Arc Strike
- AW Added Weld
- BMR Base Metal Reduction
- CR Crack
- CT Crater
- EC Excessive Convexity
- IC Internal Concavity
- IF Incomplete Fusion
- IT Insufficient Throat
- IW Insufficient Weld
- IWS Incorrect Weld Symbol
- LI Linear Indication
- MT Melt Through
- NPD Not Per Design
- NW Not Welded
- OL Overlap
- PO Porosity
- SI Slag Inclusion
- SP Spatter (Cluster of Lines)
- SS Surface Slag
- TWL Total Weld Length
- UC Undercut
- US Undersize
- UWM Unperformed Weld Material
- WI Weld Inoperable

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~~NIAGARA~~ DDR 1875

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QA Number 435 122 Drawing No. 8195 [illegible] 354 Rev 4 52522 E916 Rev Q, 877003 Rev 0 Date 8-17-82

Inspector M.K. King, Buckner Specialist [illegible] Weld Spec. [illegible]

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Sect. 5+6		1	V	UC,CT IW,UC	(42) 2-4 AR 1 - Ins UC = 1/32" deep X 1" long, CT 1/16" dia IW by 1/4", US 1/16" to the longest point X 1 1/4" long (1 1/4" TWL)
			V	UC,IF US	(43) 2-4 AR 1 - Ins UC = 1/32" deep X 1/2" long, IF 3/16" long US 1/32" to the longest point X 1 1/4" long. (1 1/4" TWL)
			I	UC US	(44) 2-4 AR 1 - UC = 1/32" X 3/16" long, US 1/32" X 1 1/4" long (1 3/4" TWL)
			I	UC,OL IW, US	(45) 2-4 AR 1 - UC = 1/32" deep X 1/8" long, OL 1/8" long, IW by 1/4" and in US 1/32" X 1 1/4" long (1 1/4" TWL)
			I	IF OS	(DEL) 2-4 AR 1 - IF 3/16" long, US 1/32" X 1 1/2" long (1 1/2" TWL)
			I	UC,OL IW, US	(46) 2-4 AG 1 - UC = 1/32" deep X 3/16" long, OL 3/16" long, IW by 1/4", US 1/32 X 1 1/4" long. (1 1/4" TWL)
			V	UC,IW US	(47) 2-4 AR 1 - UC = 1/32" deep X 1/2" long, IW by 1/4", US 1/16" to the longest point X 1 1/4" long (1 1/4" TWL)
			V	UC,IF OL, US	(48) 2-4 AR 1 - UC = 1/32" deep X 3/4" long, IF 1/4" long, OL 1/16" long and US 1/32" to the longest point X 2 3/16" long (2 3/16" TWL)

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indications
MT	Melt Through
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UM	Unacceptable Weld Material
VI	Weld Visual Inspection

~~Nine Mile~~ DDR 1875

Date 8-17-82

QA Number 435122 Drawing No. 8193544 Rev 4 5252241916 Rev 0, 877003 Rev 0

Inspector Mike Kiag, Buchanan Specialist Rhett Hunt Weld Spec. Drawing - Nine Mile - CH

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1- Sect. 5+6		1	I, II	NPD	(25) R.2 Sh 1 - drawing require a square groove weld 2¾" long ground flush on one side (panel side), also a ¼" fillet all around. The ¼" fillet weld cannot be made on panel side or opposite side of butt joint. Actual weld is a groove weld on the panel side 2¾" long as required opposite side there is no fillet weld as required, but a ~~2nd~~ weld 1¾" long. Also a ¼" fillet weld ¾" long 2 places
				NW	There is 9½" of material which is NW at joint. Has a total combined weld length of 5¾", has UC = 1/32" x ¼" long in 3 places.
				UC	
			I, II	NPD	(24) R.2 Sh 1 - drawing require a square groove weld 2¾" long ground flush on one side (panel side), also a ¼" fillet all around. The ¼" fillet weld cannot be made on the panel side or the opposite side of the butt joint. Actual weld is a groove weld on the panel side 2¾" long as required, has a ¼" fillet ¾" long 2 places. There is 11¾" of material welded in NW at joint. Has a total combined weld length of 4", has IF ⅛" long 2 places.
				NW	
				IF	

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
MT	Melt Through
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	[illegible]

~~RIMS~~ NI 1875

Date 8-17-83

QA Number 435122 Drawing No. 8193547 Rev 4, 5252L916 Rev 0, 8772D03 Rev 0

Inspector McKay, Buchanan Specialist Rivard Weld Spec. Brown-Boveri Nuclear Power

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Dect 5 + 6		1	II	AW IF, OL EC	(27) R. 3 to R. 1 - has AW 2½" long with IF 3/16" long, OL ¼" long, EC ¼" long. (54" TWL)
			II	AW, IF OL, US	(53) R. 3 to R. 1 - has AW 1¼" long with IF ¼" long OL ¼" long, AS ¼" long. (4" TWL)
			II	WI	(8) R. 1 to R. 1 - WI 1¼" long.
			II	WI	(9) R. 3 to R. 1 - WI 1¼" long.
			V, I	NPD UC US US	(51) R. 6 to R. 1 - drawing requires square groove weld 4" long, R. has flare bevel weld 4" long with UC - 1/32" x ¼" long, also requires ¼" fillet 2" long and a ¼" fillet 4" long there are US ⅛" x 2" long + US ¼" x 4" long. (16" TWL)
			V, I	NPD UC IF US	(31) R. 6 to R. 1 - drawing requires square groove weld 4" long, R. has flare bevel weld 4" long with UC - 1/32" x ⅛" long, IF ⅛" long, also requires ¼" fillet 2" long and ¼" fillet 4" long there are US ⅛" x 2" long + US ¼" x 4" long. (10" TWL)
			II	IF, UC	(57) R. 5 to R. 6 - has IF 3/16" long, EC 3/16" long (2" TWL)
			II	IW, OL	(58) R. 5 to R. 6 - IW by ⅛", OL 3/16" long. (1¼" TWL) RO 9-14-83

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
MT	Melt Through
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Inaccessible

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~~RIR/NCR~~/DDR 1875

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Date 8-17-8[illegible]

QA Number 435122

Drawing No. 819354 Rev 4 525226916 Rev 0, 87[illegible]03 Rev 0

Inspector Mike King, Buckner

Specialist [illegible]

Weld Spec. [illegible]

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Sect 5 + 6		1	I	NPD	Note - R.5 & R.1 drawing requires ¼" fillet 1½" long equally spaced on 9" centers on both sides, welds are staggered.
			I	US NPD	(?) R.5 & R.1 - is US ⅛" X 1½" long (1½" TWL) R. is 3¼" from center to edge of angle and is 10½" center to center of weld 36.
			I	US, AS	(?) R.5 & R.1 - is US ⅛" to 3/16" X 2" long, AS ¼" long 4¼" from center to edge of angle (2" TWL)
			I	US	(?) R.5 & R.1 - is US ⅛" X 1¾" long. (1¾" TWL)
			I	US, IF AS	(?) R.5 & R.1 - is US ⅛" X 2" long, IF ⅛" long, AS ⅛" long (2" TWL).
			I	US, IW	(?) R.5 & R.1 - US ⅛" X 1⅛" long, IW ⅜" long (1⅛" TWL)
					Note - 40 thru 43 see Drawing 819354 Rev 4.
			I, II	IW, IF, US	(40) R.6 & R.7 - has IW 3/16" long, IF ⅜" long, fillet weld is US 3/32" X 2½" long (8⅛" TWL)
			I, II	US, IF	(41) R.6 & R.7 has IF 3/16" long, fillet weld is US 3/32" X 2 3/16" long (8⅜" TWL)

LEGEND:

Type Of Welds

- I Fillet
- II Square Groove
- III V - Groove
- IV Single Bevel
- V Flare Bevel
- VI Flare - V
- VII Plug or Slot
- VIII Spot
- IX Stud

Weld Deficiencies and Specification Violations

- AS Arc Strike
- AW Added Weld
- BMR Base Metal Reduction
- CR Crack
- CT Crater
- EC Excessive Convexity
- IC Internal Concavity
- IF Incomplete Fusion
- IT Insufficient Throat
- IW Insufficient Weld
- IWS Incorrect Weld Symbol
- LI Linear Indication
- MT Melt Through
- NPD Not Per Design
- NW Not Welded
- OL Overlap
- PO Porosity
- SI Slag Inclusion
- SP Spatter (Cluster of Linear)
- SS Surface Slag
- TWL Total Weld Length
- UC Undercut
- US Undersize
- UWM Unconsumed Weld Material
- WI Weld Inaccessable

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~~RIR/.~~ 1875

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Date 8-17-87

QA Number 435122

Drawing No. 525-226916 Rev. 0, 877003 Rev. 0, 819354 Rev. 4

Inspector Mike King, Buckner

Specialist [illegible]

Weld Spec. [illegible]

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Seat 5 & 6		1		IF, US	(42) Pc. 6 to Pc. 7 - has IF 1/8" long, fillet weld is US 1/16" x 2 3/4" long (8 3/4" TWL) square groove has IF incomplete penetration 3/16" long 2 places.
				IF, US	(43) Pc. 6 to Pc. 7 - has IF 1/2" long, fillet weld is US 1/32" & 1/16" x 2 3/4" long (8 3/4" TWL) square groove weld has incomplete penetration 1/8" long 2 places.

LEGEND:

Type Of Welds

- I Fillet
- II Square Groove
- III V - Groove
- IV Single Bevel
- V Flare Bevel
- VI Flare - V
- VII Plug or Slot
- VIII Spot
- IX Stud

Weld Deficiencies and Specification Violations

- AS Arc Strike
- AW Added Weld
- BMR Base Metal Reduction
- CR Crack
- CT Crater
- EC Excessive Convexity
- IC Internal Concavity
- IF Incomplete Fusion
- IT Insufficient Throat
- IW Insufficient Weld
- IWS Incorrect Weld Symbol
- LI Linear Indication
- MT Melt Through
- NPD Not Per Design
- NW Not Welded
- OL Overlap
- PO Porosity
- SI Slag Inclusion
- SP Spatter (Cluster of Linear)
- SS Surface Slag
- TWL Total Weld Length
- UC Undercut
- US Undersize
- UWM Unconsumed Weld Material
- WI Weld Inaccessable

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~~RIR/NCR~~/DDR 1875

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Date 8-17-8

QA Number 435122 Drawing No. 819354 Rev 4 52522-4916 Rev 0, 877003 Rev

Inspector Mike King, Burbank Specialist Phoenix Weld Spec. Comm. Energy IN-House Weld Spec.

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Dest. 6 + 7		1	V, I	NPD	Pc. 6 & Pc. 1 - drawing requires a square groove weld 4" long, Pc. has a flare bevel weld 4"
				IT	long with IT 1/32" X 1½" long, also
				US	requires a ¼" fillet 2" long and a ¼"
				US	fillet 4" long there are US ¼" X 2"
					long & US ⅛" X 4" long. (10" TWL)
			V, I	NPD	Pc. 6 & Pc. 1 - drawing requires a square groove weld 4
				NW	long Pc. is NW, is flare bevel joint
					also requires a ¼" fillet 2" long and a ¼"
				US	fillet 4" long there are US ⅛" X 2" long
				US	and US ⅛" X 4" long with IF totaling
				IF	5/16" long. (10" TWL)
			II	IT	Pc. 5 & Pc. 6 - has IT 1/32" X 1½" long. (2" TWL)
					Pc. 5 & Pc. 6 - has IW 3/16" long (1 3/16" TWL)
			I	NPD	Note - Pc. 5 & Pc. 1 drawing requires ¼" fillet
					1½" long equally spaced on 9"
					centers on both sides, welds are
					staggered.
			I	IW	Pc. 5 & Pc. 1 - has IW by ½" long, US ⅛" & 3/16" X
				US	1" long (1" TWL)
			I	US	Pc. 5 & Pc. 1 - is US ¼" & 3/16" X 2" long (2" TWL)
			I	IW	Pc. 5 & Pc. 1 - has IW ¼", US ¼" X 1¼" long
				US	(1¼" TWL)

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
MT	Melt Through
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Inaccessable

~~RIR/NCR~~ DDR 1875

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Date 8-17-83

QA Number 435122 Drawing No. 819354 Rev. 4 525222916 Rev 0, 527003 Rev 0

Inspector Mike King, Buckner Specialist Phillips Weld Spec. Brown-Boveri IN-House Spec

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Sect 6+7		1	I	US NPD	⑧ Pc 5 to Pc 1 - US ⅛" to 3/16" x 2" long (2" TWL) center of weld is 4⅛" to edge of angle, 10½" center to center of weld ⑨.
			I	US	⑨ Pc 5 to Pc 1 - US ⅛" to 3/16" x 2" long (2" TWL) center of weld is 3½" to edge of angle
			V	NPD	Pc 4 to Pc 1 - drawing requires a ¼" fillet 1½" long on 5" centers both sides. Pc 4 has 1 flare bevel weld on side 7 plate type also 1 plug weld on side is NW. Pc 4 is 14½" long (other side weld on other side are noted
			I	NPD	Pc 4 to Pc 1 - welds are on 9½" centers 3 places, 9¾" centers 1 places, 10" centers 1 places and 10½" centers 3 places.
			I	UC, IW	⑩ Pc 4 to Pc 1 - UC - 1/32" totaling ½" long, IW by ¼" long (1¼" TWL)
			I	UC IW	⑪ Pc 4 to Pc 1 - UC - 1/32" x 3/16" long, IW by ¼" long (1¼" TWL)
			I	UC, UWM IW	⑫ Pc 4 to Pc 1 - UC - 1/32" x ¼" long, UWM ⅛" long, IW by ½" long. (1" TWL)
			I	UC, UWM IW	⑬ Pc 4 to Pc 1 - UC - 1/32" totaling ¼" long, UWM ⅛" long IW by ¼" long. (1⅛" TWL)

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Inaccessable

~~RIR/NC~~ DDR 1875

Date 8-17-8

QA Number 435122

Drawing No. 819354 Rev. 4 52522-L916 Rev. 0, 877003 Rev. 0

Inspector Mike King, Buckner

Specialist [illegible]

Weld Spec. Brown-Davis In-House Spec

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Sect. 6+7		1	V	IT, UC, IP	(14) R.4 to R.1 - IT 1/32" x 1 1/2" long, UC >1/32" x 1/2" long, incomplete penetration 3/16" long (1 1/2" TWL)
			I	UC, IW	(15) R.4 to R.1 - UC >1/32" x 1/4" long, IW by 1/2" long (1" TWL)
			I	UC, IW	(16) R.4 to R.1 - UC >1/32" x 1/2" long, IW by 1/4" long (1 1/4" TWL)
			I	IF, UC, IW	(17) R.4 to R.1 - IF 1/8" long, UC >1/32" x 3/8" long, IW by 1/8" long (1 3/8" TWL)
			I	UC, IW	(18) R.4 to R.1 - UC >1/32" x 3/16" long, IW by 1/4" long (1 1/4" TWL)
			V	UC, IW, US	(19) R.4 to R.1 - UC >1/32" x 1/4" long, IW by 1/8" long, US 1/8" to the tangent point x 1 3/8" long (1 3/8" TWL)
			V	US	(20) R.4 to R.1 - US 1/16" to the tangent point x 1 1/2" long (1 1/2" TWL)
			I	US, IW	(21) R.4 to R.1 - US 1/32" to 1/16" x 1 1/4" long, IW by 1/4" long (1 1/4" TWL)
			I	UC, IW	(22) R.4 to R.1 - UC >1/32" x 3/4" long, IW by 1/4" long (1 1/4" TWL)
			I	IW	(23) R.4 to R.1 - IW by 1/4" long (1 1/4" TWL)
			I	US, IW	(24) R.4 to R.1 - UC >1/32" x 3/16" long, IW by 1/4" long (1 1/4" TWL)

LEGEND:

Type Of Welds

- I Fillet
- II Square Groove
- III V - Groove
- IV Single Bevel
- V Flare Bevel
- VI Flare - V
- VII Plug or Slot
- VIII Spot
- IX Stud

Weld Deficiencies and Specification Violations

- AS Arc Strike
- AW Added Weld
- BMR Base Metal Reduction
- CR Crack
- CT Crater
- EC Excessive Convexity
- IC Internal Concavity
- IF Incomplete Fusion
- IT Insufficient Throat
- IW Insufficient Weld
- IWS Incorrect Weld Symbol
- LI Linear Indication
- NPD Not Per Design
- NW Not Welded
- OL Overlap
- PO Porosity
- SI Slag Inclusion
- SP Spatter (Cluster of Linear)
- SS Surface Slag
- TWL Total Weld Length
- UC Undercut
- US Undersize
- UWM Unconsumed Weld Material
- WI Weld [illegible]

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~~RIR/NC~~ / DDR 1875

QA Number 475-122 Drawing No. 81935-4 Rev 4 / 5252L916 Rev 0, 877003 Rev

Date 8-17-8

Inspector Mike King, Buckeye Specialist Plus Hou A Weld Spec. Brown IN-House

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Dect 6+7		1	V	US	(25) Pc. 4 & R. 1 - US 1/8" to the tangent point x 1 3/8" long (1 3/8" TWL)
			V	UC	(26) Pc. 4 & R. 1 - UC - 1/32" X 2" long (2" TWL)
			I	UC US	(27) Pc. 4 & R. 1 - UC > 1/32" X 3/16" long; US 1/32" to 1/16" X 1 1/2" long. (1 1/2" TWL)
			I	UC IW	(29) Pc. 4 & R 1 - UC > 1/32" X 1/4" long; IW by 1/4" long (1 1/4" TWL)
			I	UC	(28) Pc. 4 & Pc. 1 - UC > 1/32" X 1" long, (1 1/4" TWL)
			I	UC IW	(30) Pc. 4 & R 1 - UC > 1/32" X 1/4" long; IW by 1/4" long (1 1/4" TWL)
			V	US	(31) Pc. 4 & R 1 - US 1/16" X 1 3/8" long (1 3/8" TWL)
			V	US	(32) Pc. 4 & Pc. 1 - US 1/16" X 1 3/4" long (1 3/4" TWL)
			I, II	NPD	(22) Pc. 2 & R. 1 - drawing requires a square groove weld 2 3/4" long ground flush on one side (panel side), also a 1/4" fillet all around. The 1/8" fillet cannot be made on the panel side or opposite side of butt joint. Actual weld is a groove weld on the panel side 2 3/4" long as required with PO - 9 pores totaling 7/16" in length. Has a 1/8" fillet 3/4" long 2 places. There is 10 3/4" of material which is NW at joint. Has a total combined weld length of 4 1/4".
				PO	
				NW	

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Irregularities

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~~RIR/NC~~: DDR 1875

QA Number 435122 Drawing No. 819354 Rev. 4 52522-1916 Rev 0, 877003 Rev

Date 8-17-

Inspector Mike King, Buchan Specialist Robert Hand Weld Spec. Brown-Boa IN-How

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Sect. 6+7		1	I, II	NPO	(34) Ref. 2 & R. 1 - drawing requires a square groove weld 2¾" long ground flush on one side (panel side), also a ⅛" fillet all around. The ⅛" fillet weld cannot be made on the panel side or the opposite side of the butt joint. Actual weld is a groove weld on the panel side 2¾ long as required. Has ⅛" fillet 2 long 2 places. There is 10 3/8" of material which is NW at joint. Has a total combined weld length of 4¼" with OL ¾" long, UWM ⅛" long.
				OL, UWM	
			II	AW IF UC	(35) Ref. 3 & R. 1 - AW 2 3/16" long with Fin ⅛" long IF ⅛" long, UC - 1/32" deep X 7/16" (4 15/16" TWL)
			II	AW UWM	(36) Ref. 3 & R. 1 - AW 2 3/16" long with UWM ⅛" long (4 15/16" TWL)
			II	WI, AW EC, IF UC	(37) Ref. 3 & R. 1 - WI 1¼" long, AW 2¼" long with EC 1" long, IF 1/16" long UC - ½" X ⅛" long 2 places (5" TWL)
				AW, IF, OL	(38) Ref. 3 & R. 1 - WI 1¼" long, AW 2¼" long with IF ½" long, OL 3/16" long (5" TWL)

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Inaccessable

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~~RIR/NC~~ DDR 1875

Date 8-17-83

QA Number 435122 Drawing No. 819354 Rev 4 525221916 Rev D, 877003 Rev D

Inspector Mike King, Buchanan Specialist Rhodium A Weld Spec. Brown-Boveri IN-House Weld Spec

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1 Sect. 6+7		1			Note - 39 thru 42 use Drawing 819354 Rev 4
			I, II	NW IF	(39) R.6 to R.7 - fillet is NW 2 5/8" long, Square groove weld has IF totaling 1" (6" TWL)
			I, II	NW OL, IF	(40) R.6 to R.7 - fillet is NW 2 5/8" long, Square groove has OL 1/4" long, IF 1/16" long (6" TWL)
			I, II	NW OL	(41) R.6 to R.7 - fillet is NW 2 5/8" long, Square groove has OL 1/4" long (6" TWL)
				NW. UC OL IF	(42) R.6 to R.7 - fillet is NW 2 5/8" long, Square groove has UC 1/32" X 1/4" long, OL 1/4" long, IF totaling 7/8" (6" TWL)
					~~(43) R.6 to R.7 -~~ 12-83

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
MT	Melt Through
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Inaccessable

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~~RIR/NCR~~/DDR 1875

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Date 8-17-87

QA Number 435122 Drawing No. 525221932

Inspector James D. Jackson D.Cook Specialist [illegible] Weld Spec. ~~BOVER~~ BROWN ~~BOVER~~ IN HOUSE WELD SPEC.

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1-26					① BOTH ~~Pieces~~ Pc 5's To Pc 1 HAS NO Weld symbol ON DRAWING.
			I	UWM	② Pc 5 to Pc 1 HAS UWM.
			I	CT	③ Pc 5 to Pc 1 HAS CT 1/32" X 1/8" LONG 2 PLACES.
			I	US	④ Pc 4 To Pc 1 US 1/32" 4 PLACES 1" LONG - TWL 1 1/2"
			I	OL	⑥ Pc 4 to Pc 1 - OL 1 PLACE 3/16" LONG
			I	UWM	⑦ Pc 4 to Pc 1 UWM - 3 PLACES
			II	IF	⑧ Pc 3 to Pc 1 - IF 1/4" LONG TWL 3"
			II	UWM	⑨ Pc 3 to Pc 1 UWM - 1 PLACE.
			II	UC	⑩ Pc 3 to Pc 1 UC 3/32" EACH 2 PLACES TWL 1 1/4" EACH.
			I	CT	⑪ Pc 4 to Pc 1 - CT 1/16" LONG - 1 PLACE.
			I	UC	⑫ Pc 2 To Pc 1 UC - 1/32" EACH 4 PLACES.
			II	UWM	⑬ Pc 2 To Pc 1 - UWM.
			I	IF	⑭ Pc 2 to Pc 1 IF - 1/32" EACH 2 PLACES.

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
MT	Melt Through
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Inaccessable

A138

~~RIR/NCR~~/DDR 1875

Date 8-17-87

QA Number 435122 Drawing No. 325221932

Inspector D. Cook Specialist Rhett Hunt Weld Spec. ~~BOILER~~ BROWN ~~BOILER~~ IN HOUSE WE SPEC

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-1-26			I	UC	(15) Pc 2 To Pc 1 UC - 1/32" 1 PLACE. NOTE - THE ONE WELD ON BACK SIDE OF Pc 4 13 To Pc 1 - DWG CALLS FOR A 1/8" FILLET BUT SHOULD BE A FLARE BEVEL.

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
MT	Weld Thru
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Inaccessable

A138

~~RIR/NCR~~/DDR 1875

Date 8-17-8

QA Number 435122 Drawing No. 525221932

Inspector G. G. Jackson D. Cook Specialist [illegible] Weld Spec. [illegible]

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC-2 SECTION-27		1	I	NNS (1)	PC5's TO PC1 - NO WELD SYMBOL ON DRAWING
			I	CT (13)	CT DIA 1/32" X 1/32"
			I	UWM (13)	UWM
				IF (13)	IF 1/8"
			I	CT (14)	CT DIA 1/32" X 1/32"
			I	OL (14)	OL 1/8"
			I	UWM (15)	UWM
			I	UC (2)	PC2 TO PC1 - UC 7 1/32" 1 PLACE
			I	IF (3)	IF 3/32 LONG 1 PLACE
			I	US (11)	DWG. (1/8") US 1/16" X 2" TWL-2 2 PLACES
			I	OL (8)	PC4 TO PC1 - OL 1/4" 1 PLACE
			I	US (5)	DWG. (1/8") US 1/32" X 1 1/2" 4 PLACES TWL-1 1/2 EACH
			I	IF (6)	IF 1/8" 3 PLACES
			I	UWM (7)	UWM 3 PLACES
			II	OL (18)	PC3 TO PC1 - OL 1/4" 1 PLACE
			II	UWM (18)	UWM 1 PLACE
			II	EC (10)	EC 1 PLACE
			II	UWM (9)	UWM 1 PLACE
			II	OL (9)	OL 1/2" LONG, 2 PLACES
					NOTE - THE ONE WELD ON BACK SIDE OF PC4 TO PC1, DRAWING CALLS FOR 1/8" FILLET, BUT SHOULD BE A FLARE BEVEL.
					NOTE - WELDS ON PC4'S TO PC1 ARE OFF CENTER 5" EACH.

LEGEND:

Type Of Welds

- I Fillet
- II Square Groove
- III V - Groove
- IV Single Bevel
- V Flare Bevel
- VI Flare - V
- VII Plug or Slot
- VIII Spot
- IX Stud

Weld Deficiencies and Specification Violations

- AS Arc Strike
- AW Added Weld
- BMR Base Metal Reduction
- CR Crack
- CT Crater
- EC Excessive Convexity
- IC Internal Concavity
- IF Incomplete Fusion
- IT Insufficient Throat
- IW Insufficient Weld
- IWS Incorrect Weld Symbol
- LI Linear Indication
- MT Melt Through
- NPD Not Per Design
- NW Not Welded
- OL Overlap
- PO Porosity
- SI Slag Inclusion
- SP Spatter (Cluster of Linear
- SS Surface Slag
- TWL Total Weld Length
- UC Undercut
- US Undersize
- UWM Unconsumed Weld Material
- WI Weld Inaccessable

A138

~~RIR/NCR~~/DDR 1875

Date 8-17-83

QA Number 435122

Drawing No. 877003 R/0 525226906 - R/0

Inspector J. G. Jackson D. Cook

Specialist [illegible]

Weld Spec. BROWN IN HOUSE WELD SPEC. / BOVERI

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC2-2		1	II	IF	① Pc 6 To Pc 1 - IF 4" Long 2 Places
			I	US	② Dwg (1/4") US 1/16" X 5" TWL - 5"
			I	US	③ Dwg (1/4") US 1/16" X 3" TWL - 3"
			I	US	④ Dwg (1/4") US 1/16" X 5" TWL - 5"
			I	US	⑤ Dwg (1/4") US 1/16" X 3" TWL - 3"
			I	US.	⑥ Pc 5 To Pc 1 US 1/16" X 1 1/2" 4 Places. Dwg (1/4") TWL - 1 1/2" Each
			I	US ~~UC~~	⑦ Pc 4 To Pc 1 US 1/32" X 1 1/2" TWL 1 1/2"
			I	UC	⑧ Dwg (1/8") UC 1/32" X - 1 Place.
			I	US	⑨ Dwg (1/8") US 1/32" X 1 1/2 Long TWL 1 1/2"
			II	IF	⑩ Pc 2 To Pc 1 - IF > 1/32" 5 Places.
			II	UWM	⑪ UWM 1 - Place
			I - II	NPD	⑫ Dwg calls for a square groove weld 2 3/4" Long ground flush on 1 side (Panel side) Also a 1/8" fillet weld All Around. - The 1/8" fillet weld cannot be made on the Panel side or the opposite side of the Butt Joint. Actual weld is a groove weld on the Panel side 2 3/4"
				NW	Long As Required, Has a 1/8" Fillet 5/8" Long, 2 Places, There is 12 3/8" of material which is not welded at Joint. Has a Total combined weld Length of 4".
					Note: Both ends of Pc 2 are bent (1 side each)
			I	US ~~UC~~	⑬ Pc 4 To Pc 1 Dwg (1/8") US 1/32" X 1 1/2" Long, 2 Places
			I	UWM	⑭ UWM - 1 Place
			II	IF	⑮ Pc 3 To Pc 1 IF 1/32"
			II	CT	⑯ CT 1/16" Long 1 Place
			II	IF	⑰ Pc 3 - IF > 1/32" TWL 1 1/2"
			II	UC	⑱ UC > 1/32" TWL 1 1/2"

LEGEND:

Type Of Welds
- I Fillet
- II Square Groove
- III V - Groove
- IV Single Bevel
- V Flare Bevel
- VI Flare - V
- VII Plug or Slot
- VIII Spot
- IX Stud

Weld Deficiencies and Specification Violations
- AS Arc Strike
- AW Added Weld
- BMR Base Metal Reduction
- CR Crack
- CT Crater
- EC Excessive Convexity
- IC Internal Concavity
- IF Incomplete Fusion
- IT Insufficient Throat
- IW Insufficient Weld
- IWS Incorrect Weld Symbol
- LI Linear Indication
- MT Melt Through
- NPD Not Per Design
- NW Not Welded
- OL Overlap
- PO Porosity
- SI Slag Inclusion
- SP Spatter (Cluster of Linear)
- SS Surface Slag
- TWL Total Weld Length
- UC Undercut
- US Undersize
- UWM Unconsumed Weld Material
- WI Weld Inaccessable

A138

~~RIR/NCR~~/DDR 1875

Date 8-12-93

QA Number 435122 Drawing No. 525224-406 R/O

Inspector J. G. Jackson D. Polk Specialist Rhett Avery Weld Spec. ~~REVER~~ REVER ~~DIVERR~~ IN House Weld SPEC.

Mark Number	Rev.	Quan Recvd.	Type Weld	Def.	Details
CC2-2		1	II	UWM	(19) Pc 3 To Pc 1 UWM. 1 PLACE
			I	US	(20) Pc 4 To Pc 1 Dwg(1/8") US 1/16 X 1 1/2" TWL 1 1/2"
			I	US	(21) Dwg(1/8") US 1/32 X 1 1/2" TWL 1 1/2" 2 PLACES, 1 1/2" EACH.
			I	US	(22) US - 1/32" X 1 1/2" Long EACH, 2 PLACES TWL 1 1/2" EACH, Dwg(1/8"
			II	IF	(23) Pc 3 To Pc 1 - IF - 1/32" TWL 2 1/2
			I	US	(24) Pc 4 To Pc 1 US - 1/32" X 1 1/2" EACH 3 PLACES TWL 1 1/2" EACH.
			I	UWM	(25) Pc 5 - To Pc 1 - UWM 1 PLACE.

LEGEND:

Type Of Welds

I	Fillet
II	Square Groove
III	V - Groove
IV	Single Bevel
V	Flare Bevel
VI	Flare - V
VII	Plug or Slot
VIII	Spot
IX	Stud

Weld Deficiencies and Specification Violations

AS	Arc Strike
AW	Added Weld
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
IW	Insufficient Weld
IWS	Incorrect Weld Symbol
LI	Linear Indication
MT	Melt Through
NPD	Not Per Design
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linear)
SS	Surface Slag
TWL	Total Weld Length
UC	Undercut
US	Undersize
UWM	Unconsumed Weld Material
WI	Weld Inaccessable

A138

~~NR/NCR~~/DDR 1875

Date 8-17-87

QA Number 435122

Drawing No. 625478 Rev 44 & 640103 Rev 09

Inspector Mike King, Buchanan Specialist Plant Rep Weld Spec. AWS-D9.1

Mark Number	Quan Recvd	Type Weld	Deficiency	Details
101	1	VII, I	IF UC	Northeast Pc 3 to Pc 1 has added weld 5 ¼" long 2 places with IF 1" long 1 place, IF ¾" long 1 place and UC = 1/32" deep + ¼" long 3 places. Weld required by drawing has IF ¼" long 1 place, AS ¼" long 1 place, UC = 1/32" deep + ⅛" long 1 place, IT 1/32" X ¼" long 1 place, US ⅛" X 3 ½" long and US 1/16 X ¼" long 1 place. (Out 7/16") (18" weld length).
		VII, I	IF IT US	Southeast Pc 3 to Pc 1 has added weld 5 ¼" long 2 places. Has IF ¼" long 2 places, unmeasured weld line in weld ¼" long 1 place, IT 1/16" X ¼" long and is US 1/32" X 3/4" long 1 place. (Out 6 7/16") (18" weld length).
		VII, I	UC CT	Northwest Pc 3 to Pc 1 has added weld 5 ¼" long 2 places. Has UC = 1/32" deep + ⅛" long 3 places, UC 1/16" X ¼" long 1 place and CT ⅛" diameter 1 place.

LEGEND:

Type of Welds

I	Fillet
II	Butt (Full)
III	Tee (Full)
IV	Tee (Partial)
V	Stud
VI	Spot
VII	Flare Bevel

Weld Deficiencies and Specification Violations

AS	Arc Strike
BMR	Base Metal Reduction
CR	Crack
CT	Crater
EC	Excessive Convexity
IC	Internal Concavity
IF	Incomplete Fusion
IT	Insufficient Throat
MT	Weld Thread
NW	Not Welded
OL	Overlap
PO	Porosity
SI	Slag Inclusion
SP	Spatter (Cluster of Linea
SS	Surface Slag
UC	Undercut
US	Undersize

~~RIR/NCR~~/DDR 1875

Date 6-17-82

QA Number 435 122

Brown-Boveri #

Drawing No. 625978 Rev 44, 640103 Rev

Inspector Mike King, Buchanan Specialist Rhomberg Weld Spec. AWS-D9

Mark Number	Quan Recvd	Type Weld	Deficiency	Details
101	1	VII, I		Southmost Pc. 3 to Pc. 1 has added mat'l 5¼" long 2 places. Has IF 7/16" long 1 place, CT ⅛" diameter 1 place, UC > 1/32" deep + ⅛" long 2 places and is US 7/16" & ½" long 1 place (one 3/4") (18" weld length)
			IF, CT	
			UC	
			US	
		I		South Pc. 3 to Pc. 6 inside weld cannot be inspected for size due to fabrication, has UC > 7/16" deep & 7/16" long 1 place
			UC	
		I		North Pc. 3 to Pc. 6 outside weld cannot be inspected for size due to fabrication, has UC > 7/16" deep & 7/16" long 1 place.
			UC	
		VII	US	Pc. 18 to Pc. 9 is US to the target point by 7/16" X 1" long 3 places
			UC	UC > 1/32" X ⅛" long 2 places and drawing requires 1½" long weld, Pc. has 1¼" long weld 2 places.
		I		Pc. 9 (ASSEMBLY) weld size cannot be inspected due to fabrication, 142" of 245" of weld is inaccessible for inspection due to fabrication, has IF 7/16 long 1 place.
			IF	

LEGEND:

Type of Welds

I	Fillet
II	Butt (Full)
III	Tee (Full)
IV	Tee (Partial)
V	Stud
VI	Spot
VII	Flare Bevel

Weld Deficiencies and Specification Violations

AS	Arc Strike	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Lines)
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	UC	Undercut
IT	Insufficient Throat	US	Undersize
MT	Melt Through		

~~PIR/NCR~~/DDR 1875

Date 8-17-87

Brown Corner #

QA Number 475122 Drawing No. 625978 Rev 44 + 640103 Rev 0

Inspector M.E. King, Buckner Specialist Rust Hard Weld Spec. AWS-D9.1

Mark Number	Quan Recvd	Type Weld	Deficiency	Details
102	1	VII, I	AS UC US	Southwest Pc. 3 to Pc. 1 has added weld 5 1/4" long 2 places with AS 1/4" long 1 place and UC + 1/32" deep + 1/4" long 1 place. Also US 1/32" x 6" long 1 place. (one 3/16") (18" weld length).
		VII, I	IF US	Northwest Pc. 3 to Pc. 1 has added weld 5 1/4" long 2 places with IF 1/4" long 1 place. Also US 1/32" x 7 1/2" long 1 place (one 3/16") (18" weld length).
		VII, I	UC	Northeast Pc. 3 to Pc. 1 has added weld 5 1/4" long 2 places with UC + 1/32" deep 1" long 1 place. Has unconsumed weld wire in weld 1/4" long 1 place.
		VII, I		Southeast Pc. 3 to Pc. 1 has added weld 5 1/4" long 2 places. Has unconsumed weld wire in weld 1/4" long 1 place.
		I		South Pc 6 to Pc. 3 inside welds on Pc 6 cannot be inspected for size due to fabrication.

LEGEND:

Type of Welds

I	Fillet
II	Butt (Full)
III	Tee (Full)
IV	Tee (Partial)
V	Stud
VI	Spot
VII	Flare Bevel

Weld Deficiencies and Specification Violations

AS	Arc Strike	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Lines)
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	UC	Undercut
IT	Insufficient Throat	US	Undersize
MT	Melt Through		

A138

~~RIR/NCR~~/DDR 1875

Date 8-17-83

QA Number 435122

Drawing No. Brown-Boveri # 625978 Rev 14, 640103 Rev 09

Inspector Mike King, Buckner

Specialist

Weld Spec. AWS-D9.1

Mark Number	Quan Recvd	Type Weld	Deficiency	Details
102	1	I	AS ~~Lack of Fusion~~ UC	North Pc. 6 to Pc. 3 outside welds on Pc. 6 cannot be inspected for size due to fabrication. Has AS 1/4" long 3 places, AS 1/2" long 1 place and UC > 1/16" deep + 1" long 1 place (6 1/2" weld length)
		VII		Pc. 18 to Pc. 9 drawing requires a flare bevel weld 2 1/4" long Pc's have welds 2" long 1 place, 1 3/4" long 2 places, 1 3/4" long long 1 place and has unknown weld size in weld 1/4" long 1 place.
				Pc. 9 to Upper Horizontal Channels - drawing requires a flare bevel weld 2" long, Pc's have welds 1 1/2" long 1 place, 1 3/8" long 1 place
				Pc. 9 (ASSEMBLY) weld size cannot be inspected due to fabrication, 142" of 245" ~~weld~~ of weld is inaccessable for inspection due to fabrication and has unknown weld size in weld 1/4" long 2 places

LEGEND:

Type of Welds

I	Fillet
II	Butt (Full)
III	Tee (Full)
IV	Tee (Partial)
V	Stud
VI	Spot
VII	Flare Bevel

Weld Deficiencies and Specification Violations

AS	Arc Strike	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Linea
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	UC	Undercut
IT	Insufficient Throat	US	Undersize
MT	Melt Through		

A138

Date 8-17-83

QA Number 435 122 Drawing No. Bechtel Power # 625978 Rev 4 640103 Rev 0

Inspector Mike King, Pittsburgh Specialist Phil Hart Weld Spec. AWS D 9.1

Mark Number	Quan Recvd	Type Weld	Deficiency	Details
1E1	1	VII		Northeast Pc. 3 to Pc. 1 has incomplete penetration 2-3/4" long 2 places
		I	UC	UC = 1/16" deep x 3/8" long 1 place,
			UC	UC = 1/16" deep x 1/2" long 1 place,
			UC	UC = 1/32" deep x 1/4" long 2 places,
			UC	UC = 1/32" deep x 5-1/2" long 1 place,
			US	US 1/32" to 1/16" X 5" long 1 place.
			IT	and IT 1/32" X 3" 1 place. (18" weld length).
		VII		Southeast Pc. 3 to Pc. 1 has incomplete penetration 2-3/4" long 2 places,
		I	UC	UC = 1/32" deep x 2-3/4" long 1 place
			UC	UC = 1/16" deep x 1/4" long 1 place,
			UC	UC = 1/16" deep x 2-3/4" long 1 place,
			UC	UC = 1/32" deep x 1-1/4" long 1 place,
			US	and in US 1/16 X 5-1/2" long 1 place (18" weld length)
		VII		Northeast Pc. 3 to Pc. 1 has incomplete penetration 2-3/4" long 2 places,
		I	UC	UC = 1/32" deep + 1/2" long 1 place,
			UC	UC = 1/32" deep + 1/4" long 1 place,
			UC	UC = 1/32" deep + 1-1/4" long 1 place,
			UC	UC = 1/32" deep + 3" long 1 place,
			UC	UC = 1/32" deep + 1-1/2" long 1 place,
			IT	and IT 1/32" X 1-1/2" long 1 place
			US	US 1/16" X 3" long 1 place and
			US	in US 1/32" to 1/16" X 5-3/4" 1 place (18" weld length).

LEGEND:

Type of Welds

I	Fillet
II	Butt (Full)
III	Tee (Full)
IV	Tee (Partial)
V	Stud
VI	Spot
VII	Flare Bevel

Weld Deficiencies and Specification Violations

AS	Arc Strike	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Lines)
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	UC	Undercut
IT	Insufficient Throat	US	Undersize
MT	Melt Through		

~~PIR/NCR~~/DDR 1875

Date 8-17-83

QA Number 435122

Brown-Boveri #
Drawing No. 625978 Rev 44, 640103 Rev C

Inspector Mike King, Bechtel Specialist Rhett Hunt Weld Spec. AWS-D9.1

Mark Number	Quan Recvd	Type Weld	Deficiency	Details
IE1	1	VII		Southeast Pc. 3 to Pc. 1 has incomplete penetration 2 3/4" long 2 place,
		I	UC	UC = 1/32" deep + 2 1/8" long 1 place,
			UC	UC = 1/32" deep + 1/2" long 1 place,
			UC	UC = 1/32" deep + 3 1/2" long 1 place (18" weld length).
				South Pc. 6 & R.3 area is unable to inspect on inside of Pc. 6
			UC	due to fabrication, 1 UC = 1/32"
			UC	deep X 7/8" long 1 place, UC = 1/32"
			UC	deep X 2 1/4" long 1 place, UC = 1/32" deep X 3" long 1 place.
				North Pc. 6 & R.3 weld area is unable to inspect on outside of Pc. 6
			AS	due to fabrication of AS 1/16"
			AS	long 1 place, AS 1/2" long 1 place,
			AS	AS 3/4" long 1 place, UC = 1/32" deep
			UC	X 3/4" long 1 place, UC = 1/32" deep
			UC	X 1" long 1 place and UC = 1/16" deep X 1/2" long 1 place.
		VII		Pc. 9 to Upper Horizontal Channel has 4 Plug Bevel 2" long that are not ref. on drawing. Has 2 welds inaccessible due to fabrication

LEGEND:

Type of Welds

I	Fillet
II	Butt (Full)
III	Tee (Full)
IV	Tee (Partial)
V	Stud
VI	Seal
VII	Plate Bevel

Weld Deficiencies and Specification Violations

AS	Arc Strike	NW	Not Welded
BMP	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Lines)
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	UC	Undercut
IT	Insufficient Throat	US	Undersize
MT	Melt Through		

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~~RIR/NCR~~/DDR 1875

Date 8-17-83

QA Number 435 122

Drawing No. Brown-Boveri # 625 979 Rev 41, 640103 Rev

Inspector Kirk, Buchanan

Specialist Phased Array

Weld Spec. AWS-D9.1

Mark Number	Quan Recvd	Type Weld	Deficiency	Details
1E1	1	VII		Pc. 18 to Pc. 9 drawing requires a flare bevel weld 2" long Pc. 18 a flare bevel weld 1½" long 3 places and is US 7/16" to the tangent point 2" long 1 place.
			US	
		I	US	Pc. 9 (ASSEMBLY) is US 7/16" X 41 ¼" 4 places 80" of 245" cannot be inspected due to fabrication, and unreasonable weld wire in weld 1 place.

LEGEND:

Type of Welds

I	Fillet
II	Butt (Full)
III	Tee (Full)
IV	Tee (Partial)
V	Stud
VI	Spot
VII	Flare Bevel

Weld Deficiencies and Specification Violations

AS	Arc Strike	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Lines)
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	UC	Undercut
IT	Insufficient Throat	US	Undersize
MT	Melt Through		

A138

~~NINYNER~~/DDR 1875

Date 8-17-83

B. Com Power

CA Number 475122 Drawing No. 625928 Rev 44 + 640103 Rev 0

Inspector Mike Riley, Buckner Specialist Rhett Watts Weld Spec. AWS-D1.1

Mark Number	Quan Recvd	Type Weld	Deficiency	Details
1E2	1	VII, I		Southwest Pc 3 to Pc 1 Have added weld 5¼" long 2 places with
			IF	IF totaling 5/16" in length.
			UC	Also UC = 1/32" deep + 3/16" long
			CT	1 place, CT ⅛" diameter 1 place,
			IF	IF totaling ¼" in length,
				unconsumed wire in weld 1
			IT	place, IT 1/32" x 3½" 1 place
				(18" weld length).
				Northeast Pc 3 to Pc 1 Have added weld
				5¼" long 2 places with
			UC	UC = 1/32" x ⅛" long 2 places
			IF	IF totaling ½" in length;
			UC	Also UC = 1/32" deep + ⅛" long
			UC	1 place, UC 1/16" deep x 3/16" long
			IF	1 place, IF totaling 1½" in
			IT	length, and IT 1/32" x ⅛" long
				1 places.
				Southeast Pc 3 to Pc 1 Have added weld
			UC	5¼" long 2 places with UC
				= 1/32" deep + ⅛" long 2 places,
			IF	IF totaling 3/8" long. Also
			UC	UC = 1/16" deep x 3/16" long 3 places,
			IF	also IF totaling 7/16" in length
			IF	and IF 1/32" x ¼" long 2
				places. (18" weld length).

LEGEND:

Type of Welds

I	Fillet
II	Butt (Full)
III	Tee (Full)
IV	Tee (Partial)
V	Stud
VI	Spot
VII	Flare Bevel

Weld Deficiencies and Specification Violations

AS	Arc Strike	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Lines
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	UC	Undercut
IT	Insufficient Throat	US	Undersize
MT	Melt Through		

A138

~~NRR/NCR~~/DDR 1875

Date 8-17-87

QA Number 435122

Brown-Boveri #

Drawing No. 625978 Rev 44, 640103 Rev 0

Inspector Mike Bieg, Buckner

Specialist Plumlee

Weld Spec. AWS-D9.1

Mark Number	Quan Recvd	Type Weld	Deficiency	Details
1E2	1	VD, E		Northwest Pc 3 & Pc 1 has added weld 5½" long 2 places with IF totaling 1½" long, UC = 1/32" deep x ⅛" long 3 places. Has UC = 1/16" deep x 3/16" long 1 place UC = 1/32" deep x ⅛" long 2 places UC 1/16" deep x ½" long 1 place, and IT 1/32" x ¼" long 1 place (14" weld length).
			IF	
			UC	
			UC	
			UC	
			UC	
			IT	
		I	AS	North Pc 6 & Pc 3 has AS ⅛" long 1 place, unremoved weld wire in weld 1 place, IF ½" long 1 place, US 1/16" x 5/8" long 1 place (6" weld length), US 1/32" x 5/16" long 1 place (3" weld length), US 1/32 x 4" long 1 place (6" weld length)
			IF	
			US	
			US	
			US	
		I	UC	South Pc 6 & Pc 3 has UC = 1/32" deep x 3/16" long 1 place, US 1/32" x 1¾ long 1 place (4½" weld length; and IT 1/16" x 3/16" long 1 place (6½" weld length).
			US	
			IT	
		VII		Pc 18 to Pc 9 drawing requires a flare bevel weld 2" long, Pc has 1¾" long weld 2 places

LEGEND:

Type of Welds

I	Fillet
II	Butt (Full)
III	Tee (Full)
IV	Tee (Partial)
V	Stud
VI	Spot
VII	Flare Bevel

Weld Deficiencies and Specification Violations

AS	Arc Strike	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Line
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	UC	Undercut
IT	Insufficient Throat	US	Undersize
MT	Melt Through		

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~~RIR/NCR~~/DDR 1875

Date 8-17-87

QA Number 435122

Brown-Boveri #
Drawing No. 625978 Rw 44, 640103 Rw 09

Inspector Mike King, Buckeye Specialist Robert Hardy Weld Spec. AWS D9.1

Mark Number	Quan Recvd	Type Weld	Deficiency	Details
1E2	1	VII	IT UC	Pc 9 to Upper Horizontal Channels - Loc IT 1/16" x 1/4" long 1 place (2" weld length) and UC - 1/32" deep x 1/8" long 1 place.
		I		Pc 9 (ASSEMBLY) weld size cannot be inspected due to fabrication 142" of 245" of weld is inaccessible for inspection due to fabrication and loc unreasonable weld size in weld 1/8" long 1 place.

LEGEND:

Type of Welds

I	Fillet
II	Butt (Full)
III	Tee (Full)
IV	Tee (Partial)
V	Stud
VI	Spot
VII	Flare Bevel

Weld Deficiencies and Specification Violations

AS	Arc Strike	NW	Not Welded
BMR	Base Metal Reduction	OL	Overlap
CR	Crack	PO	Porosity
CT	Crater	SI	Slag Inclusion
EC	Excessive Convexity	SP	Spatter (Cluster of Lire
IC	Internal Concavity	SS	Surface Slag
IF	Incomplete Fusion	UC	Undercut
IT	Insufficient Throat	US	Undersize
MI	Melt Through		

A138

Fax to Brad Jones, Region II

I. BAGEN / (MOORE / KAREMAN) Treby / FF

Reply Due Date 2/25/85

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

854083

2/4/85

'85 FEB 13 A6:57

TO: Brad Jones, Region II

From: Janice Moore

and inquire [illegible] respect to my contentions on which discovery [illegible] the minds of the staff, and this information is not contained in documents which the staff has provided to me, I am unable to obtain this information by other means. Where the information is contained in a document I can obtain from NRC (Public Document Room, etc), I still need the identification of the document in order to obtain the information. The staff has resources and information which exceed what I have, and as a party, their position and information are necessary to making my case in this proceeding. These interrogatories are continuing in nature and should be supplemented when answers change.

GENERAL INTERROGATORIES

In all interrogatories herein, "you" or "Staff" means NRC Staff or [illegible] Eddleman contentions [illegible]

For each of contentions [illegible] 41 G

please provide the following information by answering each of these questions.

1. What is NRC Staff's (FEMA's) reviewer's or affiant's understanding of the subject matter of this contention?

2. Has NRC Staff (FEMA) made any analysis, inquiry, study or investigation into, (a) this contention (b) the subject matter of this contention (c) the allegation(s) in this contention (d) the basis of this contention (e) the information relied upon by intervenor(s) in support of this contention?

3. For all parts of your response to Interrogatory 2 above for which your answer is affirmative, please provide the following information: who made the analysis, inquiry, study or investigation; what was being considered in such analysis, inquiry, study or investigation ("AISI"); the content of the AISI, the results of the AISI, whether the AISI has been completed, whether a date for completing the AISI has been established if it is not complete, what that date is, all documents used in the AISI, all persons consulted

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in the course of the AISI, all documents containing information discovered or analysis or study or information developed during or as a result of the AISI (identify each such document and state what information or results it contains), whether staff believes additional analysis is warranted, or further AISI needs or may need to be undertaken on this contention, and whether any persons participating in the AISI are to be called as witnesses for the Staff in this case, and what questions the staff AISI is intended to answer and what information it seeks to develop if it is not complete.

4. For all responses to parts of (2) above for which NRC staff's or FEMA's answer is other than affirmative, please state (a) whether NRC staff or FEMA plans to perform any AISI on this contention, (b) whether anyone on NRC Staff has stated that AISI of any kind is warranted for this contention (even though it has not been made) (c) whether NRC Staff plans for AISI or FEMA's, on this contention include a date for beginning or for ending such AISI, (d) those dates, for all affirmative answers to (c) above, (e) what AISI FEMA or NRC staff will undertake on this contention (f) what AISI NRC staff desires to undertake on this contention (g) all reasons why no AISI is planned on this contention if none is planned (h) all reasons why no AISI has been done yet on this contention if none has been done (i) what the responsibilities of NRC staff with respect to this contention are.

5. Identify all documents the Staff relied on in opposing the admission of this contention, and any specific facts not stated in the Staff's opposition to admission of such contention (already filed in this case) upon which Staff relied in making such opposition.

6. Identify all documents not identified in Staff's interrogatories to Wells Eddleman or to Joint Intervenors (to present -- a continuing interrogatory) upon which the Staff relied in making each such interrogatory.

7. Identify by name, personal or business address, NRC staff position or title (if any), and telephone number (if known) each person on NRC staff or consultant to NRC staff or known to NRC Staff or consulted by NRC staff in the staff's analysis of the subject matter of this contention prior to (a) its filing (b) its admission; state for each such person what analysis was performed by that person.

8. State all professional qualifications of each person identified in response to interrogatories 7, 3, 4, _____.

9. Provide any statements of the analysis made by persons identified in response to interrogatories 3, 4, or 7a above, and identify all documents containing such information or statements not previously identified.

10. Give the identifier number, date, source, and title of all documents identified in response to interrogatories above, which are available through NRC PDR (Public Document Room).

11. Will NRC Staff make available copies of documents identified in response to the above interrogatories to Wells Eddleman for inspection and copying, for documents not available through NRC's PDR?

12. Identify by name, NRC staff position if any, address and telephone number each person whom NRC staff intends to xxx use or call as a witness in this proceeding.

13. State fully the professional qualifications of each person identified in response to interrogatory 12 above.

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14. Summarize the position (or planned testimony) with respect to each contention on which such person is expected to testify, for each person identified in response to interrogatory 12 above.

15. Has FEMA or NRC Staff, any witness identified in response to interrogatory 12, or anyone acting in behalf of the Staff or such a witness or at their direction, made any calculation or analysis (not identified in response to interrogatories 1 through 4 above) with respect to this contention?

16. If the answer to interrogatory 15 above is yes in any case, provide the name, business or personal address, telephone number and professional qualifications of each person who has made such calculation or analysis, stating for each what contention it relates to, what person (or Staff) it was made for or at the direction of, and identifying all documents containing such calculationor analysis and all documents used in making such calculation or analysis or relied upon in it or supplying information used in it.

17. Provide a summary of each AISI, calculation or analysis ~~index~~ for which the answer to interrogatory 15, or interrogatory 2 above, is yes.

18. Please give the accession number, date and originator of each document identified in response to interrogatory 16, which is available at the NRC PDR.

19. Will FEMA or NRC Staff make available to Wells Eddleman for inspection and copying all documents identified in response to interrogatory 16 above which are not available through the PDR?

20. Identify each person, including telephone number, address, and field of expertise and qualifications (complete) (if any) ~~fx~~ who answered interrogatories with respect to this contention; if more than one person contributed to an answer, identify each such person, providing the information requested above in this interrogatory for each such person, and state what each such person's contribution to the answer was, for each answer.

21. Identify all documents which the FEMA or Staff proposes or intends to use as exhibits with respect to this contention during this proceeding, including exhibits of Staff witnesses (identifying the witness for each, if such a witness has been designated), and exhibits to be used during cross-examination of witnesses of any party (stating for each which witness it is to be used in cross-examination of), and identifying for each the particular pages or chapters to be used as exhibits.

22. Identify all documents which FEMA or NRC staff relied upon in answering interrogatories with respect to this contention, which have not been identified in response to interrogatories 1 through 21 above, stating for each which answer(s) re which contention(s) it was used for, and each specific fact and page number therein on which NRC staff relied or which NRC staff used in answering such interrogatory.

23. Please give the accession number, date, and originator of each document identified in response to interrogatories 21 or 22 above which is available through the NRC PDR.

24. Will FEMA or NRC Staff provide Wells Eddleman with copies of the documents identified in response to interrogatory 21 or 22 above which are not available at the PDR, for inspection and copying?

25. Identify any other information or source of information not identified in response to the the above interrogatories 1 thru 24, which you, or upon which any member of NRC staff relied, or which any such member of staff used, in answering each interrogatory with respect to this contention, naming the contention and response in which each such source was used, and the location of the information used or relied on in such source (e.g. page number, section, chapter, etc.)

26 (a) Does the Staff or FEMA now agree with the contention? (b) Does the Staff now agree with any part of the contention?

27. If answer to (b) above is affirmative, which part(s) and why?

41-G-1. Please identify fully all documents which:

(a) contain any of the following:

(i) any information in the personnel file of Chan Van Vo (also known as Van Vo Davis, or the same person under any other name)

(ii) Chan Van Vo's application for employment, work assignments, work record, transfers, applications for transfer, job performance evaluations, probation, disciplinary actions proposed or taken with respect to Chan Van Vo or Van Vo's termination from CP&L, any written or verbal warnings to Chan Van Vo; all records of Van Vo's attendance, hours worked, promotion(s), recommendations for promotion(s), and any other information concerning Van Vo's employment, work performance, hiring, "counselling", or allegations raised by Chan Van Vo concerning safety (or lack of it) of work related to the Shearon Harris Nuclear Power Plant.

(iii) Any records or documentation concerning, directly or indirectly, any and all meetings, conversations, interviews, discussions, or information not to be discussed (in all cases including written or verbal, formal or informal meetings, discussions, etc.) with anyone (including other CP&L and Daniel employees or other persons employed at the Shearon Harris site, supervisors, CP&L quality assurance personnel, M.A. McDuffie, E.E. Utley, NRC personnel, other investigators, news media, or anyone else) which directly or indirectly concern: Chan Van Vo, his work performance, his safety concerns, any others concerns raised by him to CP&L supervisional management, disciplinary action against Chan Van Vo, "counselling" A141
Chan Van Vo concerning work performance or any other

or retaliating against Chan Van Vo; or allegations raised by Chan Van Vo with the Nuclear Regulatory Commission (NRC), Department of Labor (DOL), Department of Justice (DOJ), Government Accountability Project (GAP), Citizen intervenor groups or individuals, news media, or any government or private investigatory body.

(iv) any other information directly or indirectly concerning, evaluating, discussing, or in any way mentioning Chan Van Vo, any proposed or actual action ~~taken~~ against him, or any other information concerning Chan Van Vo or his safety concerns or other concerns;

(v) any and all internal CP&L or external investigations or inquiries concerning Chan Van Vo, his work performance, any action against Chan Van Vo, any action proposed to be taken with respect to Chan Van Vo, any allegations made by Chan Van Vo or any contacts between Chan Van Vo and NRC or DOL or DOJ or CAP or any citizen intervenor group, or any news media or any other person;

(vi) any records or evaluations or Chan Van Vo's work performance, including evalutions made either before, at the time of, or after Chan Van Vo's being placed on probation;

(vii) any evaluations or reports on Chan Van Vo's allegations (including the Cobb Report), identifying each document produced or used in preparing, or in connection with such evaluation(s) or report(s), and any information which was avaliable to the preparer(s) of such evaluation(s) or report(s) which was not used or reported in such evaluation(s) or report(s);

(viii) any internal or external investigation(s), evaluation(s), or inquiry(ies) into Chan Van Vo's character, employment qualifications, or job performance, including any information requested or sought, any questions asked, and all information received;

(ix) medical or psychological reports, evaluation(s) and/or record(s) concerning Chan Van Vo;

(x) information concerning the dates or matters discussed in meetings between Chan Van Vo and any higher ranking CP&L employee, concerning any matters raised as concerns by Chan Van Vo.

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(b) Refer to any of the items or matters listed in (a)(i)-(x) above

(c) may have contained or referred to any of the matters inquired about above but which has been (1) destroyed, (2) lost, (3) given away, (4) loaned to anyone, (5) mislaid, or (6) otherwise found unavailable for inspection any copying. For each such document please provide a summary of the contents of such document, the date when the document was destroyed, lost, loaned, given away, mislaid, or otherwise became unavailable, and all reasons why; and the name and address or any other person(s) who have or may have said document or a copy of it, or information the document contains or contained.

41-C-2(a) Please identify all documents used by, reviewed by, or in the possession of Alex Fuller, Ed Willett, E.E. Utley, M.A. McDuffie, A. Parks Cobb, Jr., or any other person who was employed by CP&L and supervised or met with or investigated Chan Van Vo, which concern Chan Van Vo or any action or allegation by Van Vo, including notes, recordings or any other information, stating who possesses each item of information (including information used by or reviewed by ~~i~~ any person including those named above, which is not now in that person's possession. (b) Please make available all statements, notes, or other information produced by or posessed by any of the persons inquired about above, or any other persons, concerning meeting with Chan Van Vo, discussion(s) or conversation(s) with Chan Van Vo, or investigation of, disciplinary action against, or any other action against, Chan Van Vo.

REQUEST FOR PRODUCTION OF DOCUMENTS

Wells Eddleman hereby requests that any documents identified in response to the above interrogatories be produced for inspection and copying. In light of the short discovery deadline I request that any documents or parts of documents found to be available be made available as soon as possible, regardless of the time it takes to locate or produce the rest of such documents or the time it takes to produce other documents. (This is not a waiver of production times, but a request for rapid production). Chan Van Vo's counsel advises me that Chan Van Vo is aware of the requests and has no objection to my receiving or reviewing any documents concerning the matters inquired about above.

4 February 1985

Wells Eddleman

Wells Eddleman

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the matter of CAROLINA POWER & LIGHT CO. Et al.
Shearon Harris Nuclear Power Plant, Unit 1

Docket 50-400 O.L.

CERTIFICATE OF SERVICE

I hereby certify that copies of Diesel Generator Contentions and Info and of Motion for Reconsideration of Order served 1-15-85 (41G), and of Discovery on 41-G (1st set) + Apps & to Staff (limited service per oral order)

HAVE been served this 4** day of February 1985, by deposit in the US Mail, first-class postage prepaid, upon all parties whose names are listed below, except those whose names are marked with an asterisk, for whom service was accomplished by discovery on 41-G delivery by hand this date to CP&L legal dept in Raleigh NC

**under agreement of counsel for Staff and Applicants of which the Board is aware.

Judges James Kelley, Glenn Bright and James Carpenter (1 copy each)
Atomic Safety and Licensing Board
US Nuclear Regulatory Commission
Washington DC 20555

* George F. Trowbridge (attorney for Applicants)
Shaw, Pittman, Potts & Trowbridge
1800 M St. NW
Washington, DC 20036

Ruthanne G. Miller
ASLB Panel
USNRC Washington DC 20555

Office of the Executive Legal Director
Attn Dockets 50-400/401 O.L.
USNRC
Washington DC 20555

E Plan Only
Spence W. Perry
FEMA Room 840
500 C St. SW
Washington DC 20740

Docketing and Service Section (3x)
Attn Dockets 50-400/401 O.L.
Office of the Secretary
USNRC
Washington DC 20555

Dan Read
CHANGE/ELP
5707 Waycross
Raleigh, NC 27606

Dr. Linda W. Little
Governor's Waste Mgt. Bd.
513 Albemarle Bldg.
325 N. Salisbury St.
Raleigh, NC 27611

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307 Granville Rd
Chapel Hill NC 27514

(E plan only)
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1371 Peachtree St.NE
Atlanta GA 30309

Bradley W. Jones
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101 Marietta St.
Atlanta GA 30303

Travis Payne
Edelstein & Payne
Box 12607
Raleigh NC 27605

Robert Gruber
Exec. Director
Public Staff
Box 991
Raleigh NC 27602

Richard Wilson, M.D.
729 Hunter St.
Apex NC 27502

Certified by W. Ted Edelman

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6113 MNBB

BLACKWOOD, E. - 24359
CONRAN, J. - 24354
COX, T. - 24357
GABRIEL, B. - 24350
KANE, W. (TO REGION I EFFECTIVE 1/14/85)
SCHWINK, W. - 24342
SMITH, D. - 29704
SNIEZEK, J. - 24350
STELLO, V. - 29704
TAYLOR, M. - 24356

MNBB 6201

NORRY, P. - 27335
SOLAN, J. - 27335
SPRINGER, M. - 27337
WATTS, H. - 27337

6209 MNBB - x27585

BRANDENBURG, P.
BRIDGERS, M.
DAY, D.
DIRCKS, W.
FEDERLINE, M.
JORDAN, K.
MORRIS, D.
RABIDEAU, P.
REHM, T.
ROE, J.
SILVER, S.
VITALE, P.

I. BARTH / Tr'ng IFF

Reply Due Date 2/25/85

UNITED STATES OF AMERICA

NUCLEAR REGULATORY COMMISSION

B54083

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

Glenn O. Bright
Dr. James H. Carpenter
James L. Kelley, Chairman

2-4-85

In the Matter of CAROLINA POWER AND LIGHT CO. et al. (Shearon Harris Nuclear Power Plant, Unit 1)	Docket 50-400 OL ASLBP No. 82-472-03 OL

Wells Eddleman's Interrogatories to NRC Staff and FEMA
(1st Set) 41G

and FEMA

Wells Eddleman hereby requests the NRC Staff to answer the following interrogatories before Feb 19 1985 or such other date as counsel for the Staff, FEMA and I agree on. These interrogatories are submitted under 10 CFR 2.720(h)(ii) and inquire into the studies, information, and knowledge of NRC staff with respect to my contentions on which discovery is now open. Since I cannot read the minds of the staff, and this information is not contained in documents which the staff has provided to me, I am unable to obtain this information by other means. Where the information is contained in a document I can obtain from NRC (Public Document Room, etc), I still need the identification of the document in order to obtain the information. The staff has resources and information which exceed what I have, and as a party, their position and information are necessary to making my case in this proceeding. These interrogatories are continuing in nature and should be supplemented when answers change.

GENERAL INTERROGATORIES

In all interrogatories herein, "you" or "Staff" means NRC Staff or FEMA

For each of contentions 41G Eddleman contentions

please provide the following information by answering each of these questions.

1. What is NRC Staff's (FEMA's or) reviewer's or affiant's understanding of the subject matter of this contention?

2. Has NRC Staff (FEMA or) made any analysis, inquiry, study or investigation into, (a) this contention (b) the subject matter of this contention (c) the allegation(s) in this contention (d) the basis of this contention (e) the information relied upon by intervenor(s) in support of this contention?

3. For all parts of your response to Interrogatory 2 above for which your answer is affirmative, please provide the following information: who made the analysis, inquiry, study or investigation; what was being considered in such analysis, inquiry, study or investigation ("AISI"); the content of the AISI, the results of the AISI, whether the AISI has been completed, whether a date for completing the AISI has been established if it is not complete, what that date is, all documents used in the AISI, all persons consulted

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in the course of the AISI, all documents containing information discovered or analysis or study or information developed during or as a result of the AISI (identify each such document and state what information or results it contains), whether staff believes additional analysis is warranted, or further AISI needs or may need to be undertaken on this contention, and whether any persons participating in the AISI are to be called as witnesses for the Staff in this case, and what questions the staff AISI is intended to answer and what information it seeks to develop if it is not complete.

4. For all responses to parts of (2) above for which NRC staff's or FEMA's answer is other than affirmative, please state (a) whether NRC staff or FEMA plans to perform any AISI on this contention, (b) whether anyone on NRC Staff has stated that AISI of any kind is warranted for this contention (even though it has not been made) (c) whether NRC Staff plans for AISI or FEMA's on this contention include a date for beginning or for ending such AISI, (d) those dates, for all affirmative answers to (c) above, (e) what AISI FEMA or NRC staff will undertake on this contention (f) what AISI NRC staff desires to undertake on this contention (g) all reasons why no AISI is planned on this contention if none is planned (h) all reasons why no AISI has been done yet on this contention if none has been done (i) what the responsibilities of NRC staff with respect to this contention are.
an of FEMA

5. Identify all documents the Staff relied on in opposing the admission of this contention, and any specific facts not stated in the Staff's opposition to admission of such contention (already filed in this case) upon which Staff relied in making such opposition.
FEMA or else

6. Identify all documents not identified in Staff's interrogatories to Wells Eddleman or to Joint Intervenors (to present -- a continuing interrogatory) upon which the Staff relied in making each such interrogatory.

7. Identify by name, personal or business address, FEMA or NRC staff position or title (if any), and telephone number (if known) each person on NRC staff or consultant to NRC staff or known to NRC Staff or consulted by NRC staff in the staff's analysis of the subject matter of this contention prior to (a) its filing (b) its admission; state for each such person what analysis was performed by that person.

8. State all professional qualifications of each person identified in response to interrogatories 7, 3, 4, .

9. Provide any statements of the analysis made by persons identified in response to interrogatories 3, 4, or 7 above, and identify all documents containing such information or statements not previously identified.

10. Give the identifier number, date, source, and title of all documents identified in response to interrogatories above, which are available through NRC PDR (Public Document Room).

11. Will NRC Staff make available copies of documents identified in response to the above interrogatories to Wells Eddleman for inspection and copying, for documents not available through NRC's PDR?

12. Identify by name, FEMA or NRC staff position if any, address and telephone number each person whom NRC staff intends to xxx use or call as a witness in this proceeding.

13. State fully the professional qualifications of each person identified in response to interrogatory 12 above.

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14. Summarize the position (or planned testimony) with respect to each contention on which such person is expected to testify, for each person identified in response to interrogatory 12 above.

15. Has FEMA or NRC Staff, any witness identified in response to interrogatory 12, or anyone acting in behalf of the Staff or such a witness or at their direction, made any calculation or analysis (not identified in response to interrogatories 1 through 4 above) with respect to this contention?

16. If the answer to interrogatory 15 above is yes in any case, provide the name, business or personal address, telephone number and professional qualifications of each person who has made such calculation or analysis, stating for each what contention it relates to, what person (or Staff) it was made for or at the direction of, and identifying all documents containing such calculationor analysis and all documents used in making such calculation or analysis or relied upon in it or supplying information used in it.

17. Provide a summary of each AISI, calculation or analysis ~~index~~ for which the answer to interrogatory 15, or interrogatory 2 above, is yes.

18. Please give the accession number, date and originator of each document identified in response to interrogatory 16, which is available at the NRC PDR.

19. Will FEMA or NRC Staff make available to Wells Eddleman for inspection and copying all documents identified in response to interrogatory 16 above which are not available through the PDR?

20. Identify each person, including telephone number, address, and field of expertise and qualifications (complete) (if any) ~~fa~~ who answered interrogatories with respect to this contention; if more than one person contributed to an answer, identify each such person, providing the information requested above in this interrogatory for each such person, and state what each such person's contribution to the answer was, for each answer.

21. Identify all documents which the FEMA or Staff proposes or intends to use as exhibits with respect to this contention during this proceeding, including exhibits of Staff witnesses (identifying the witness for each, if such a witness has been designated), and exhibits to be used during cross-examination of witnesses of any party (stating for each which witness it is to be used in cross-examination of), and identifying for each the particular pages or chapters to be used as exhibits.

22. Identify all documents which FEMA or NRC staff relied upon in answering interrogatories with respect to this contention, which have not been identified in response to interrogatories 1 through 21 above, stating for each which answer(s) re which contention(s) it was used for, and each specific fact and page number therein on which NRC staff relied or which NRC staff used in answering such interrogatory.

23. Please give the accession number, date, and originator of each document identified in response to interrogatories 21 or 22 above which is available through the NRC PDR.

24. Will FEMA or NRC Staff provide Wells Eddleman with copies of the documents identified in response to interrogatory 21 or 22 above which are not available at the PDR, for inspection and copying?

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25. Identify any other information or source of information not identified in response to the the above interrogatories 1 thru 24, which you, or upon which any member of NRC staff relieid, or which any such member of staff used, in answering each interrogatory with respect to this contention, naming the contention and response in which each such source was used, and the location of the information used or relied on in such source (e.g. page number, section, chapter, etc).

26 (a) Does the Staff or FEMA now agree with the contention? (b) Does the Staff now agree with any part of the contention?

27. If answer to (b) above is affirmative, which part(s) and why?

41-G-1. Please identify fully all documents which:

(a) contain any of the following:

(i) any information in the personnel file of Chan Van Vo (also known as Van Vo Davis, or the same person under any other name)

(ii) Chan Van Vo's application for employment, work assignments, work record, transfers, applications for transfer, job performance evaluations, probation, disciplinary actions proposed or taken with respect to Chan Van Vo or Van Vo's termination from CP&L, any written or verbal warnings to Chan Van Vo; all records of Van Vo's attendance, hours worked, promotion(s), recommendations for promotion(s), and any other information concerning Van Vo's employment, work performance, hiring, "counselling", or allegations raised by Chan Van Vo concerning safety (or lack of it) of work related to the Shearon Harris Nuclear Power Plant.

(iii) Any records or documentation concerning, directly or indirectly, any and all meetings, conversations, interviews, discussions, or information not to be discussed (in all cases including written or verbal, formal or informal meetings, discussions, etc.) with anyone (including other CP&L and Daniel employees or other persons employed at the Shearon Harris site, supervisors, CP&L quality assurance personnel, M.A. McDuffie, E.E. Utley, NRC personnel, other investigators, news media, or anyone else) which directly or indirectly concern: Chan Van Vo, his work performance, his safety concerns, any others concerns raised by him to CP&L supervisional management,

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or retaliating against Chan Van Vo; or allegations raised by Chan Van Vo with the Nuclear Regulatory Commission (NRC), Department of Labor (DOL), Department of Justice (DOJ), Government Accountability Project (GAP), Citizen intervenor groups or individuals, news media, or any government or private investigatory body.

(iv) any other information directly or indirectly concerning, evaluating, discussing, or in any way mentioning Chan Van Vo, any proposed or actual action ~~taken~~ against him, or any other information concerning Chan Van Vo or his safety concerns or other concerns;

(v) any and all internal CP&L or external investigations or inquiries concerning Chan Van Vo, his work performance, any action against Chan Van Vo, any action proposed to be taken with respect to Chan Van Vo, any allegations made by Chan Van Vo or any contacts between Chan Van Vo and NRC or DOL or DOJ or GAP or any citizen intervenor group, or any news media or any other person;

(vi) any records or evaluations or Chan Van Vo's work performance, including evalutions made either before, at the time of, or after Chan Van Vo's being placed on probation;

(vii) any evaluations or reports on Chan Van Vo's allegations (including the Cobb Report),identifying each document produced or used in preparing, or in connection with such evaluation(s) or report(s), and any information which was avaliable to the preparer(s) of such evaluation(s) or report(s) which was not used or reported in such evaluation(s) or report(s);

(viii) any internal or external investigation(s), evaluation(s), or inquiry(ies) into Chan Van Vo's character, employment qualifications, or job performance, including any information requested or sought, any questions asked, and all information received;

(ix) medical or psychological reports, evaluation(s) and/or record(s) concerning Chan Van Vo;

(x) information concerning the dates or matters discussed in meetings between Chan Van Vo and any higher ranking CP&L employee, concerning any matters raised as concerns by Chan Van Vo.

(b) Refer to any of the items or matters listed in (a)(i)-(x) above

(c) may have contained or referred to any of the matters inquired about above but which has been (1) destroyed, (2) lost, (3) given away, (4) loaned to anyone, (5) mislaid, or (6) otherwise found unavailable for inspection any copying. For each such document please provide a summary of the contents of such document, the date when the document was destroyed, lost, loaned, given away, mislaid, or otherwise became unavailable, and all reasons why; and the name and address or any other person(s) who have or may have said document or a copy of it, or information the document contains or contained.

41-3-2(a) Please identify all documents used by, reviewed by, or in the possession of Alex Fuller, Ed Willett, E.E. Utley, M.A. McDuffie, A. Parks Cobb, Jr., or any other person who was employed by CP&L and supervised or met with or investigated Chan Van Vo, which concern Chan Van Vo or any action or allegation by Van Vo, including notes, recordings or any other information, stating who possesses each item of information (including information used by or reviewed by i any person including those named above, which is not now in that person's possession. (b) Please make available all statements, notes, or other information produced by or posessed by any of the persons inquired about above, or any other persons, concerning meeting with Chan Van Vo, discussion(s) or conversation(s) with Chan Van Vo, or investigation of, disciplinary action against, or any other action against, Chan Van Vo.

REQUEST FOR PRODUCTION OF DOCUMENTS

Wells Eddleman hereby requests that any documents identified in response to the above interrogatories be produced for inspection and copying. In light of the short discovery deadline I request that any documents or parts of documents found to be available be made available as soon as possible, regardless of the time it takes to locate or produce the rest of such documents or the time it takes to produce other documents. (This is not a waiver of production times, but a request for rapid production). Chan Van Vo's counsel advises me that Chan Van Vo is aware of these requests and has no objection to my receiving or reviewing any documents concerning the matters inquired about above.

4 February 1985

Wells Eddleman

Wells Eddleman

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

In the matter of CAROLINA POWER & LIGHT CO. Et al.
Shearon Harris Nuclear Power Plant, Unit 1

Docket 50-400
O.L.

CERTIFICATE OF SERVICE

I hereby certify that copies of Diesel Generator Contentions and Info and of Motion for Reconsideration of Order served 1-15-85 (41G), and of Discovery on 41-G (1st set) + Apps d to Staff (limited service per oral order)

HAVE been served this 4** day of February 1985, by deposit in the US Mail, first-class postage prepaid, upon all parties whose names are listed below, except those whose names are marked with an asterisk, for whom service was accomplished by discovery on 41-G delivery by hand this date to CP&L legal dept in Raleigh NC

**under agreement of counsel for Staff and Applicants of which the Board is aware.

Judges James Kelley, Glenn Bright and James Carpenter (1 copy each)
Atomic Safety and Licensing Board
US Nuclear Regulatory Commission
Washington DC 20555

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Certified by [signature]

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

BEFORE THE ATOMIC SAFETY AND LICENSING BOARD

In the Matter of	)	
CAROLINA POWER AND LIGHT COMPANY AND NORTH CAROLINA EASTERN MUNICIPAL POWER AGENCY	)	Docket Nos. 50-400-OL 50-401-OL
(Shearon Harris Nuclear Power Plant, Units 1 and 2)	)	

CERTIFICATE OF SERVICE

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U.S. Nuclear Regulatory Commission
Washington, DC 20555

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

ATOMIC SAFETY AND LICENSING BOARD

Before Administrative Judges:

James L. Kelley, Chairman
Dr. James H. Carpenter
Glenn O. Bright

In the Matter of	Docket Nos. 50-400 OL
CAROLINA POWER & LIGHT COMPANY and NORTH CAROLINA EASTERN MUNICIPAL POWER AGENCY	(ASLBP NO. 82-472-03 OL)
(Shearon Harris Nuclear Power Plant)	January 14, 1985

MEMORANDUM AND ORDER
(Ruling on Certain Safety Contentions and Other Matters)

We have heard argument (Tr. 5730-45) and received submissions from the parties on the Eddleman and CCNC proposed contentions based on the Chan Van Vo affidavit of October 6, 1984. We ruled on most of these contentions in the December 5 telephone conference. We now rule on the remaining four contentions.

Eddleman Contention 41-G Concerning Harassment

Mr. Eddleman's proposed Contention 41-G alleges harassment of employees at the Harris facility to discourage them from bringing forward safety concerns. It refers specifically to portions of the Van Vo affidavit of October 6, 1984. Because this proposed contention was

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filed "late" -- i.e., long after the initial 1982 deadline for contentions -- its admission is subject to the "five factors" balancing test, (See Duke Power Co. (Catawba Nuclear Station), 17 NRC 1041 (1983)), as well as to the specific basis requirement. The contention is drafted in rather general terms, but since it alleges intentional illegal behavior we find it sufficiently specific. See Duke Power Co., supra, 19 NRC 1418, 1433 (1984); cf. United States v. Screws, 325 U.S. 91 (1945).

In our balancing of the five factors, the following considerations are most pertinent:

(1) Good cause -- The contention was filed reasonably soon after the Van Vo affidavit became available. Mr. Eddleman was not properly chargeable with notice of possible harassment problems before that time.

(2) & (4) -- Other Means and Representation by Existing Parties. Both of these factors favor admission of the contention. Compare Washington Public Power Supply System (WPPSS Nuclear Project), 18 NRC 1167, 1173-75 (1983). We reject the Applicants' suggestion that a Staff investigation is an adequate "other means" to protect the intervenor's interest. However, these two factors are to be given less weight than the others. Detroit Edison Co. (Enrico Fermi Plant), 18 NRC 1760, 1707 (1982).

(3) Contribution to the Record. The subject matter of this QA contention may not require particular expertise and we certainly do

not question Mr. Eddleman's willingness to work. On the other hand, the hearings on Mr. Eddleman's several safety contentions sometimes left us with the feeling that he had spread himself too thin. We note in that regard that in the coming months Mr. Eddleman will have a lot of work to do on his emergency planning contentions. Moreover, our experience indicates that a contention alleging a pattern of harassment -- broader than the incidents Mr. Van Vo speaks of -- would require considerable time to develop. Factor 3 weighs against Mr. Eddleman.

(4) Delay or Broadening the Issues -- allowance of a broad harassment contention, with full-scale discovery, could well lengthen this proceeding substantially, and might even delay fuel loading, although that now seems unlikely. The fuel load delay is the more important concern. Obviously, allowance of Mr. Eddleman's broad contention as drafted would broaden the issues. In the circumstances, this factor weighs somewhat against Mr. Eddleman.

In balancing the five factors together, they appear to tilt slightly against Mr. Eddleman's contention in its present form. However, the Van Vo allegations are serious and the balance is very close. We believe they should be scrutinized on the record under a suitably narrowed version of Mr. Eddleman's contention. We revise Eddleman 41-G to read as follows:

> Chan Van Vo was placed on probation and later terminated from his job with CP&L because he had sought to raise nuclear safety concerns about the Harris facility, as he alleges, and not because of poor job performance, as CP&L alleges.

This contention should be understood as focusing on the reasons particular personnel actions were taken against a particular individual. The parties' attention should focus on particular incidents alleged in the Van Vo affidavit -- e.g., the response to Mr. Van Vo's concerns about the "cold pulling" of a pipe (paragraphs 9-15 of the affidavit) and about pipe hanger material traceability (paragraphs 18-21). In admitting this contention, we are not opening for litigation Mr. Van Vo's broader and unparticularized allegations -- e.g., affidavit paragraphs 25 and 26 -- at least not at this time.

Our rationale for this approach is that the contention grew out of the Van Vo affidavit, as Mr. Eddleman has made clear. Given the difficulties and large expenditures of time involved in discovery and hearing of a broad harassment contention and Eddleman 41-G's status as a late contention, it is reasonable to determine, first, whether the Van Vo allegations about his treatment can be substantiated in a relatively short time. If they are substantiated on the record, then the Board would consider a broader contention in this area. On the other hand, if the Van Vo allegations prove to be unfounded, as CP&L contends, and no other evidence of harassment surfaces, then presumably that issue would be closed. The "five factor" balance clearly favors this narrower version of Eddleman 41-G because the potential for delay in the original version does not obtain, and its presentation would be within Mr. Eddleman's limited resources.

CP&L and Mr. Van Vo have entered into a settlement of any personal claims Mr. Van Vo may have had against the company. The Board asked for and received from the Applicants a copy of the otherwise confidential settlement agreement to determine what bearing, if any, it might have on our disposition of Eddleman 41-G. We also received and considered comments from CP&L and Mr. Eddleman on that question. The settlement terms appear to be reasonable. The amount of the financial payment to Mr. Van Vo is certainly no more and probably much less than it might have cost CP&L to fully litigate Mr. Van Vo's possible personal claims. The agreement does not purport to bar Mr. Van Vo from disclosing any information to the NRC. In short, our disposition of Eddleman 41-G was not affected by the settlement agreement.

Eddleman Contention 41-G, as modified by the Board, is admitted and discovery on it is open. The contention is narrow and the Applicants and Staff, at least, have already investigated the Van Vo concerns. Mr. Eddleman has the Applicants' Cobb Report on the Van Vo allegations, and the Staff should soon be supplying the I&E Report on the same matters. Therefore, discovery is to close by March 1, 1985, unless an extension is obtained for good cause shown. Any party wishing to move for summary disposition shall so advise the Board by March 8, 1985, and any such motions shall be filed by March 15, 1985. Should a hearing be necessary on this contention, the Board tentatively plans to schedule it for late April or early May.

The Board realizes that there may be other employees, present or former, at the Harris site who might have information about acts of

harassment of workers because of their efforts to raise nuclear safety concerns. If so, they should come forward with that information now, on a confidential basis, if they wish. To that end, we are directing the Applicants to post the notice attached to this Order in places where notices to employees are customarily posted at the Harris site. It invites employees who wish to provide information about any harassment incident related to nuclear safety to send it to the Board. Further, such information must be submitted by the deadline date of March 1, 1985. If the Board receives any information pursuant to the notice, we will consider appropriate action on it, including broadening of Eddleman 41-G. If no such information is received, any further inquiry into incidents occurring prior to March 1, 1985 will be foreclosed (other than the Van Vo incidents).

Eddleman Contention 41-C and CCNC WB-1

Both of these contentions are based on statements in Mr. Van Vo's affidavit about a specific incident of alleged falsification of material traceability records. Litigation of that particular incident is now allowable under modified Eddleman 41-G. Should the developed record show that falsification occurred, we can reconsider admission of a broader falsification contention. Eddleman Contention 41-C and CCNC WB-1 are rejected under the five factors balancing test, for the reasons stated under Eddleman 41-G as proposed.

CCNC Contention WB-2 Concerning Improper Pipe Installation

We tentatively rejected this contention in the December 5 telephone conference, subject to the possibility of receiving further comments from Mr. Van Vo, to be mailed by December 21, 1984. No such comments were received and this contention is rejected for the reasons previously assigned -- basically, that the system in question is not sufficiently related to safety to warrant our consideration. The reasonableness of CP&L's responses to Mr. Van Vo's expression of concerns about that system is included under revised Eddleman 41-G.

Eddleman Contention 41-E Concerning Pipe Hangers

We previously rejected this contention on the grounds that it lacked specificity and because it appeared to be a "retread" of Eddleman 41. Mr. Eddleman seeks reconsideration, arguing that 41-E addresses non-welding aspects of pipe hangers. The Applicants and Staff oppose the motion, arguing that lack of specificity alone should bar this contention. The Board agrees for the reasons they assign. Motion denied.

Applicants' Motion to Receive Additional Evidence

The Applicants seek admission of two final reports on certain matters that were litigated under Contention 41. They concede, however, that these documents do not "set forth any new substantive information which would warrant additional cross-examination." Motion at 4. The Staff and Mr. Eddleman oppose the motion. We see no sufficient reason

to grant this motion over opposition when the material is concededly unnecessary for decision; it is denied.

Aspects of our rulings on Eddleman 41-G may raise questions in the parties' minds. Any party who wishes a telephone conference on that ruling should telephone the Board Chairman promptly.

THE ATOMIC SAFETY AND
LICENSING BOARD

James L. Kelley, Chairman
ADMINISTRATIVE JUDGE

Glenn O. Bright
ADMINISTRATIVE JUDGE

Dr. James H. Carpenter
ADMINISTRATIVE JUDGE

January 14, 1985
Bethesda, Maryland

Attachment

ATTACHMENT

UNITED STATES
NUCLEAR REGULATORY COMMISSION

NOTICE

The Atomic Safety and Licensing Board is presently considering whether to authorize an operating license for the Carolina Power & Light Company's Shearon Harris facility. One of the questions before the Board is whether there have been instances in which employees at the Harris site have been harassed or retaliated against because they have tried to raise nuclear safety concerns about the facility. The parties in the case are CP&L, the NRC Staff, Mr. Wells Eddleman and several intervenor groups. Any present or former employee at the Harris site who has personal knowledge about such acts of harassment or retaliation may submit on a confidential basis to the Board alone a statement which provides the following information:

1. The person's name and telephone number and/or address.

2. A description of the incident.

3. A brief explanation of why the individual desires his concern to be expressed in closed, rather than public, hearings.

The Board will review any statements it receives and then decide, in consultation with counsel for the parties to the case, whether and how to conduct a closed hearing in which the identities of the witnesses would be kept confidential. CP&L's attorneys and possibly other representatives of the company would attend the closed hearing, as well as Mr. Eddleman and representatives of the NRC Staff and possibly the intervenor groups. However, they would be ordered not to disclose the identities of the witnesses. Prospective witnesses should realize that, under this procedure, their identities would be substantially protected from any further disclosure, but complete protection from disclosure would not be guaranteed.

Confidential statements must be mailed to the Board, by the deadline date of March 1, 1985, at the following address:

Atomic Safety and Licensing Board
Shearon Harris Proceeding
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

THE ATOMIC SAFETY AND
LICENSING BOARD

James L. Kelley, Chairman
ADMINISTRATIVE JUDGE

Glenn O. Bright
ADMINISTRATIVE JUDGE

Dr. James H. Carpenter
ADMINISTRATIVE JUDGE

January 14, 1985
Bethesda, Maryland

REPORT OF RESULTS OF INTERVIEWS CONDUCTED WITH CP&L PERSONNEL RELATED TO SELECTED ASPECTS OF AN AFFIDAVIT SUBMITTED BY FORMER CP&L EMPLOYEE CHAN VAN VO

Prepared by: A P Cobb

A P Cobb, Jr.
Manager, Project Management Division
Design Engineering Department
Duke Power Company

October 31, 1984

Revised November 9, 1984

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TABLE OF CONTENTS

1.0 Overview

This report documents results of discussions held with CP&L personnel related to statements contained in an Affidavit submitted by Chan Van Vo, a former CP&L employee in the construction organization at the Shearon Harris Nuclear Power Plant (SHNPP). The discussions pertained to the statements made in Paragraphs #12, 13, 14, 15, 23, and 24, which address CP&L management responsiveness to alleged safety concerns by Chan Van Vo. The purpose of the discussions with CP&L personnel was to ascertain facts related to CP&L involvement in the events cited in these paragraphs. Parties cited as contacts made by Chan Van Vo were interviewed, and others were interviewed who might have been in a position to confirm or contradict events recalled by those primary contacts. Personnel cited as contacts by Chan Van Vo and who were interviewed were Alex Fuller, Ed Willett, R M Parsons, M A McDuffie, and E E Utley. Others interviewed were John Ferguson, Dr. T S Elleman, and Darren Dasburg.

2.0 Background

Statements cited in Paragraphs #12, 13, 14, 15, 23, and 24 of the Affidavit were part of a sequence of events that occurred during Chan Van Vo's employment at SHNPP. Discussion with personnel involved, especially Alex Fuller and Ed Willett, provided a description of events related to Chan Van Vo's employment. This sequence of events is important to place statements made in the Affidavit in perspective.

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1. Chan Van Vo was initially employed as an aide at SHNPP and was later promoted to technician.

2. Sometime later, in October 1980, Chan Van Vo was promoted to entry level engineer status after completing correspondence school training.

3. As an engineer, Chan Van Vo worked in the piping area under Ed Willett.

4. While working in the piping area, Chan Van Vo developed a history of problems associated with his work. There does not appear to be specific documentation available; however, Ed Willett was aware of problems, both in his individual performance and with his interface with others. Because it was not clear as to the source of the problem, it was deemed appropriate to move Chan Van Vo to another area of work and provide an opportunity for a fresh start.

5. In April 1982, Chan Van Vo was assigned to work under Alex Fuller in the area of pipe hangers. At the same time, Ed Willett contacted John Ferguson (CP&L Employee Relations) and arranged for Chan Van Vo to talk with Mr. Ferguson regarding concerns about his employment situation.

6. Chan Van Vo was promoted in October 1982 to the second level engineer classification at CP&L. This promotion was generally

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in accordance with CP&L's promotion policy whereby an entry level engineer is promoted at the end of two years if performance is satisfactory.

7. Counseling for performance problems in Chan Van Vo's work under Alex Fuller began formally in March 1983. This counseling was received in a resentful hostile manner by Chan Van Vo, who denied any unsatisfactory performance even though he was presented with documented examples.

8. Counseling continued until August 1983, at which time Chan Van Vo was placed on probation and provided again with a clear statement of areas of his performance that were unsatisfactory.

9. Counseling continued from August 1983 until February 1984 without noticeable improvement in performance in the areas cited when Chan Van Vo was placed on probation.

10. In late February 1984, a final counseling session was held and Chan Van Vo was informed that progress on items requiring improvement in performance had not been satisfactory. He was given an opportunity to resign in order to prevent having a job termination on his record. He refused to resign and was terminated on that same day. He was escorted to the gate on that day in accordance with standard procedure.

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Technical items cited in the Affidavit which relate to the fitup of piping to a steam generator feedwater pump and related to the Phase II hanger program occurred during the time frame that Chan Van Vo worked under Alex Fuller's supervision in the hanger area and was receiving counseling for unsatisfactory performance. Both the steam generator feedwater pump piping and the Phase II hanger program situations were complex and covered a substantial span of time (months). Chan Van Vo became involved in these situations either due to actions of his own or by virtue of assignment and worked on isolated aspects of each. He collected an isolated sample of data, drew his own conclusions, and may have pursued some actions on his own as he was prone to do. Since both situations were already being attended to by assigned CP&L personnel who had knowledge of the entire situations, Chan Van Vo's information provided little help and nothing new and was likely not given special attention. As can be ascertained from information later in this report, individuals who he supposedly contacted and provided specific information regarding these two situations have no recollection of any such contacts. To aid in understanding of events that actually transpired related to steam generator feedwater pump piping and the Phase II hanger program, individuals interviewed provided an overview which is documented later in this report.

3.0 Paragraph #12 Items

In Paragraph #12 of the Affidavit, Chan Van Vo made reference to "increasing pressure from Fuller and Willett." He stated that he sought a transfer which was refused by Willett. Based on the time frame he is

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referring to, this was the time frame during which counseling for performance problems unrelated to the steam generator feedwater pump piping was taking place. He requested a transfer and the transfer was approved by all levels of supervision. He was interviewed once or twice for assignment to other areas, but other organizations were not interested. Willett had no other areas under his supervision available in which to transfer Chan Van Vo and, in fact, needed his assistance in the hanger area due to the magnitude of the hanger work. Chan Van Vo did not contact R M Parsons directly with respect to his request for transfer or concerns with Fuller and Willett. Although he saw him frequently, Parsons recalls only two contacts with Chan Van Vo, one related to organizational information which he provided and one contact made in the field where statements were made about the installability of diesel generator piping and pipe supports.

4.0 Paragraph #13 Items

Chan Van Vo relates incidents associated with a discussion he held with M A McDuffie in 1982. According to McDuffie, he talked with Chan Van Vo sometime in 1982, the exact date of which was not recorded. He recalls the discussion because Chan Van Vo requested to come talk with him on a Saturday morning, and McDuffie was particularly impressed that an employee would take his own time in the attempt to provide information which might improve the work situation at SHNPP. In that discussion, which lasted for a considerable time, Chan Van Vo complained about his work situation and expressed concern about not being fully utilized and work in general being done in an inefficient and costly manner. There

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was no suggestion or discussion from Chan Van Vo indicating that work was being performed incorrectly from a technical point of view or that items were being completed in an improper manner. He produced a number of organization charts that he had personally prepared and explained how he felt the site should be organized, and in so doing, he could be more fully utilized. There was no mention of safety concerns during this conversation. McDuffie expressed to Chan Van Vo the need to demonstrate to his supervision that he was capable of handling additional or higher quality work and he would be given additional assignments. During the course of this conversation, Chan Van Vo criticized almost everyone above him in the management chain, but this criticism focused on their administrative capability and not their technical capability. As followup to this discussion with Chan Van Vo, McDuffie talked to R M Parsons by telephone and satisfied himself that personnel at the site were providing an audience to Chan Van Vo regarding his concerns with his job and that action that they deemed appropriate was being taken. No further followup was considered necessary or was made.

5.0 Paragraph #14 Items

In Paragraph #14, Chan Van Vo alleges that in March 1983 (assumed 1983), Alex Fuller increased pressure on him and threatened him with termination and subjected him to formal counseling regarding job performance. He noted that this counseling required that he improve his understanding and explanation of problems. This information coincides with the point in time at which formal counseling due to unsatisfactory job performance did in fact start. This counseling is documented thoroughly and spells out

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specifically the job performance-related concerns supervision had with Chan Van Vo. In Paragraph #14, Chan Van Vo noted that he requested assistance from R M Parsons; however, to the contrary, Parsons has no recollection of any contact from Chan Van Vo related to concerns about this counseling. There were no instructions provided from Parsons to Fuller and Willett to alter their course of counseling with Chan Van Vo. Parsons confirmed that he stayed aware of the counseling that was being conducted as he did with counseling of any person in the construction organization.

6.0 Paragraph #15 Items

In Paragraph #15, Chan Van Vo refers to a second visit to M A McDuffie. McDuffie confirms that a second visit was held sometime in 1983, but events suggest this visit was held later than April. At this meeting, Chan Van Vo laid out a plan he had developed for the as-built program for piping and hangers at SHNPP. He provided a hand written document to McDuffie which consisted of a compilation of his ideas, along with information he had collected from sources at the site. Since this was the second proposition he had made to McDuffie regarding substantial reorganization of the operation at SHNPP, McDuffie was less interested and the conversation took less time. At no time in this conversation did Chan Van Vo raise concerns regarding the technical competence of work at the site or safety concerns in general. Mr. McDuffie has no recollection of making the quoted statement in the Affidavit which is attributed to him regarding Chan Van Vo being a soldier and Ed Willett being his lieutenant and that he should obey orders. As followup, McDuffie sent

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the document provided to him by Chan Van Vo to R M Parsons via informal note for review and requested that they discuss the information with Chan Van Vo. The date on this note and McDuffie's recollection of when it was sent relative to the conversation he held with Chan Van Vo suggests that the meeting with Chan Van Vo actually was held in May or June 1983. The note to Parsons containing the package of information was dated in July. The response to McDuffie by Parsons indicates that discussión was held with Chan Van Vo by Ed Willett and Alex Fuller and that the package of information was reviewed in detail. Willett and Fuller pointed out that a number of items contained in that proposal were in fact included in the current hanger program at the site. Other items were not included and were not deemed appropriate to include. Parsons' response to McDuffie was dated in late July 1983 and a copy can be obtained from Parsons.

Chan Van Vo makes reference to pressure from Alex Fuller in the spring of 1983 and alleges that he was assigned more and more work and that this was more than his fair share. As noted earlier, in the spring of 1983, Chan Van Vo did receive formal counseling which started in March 1983 because of poor performance. The areas of poor performance were clearly cited in counseling documentation in March 1983. Subsequent counseling sessions monitored progress in areas cited as unsatisfactory. Fuller states that Chan Van Vo's assignment was changed during this period because work in this group was reorganized under lead personnel. Because he was experiencing performance problems, Fuller worked more closely with Chan Van Vo than others and utilized him in several activities in the attempt to find one he could handle satisfactorily. Assignment of Chan

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Van Vo to the QA surveillance activity was one such attempt by Fuller. Chan Van Vo's assignments did not constitute a disproportionate amount of work compared to others in the group, according to Fuller.

7.0 Paragraph #23 Items

In Paragraph #23, Chan Van Vo states that he received a memo signed by Alex Fuller and Ed Willett in August 1983 that stated he was on probation due to perform nce problems of the past year and one-half. He makes reference to being promoted by Fuller less than a year earlier and notes that he believes that this probationary action was in retaliation for his expression of safety concerns. In October 1982, Chan Van Vo was promoted from entry level engineer to the next level. In March 1983, formal counseling on performance problems actually started. In August 1983, Chan Van Vo was placed on probation, and the basis for this probation is well documented. This was as a result of his failure to respond to unsatisfactory performance in areas documented earlier. Documentation related specifically to performance problems observed while working under Alex Fuller. Chan Van Vo was promoted based on CP&L's system which allows promotion from entry level engineer to the next level in two years if performance is at least satisfactory. At the time of the promotion, Fuller had concerns about Chan Van Vo's performance but they were not significant enough to block the promotion or to initiate formal counseling. By March 1983, the concerns reached a level to justify formal counseling and documentation. Chan Van Vo objected to the documentation that performance was unsatisfactory and refused to sign the

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counseling memo. There was no information to suggest that CP&L demonstrated that they wanted personnel to look the other way when they encountered deficiencies as alleged in Paragraph #23.

8.0 Paragraph #24 Items

In Paragraph #24, Chan Van Vo refers to a meeting with E E Utley in the fall of 1983. He refers to documentation of safety concerns and deficiencies which he carried with him and alleges that he explained these concerns to Mr. Utley, including the responses he received from his supervision. He goes on to state that Mr. Utley did not ask questions regarding these concerns and that he promised to help him and did not. Contrary to the statements in the Affidavit, Chan Van Vo met with E E Utley on July 1983 as documented on Mr. Utley's calendar. He brought with him a package of information two to three inches thick. His discussion with Utley consisted of expressing his concern with the way CP&L was managing the job with respect to pipe hangers. He noted that he had reviewed his concerns with his management, with personnel at the site, and with M A McDuffie and that they had not accepted his proposal for the way the job should be conducted and he was concerned about that. He noted that he felt that he had a much better understanding of how this work should be conducted than they did and had a thorough knowledge of his particular job. There was no expression of concerns related to safety. In fact, the conversation did not at all involve the package of information that he had brought with him, although he left that information with Mr. Utley. Mr. Utley made no specific promises to Chan Van Vo other than to give his input consideration.

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As followup to this meeting, E E Utley sent the package of information left with him by Chan Van Vo to Dr. T S Elleman, Vice President of Corporate Nuclear Safety, for his evaluation for potential safety concerns. At about this same time, Dr. Elleman had been made Chairman of a review panel to investigate potential concerns by personnel at SHNPP. Mr. Utley received no input from Chan Van Vo indicating that there were technical concerns contained in this package. Discussion with Dr. Elleman indicates that he reviewed the package and was unable to determine what Chan Van Vo was attempting to communicate. The package contained a collection of site procedures, non-conformance reports, and as he recalls, possibly some speed letters. There was no documentation as to what the compilation of information was intending to communicate. Dr. Elleman contacted Chan Van Vo by telephone and had a long and somewhat disjointed conversation. Chan Van Vo's main concerns expressed to Dr. Elleman related to his own job stability and the fairness of his supervision and the fact that people were not listening to his ideas about how the job should be conducted. Dr. Elleman tried to obtain specific concerns from him. After a lengthy conversation, Dr. Elleman obtained information from Chan Van Vo regarding concerns he had on the following items:

1) Q-List nut and bolt control (PO-40924)
2) Purchase orders for steel plates (PO-21022, PO-21021)
3) Vibration of installed air compressor

The first two of these items were converted to Review Panel Concern C-23, which was addressed by the Review Panel and resolved. The third item was

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converted to Review Panel Concern C-24, which the Review Panel addressed and resolved. In none of these cases did information provided by Chan Van Vo constitute new information that had not been obtained previously by means of programs in place at SHNPP and solution paths had either been already taken or were in process.

After the Review Panel completed its work on these items, Dr. Elleman made repeated attempts to get back in contact with Chan Van Vo to relate the resolution of these items to him. After repeated attempts, he made contact and explained the resolutions. Chan Van Vo indicated that he was satisfied and had no further concerns with these items. At that time, Dr. Elleman inquired as to the basis of information Chan Van Vo had provided to E E Utley. Chan Van Vo related to Dr. Elleman that this information was brought to Mr. Utley to prove to him that Chan Van Vo was a capable performer and was doing his job satisfactorily. Following the completion of the Review Panel work, Dr. Elleman did not retain the package of information passed to him by Mr. Utley.

9.0 Events Related To Steam Generator Feedwater Pump Piping Installation

Based on discussions primarily with Willett and Dasburg, the situation that existed with regard to installation of the steam generator feedwater pump piping was as follows. Normal practice generally requires installation of piping such that the final closure weld does not occur at a piece of equipment such as a pump. Normally, piping is installed beginning with the connection at the pump and installed moving away from the pump, and a closure weld with other piping is made somewhere at a

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distance remote from the equipment. The purpose of this is to ensure that any loading that may be necessarily applied to align the piping for the final closure weld is not transmitted to the nozzle of the equipment. In this particular case, craft personnel had requested approval to make the final closure weld at the pump. Because CP&L had concerns about potential loading on the pump, approval was granted with restrictions which included ensuring that hangers close by the pump were installed and would rigidly hold the pipe in place after it was aligned to the pump, and secondly, that movement of the pump be monitored carefully to ensure that the welding process itself did not create pipe movement which would provide loading on the pump. Actual construction of this particular closure weld was conducted utilizing continuous monitoring of pump movement by millwrights using dial indicators. During the process of welding, movement of the pump was monitored and if it moved in one particular direction, this could be corrected by welding on the opposite side of the piping and create a compensating movement. This iterative technique of welding, providing compensation for movement, would allow the welding to proceed in a manner not to create unacceptable pump loading and/or misalignment when welding was completed. During the course of this iterative technique, the two millwrights who had been monitoring movement were out of work one day, and two substitute millwrights were utilized. Craft personnel were reluctant to proceed with substitute millwrights, but decided to do so anyway in the interest of time. During the day when substitute millwrights were used, the iterative technique was continued and it was believed that no adverse alignment was created. On the day that followed, when the two original millwrights returned to work and made readings with dial indicators,

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there was indication that adverse movement had in fact occurred and, because welding was virtually completed at that time, the misalignment could not be corrected by further iterative welding on one side or another. At this point, CI (Construction Inspection) Inspector Ed Williams wrote a non-safety nonconformance because the alignment was unsatisfactory. There were several options considered to correct or compensate for the unacceptable alignment. Two options considered were breaking the joint and rewelding or adjusting the motor installation position to compensate for the misalignment. Considerable amount of time passed while these options were being evaluated and work priorities in the field shifted such that the situation was not at that time resolved and had not as of the interview date been resolved. In the time that has passed since the welding to the pump, the pump vendor has visited the site and has observed that the barrel is out of round, which may now necessitate breaking the weld and rewelding. The nonconformance that was written at the time the misalignment was observed is apparently still open and will have to be resolved before the item can be considered closed. Based on the above sequence of events, it appears that CP&L was both knowledgeable and in control of events that occurred to the degree that could be reasonably expected. Although the pump welding did produce an unacceptable alignment, the program for inspection picked up the misalignment as a nonconformance. This particular event does not relate to safety since both the pump and piping in question are non-safety related.

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10.0 Events Related to Phase II Hanger Program

Early in the program for installation of the pipe hangers, CP&L utilized a two phase hanger program. Phase I consisted of partial erection of hangers whereby some portion of the hangers was not installed or was left in an adjustable state to facilitate piping erection. The Phase II program was intended to complete the installation of partially installed hangers and to complete all necessary inspections. When the Phase II program was started, CP&L performed a number of routine checks to ensure that final inspections under Phase II were accomplishing the intended purpose. Most of these checks proved the opposite, and it was clear that they were not achieving the level of quality desired and required. The QA surveillance in which Chan Van Vo was involved was one such exercise initiated by CP&L that demonstrated to CP&L management that they were not achieving the desired level of quality in Phase II. This particular surveillance was one of the final events before CP&L stopped the inspection program and redesigned the entire hanger erection and inspection program. The program was redesigned to utilize a one step process whereby total hanger installation and inspection was performed at one time, as opposed to the original Phase I and Phase II approach. Results of the particular QA surveillance activity to which Chan Van Vo was assigned produced several nonconformance reports. These and others were written based on findings of surveillance activities. The stop work order referred to by Chan Van Vo was a stop work on inspection until a formal and detailed checklist could be developed to ensure that hanger inspections would achieve the level of quality required by CP&L's QA program. All of the hangers that had been installed and inspected under

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the old Phase II program were reinspected under the new program to ensure that the desired level of quality was achieved. Since restart of the program, which occurred approximately December 1, 1983, the hanger program at SHNPP has proceeded satisfactorily according to Parsons.

11.0 Isolated Incorrect Statements in the Affidavit

Based on interviews with CP&L personnel and review of the Affidavit in general, there appear to be several incorrect statements in the Affidavit. Information related to these is provided below.

Affidavit Paragraph #	Information
6	Contrary to Chan Van Vo's claim that he contacted D M Dasburg regarding the steam generator feedwater pump piping, Dasburg has no recollection of ever being contacted by Chan Van Vo regarding concerns he had with this piping installation.
9	Alex Fuller has no recollection of ever being contacted by Chan Van Vo regarding concerns he had with the steam generator feedwater pump piping installation. Fuller has no recollection of receiving a speed letter or throwing a speed letter in the trash can. Fuller acknowledges that he may have been contacted on the item and, if so, would have in turn contacted the

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responsible piping engineer, who would likely have confirmed that they were aware of the situation regarding the installation of this piping and had it under control. Having received this feedback, he would likely have discarded any information he had received such as a speed letter. Again, he has no recollection of being contacted at all by Chan Van Vo, either verbally or by speed letter regarding steam generator feedwater pump piping installation.

9 Chan Van Vo refers to his concern with steam generator feedwater pump piping as a safety deficiency. CP&L engineering should be able to confirm that neither the piping nor the pump are safety related items at SHNPP.

9 Chan Van Vo alleges that speed letters are utilized in place of prescribed quality assurance documentation. There is no information to support this allegation. R M Parsons and others interviewed confirmed that speed letters are used to transmit information from one party to another, and occasionally the information contained on the speed letter is converted to a nonconformance if deemed appropriate. The speed letter itself is not considered sufficient documentation for nonconformances and is not used for that.

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19 Fuller denies ever calling Chan Van Vo a liar as alleged. Fuller confirmed that another engineer in his group was assigned to research the concern with PO-21022, that documentation associated with this PO (Purchase Order) was found, and there was no residual safety problem. The particular PO had been used in a manner different from a normal PO which did make the information in question difficult to find. This was one of the PO numbers provided to Dr. Elleman and was addressed in Review Panel Concern C-23.

21 Based on conversation with Ed Willett, Willett's memo of July 29, 1983 was stimulated by input received from INPO (Institute of Nuclear Power Operations) and not by input received by Chan Van Vo. Willett, in fact, did not receive information from Chan Van Vo as a result of his QA surveillance activity, and the memo was unrelated to information eminating from the QA surveillance in which Chan Van Vo was involved.

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