

# Duquesne Light Company

Beaver Valley Power Station  
P.O. Box 4  
Shippingport, PA 15077-0004

JOHN D. SIEBER  
Senior Vice President and  
Chief Nuclear Officer  
Nuclear Power Division

(412) 393-5255  
Fax (412) 643-8069

May 23, 1994

U. S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555

**Subject: Beaver Valley Power Station, Unit No. 1  
Docket No. 50-334, License No. DPR-66  
ISI (Inservice Inspection) Program: Relief Requests**

The purpose of this submittal is to request NRC review and approval of proposed relief requests applicable to the Unit No. 1 Second Ten-Year Interval ISI Program. The following relief requests are attached for review:

No. BV1-B5.40-1, Rev. 0  
No. BV1-B9.11-2, Rev. 0  
No. BV1-RC-P-1-1, Rev. 0  
No. BV1-RC-P-1-2, Rev. 0  
No. BV1-C5.11-2, Rev. 0  
No. BV1-C6.10-1, Rev. 0  
No. BV1-CH-E-4-1, Rev. 0  
No. BV1-CH-FL-4-1, Rev. 0  
No. BV1-RH-E-1-1, Rev. 0

The examinations represented by these relief requests have been completed to the extent possible. Complete coverage of the welds could not be obtained for the reasons identified within each relief request. These limited examinations require review and approval by the NRC as required by 10 CFR 50.55a.

It is requested that this review be completed before February 1, 1995, in order to allow sufficient time to plan and prepare for any follow-up examinations that may be required during the eleventh refueling outage tentatively scheduled to begin February 9, 1996.

If you have any questions regarding this issue, please contact Mr. Steve Sovick at (412) 393-5211.

Sincerely,

*J. D. Sieber*  
J. D. Sieber

100017

cc: Mr. L. W. Rossbach, Sr. Resident Inspector  
Mr. T. T. Martin, NRC Region I Administrator  
Mr. G. E. Edison, Project Manager

940610017B 940523  
PDR ADOCK 05000334  
D PDR

A047  
111



DUQUESNE LIGHT COMPANY  
Beaver Valley Power Station

RELIEF REQUEST NO. BV1-B5.40-1, Rev. 0

Components

Pressurizer Nozzle to Safe-end Weld, RC-98-1-E-02

Section XI Requirement (83S83)

Item B5.40 (Table IWB-2500-1, Category B-F) requires a surface and a volumetric examination.

Basis for Relief

The ultrasonic examination of this weld was limited due to search unit lift off on the nozzle curvature when scanning from the nozzle side. The weld crown and diameter change prevent coverage from the safe-end-side. See attached sketch. This exam was performed using a 45 degree refracted longitudinal scan angle as recommended in NRC Information Notice 90-30.

Approximately 70% of the required volume was covered by this ultrasonic examination. The surface exam was completed without limitation.

Alternative Examination

Perform the volumetric exam to the maximum extent practicable using the refracted longitudinal scan angle as noted. The surface exam and the normal leakage exams will be performed as scheduled.



Duquesne Light

### NDE EXAMINATION REPORT

REPORT NO.

UT-89-282

PAGE:

2 OF 2

PLANT/UNIT:  
RVPS UNIT 1

PROC./REV.(S):  
UT-303/E TCN-256

APPLICABLE CODE/YEAR/ADDENDA:  
ASME SECTION XI 1983, SUMMER 1983

SYSTEM:  
REACTOR COOLANT

LINE:  
90

ISO/REV:  
0350B

EXAM. CAT.:  
B-F

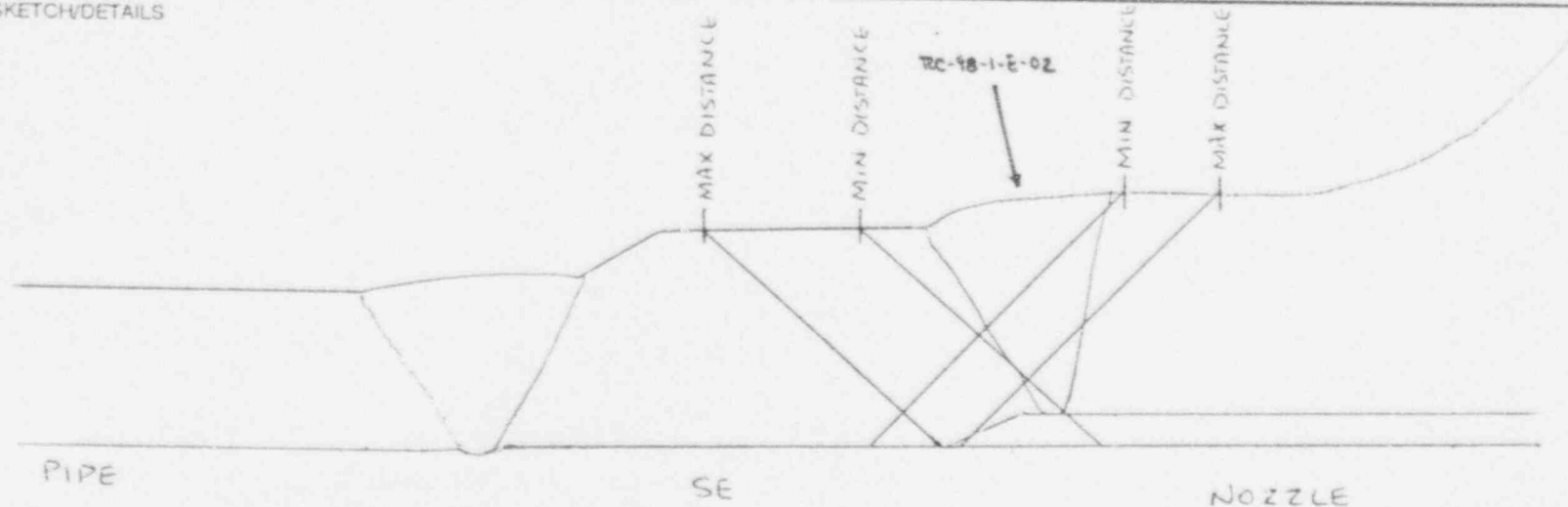
ITEM #:  
B05.040

MATERIAL:  
SA214/INCONEL/316

THICKNESS:  
1.5"/06" D.I.A

SURFACE CONDITION:  
SMOOTH

REMARKS/SKETCH/DETAILS



PRESSURIZER NOZZLE DRAWING  
SHOWING WELD REQUIRED VOLUME  
OBTAINED WITH 45° L ON  
WELD RC-98-1-E-02

(CONFIGURATION ESTABLISHED FROM  
① DRAWING + STR. BEAM EXAM)

TCN 9-22-89

EXAMINER: <i>Scott Harrison</i>	LEVEL: II	DATE: 9-19-89	REVIEWED BY: <i>Charles Patella</i>	LEVEL: III	DATE: 9-21-89
EXAMINER: <i>Russell J. Miller</i>	LEVEL: IT	DATE: 7-11-89	REVIEWED BY DLCo. REPRESENTATIVE: <i>Timothy C. H. ...</i>	LEVEL: III	DATE: 9-22-89
OTHER:	LEVEL:	DATE:	A.N.H. REVIEW: <i>RA Cernoch</i> ANII		DATE: 9/26/89

Relief Request DVI-B5-40-1

DUQUESNE LIGHT COMPANY  
Beaver Valley Power Station

RELIEF REQUEST NO. BV1-B9.11-2, Rev. 0

Components

RC-98-1-F-01  
RC-72-5-F-06  
RC-72-5-S-06  
SI-73-8-F-11  
SI-101-2-S-02  
SI-101-2-S-06  
RH-24-1A-F-06

Section XI Requirement (83S83)

Item B9.11 (Table IWB-2500-1, Category B-J) requires a surface and a volumetric examination.

Basis for Relief

The following list identifies the weld, the percentage of required coverage that can be performed, and the specific obstruction for each weld.

RC-98-1-F-01	80%	Ultrasonic examination is limited due to steep O.D. taper on the safe-end side of the weld preventing scanning of required volume. The 45 deg. angle scan was supplemented with a 60 deg. angle scan. The surface exam was completed without limitation.
RC-72-5-F-06	78%	Ultrasonic examination is limited due to the elbow to valve weld configuration and the intrados of the elbow preventing scanning of the required volume. The 45 deg. angle scan was supplemented with a 60 degree scan. The surface exam was completed without limitation.
RC-72-5-S-06	0%	Ultrasonic examination is completely limited on one side of the weld by the tee configuration of the fitting and on the other side of the weld by a welded support. The surface exam was completed without limitation.

SI-73-8-F-11	85%	Ultrasonic examination is limited due to the 90 deg. intrados curvature of the elbow-to-branch nozzle weld causing the search unit to lose contact with the pipe surface. A 45 deg. refracted longitudinal scan supplemented by a 60 deg. shear angle scan were used to enhance this examination. The surface exam was completed without limitation.
SI-101-2-S-02	85%	Ultrasonic examination is limited on one side of the weld by the configuration of the tee fitting and on the other side by the 90 degree intrados curvature of the adjacent elbow fitting. A 60 degree shear angle scan was used to supplement this exam. The surface exam on this weld was completed without limitation.
SI-101-2-S-06	25%	Ultrasonic examination is limited by a box restraint located around this weld. The surface examination covered 90% of the required area.
RH-24-1A-F-06	50%	Ultrasonic examination is limited due to a support plate welded over the elbow and the elbow to valve weld configuration. A 60 degree scan was attempted without success due to the same reasons. The surface exam was completed without limitation.

Alternative Examination

Perform the volumetric examination to the maximum extent practicable, using the supplemental scans noted above.

DUQUESNE LIGHT COMPANY  
Beaver Valley Power Station

RELIEF REQUEST NO. BV1-RC-P-1-1, Rev. 0

Components

Reactor Coolant Pumps RC-P-1A(B)(C) Weld C-1

Section XI Requirement (83S83)

Item B12.10 (Table IWB-2500-1, Category B-L-1) requires a volumetric examination. Relief Request BV1-B12.10-1, Rev. 0 proposed as an alternative to the volumetric examination of this weld, a surface exam from the outside surface of the pump. NRC Safety Evaluation dated August 7, 1991 granted this relief.

Basis for Relief

The penetrant examination on the Reactor Coolant Pump casing circ weld was limited by the three support leg structures. Insufficient space between the support legs and the pump casing does not allow access to the circ weld. Three areas, each approximately 8 inches wide, behind the support legs were inaccessible. Therefore only 88% of the circ weld was examined.

Alternative Examination

None. Perform the surface examination to the maximum extent practicable. The normal leakage exams will continue to be performed as scheduled.

DUQUESNE LIGHT COMPANY  
Beaver Valley Power Station

RELIEF REQUEST NO. BV1-RC-P-1-2, Rev. 0

Components

Reactor Coolant Pumps RC-P-1A(B)(C) Welded Supports WS-1, -2, -3

Section XI Requirement (83S83)

Item B10.20 (Table IWB-2500-1, Category B-K-1) requires a surface examination.

Basis for Relief

The penetrant examinations on the Reactor Coolant Pump support attachment welds were limited by the supporting structure around the pump. Insufficient space, between the supporting structure and the attachment welds, limits access for the examination. Attachment welds WS-1 and WS-3 have the additional limitation of the close proximity of the pump's discharge piping to the attachment welds.

Approximately 42% of welds WS-1 and WS-3 ~~was~~ <sup>were</sup> examined. Approximately 63% of weld WS-2 was examined.

Alternative Examination

None. Perform the surface examination to the maximum extent practicable.

DUQUESNE LIGHT COMPANY  
Beaver Valley Power Station

RELIEF REQUEST NO. BV1-C5.11-2, Rev. 0

Components

QS-2-1-F-02

Section XI Requirement (83S83 / Code Case N-408)

Item C5.11 (Table IWC-2500-1, Category C-F-1) requires a surface and a volumetric examinations.

Basis for Relief

The following list identifies the weld, the percentage of required coverage that can be performed, and the specific obstruction.

QS-2-1-F-02	84%	Ultrasonic examination is limited on one side of the weld by the valve to elbow weld configuration and on the other side by the intrados of the elbow fitting. A 60 degree shear angle scan was used to supplement this exam. The surface exam was performed without limitation.
-------------	-----	--

Alternative Examination

Perform the volumetric examination to the maximum extent practicable using the supplemental scan noted above.



DUQUESNE LIGHT COMPANY  
Beaver Valley Power Station

RELIEF REQUEST NO. BV1-C6.10-1, Rev. 0

Components

Recirculation Spray Pumps- RS-P-1A(1B), -2A(2B) - Pump Casing Welds  
Safety Injection Pumps- SI-P-1A(1B) - Pump Casing Welds

Section XI Requirement (83S83)

Item C6.10 (Table IWC-2500-1, Category C-G) requires a surface examination.

Basis for Relief

The specific limitation, along with the percentage of the required surface area that can be examined, is listed below.

RS-P-2A(2B)-3 and -4	87%	Three (3) welded support plates are located on the welds preventing examination of approximately 13% of the weld. See enclosed photograph.
RS-P-2A(2B)-C-10 thru C-27 RS-P-1A(1B)-C-5 thru C-10	0%	The welds are located below floor level in the pump's sump and are therefore inaccessible. See attached drawings.
SI-P-1A(1B)-C-1 thru C-20	0%	The welds are located below floor level in the pump's sump and are therefore inaccessible. See attached drawings.

Alternative Examination

For welds limited by the support plates, the surface exam will be performed to the maximum extent possible. For the inaccessible welds located in the pump sumps, the surface exam will be performed only if the pump casing is removed from the sump for maintenance purposes.

No. B700-151-E-207 C

PRESSURE RELIEFING BOWING  
EXPLANATION: SHOWN ARE THE (PUMP) (PUMP)

ITEM NO.	DESCRIPTION	TYPE	QTY	UNIT
18	40" DIA. 1/2" THICK FLANGE W/ 8 BOLTS	FLANGE	8	EA
17	40" DIA. 1/2" THICK FLANGE W/ 8 BOLTS	FLANGE	8	EA
12	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
11	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
10	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
9	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
8	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
7	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
6	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
5	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
4	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
3	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
2	2" DIA. 1/2" THICK FLANGE W/ 4 BOLTS	FLANGE	4	EA
1	SECTION BELL	SECTION	1	EA

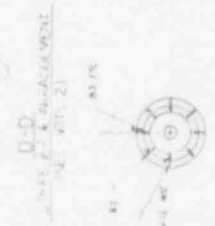
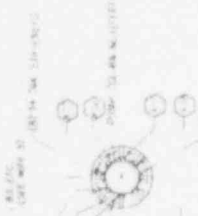
NOTES:  
1. ALL WELD JOINTS ARE TO BE MADE BY AWS D11.1-70 OR D11.1-70M.  
2. END OF PIPE IS TO BE CHAMFERED.  
3. BOLTING REQUIREMENT SHOWN IN DET. 0-0 IS FOR 3/4" DIA. 1/2" THICK FLANGE.  
4. BOLTING REQUIREMENT FOR JOINTS IS 1/2" DIA. 1/2" THICK FLANGE.  
SECTION A-A  
SECTION B-B  
SECTION C-C  
SECTION D-D  
SECTION E-E

CONTROLLED  
BVP5 UNIT 1

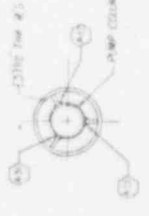
QA CAT 1

**Daugherty Light Company**  
FACILITY: BVI-C6.10-1  
PROJECT NO.: BVI-C6.10-1  
DRAWING NO.: BVI-C6.10-1-207  
DATE: 10/15/77  
SCALE: 1" = 1'-0"  
REVISIONS:  
1. SAFEGUARDS ARE TO BE MAINTAINED AT ALL TIMES.  
2. REPAIRS TO BE MADE IN ACCORDANCE WITH THE ORIGINAL DESIGN.  
3. ALL WELD JOINTS TO BE MADE BY AWS D11.1-70 OR D11.1-70M.  
4. END OF PIPE IS TO BE CHAMFERED.  
5. BOLTING REQUIREMENT SHOWN IN DET. 0-0 IS FOR 3/4" DIA. 1/2" THICK FLANGE.  
6. BOLTING REQUIREMENT FOR JOINTS IS 1/2" DIA. 1/2" THICK FLANGE.  
SECTION A-A  
SECTION B-B  
SECTION C-C  
SECTION D-D  
SECTION E-E

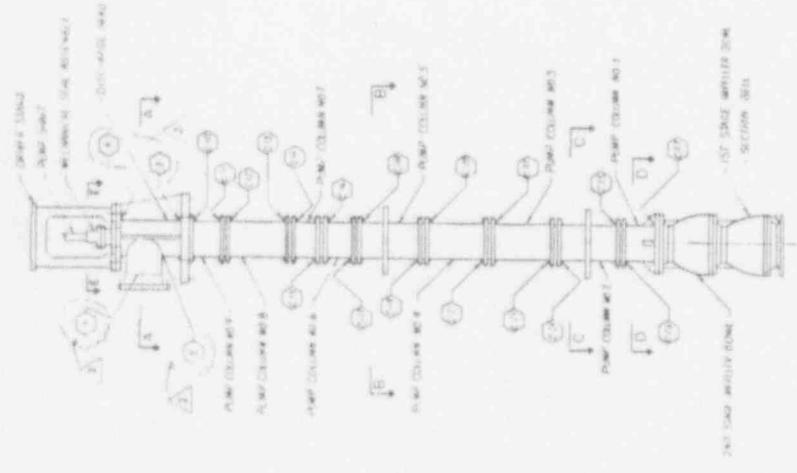
8700-151-E-207 C-2



TOP STABILIZER



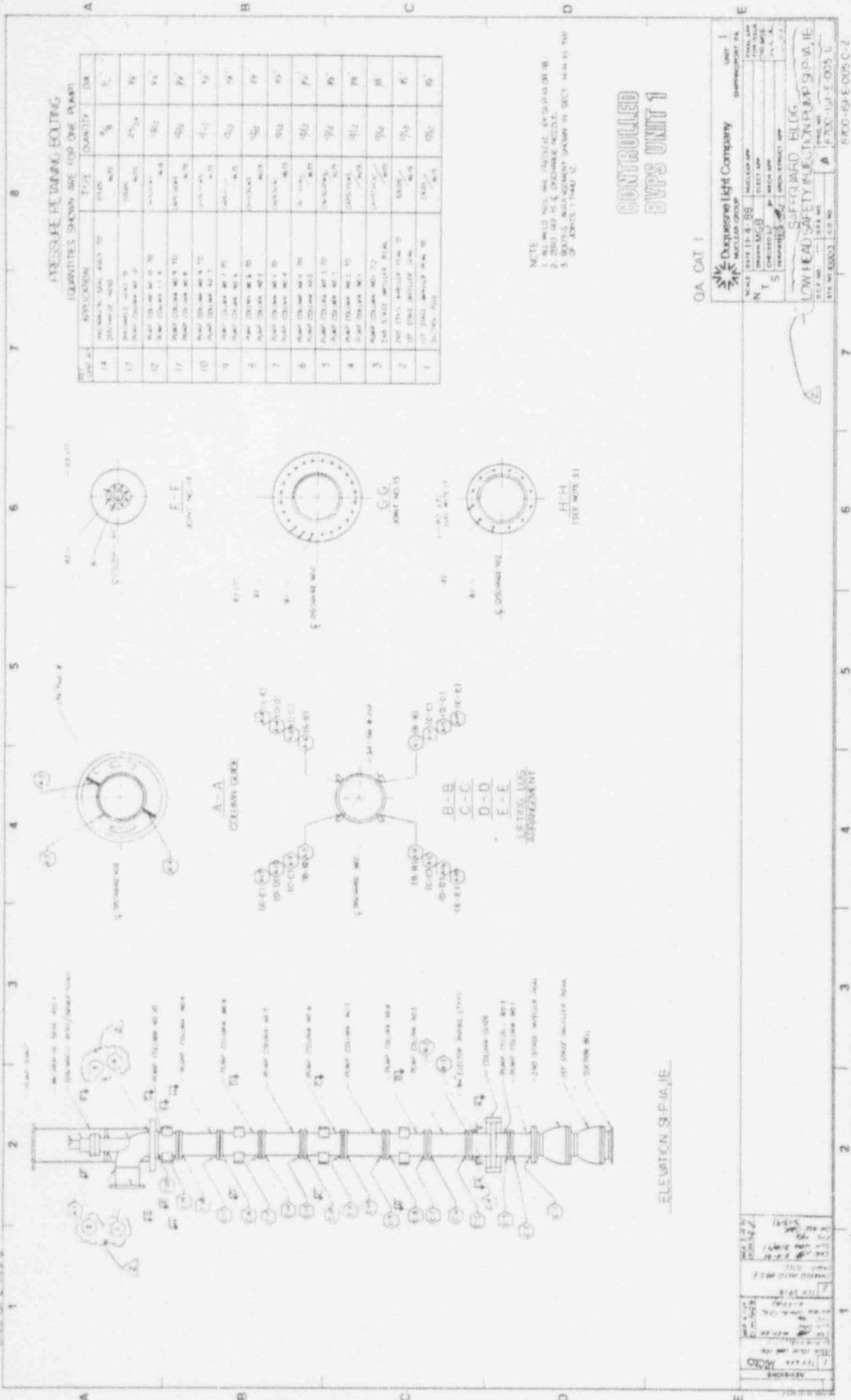
BOTTOM STABILIZER



ELEVATION RS-P-2A.2B

REVISIONS:  
NO. 1  
DATE: 10/15/77  
BY: [Signature]  
CHECKED: [Signature]  
APPROVED: [Signature]  
SCALE: 1" = 1'-0"  
PROJECT: BVI-C6.10-1  
DRAWING NO.: BVI-C6.10-1-207

1 2 3 4 5 6 7 8  
A B C D



QUANTITIES SHOWN ARE FOR ONE PLANT

ITEM NO.	APPLICATION	TYPE	QUANTITY (PK)
14	WELDED END HEAD TO	HEAD	1
15	WELDED END HEAD TO	HEAD	1
16	WELDED END HEAD TO	HEAD	1
17	WELDED END HEAD TO	HEAD	1
18	WELDED END HEAD TO	HEAD	1
19	WELDED END HEAD TO	HEAD	1
20	WELDED END HEAD TO	HEAD	1
21	WELDED END HEAD TO	HEAD	1
22	WELDED END HEAD TO	HEAD	1
23	WELDED END HEAD TO	HEAD	1
24	WELDED END HEAD TO	HEAD	1
25	WELDED END HEAD TO	HEAD	1
26	WELDED END HEAD TO	HEAD	1
27	WELDED END HEAD TO	HEAD	1

NOTE  
 1. ALL WELD NDS ARE TO BE MADE BY QUALIFIED  
 2. WELD JOINTS TO BE DISINFECTED  
 3. STATUS MANAGEMENT NUMBER IN SECT 14-14 IS THE  
 OF JOB (17144) U

**CONTROLLED  
BVPS UNIT 1**

QA CAT 1

**DUQUESNE LIGHT COMPANY**  
 NUCLEAR GROUP  
 UNIT 1  
 PROJECT NO. B700-151-E-005 C-2  
 DATE 11-8-88  
 DRAWN MGB  
 CHECKED J...  
 APPROVED J...  
 SAFEGUARD BLOOM  
 LOW HEAD SAFETY INJECTION PUMP S.P.A.I.E.  
 151-E-005 C-2

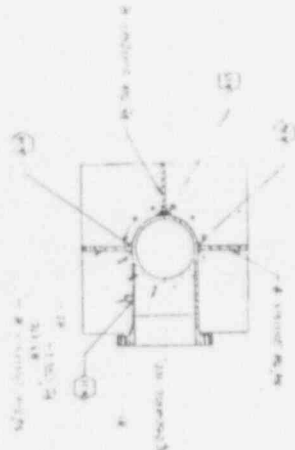
ELEVATION S.P.A.I.E.

1 2 3 4 5 6 7 8  
 A B C D E

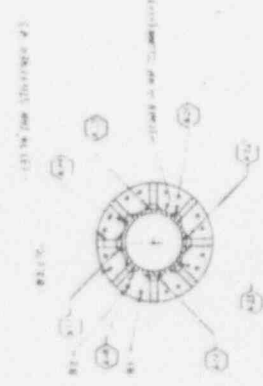
1 2 3 4 5 6 7 8

**PRESSURE RETAINING BELLAS**  
(CONCRETE - COMB AND FOR THE PLANT)

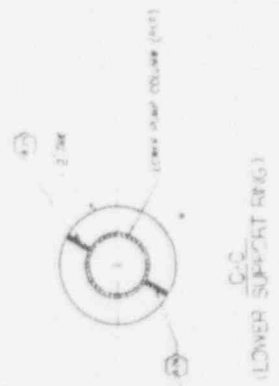
ITEM NO.	DESCRIPTION	QTY	UNIT	QTY	QTY
1	CONCRETE BELLAS	1	EA	1	1
2	CONCRETE BELLAS	1	EA	1	1
3	CONCRETE BELLAS	1	EA	1	1
4	CONCRETE BELLAS	1	EA	1	1
5	CONCRETE BELLAS	1	EA	1	1
6	CONCRETE BELLAS	1	EA	1	1
7	CONCRETE BELLAS	1	EA	1	1



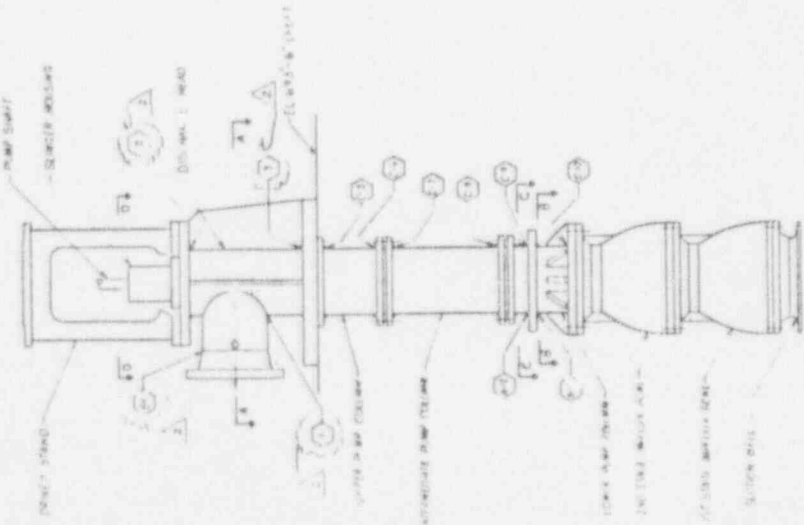
A-A



**B-B**  
STIFFENER ARRANGEMENT  
(SEE NOTE 2)



**C-C**  
(LOWER SUPPORT RING)



ELEVATION PS-P-14-15

- NOTES:
1. ALL DIMENSIONS ARE IN FEET AND INCHES.
  2. ALL DIMENSIONS ARE TO FACE UNLESS OTHERWISE NOTED.
  3. SEE GENERAL NOTES FOR JOINTS AND CONNECTIONS.
  4. SEE GENERAL NOTES FOR JOINTS AND CONNECTIONS.
  5. SEE GENERAL NOTES FOR JOINTS AND CONNECTIONS.
  6. SEE GENERAL NOTES FOR JOINTS AND CONNECTIONS.
  7. SEE GENERAL NOTES FOR JOINTS AND CONNECTIONS.
  8. SEE GENERAL NOTES FOR JOINTS AND CONNECTIONS.

Q.A. CAT 1

**Dupquesne Light Company**  
REACTOR CNMAT BLDG  
RECIRC PUMP PS-P-14-15  
REV. NO. 00003 (2000) A

Relief Request  
WIC-6610-1

1 2 3 4 5 6 7 8  
A B C

DUQUESNE LIGHT COMPANY  
Beaver Valley Power Station

RELIEF REQUEST NO. BV1-CH-E-4-1, Rev. 0

Components

Excess Letdown Heat Exchanger (CH-E-4) Weld C-1

Section XI Requirement (83S83)

Item C1.10 (Table IWC-2500-1, Category C-A) requires a volumetric examination of shell circumferential welds.

Basis for Relief

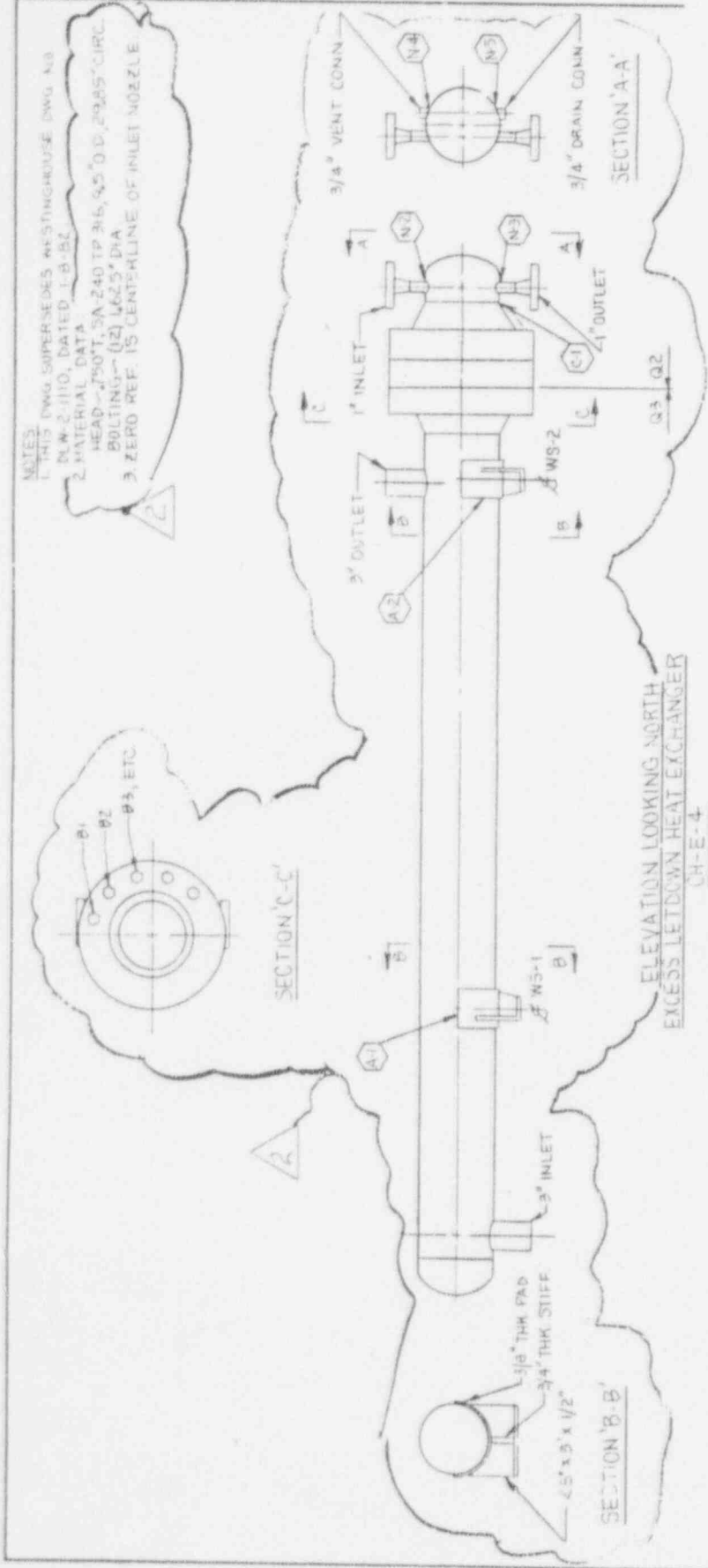
The close proximity of the 1" inlet and outlet nozzles and the .75" vent and drain connections to this weld physically obstruct the path of the search unit limiting the amount of UT coverage to 60% of the required volume. See attached drawing.

Alternative Examination

None. The volumetric examination will be performed to the maximum extent practicable. The normal leakage exams for this component will continue to be performed as scheduled.

Relief Request  
 BU1-CH-E-4-1

NOTES:  
 1. THIS DWG SUPERSEDES WESTINGHOUSE DWG NO. PLW-2-1110, DATED 1-8-52  
 2. MATERIAL DATA HEAD - 750T, SA-240 TP 3-6, 9.5" O.D., 29.95" CIRC. BOLTING - (12) 1/2" DIA  
 3. ZERO REF. IS CENTRALLINE OF INLET NOZZLE



G. A. CATEGORY 1

 <b>Ducquesne Light Company</b> NUCLEAR GROUP		SUPERGROUP, PA FINAL APP FOR ISSUE	
DATE: 7-27-84	SCALE: 1/4" = 1'-0"	DESIGNER: JAC	DRWING NO.: LL 8100-151-E0C3D
CHECKED: JAC	VERIFIED: JAC	ARCHITECT: JAC	
<b>EXCESS LETDOWN HEAT EXCHANGER</b> <b>EL. 692'-11" REACTOR CONTAINMENT</b>			
DCP NO. / J	DPE NO.	CD NO.	

REF: RM-39A  
 FPA-14-BB  
 R100-4-100-0001  
 (VT-1)  
 RP-10N

FIGS 424 9/2	DIRMISE 67652
ENG. JAC	DIRMISE 67652
ADD'D SECTION S	ADD'D SECTION S
REVISED DNG	REVISED DNG
TER AB52A	TER AB52A
DIRMISE 67652	DIRMISE 67652
ENG. JAC	ENG. JAC
SUP. DNG	SUP. DNG
PLANT DESIGN CHANGES	PLANT DESIGN CHANGES
OS AND LIST	OS AND LIST
ADDT NO. HR-C-103	ADDT NO. HR-C-103
UPDATED PER GA	UPDATED PER GA
TO REQ-151-E-002 U	TO REQ-151-E-002 U
FROM R100-151-E-002 U	FROM R100-151-E-002 U
DWG. NO. 1-100151-E-002 U	DWG. NO. 1-100151-E-002 U
1 TER 476M100	1 TER 476M100



DUQUESNE LIGHT COMPANY

Beaver Valley Power Station

RELIEF REQUEST NO. BV1-CH-FL-4-1, Rev. 0

Components

Seal Water Injection Filters CH-FL-4A(B) Welds C-1 and C-2  
Seal Water Injection Filters CH-FL-4A(B) Weld N-4

Section XI Requirement (83S83)

Item C1.10 (Table IWC-2500-1, Category C-A) requires a volumetric examination of shell circumferential welds.

Item C1.20 (Table IWC-2500-1, Category C-A) requires a volumetric examination of head circumferential welds.

Item C2.21 (Table IWC-2500-1, Category C-B) requires surface and volumetric examinations of nozzle-to-shell (of head) welds.

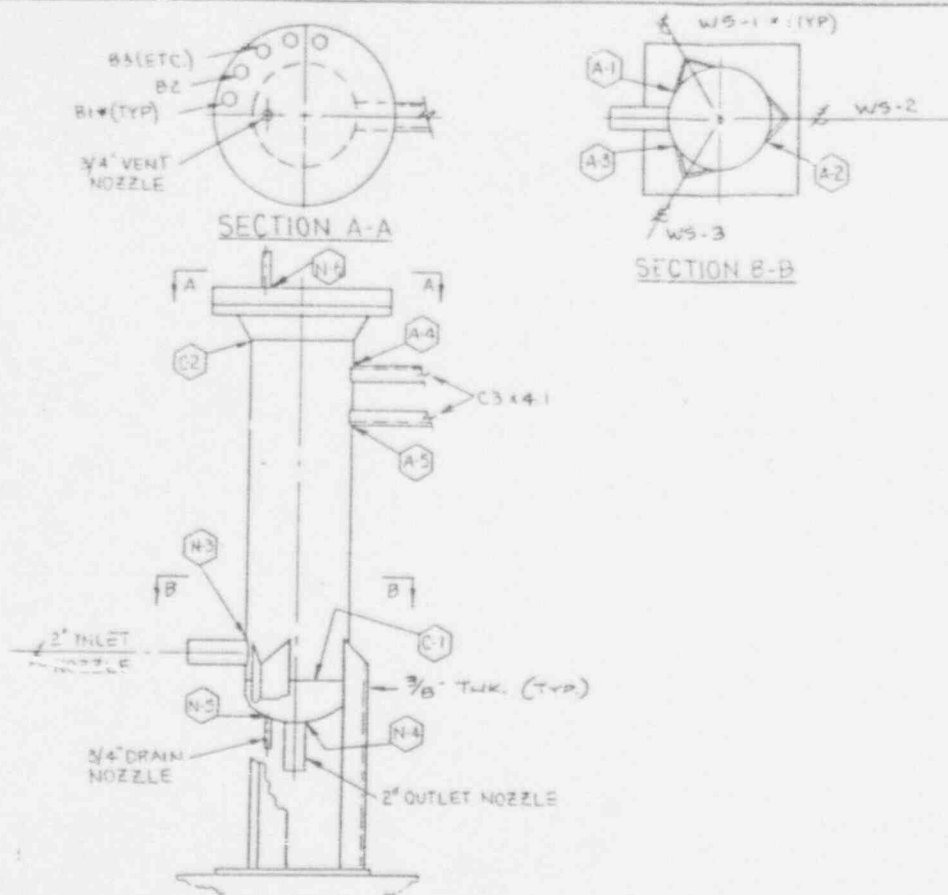
Basis for Relief

The weld, the percentage of UT coverage, and the specific obstruction are listed below. Refer to the attached drawing and sketches and the enclosed photograph for additional clarification.

CH-FL-4B-C-1	64%	Three welded angle supports are located over the weld. The inlet nozzle is located within 1.25" of this weld. The as-welded condition of the weld (weld crown) and the curvature of the lower head inhibit the beam path.
CH-FL-4B-C-2	53%	The examination is one-sided due to the flange. The attachment for the filter cover hinge obstructs the search unit movement in that area. The as-welded condition of this weld (weld crown) inhibits the beam path.
CH-FL-4B-N-4	84%	The configuration of the nozzle along with the proximity of a .75" drain line limit scan coverage.

Alternative Examination

None. The volumetric examination will be performed to the maximum extent practicable. The normal leakage exams for this component and the surface exam on N-4 will continue to be performed as scheduled.



**NOTES:**

1. THIS DWG. SUPERSEDES WESTINGHOUSE DWG. NO. DLW-Z-1300, DATED 1-8-82.
2. ZERO REFERENCE IS CENTERLINE OF INLET NOZZLE.
3. MATERIAL DATA:  
 SHELL-10.75" O.D., 875° T, 33.77" CIRC., TP 304  
 BOLTING-(16) 1/2" DIA.  
 SUPPORTS-(3) INTEGRALLY WELDED
4. \* NUMBER IS PRECEDED BY 1A. OR 4B, AS APPLICABLE.

SEAL WATER INJECTION FILTERS (CH-FL-4A & 4B)

Q1 CATEGORY I-Q2

		1 SHIPPINGPORT, PA.	
		SCALE: DATE 6-8-92	NUCLEAR APP.
DRAWN: HCS	CHECKED: [Signature]	ELECT. APP.	MECH. APP.
VERIFIED: [Signature]	SEC./STRUCT. APP.	FINAL APP. FOR ISSUE	[Signature]
SEAL WATER INJECTION FILTERS EL. 722'-4" - AUXILIARY BUILDING			
Dwg. No. 17	D.P.S. No.	DWG. NO. LL	8700-151-E-0036-4
STA. NO. 100013	C.O. NO.		


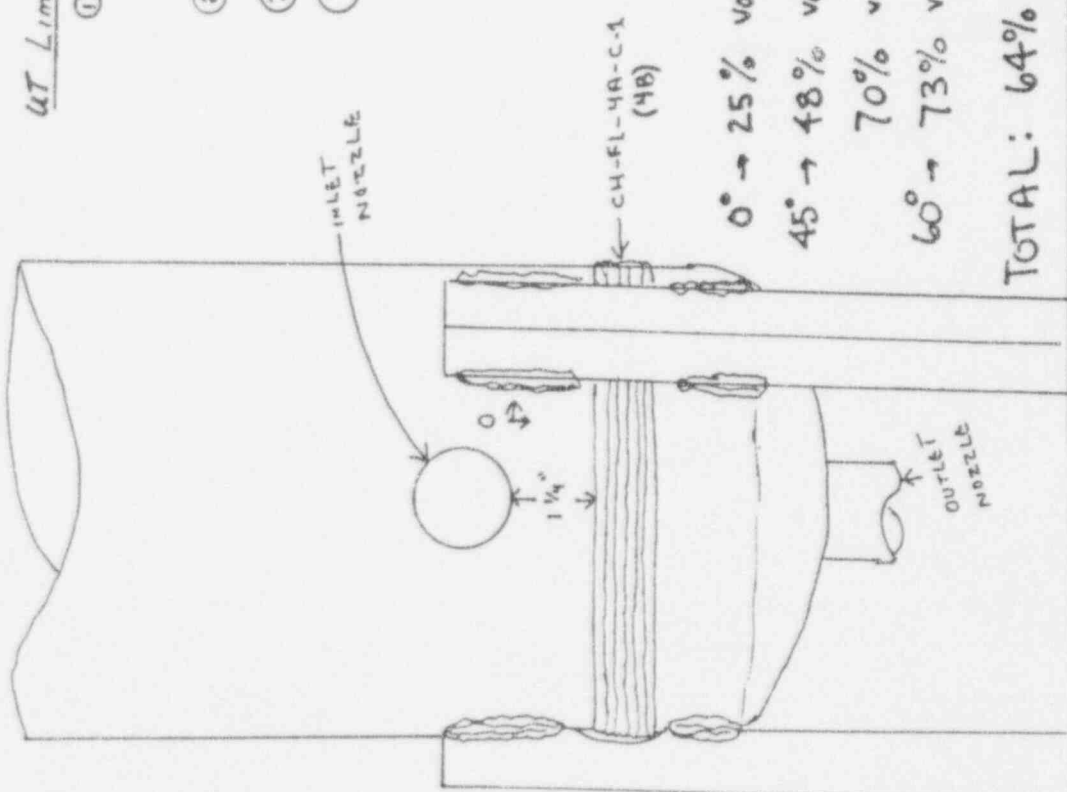
REVISIONS	DATE	BY	CHKD.
4	6-8-92	[Signature]	[Signature]
THIS DWG. WAS REDRAWN AND SUPERSEDES 8700-151-E-0036-4 DW. NO. 17.			

REF.  
 RM-39A  
 FP-276-2A-9A  
 8700-276-0022  
 (V.T.1)



RELIEF REST  
 RV1-CH-FL-4-1



 <p>RTL # A9 730K</p> <p><b>Duquesne Light</b></p>	<p>REPORT NO.</p>	<p>PAGE OF</p>
<p>NDE SUPPLEMENTARY REPORT</p> <p>LIMITATIONS TO WELD CH-FL-4A-C-1 (4B)</p>		
<p>REMARKS/SKETCH/DETAILS</p> <div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> <p><u>UT LIMITATIONS:</u></p> <ol style="list-style-type: none"> <li>① 3 - WELDED ANGLE SUPPORTS @ 4 1/4" EACH - TOTAL OF 12 3/4" OF WELD CIRCUMFERENCE TOTALLY COVERED BY SUPPORTS</li> <li>② INLET NOZZLE - 1 1/4" ABOVE WELD TOE</li> <li>③ AS-WELDED WELD COVER PASS</li> <li>④ CURVATURE OF VESSEL LOWER HEAD</li> </ol> </div> <div style="width: 45%;"> <p><u>NOTE:</u> 0 DATUM IS LOCATED 2 1/2" CW FROM INLET NOZZLE DUE TO NOZZLE LOCATION</p> <p><u>CH-FL-4B-C-1 EXAM COVERAGE</u></p> <p>0° → 25% volume examined (weld crown / support legs)  45° → 48% volume examined (Directions 1 and 2)  70% volume examined (Directions 3 and 4)  60° → 73% volume examined (Directions 1 and 2)</p> <p><b>TOTAL: 64% required volume examined (angle beam)</b></p> </div> </div> 		

RTL#  
A9.730K



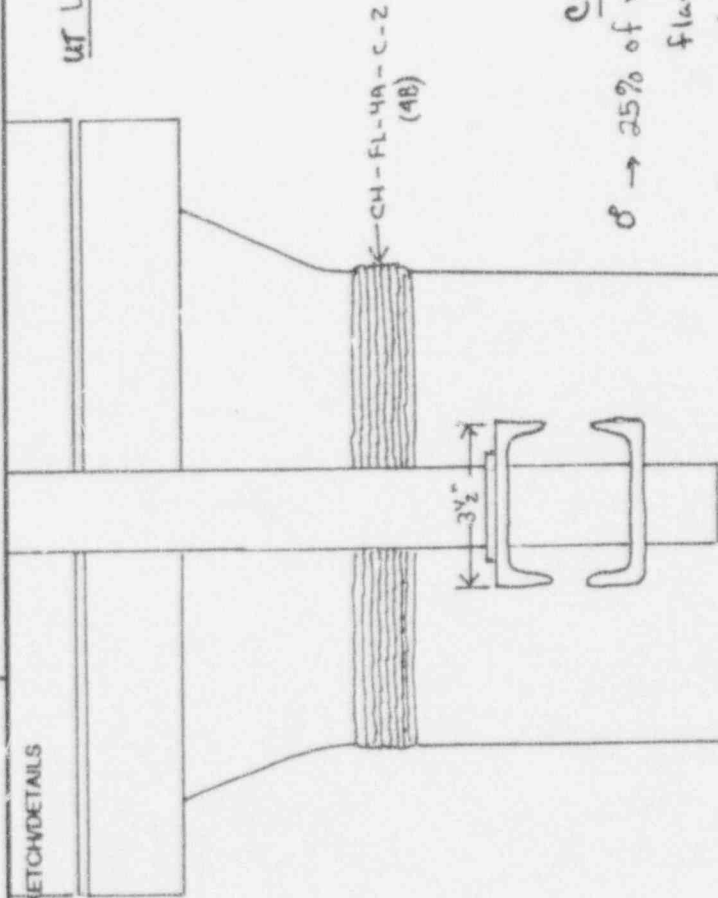
NDE SUPPLEMENTARY REPORT

REPORT NO.

PAGE: OF

LIMITATIONS TO WELD CH-FL-4A-C-2  
(48)

REMARKS/SKETCH/DETAILS



UT LIMITATIONS:

- ① ONE-SIDED EXAM DUE TO FLANGE
- ② ATTACHMENT FOR TOP REMOVAL DEVICE
- ③ AS-WELDED COVER PASS

CH-FL-4B-C-2 EXAM COVERAGE

- 0° → 25% of volume examined due to as welded weld crown, flange, top hinge attachment and name plate
- 45° → 66% of volume examined (1 direction - from shell side - first and second legs)
- 50% of volume examined (direction 3 + 4 - skewing under crown)
- 60° → 50% of volume examined (1 direction - from shell side - first leg)

TOTAL: 53% of required volume covered with angle beams.



RTL#  
A9730K

Duquesne Light

NDE SUPPLEMENTARY REPORT

REPORT NO.

PAGE

OF

CH-FL-4B-N4

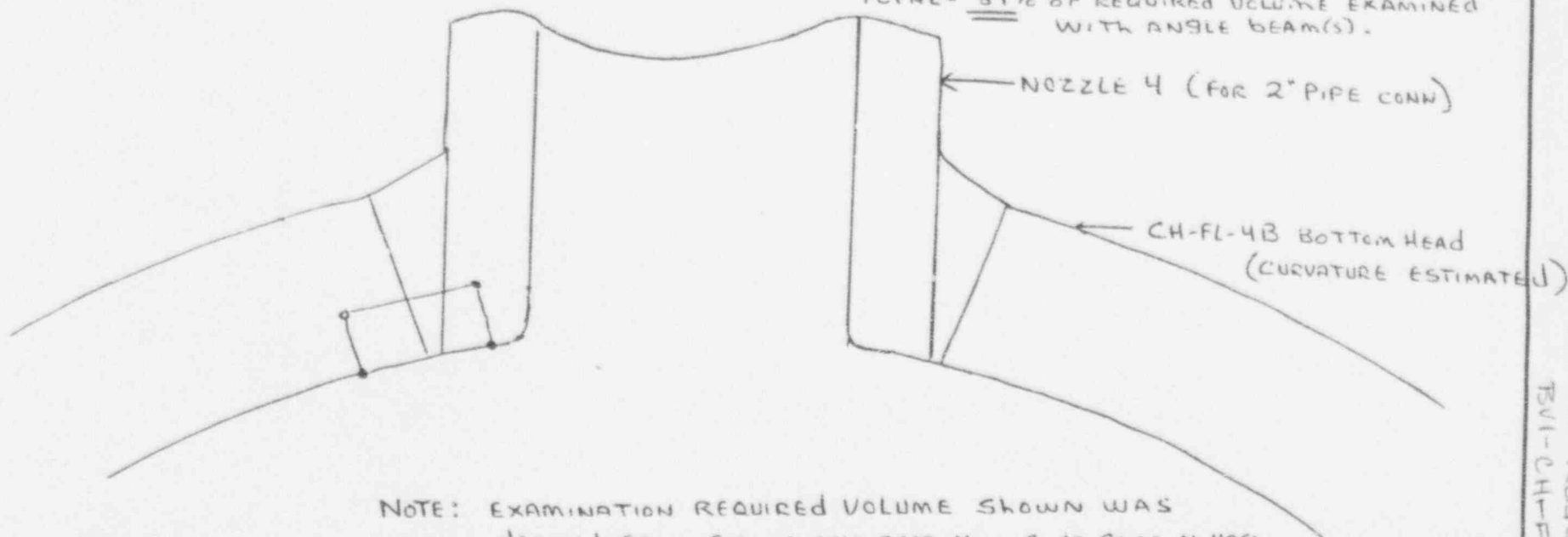
REMARKS/SKETCH/DETAILS

(4A)

EXAMINATION COVERAGE:

- 0° - 50% OF "REQUIRED VOLUME" EXAMINED DUE TO CONFIGURATION
- 45° - 84% OF REQUIRED VOLUME EXAMINED DUE TO ADJACENT 3/4" NOZZLE (DIRECTIONS 1, 3 + 4)
- 60° - 84% OF REQUIRED VOLUME EXAMINED DUE TO ADJACENT 3/4" NOZZLE.

TOTAL - 84% OF REQUIRED VOLUME EXAMINED WITH ANGLE BEAM(S).



NOTE: EXAMINATION REQUIRED VOLUME SHOWN WAS DERIVED FROM FIGURE IWC-2500-4 + CODE CASE N-408. (SPECIFIC NOZZLE SIZE NOT ILLUSTRATED IN CODE)

PREPARED + CALCULATED BY:

*Timothy C. Howard* UT III 3-3-93

RELIEF REQUEST  
TMI-CH-FL-4-1

DUQUESNE LIGHT COMPANY

Beaver Valley Power Station

RELIEF REQUEST NO. BV1-RH-E-1-1, Rev. 0

Components

Residual Heat Exchanger RH-E-1A(B) Welds C-1 and C-2

Section XI Requirement (83S83)

Item C1.10 (Table IWC-2500-1, Category C-A) requires a volumetric examination.

Item C1.20 (Table IWC-2500-1, Category C-A) requires a volumetric examination.

Basis for Relief

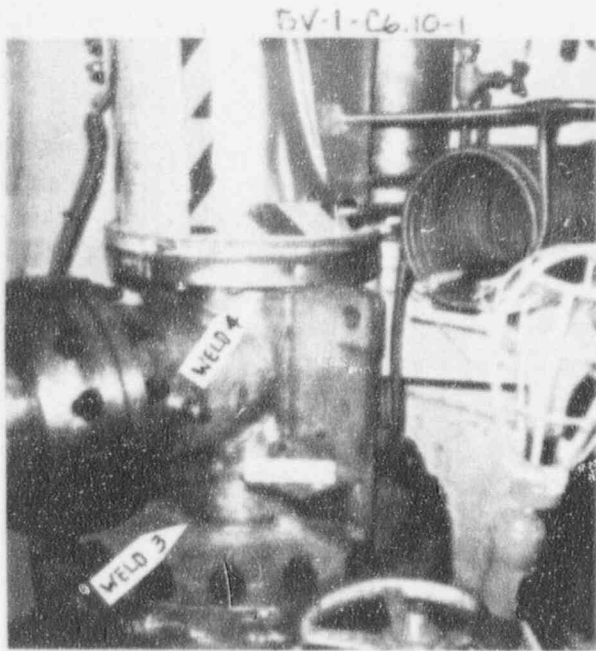
The ultrasonic examination of these welds was limited by the physical interferences of the welded support plates and the inlet and outlet nozzle reinforcing saddles. See attached drawing. Exam coverage is also limited for weld C-1 due to the lower head curvature and weld crown. The 45 deg. axial angle scan was supplemented by a 60 deg. axial angle scan to extend exam volume.

Approximately 84% of the required volume of C-1 and 80% of C-2 were covered by these examinations.

Alternative Examination

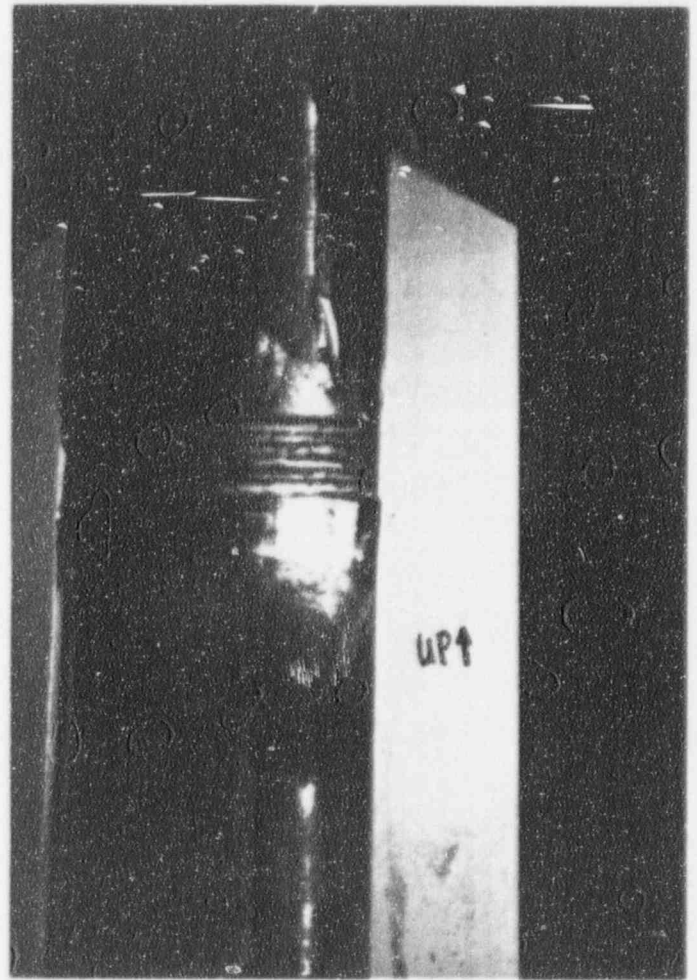
Perform the volumetric examination to the maximum extent practicable, using the supplemental scan as noted above.





B.S-P-2B WELD #4  
GUSSET LIMITATION

R.R. No. BV1-C6.10-1, Rev. 0



R.R. No. BV1-CH-FL-4-1, Rev. 0