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 FACIL: 50-250 Turkey Point Plant, Unit 3, Florida Power and Light C 05000250
 50-251 Turkey Point Plant, Unit 4, Florida Power and Light C 05000251
 AUTH. NAME AUTHOR AFFILIATION
 WILLIAMS, J.W. Florida Power & Light Co.
 RECIP. NAME RECIPIENT AFFILIATION
 VARGA, S.A. Operating Reactors Branch 1

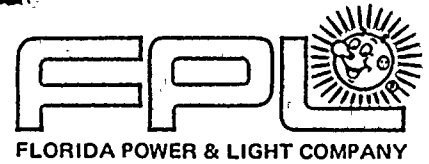
SUBJECT: Forwards addl info re second 10-yr inservice insp summary plan per 840817 request.

DISTRIBUTION CODE: A047D COPIES RECEIVED: LTR 1 ENCL 1 SIZE: 84
 TITLE: OR Submittal: Inservice Inspection/Testing

NOTES: 05000250
 OL: 07/19/72 05000251
 OL: 04/14/73

	RECIPIENT ID CODE/NAME		COPIES LTTR ENCL		RECIPIENT ID CODE/NAME		COPIES LTTR ENCL
	NRR ORB1 BC 01		7 7				
INTERNAL:	ACRS	16	10 10		ADM/LFMB		1 0
	ELD/HDS4		1 0		NRR/DE/MEB 15		1 1
	NRR/DE/MTEB	14	1 1		NRR/DL/TAPMG		1 1
	REG. FILE	04	1 1		RGN2		1 1
EXTERNAL:	LPDR	03	1 1		NRC PDR 02		1 1
	NSIC	05	1 1		NTIS		1 1

[illegible]



November 20, 1984
L-84-341

Office of Nuclear Reactor Regulation
Attention: Mr. S.A. Varga, Chief
Operating Reactors Branch #1
Division of Operating Reactors
U. S. Nuclear Regulatory Commission
Washington, D.C. 20555

Dear Mr. Varga:

Re: Turkey Point Units 3 and 4
Docket Nos. 50-250, 50-251
Inservice Inspection
Second 10-year Summary Program

Florida Power & Light has reviewed the NRC letter dated August 17, 1984 which requested additional information on the Second 10-year Inservice Inspection Summary Plan for Turkey Point Units 3 and 4.

Additional information to assist in the review of the program is attached. The questions have been addressed in the applicable relief requests.

Should you or your staff have any questions on this information, please contact us.

Very truly yours,

J. W. Williams, Jr.
Group Vice President
Nuclear Energy

JWW/PLP/cas

cc: J. P. O'Reilly, Region II
Harold F. Reis, Esquire
PNS-LI-84-369-2

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PDR ADDCK 05000250
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TURKEY POINT PLANTS 3/4

FIRST & SECOND INTERVAL RELIEF REQUESTS

INSERVICE INSPECTION

FPL letter L-84-87 dated March 30, 1984 submitted a proposed Inservice Inspection (ISI) program for the second 10-year Inspection Interval for Turkey Point Units 3 and 4.

Included in the program, FPL requested relief from certain Examinations where code required volume or surface was not achieved. During the NRC's Staff review of the program, questions of a generic and specific nature were discussed with the staff and their consultant via telephone conversations and informal receipt of questions.

Accordingly, FPL has addressed these questions and have taken the following corrective action:

- 1) Pursuant to the terms of 10CFR50.55a (g)(5)(iv) FPL herewith requests relief from the requirements of the code edition and addenda applicable during the First Inspection Interval not previously submitted. See index to Additional Relief Request First Interval.
- 2) Pursuant to the terms of 10CFR50.55a (g)(5)(iii) FPL herewith requests relief from the requirements of the code edition and addenda applicable to the Second Inspection Interval. In some instances, certain relief requests in the First Inspection Interval are withdrawn based upon the applicable code requirements; whereas, others apply or are withdrawn or withheld in the Second Inspection Interval, since the applicable code requirements differ. See attachment Index to Relief Requests (Response to NRC Questions) Second Inspection Interval.
- 3) General questions pertaining to the programmatic aspects will be covered upon completion of the 10 year Inspection Program Plan.



FIRST INSPECTION INTERVAL

RELIEF REQUEST INDEX

RELIEF REQUEST NUMBER	CODE CATEGORY	DESCRIPTION
10	B-B/B-C/B-D	REACTOR VESSEL
5A	B-K-1	REACTOR COOLANT PUMP INTEGRAL ATTACHMENTS
13	B-J	REACTOR COOLANT & AUXILIARY COOLING SYSTEM WELDS
14	B-C	REACTOR VESSEL CLOSURE HEAD
15	B-C/B-D	REACTOR VESSEL



SECOND INSPECTION INTERVAL

RELIEF REQUEST INDEX

RELIEF REQUEST NUMBER	CODE CATEGORY	DESCRIPTION
1	B-C/B-D	REACTOR VESSEL
2	B-F	RPV SAFE ENDS - WITHHELD PENDING REVIEW OF ACTUAL CONDITIONS ENCOUNTERED DURING EXAMINATIONS
3	B-B, B-D, B-H, B-J	REGENERATIVE HEAT EXCHANGER
4		WITH DRAWN FROM SUBMITTAL
5	N/A	RCP FLYWHEEL (RG 1.14)
6/7	B-L-1/B-L-2	REACTOR COOLANT PUMP
8	B-M-2	VALVE BODY - WITHHELD PENDING REVIEW (SEE RELIEF REQUEST # 8 ATTACHED)
9	B-K-1	REACTOR COOLANT PUMP
10	B-J	REACTOR COOLANT & AUXILIARY COOLING SYSTEM WELDS
11	C-F	CONTAINMENT SPRAY SYSTEM
12	B-A	REACTOR VESSEL CLOSURE HEAD



INSERVICE INSPECTION

RELIEF REQUEST # 5A

A. COMPONENT IDENTIFICATION:

- CLASS 1 - REACTOR COOLANT PUMP

B. EXAMINATION REQUIREMENTS:

Exam Cat. Item No.

- B-K-1 B5.4 - VOLUMETRIC EXAMINATION, INTEGRALLY-
 WELDED EXTERNAL SUPPORT ATTACHMENTS
 INCLUDES THE WELDS TO THE PRESSURE
 -RETAINING BOUNDARY AND THE BASE
 METAL BENEATH THE WELD ZONE AND ALONG
 THE SUPPORT ATTACHMENT MEMBER FOR A
 DISTANCE OF TWO SUPPORT THICKNESSES

C. RELIEF REQUESTED:

Relief is requested from alternate surface examination of inaccessible weld and adjacent areas of the pump support members not achieved during the Inspection Interval. These include the following welds: Item B5.4

3-RCP-A-L1,2 & 3	4-RCP-A-L1,2 & 3	FIG. NO. 2
3-RCP-B-L1,2 & 3	4-RCP-B-L1,2 & 3	FIG. NO. 2
3-RCP-C-L1,2 & 3	4-RCP-C-L1,2 & 3	FIG. NO. 2

NOTE: Relief from Volumetric Examination was granted
on Relief Request No. 5 by NRC letter
S.A. Varga to R.E. Uhrig dated April 26, 1983.

D. BASIS FOR RELIEF:...

Configuration of the integrally welded supports as welded to the pump body and structural interfaces prohibit 100% surface examination coverage due to inaccessibility of portions of the weld. Figure no. 1 provides a graphic view of what areas of the lug cannot be examined.

The alternate examinations and tests provide assurance of an acceptable level of quality and safety.



RELIEF REQUEST # 5A CONTINUED

E. ALTERNATIVE EXAMINATION

- 1) Perform surface examinations per the ISI schedule.
- 2) Upon disassembly of a pump from the pad, conduct a surface examination on the inaccessible area.

F. IMPLEMENTATION SCHEDULE

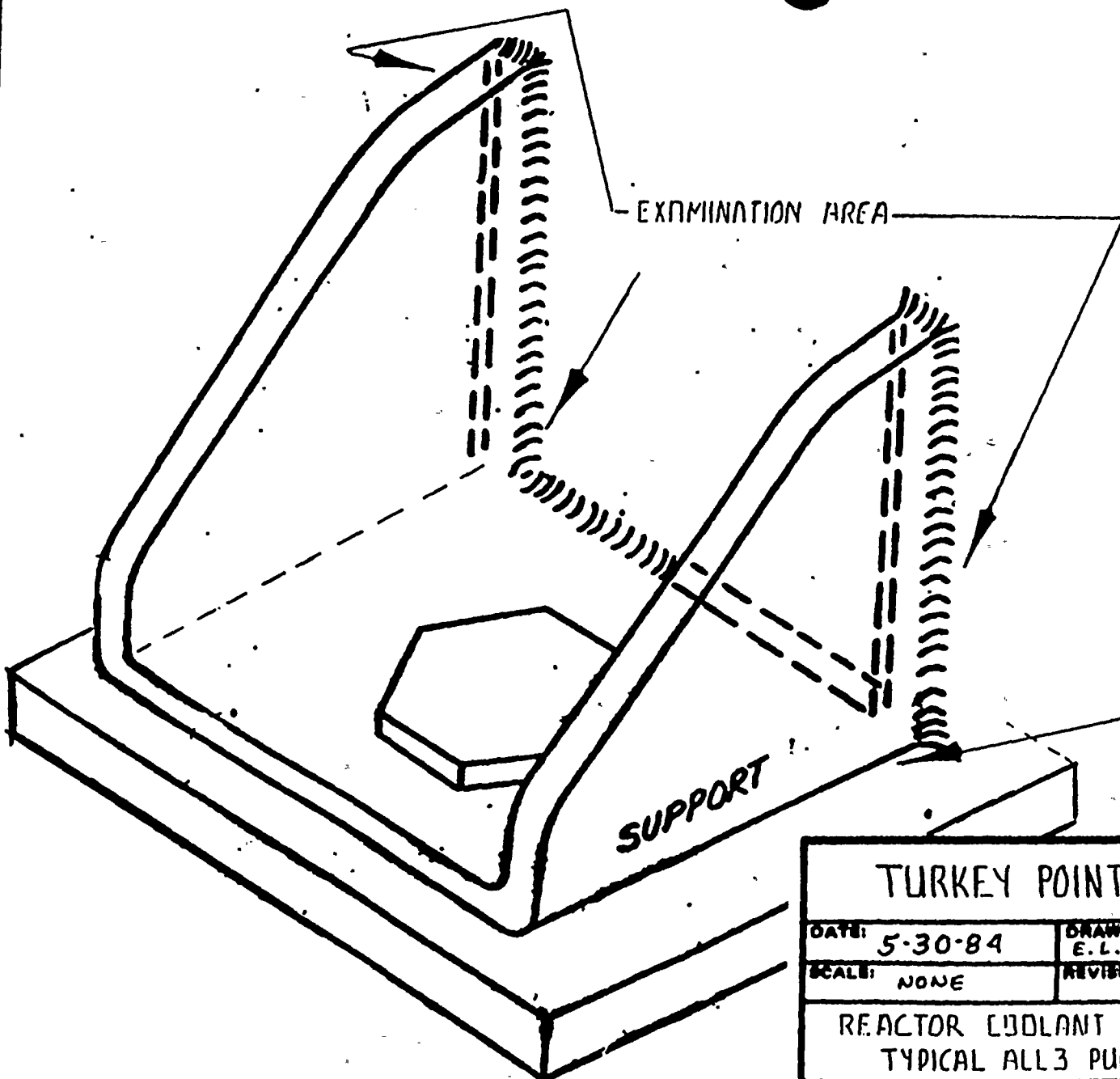
- FIRST INSPECTION INTERVAL

G. ATTACHMENTS

FIGURE NO. 1 - RCP INTEGRAL WELDED LUGS EXAMINATION
LIMITATIONS. (Typical all 6 Reactor
Coolant Pumps)

FIGURE NO. CIS-V-13 - REACTOR COOLANT PUMP MAIN FLANGE STUD &
NUTS AND PUMP SUPPORTS





EXAMINATION AREA

SUPPORT

NO EXAM ON UNDERSIDE OF
LUG DUE TO A LACK OF
ACCESS

TURKEY POINT UNIT 3/4

DATE: 5-30-84

DRAWN BY
E. L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

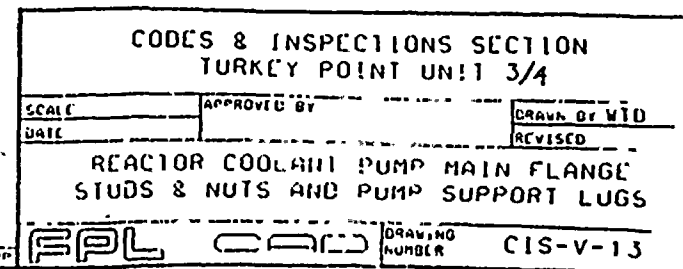
REACTOR COOLANT PUMP INTEGRAL WELDED LUGS.
TYPICAL ALL 3 PUMPS (3 LUGS PER PUMP)

RELIEF REQUEST NO 5A

DRAWING NUMBER

FIGURE NO. 1







TURKEY POINT UNITS 3

FIRST INSPECTION INTERVAL

RELIEF REQUESTS

RELIEF REQUEST # 10

A. COMPONENT IDENTIFICATION:

CLASS 1 - Reactor Vessel

B. EXAMINATION REQUIREMENTS:

Exam Cat. Item No.

- | | | | |
|-----|------|---|---|
| B-B | Bl.2 | - | VOLUMETRIC EXAMINATION, CIRCUMFERENTIAL SEAM WELDS IN BOTTOM HEAD SHALL INCLUDE WELD METAL AND BASE METAL FOR ONE PLATE THICKNESS BEYOND THE EDGE OF WELD |
| B-C | Bl.3 | - | VOLUMETRIC EXAMINATION SHALL CUMULATIVELY COVER 100% OF EACH CIRCUMFERENTIAL WELD. |
| B-D | Bl.4 | - | VOLUMETRIC EXAMINATION (INCLUDES NOZZLE TO VESSEL WELD AND ADJACENT AREAS OF NOZZLE AND VESSEL); SHALL COVER 100% OF THE VOLUME TO BE INSPECTED. |

C. RELIEF REQUESTED:

Relief is requested from Code Volume not achieved during mechanized ultrasonic examination of the following vessel welds.

Item Bl.2 (Weld 3-WR-9 and Weld 3-WR-31)	Fig. No. CIS-V-01
Item Bl.3 (Weld 3-WR-18)	Fig. No. CIS-V-01
ITEM Bl.4 (Weld 3-DO-A, B & C)	Fig. No. CIS-V-04

D. BASIS FOR RELIEF:

Configuration and permanent attachments prohibit 100% ultrasonic examination coverage of the required code examination volume. The limitations and justification for each weld from code examination is discussed below including applicable Tables and Figures.



RELIEF REQUEST # 10 CONTINUED

1.0 3-WR-18 (RPV SHELL TO FLANGE WELD) Bl.3, B-C

- 1.1 The areas receiving NO COVERAGE DURING THE examination performed from the upper shell side are depicted in Figure no. 2.
- 1.2 Figure no. 3 depicts those areas that did not receive 0 degree, 45 degree transverse or 60 degree transverse weld coverage due to the geometric configuration of the flange radius located just above the weld. Percent of coverage limitation is contained in Table 1.
- 1.3 Examinations performed from the shell side of the weld, essentially provided 100 percent coverage of the weld and 1/2T of base material on the shell side.

2.0 3-WR-9 (LOWER HEAD RING TO DISC WELD) Bl.2, B-B

- 2.1 Limitations encountered during the examination of the above welds were attributable to physical limitations imposed by the INCORE INSTRUMENTATION TUBES . This condition was most prominent when performing examinations to detect reflectors oriented parallel to the weld with the search unit positioned on the disc side. Due to the height restrictions and number of tubes in this area, attempts to perform examinations from the Disc side were abandoned. Figure 4 depicts the coverage on the Disc side during scanning from the ring side.
- 2.2 Examinations performed for the purpose of detecting reflector oriented parallel to the examination surface were accomplished utilizing a 0 degree search unit applied to the weld and base material for a distance of 1/2 t. As illustrated in figure 5, a portion of the weld and 1/2t of the base material on the disc side was not examined for the reasons detailed in 2.1 above.
- 2.3 Examinations performed for the purpose of detecting reflectors oriented transverse to the weld were restricted in a portion of the base material on the Disc side of the weld due to the INCORE INSTRUMENTATION TUBES. Figure number 6 identifies the areas where search unit module interference was encountered as a result of the tube interference in four locations around the weld. These limitations were only encountered during scans 8 and 9 of examination no. 2, and scans 7,8, and 9 of examination no. 3, and were limited only to a small portion of the base material on the Disc side.



RELIEF REQUEST # 10 CONTINUED

3.0 3-WR-31 (LOWER SHELL COURSE TO LOWER HEAD RING) B1.2, B-B

3.1 Examination of the above welds was limited in the areas containing the CORE BARREL ANTI-ROTATION LUGS at azimuth locations of 0, 90, 180, and 270 degrees. These limitations posed physical device limitations when performing examinations from the shell side for the purpose of detecting reflectors oriented parallel to the weld. As depicted in figure no. 7, limitations were encountered on the lower shell course side when performing 45 and 60 degree examinations. Since these limitations were affected by the search unit module offsets, examination coverage varies as defined in Table 2.

3.2 Figure 8 represents the coverage received in this area when performing examinations from the lower shell ring side. As noted in this figure, the examination area receives coverage with at least one search unit angle and in some cases, two search unit angles.

4.0 NOZZLE TO SHELL WELD LIMITATIONS ITEM NO. B1.4,
B-D (Weld 3-DO-A, B & C)

When performing computerized UT examinations of the NOZZLE TO SHELL WELDS from the vessel wall, several areas were described as having limited examination scans. These limitations were restricted to the last several scans of the nozzle to shell examination and were due to the physical limitations imposed by the adjacent nozzles. The limitations all occurred in the vicinity of the 90 or 180 degree nozzle azimuth relative to nozzle orientation. Figure no. 9 depicts those areas not examined and Table no. 3 provides the percent of WELD volume not examined.

The extent of examination volume achieved ultrasonically, and the alternative system pressure tests provide assurance of an acceptable level of quality and safety.

E. ALTERNATIVE EXAMINATION

- 1) Periodic System Leakage tests per category B-P, Table IWB-2500.
- 2) Inservice hydrostatic test per category B-P, Table IWB-2500.



RELIEF REQUEST # 10 CONTINUED

F. IMPLEMENTATION SCHEDULE

- FIRST INSPECTION INTERVAL

G. ATTACHMENTS TO RELIEF REQUEST NO. 10

TABLE NO. 1	RPV SHELL TO FLANGE WELD LIMITATIONS
TABLE NO. 2	LOWER SHELL COURSE TO LOWER HEAD RING LIMITATIONS
TABLE NO. 3	NOZZLE TO SHELL WELD LIMITATIONS
FIGURE NO. 1	NOT USED
FIGURE NO. 2	RPV SHELL TO FLANGE WELD
FIGURE NO. 3	RPV SHELL TO FLANGE WELD
FIGURE NO. 4	LOWER HEAD RING TO DISC WELD
FIGURE NO. 5	LOWER HEAD RING TO DISC WELD
FIGURE NO. 6	LOWER HEAD RING TO DISC WELD
FIGURE NO. 7	LOWER SHELL COURSE TO LOWER HEAD RING
FIGURE NO. 8	LOWER SHELL COURSE TO LOWER HEAD RING
FIGURE NO. 9	OUTLET NOZZLE TO SHELL WELD
FIGURE CIS-V-01	RPV CIRCUMFERENTIAL WELD LOCATIONS
FIGURE CIS-V-04	RPV NOZZLE ORIENTATION



RELIEF REQUEST # 10 CONTINUED

TABLE NO. 1

AREAS OF LIMITED COVERAGE- RPV SHELL TO FLANGE WELD

TOTAL WELD COVERAGE LIMITATIONS

SEARCH UNIT ANGLE	LIMITS % OF WELD
0	60
45	25
60	20
45T	60
60T	60

TOTAL WELD LENGTH = 488.51"



RELIEF REQUEST # 10 CONTINUED

TABLE NO. 2

AREAS OF LIMITED COVERAGE-RPV LOWER SHELL
COURSE TO LOWER HEAD RING

EXAMINATION NO. 5

SEARCH UNIT ANGLE	AZIMUTH LOCATION	LIMITS DEGREES	LIMITS INCHES	LIMITS % OF WELD
45	76.75-103.25	26.5	35.96	7.4
45	166.75-193.25	26.5	35.96	7.4
45	256.75-283.25	26.5	35.96	7.4
45	346.75-13.25	26.5	35.96	7.4
60	80.75-107.25	26.5	35.96	7.4
60	170.75-197.25	26.5	35.96	7.4
60	260.75-287.25	26.5	35.96	7.4
60	350.75-17.25	26.5	35.96	7.4

TOTAL WELD COVERAGE LIMITATIONS
EXAMINATION NO. 5

SEARCH UNIT ANGLE	% OF WELD LENGTH	(IN.) OF WELD LENGTH
45	29.4	143.84
60	29.4	143.84

TOTAL WELD LENGTH = 488.51"



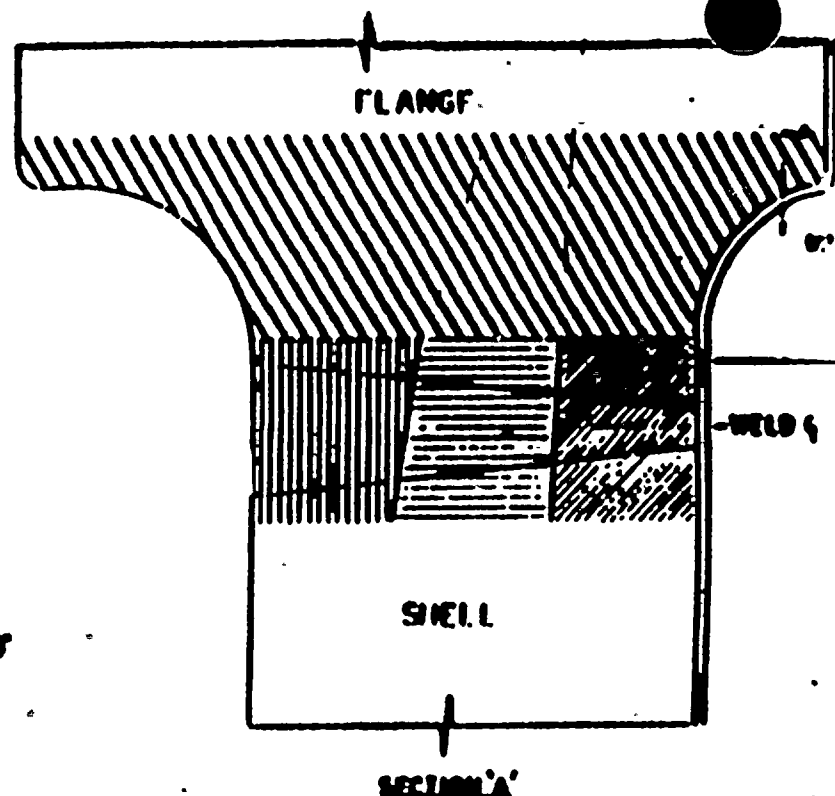
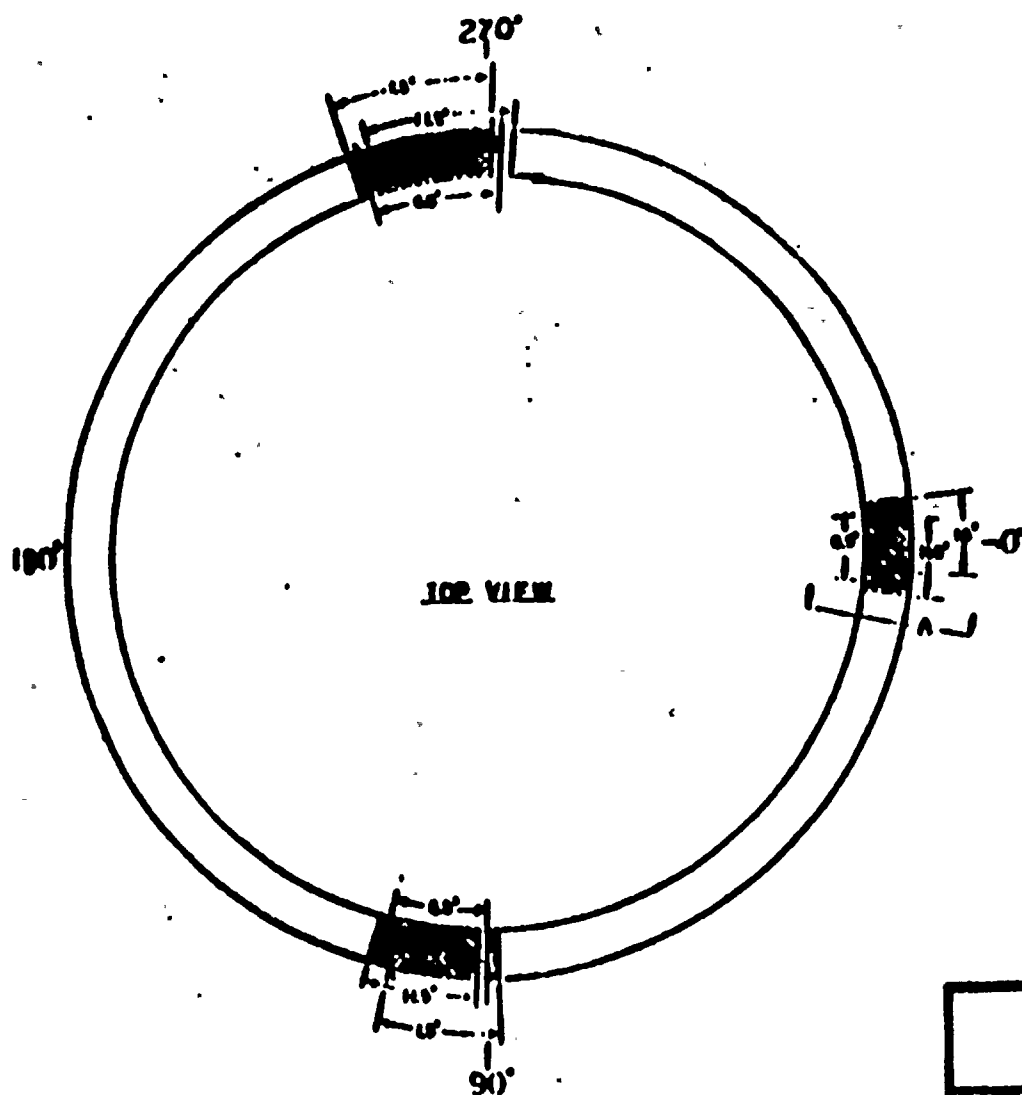
RELIEF REQUEST # 10 CONTINUED

TABLE NO. 3

RPV NOZZLE TO SHELL WELD LIMITATIONS

EXAMINATION AREA	EXAMINATION TYPE	LIMITS % OF WELD
CUTLET NOZZLE WELDS	PARALLEL SCANS	12
OUTLET NOZZLE WELDS	TRANSVERSE SCANS	42





AREAS OF LIMITED
COVERAGES
(1) 11.5°
(2) 45°
(3) 45°
(4) 45°
(5) 45° COVERAGE

TURKEY POINT UNITS 3

DATE: 5-29-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

RPV SHELL TO FLANGE WELD

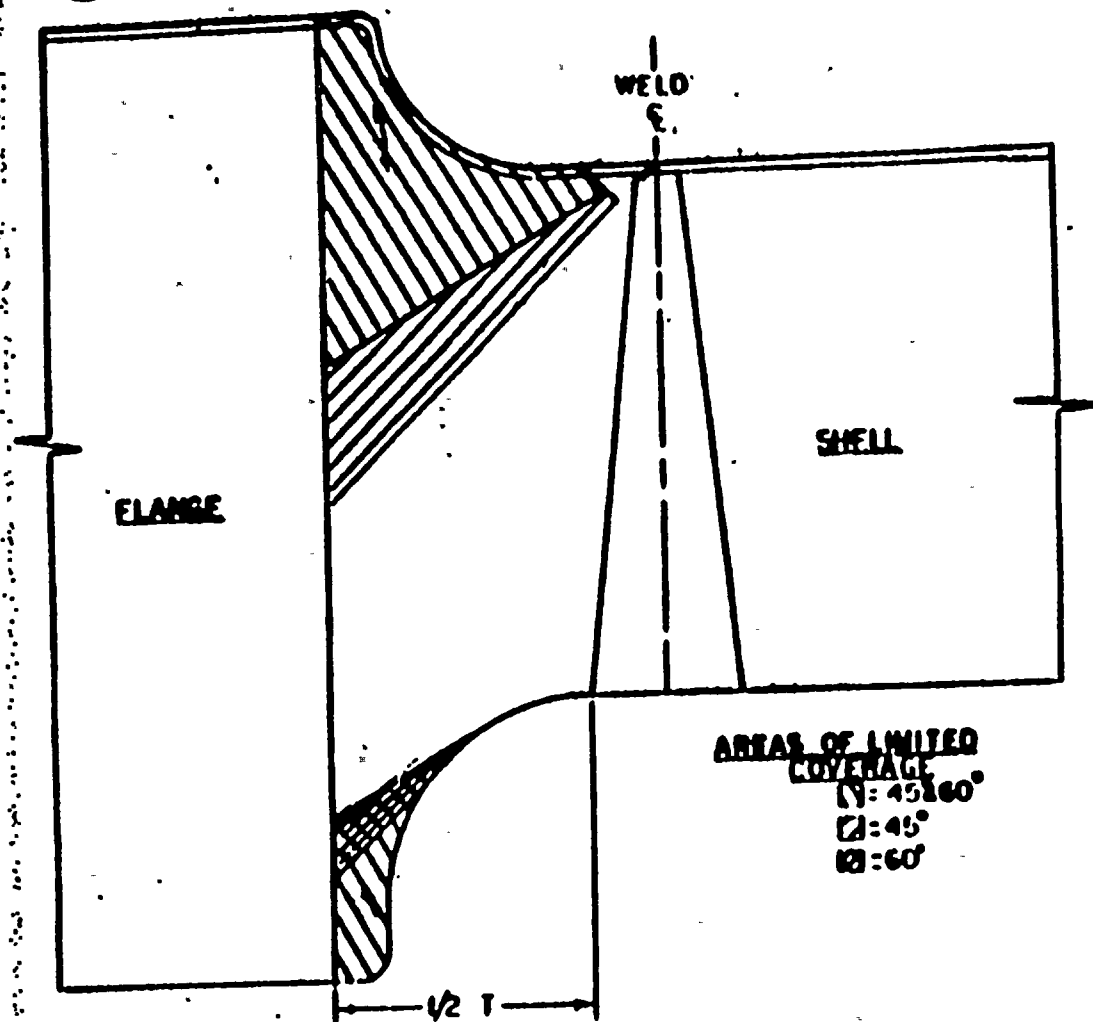
3-WR-18

RELIEF REQUEST NO. 10

DRAWING NUMBER

FIGURE NO. 1



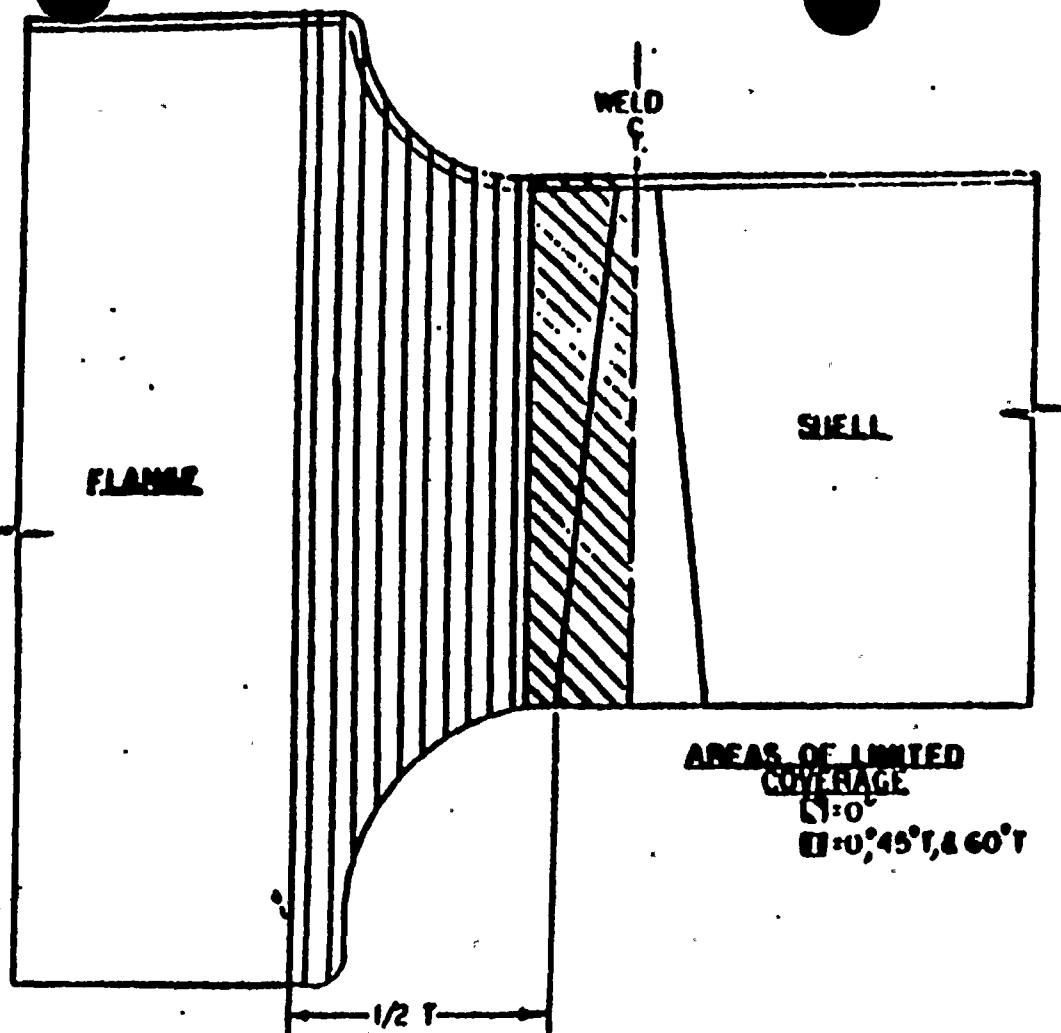


AREAS OF LIMITED
COVERAGE
(N: 45° 60°
Q: 45°
R: 60°

TURKEY POINT UNITS 3

DATE: 5-29-84	DRAWN BY: E.L. ANDERSON	APPROVED BY:
SCALE: NONE	REVISION:	
RPV SHELL TO FLANGE WELD		3-WR-18
RELIEF REQUEST NO. 10		FIGURE NO. 2





TURKEY POINT UNITS 3

DATE: 5-29-84

DRAWN BY: F.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

RPV SHELL TO FLANGE WELD

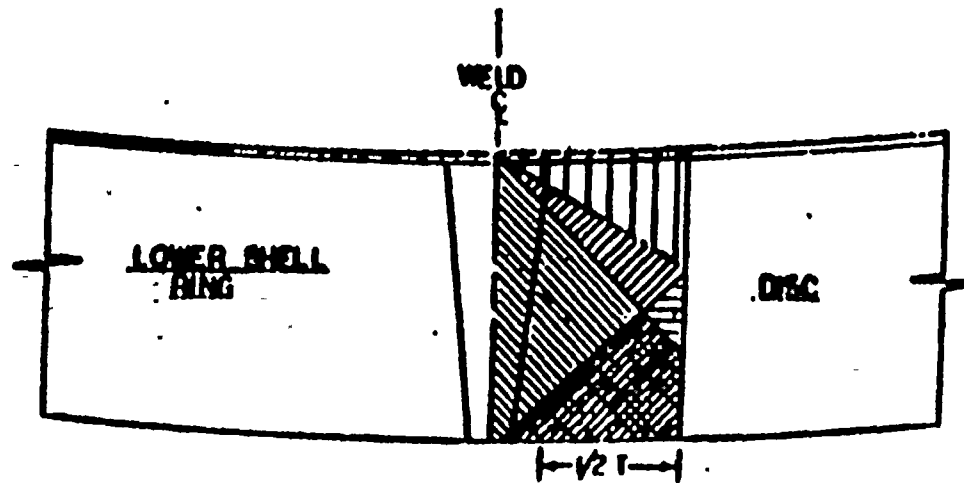
3-WR-18

RELIEF REQUEST NO. 10

DRAWING NUMBER

FIGURE NO. 3





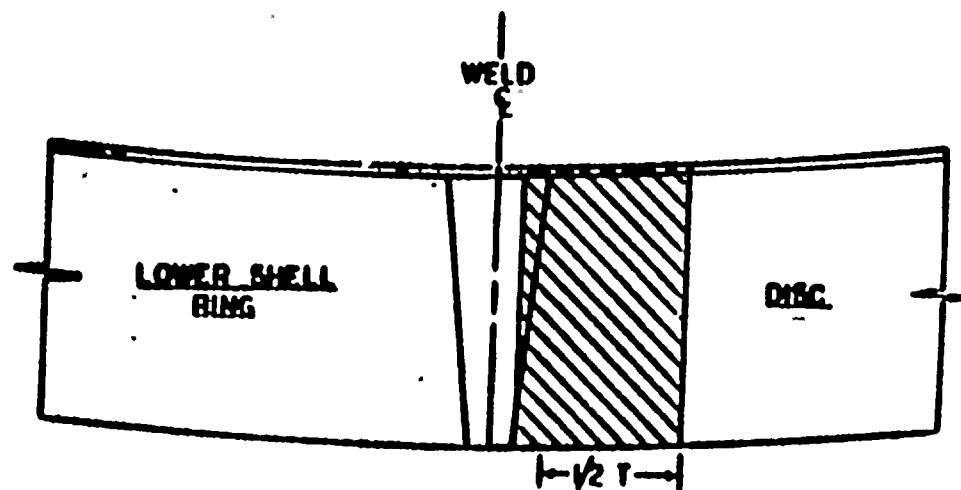
AREAS OF COVERAGE

- : 45° FULL VEE
- ▨: 45° FULL VEE & 60°
- ▩: 45° FULL VEE, 45° & 60°
- ▧: 45° & 60°
- : 60°

TURKEY POINT UNITS 3

DATE: 5-29-84		DRAWN BY: E.L. ANDERSON	APPROVED BY:
SCALE: NONE		REVISED	
LOWER HEAD RING TO DISC WELD			3-WR-9
RELIEF REQUEST NO. 10			FIGURE NO 4



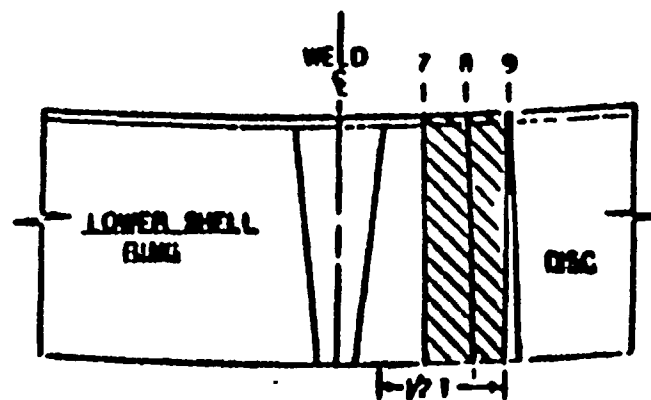


**AREAS OF LIMITED
COVERAGE**

□: 0°

TURKEY POINT UNITS 3.		
DATE: 5-29-84	DRAWN BY: E.L. ANDERSON	APPROVED BY:
SCALE: NONE	REVISED:	
LOWER HEAD RING TO DISC WELD		3-WR-9
RELIEF REQUEST NO 10		DRAWING NUMBER: FIGURE NO. 5

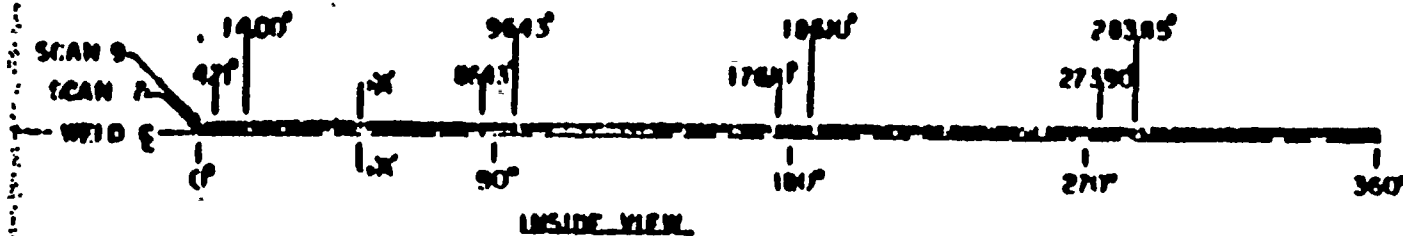




AREAS OF LIMITED
COVERAGE

CT: 45° & 60°
IN: NOBLE LIMITATIONS AS
MEASURED 10.5-

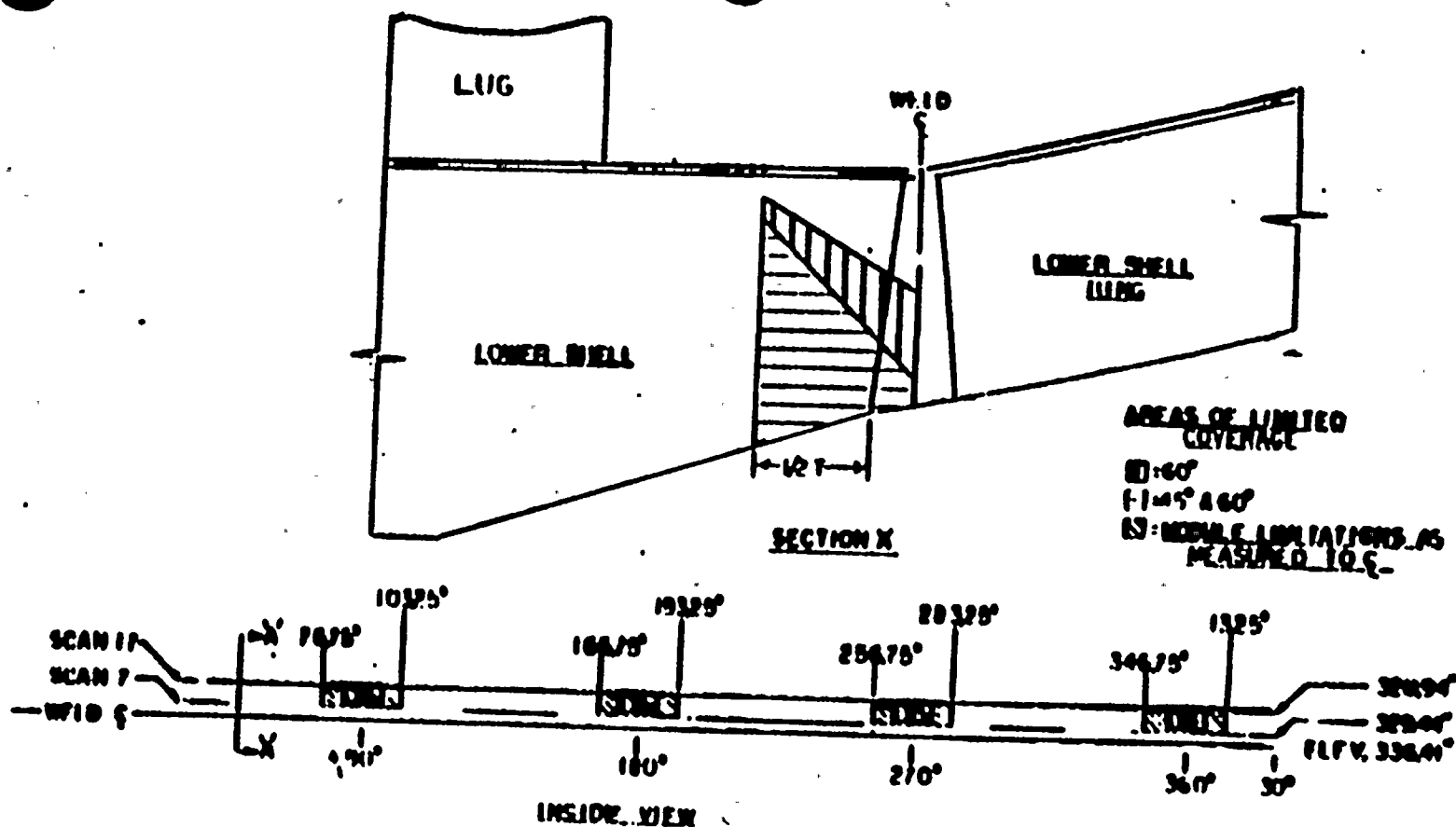
SECTION A



TURKEY POINT UNITS 3

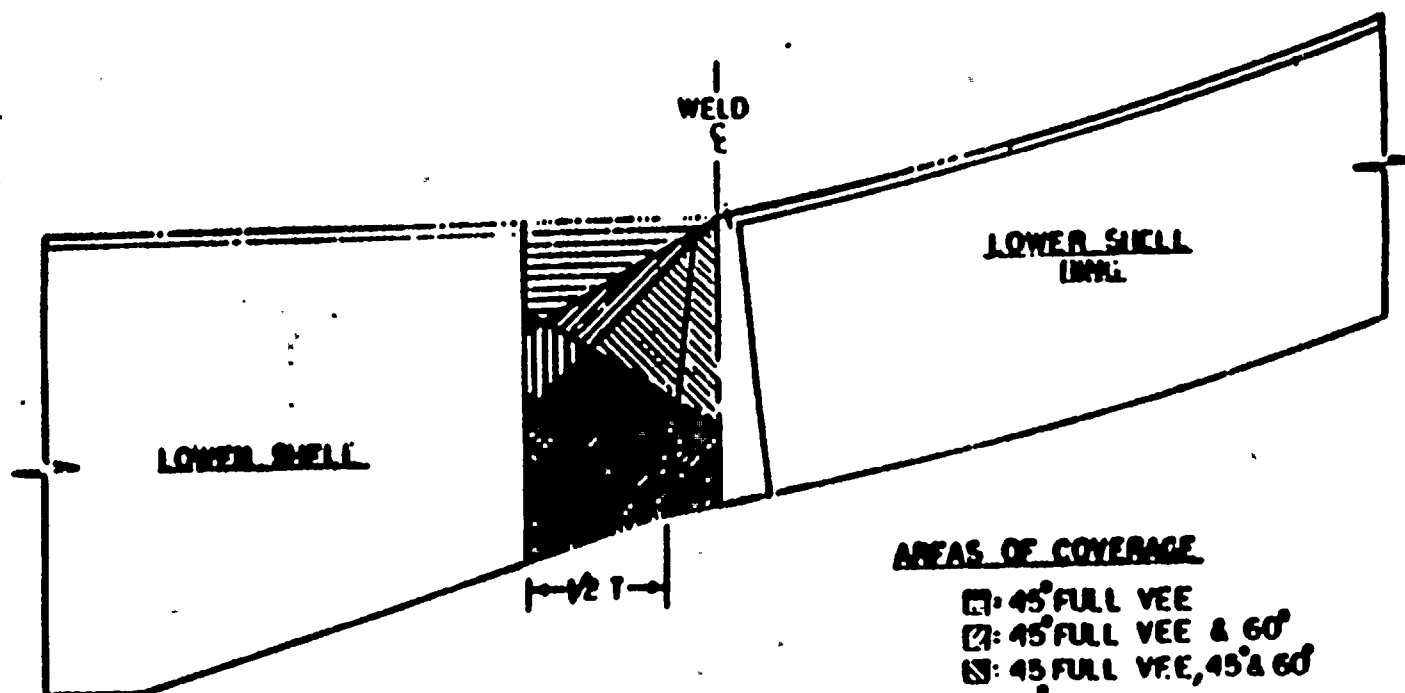
DATE: 5-29-84		DRAWN BY: E. L. ANDERSON	APPROVED BY:
SCALE: NONE		REVISED:	
LOWER HEAD RING TO DISC WELD			3-WR-9
RELIEF REQUEST NO. 10			DRAWING NUMBER FIGURE NO 6





TURKEY POINT UNITS 3		
DATE: 5-29-84	DRAWN BY: E.L. ANDERSON	APPROVED BY:
SCALE: NONE	REVISED:	
LOWER SHELL COURSE TO LOWER HEAD RING 3-WR-31		
RELIEF REQUEST NO 10		DRAWING NUMBER: FIGURE NO 7





AREAS OF COVERAGE

- : 45° FULL VEE
- ▤: 45° FULL VEE & 60°
- ▥: 45° FULL VEE, 45° & 60°
- ▦: 60°
- ▧: 45° & 60°

TURKEY POINT UNITS 3.

DATE: 5-29-84

DRAWN BY
E L ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

LOWER SHELL COURSE TO LOWER HEAD RING 3-WR-31

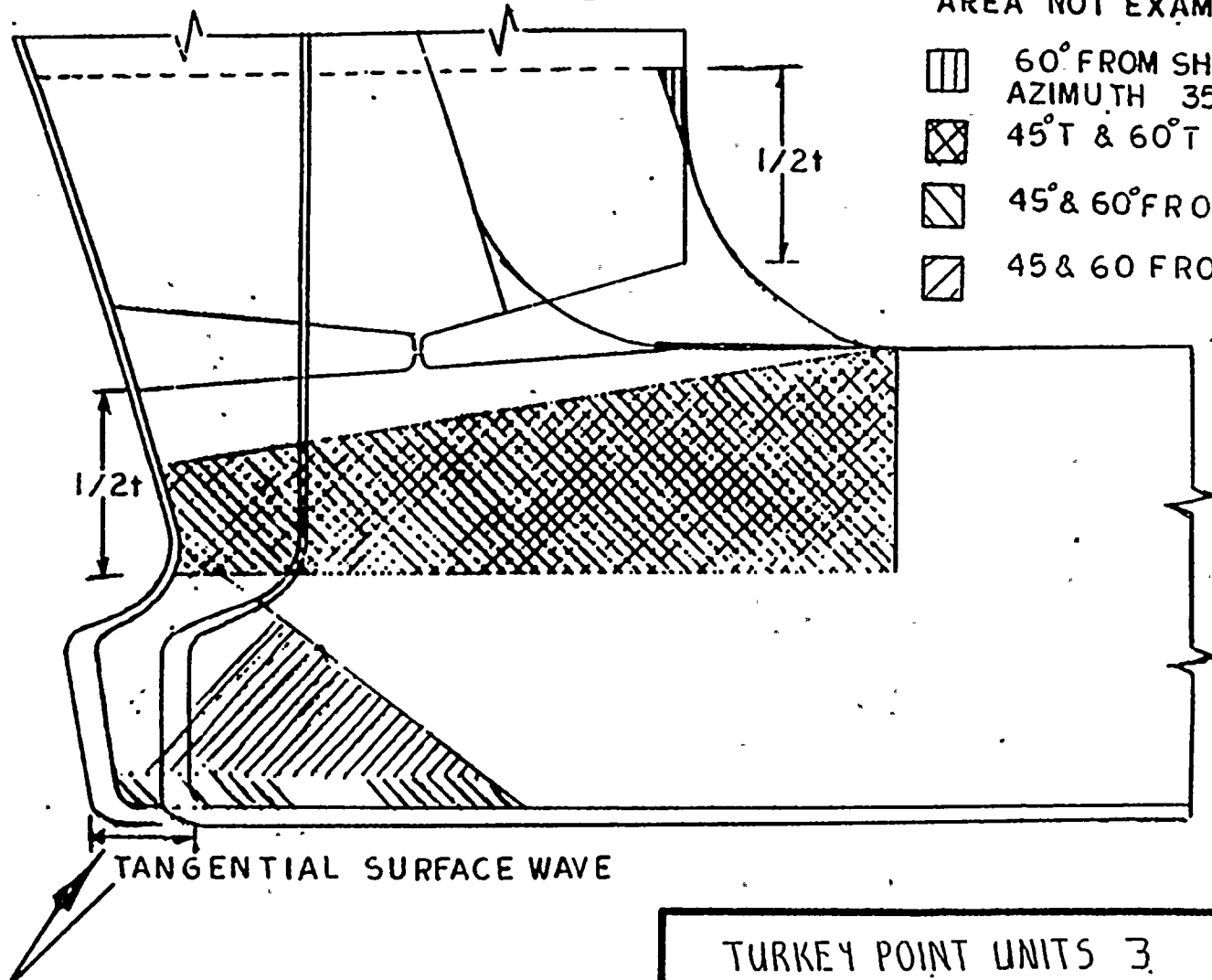
RELIEF REQUEST NO. 10





DRAWING NUMBER

FIGURE NO. 8



TYPICAL OUTLET NOZZLE AREA NOT EXAMINED



-  60° FROM SHELL NOZZLE
AZIMUTH 350° TO 10°
-  45°T & 60°T FROM SHELL
-  45° & 60° FROM SHELL
-  45 & 60 FROM SHELL

TURKEY POINT UNITS 3

DATE: 5-29-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

OUTLET NOZZLE TO SHELL WELD

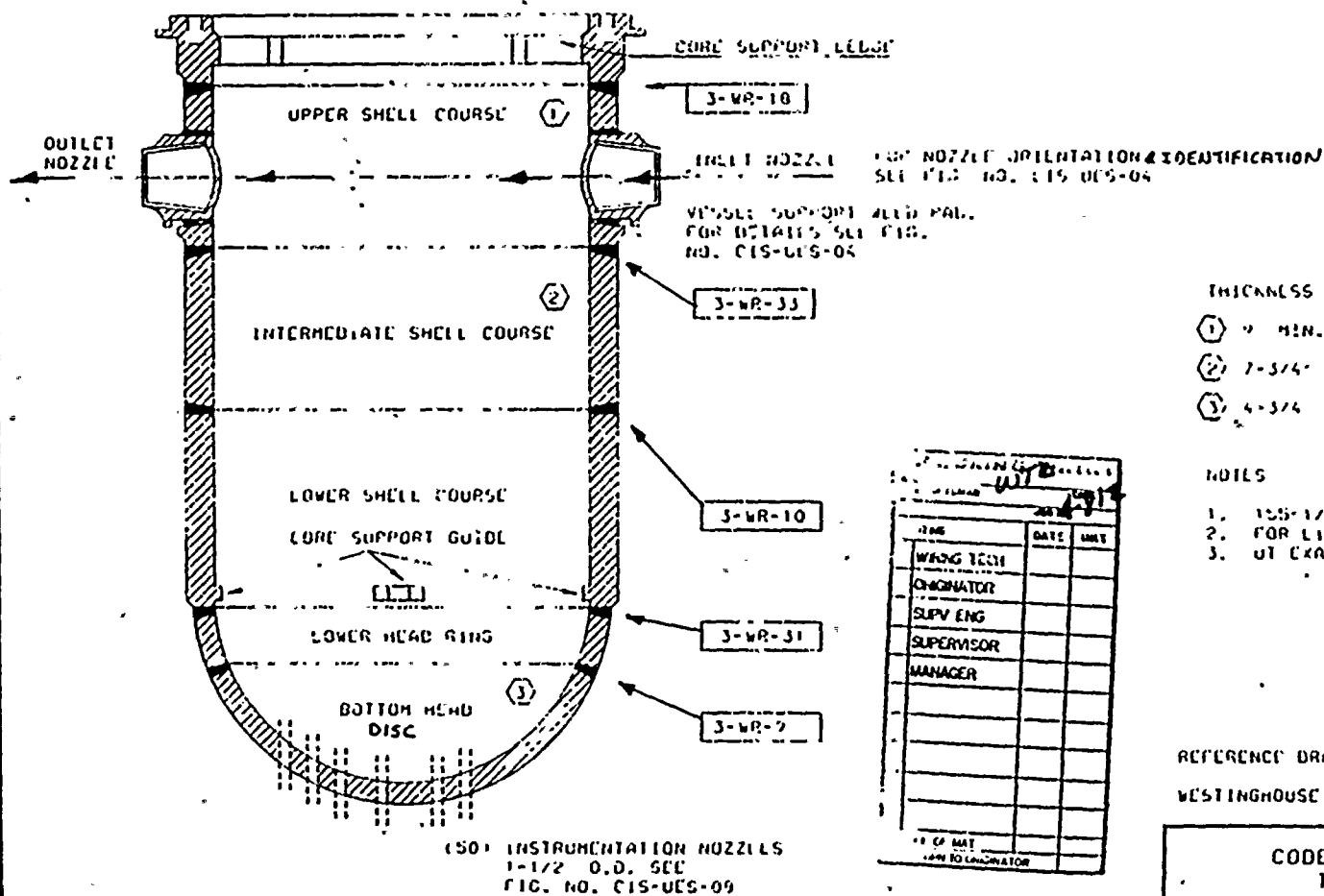
RELIEF REQUEST NO. 10

DRAWING NUMBER

FIGURE NO. 9



MATING SURFACES
FOR FLANGE LIGAMENT AREA
SEE FIG. NO. CIS-ULS-03



INICANLSS

- | | | |
|---|------------|-------------------|
| ① | 2 MIN. | 150 MIN. CLADDING |
| ② | 7-3/4 MIN. | 150 MIN. CLADDING |
| ③ | 4-3/4 MIN. | 150 MIN. CLADDING |

NOTES

1. 155-1/2 I.D. TO CLADDING
2. FOR LIMITATIONS SEE RECEIPT REQUEST NO. 1
3. UT EXAMS LAW REGULATORY GUIDE 1.150

SIZE	MATERIAL	SPLCS
INCH		TYPE

REFERENCE DRAWINGS	REV.
WESTINGHOUSE 117974C	9

CODES & INSPECTION SECTION
TURKEY POINT UNIT 3

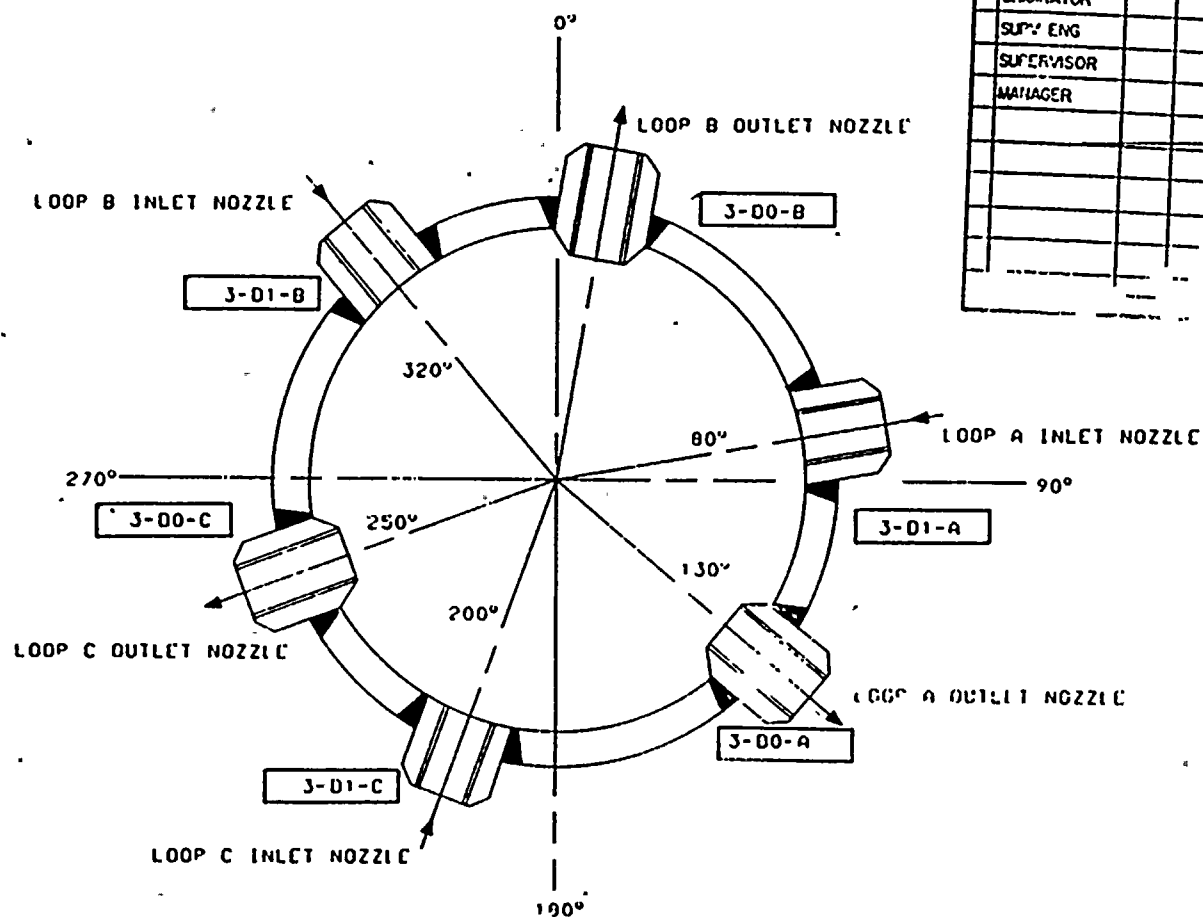
(DATE) _____ (APPROVED BY) _____ (DRAWN BY) J.A.C.
 (DATE) _____ (REVISED) _____
 REACTOR PRESSURE VESSEL CIRCUMFERENTIAL
 WELD LOCATIONS INSTRUMENTATION NOZZLES
 LINE NUMBER: SP5RVI
 (EPL) (C-140) (DRAWING NUMBER) C15-V-01

NO	DATE	VISION	BY	CA	TRA	APP	NO	DATE	VISION	BY	CA	TRA	APP
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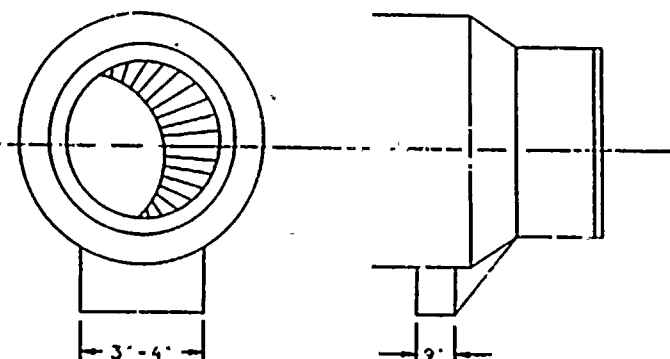


NOTES:

1. FOR INNER RADIUS (XAMS ADD (IRS) TO NOZZLE IDENTIFICATION. EXAMPLE J-00-B-S.
2. FOR VESSEL SUPPORT IDENTIFICATION ADD (S) TO NOZZLE ID. EXAMPLE J-00-B-S.



CHECKING PHASE		
DATE	INIT	
ROUTING		
WRING TECH		
ORIGINATOR		
SUPV ENG		
SUPERVISOR		
MANAGER		



VESSEL SUPPORT
WELOED PAD DETAIL

MATERIAL	SPLCS
SIZE	SCM
	TYPE

REFERENCE DRAWING REV

WESTINGHOUSE 117874C 9

CODES & INSPECTIONS SECTION
TURKEY POINT UNIT 3

SCALE	APPROVED BY:	DRAWN BY WTD
DATE		REVISED
REACTOR PRESSURE VESSEL PRIMARY NOZZLE ORIENTATION & NOZZLE TO SHELL WELD LOCATIONS. NOZZLE INNER RADIUS		
FPL	CAD	DRAWING NUMBER
		CIS-V-04

NO	DATE	REVISION	BY	CH	COR	APP	NO	DATE	REVISION	BY	CH	COR	APP
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TURKEY POINT UNITS 4
FIRST INSPECTION INTERVAL
INSERVICE INSPECTION

RELIEF REQUEST # 13

A. COMPONENT IDENTIFICATION:

- CLASS 1 - REACTOR COOLANT AND AUXILIARY COOLING
SYSTEM WELDS

B. EXAMINATION REQUIREMENTS:

Exam Cat. Item No.

- | | | | |
|----|-----|------|--|
| 1) | B-J | B4.5 | - VOLUMETRIC EXAMINATION, SHALL
INCLUDE THE WELD METAL, THE BASE
METAL FOR ONE WALL THICKNESS
BEYOND THE EDGE OF THE WELD. |
| 2) | B-J | B4.6 | - VOLUMETRIC EXAMINATION; BRANCH
CONNECTIONS - THE WELD METAL, THE
BASE METAL FOR ONE PIPE WALL
THICKNESS BEYOND THE EDGE OF THE
WELD, ON THE MAIN PIPE RUN, AND AT
LEAST 2" OF THE BASE METAL ALONG THE
BRANCH RUN. |

C. RELIEF REQUESTED:

Relief is requested from Code Volume not achieved during
manual Ultrasonic Examinations of the following welds

Item B4.5	(12"-RC-3)	6" of circumferential weld	FIG. NO. 1
Item B4.5	(14"-AC-4)	5" of circumferential weld	FIG. NO. 2
Item B4.6	(12"/10"-RC)	An area 4" x 3" of circ. weld	FIG. NO. 3

D. BASIS FOR RELIEF:

Configuration, permanent attachments and/or structural
interferences prohibit 100% ultrasonic examination coverage
of the code required examination volume. The limitations and
justification for each weld is depicted in the attached
figures.

Fig. no. 1 Limitation due to welded plate at 180 degrees

Fig. no. 2 Limitation due to proximity of adjacent pipe run
at 270 degrees.



RELIEF REQUEST # 13 CONTINUED

Fig. no. 3 Limitation due to the location of thermocouple at 100 degrees.

The extent of examination volume achieved ultrasonically, and the alternative system pressure tests provide assurance of an acceptable level of quality and safety.

E. ALTERNATIVE EXAMINATION

- 1) Periodic System Leakage tests per category B-P, Table IWB-2500.
- 2) Inservice hydrostatic test per category B-P, Table IWB-2500.

F. IMPLEMENTATION SCHEDULE

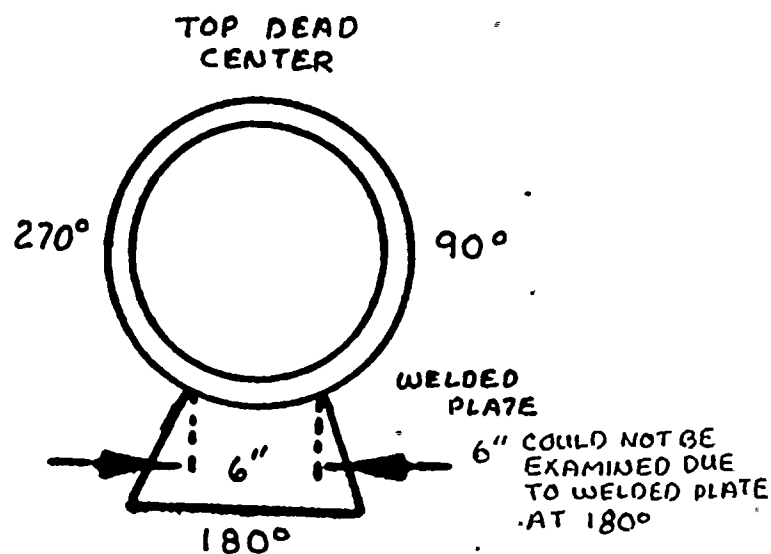
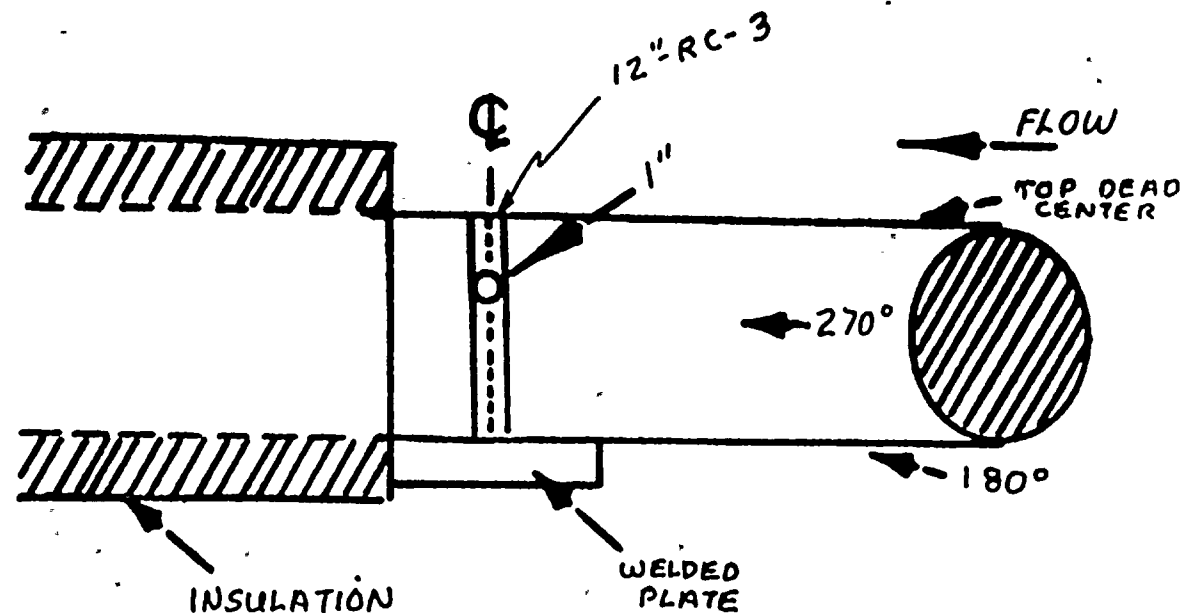
- FIRST INSPECTION INTERVAL

G. ATTACHMENTS

FIGURE NO. 1 12" REACTOR COOLANT LINE LIMITATION
FIGURE NO. 2 14" AUXILIARY COOLANT LINE LIMITATION
FIGURE NO. 3 10" REACTOR COOLANT BRANCH CONNECTION
LIMITATION.

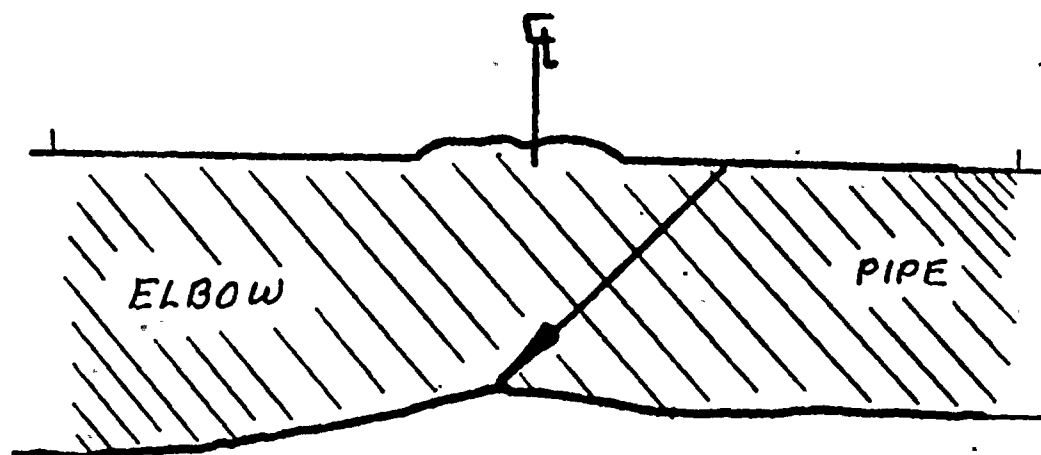
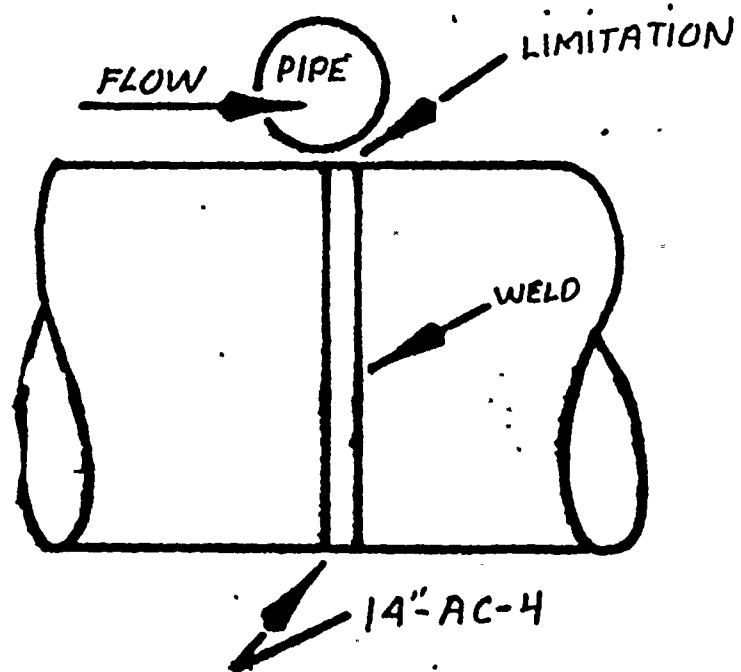


UNIT NO. ONLY

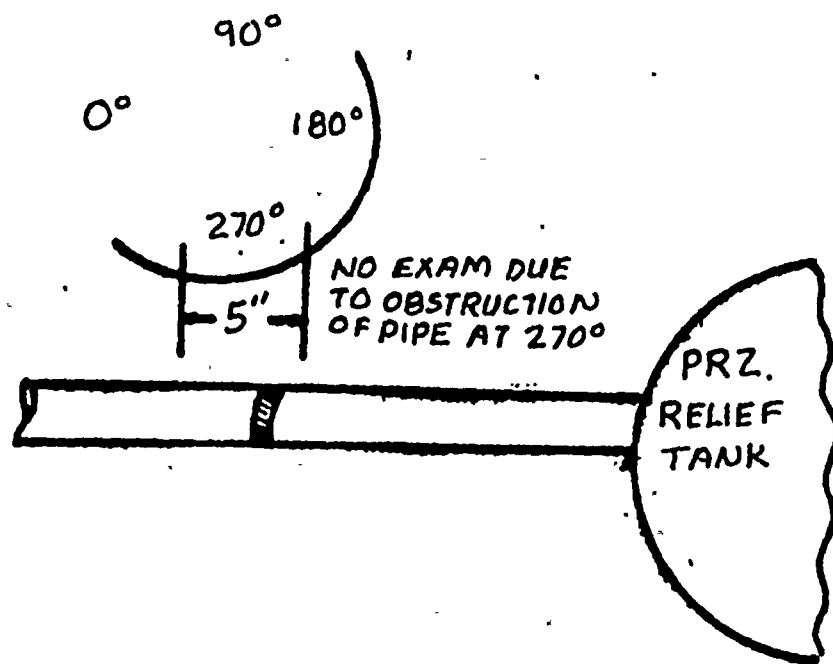


TURKEY POINT UNIT NO. 4		
DATE: 5-30-84	DRAWN BY: E.L. ANDERSON	APPROVED BY:
SCALE: NONT.	REVIEWED:	
REACTOR COOLANT SYSTEM WFLD 12" RC-3		
RELIEF REQUEST NO. 13		FIGURE NO. 1





FULL SCALE PLOT
AREA NOT EXAMINED



TURKEY POINT UNIT 4

DATE: 5-30-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

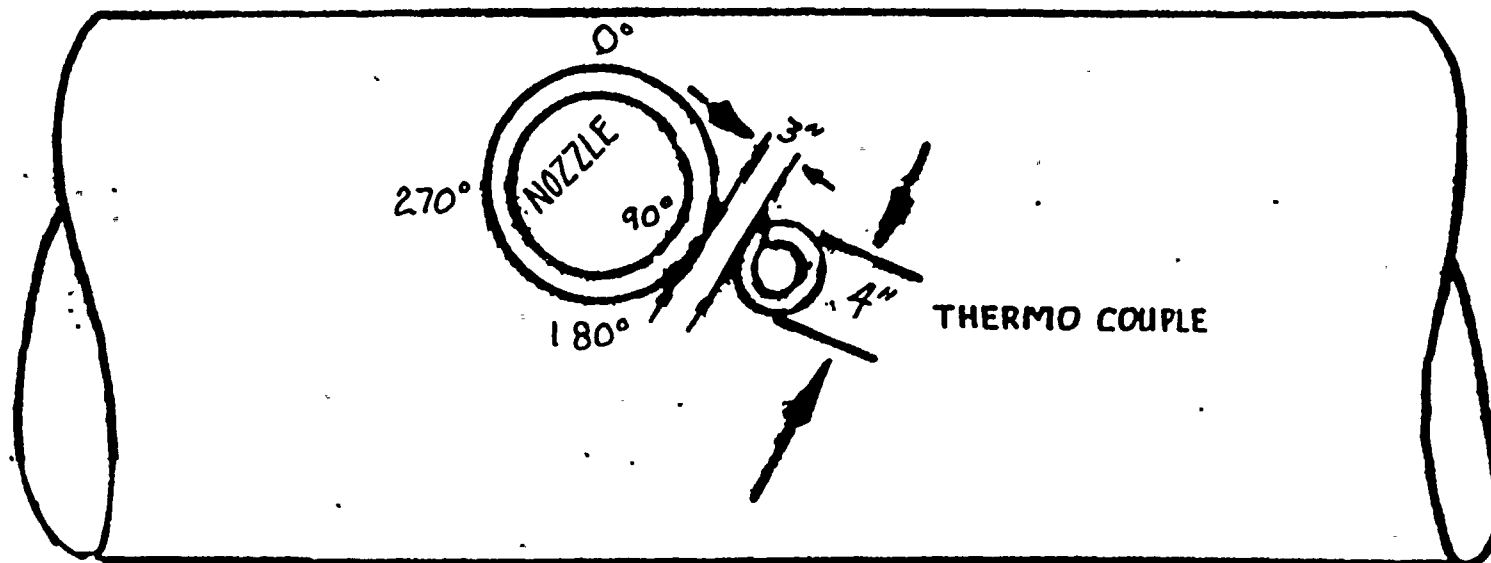
AUXILIARY COOLANT SYSTEM WELD 14\" AC-4.

RELIEF REQUEST NO. 13

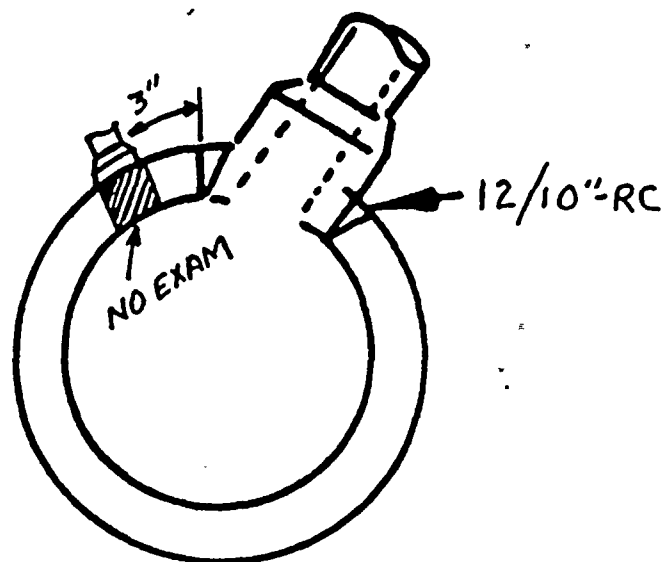
DRAWING NUMBER

FIGURE NO. 2





A 3"x4" AREA CAN NOT BE SCANNED DUE
TO THERMO COUPLE



TURKEY POINT UNIT 4

DATE: 5-30-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

REACTOR COOLANT SYSTEM WELD 12/10" RC
10" BRANCH CONNECTION

RELIEF REQUEST NO. 13

DRAWING NUMBER

FIGURE NO. 3



TURKEY POINT UNITS 3/4
FIRST INSPECTION INTERVAL
INSERVICE INSPECTION

RELIEF REQUEST NO. 14

A. COMPONENT IDENTIFICATION

- CLASS 1 - REACTOR VESSEL CLOSURE HEAD

B. EXAMINATION REQUIREMENTS

Exam Cat. Item No.

B-C Bl.3 - VOLUMETRIC EXAMINATION OF HEAD -
 FLANGE WELD SHALL CUMULATIVELY COVER
 100% OF EACH CIRCUMFERENTIAL WELD.

C. RELIEF REQUESTED

Relief is requested from Code Volume not achieved during the manual Ultrasonic examination of the Vessel head -to- flange welds.

Item Bl.3 (Weld 3-WH-12) 16" of circumferential weld. FIG. NO. 1
 (HEAD WELD)

No examination from the flange surface.

Item Bl.3 (Weld 4-WH-12) 16" of circumferential weld. FIG. NO. 1
 (HEAD WELD)

No examination from the flange surface.

D. BASIS FOR RELIEF

Configuration and permanent attachments prohibit 100% Ultrasonic examination coverage of the required code examination volume. The limitations and justification for each weld is depicted in the attached figures.

Figure No. 1 Limitations due to welded arrow located above stud hole No. 1. The arrow limits 7" of circumferential scanning of the closure head weld.

No examination achieved from the flange surface due to configuration.

Figure No. 2 Limitations due to 3 welded lugs located 120 degrees apart, between stud holes 10/11, 29/30 and 48/49. Each lug limits 3" of circumferential scanning of the closure head.



RELIEF REQUEST # 14 CONTINUED

Therefore, the combined length (limitation) due to the arrow (7") plus the lugs (3"x3") totals 16" of weld not examined.

The extent of examination volume achieved ultrasonically and the alternative system pressure tests provide assurance of an acceptable level of quality and safety.

E. ALTERNATIVE EXAMINATIONS

- 1) Periodic System Leakage tests per category B-P, Table IWB-2500.
- 2) Inservice Hydrostatic test per category B-P, Table IWB-2500.

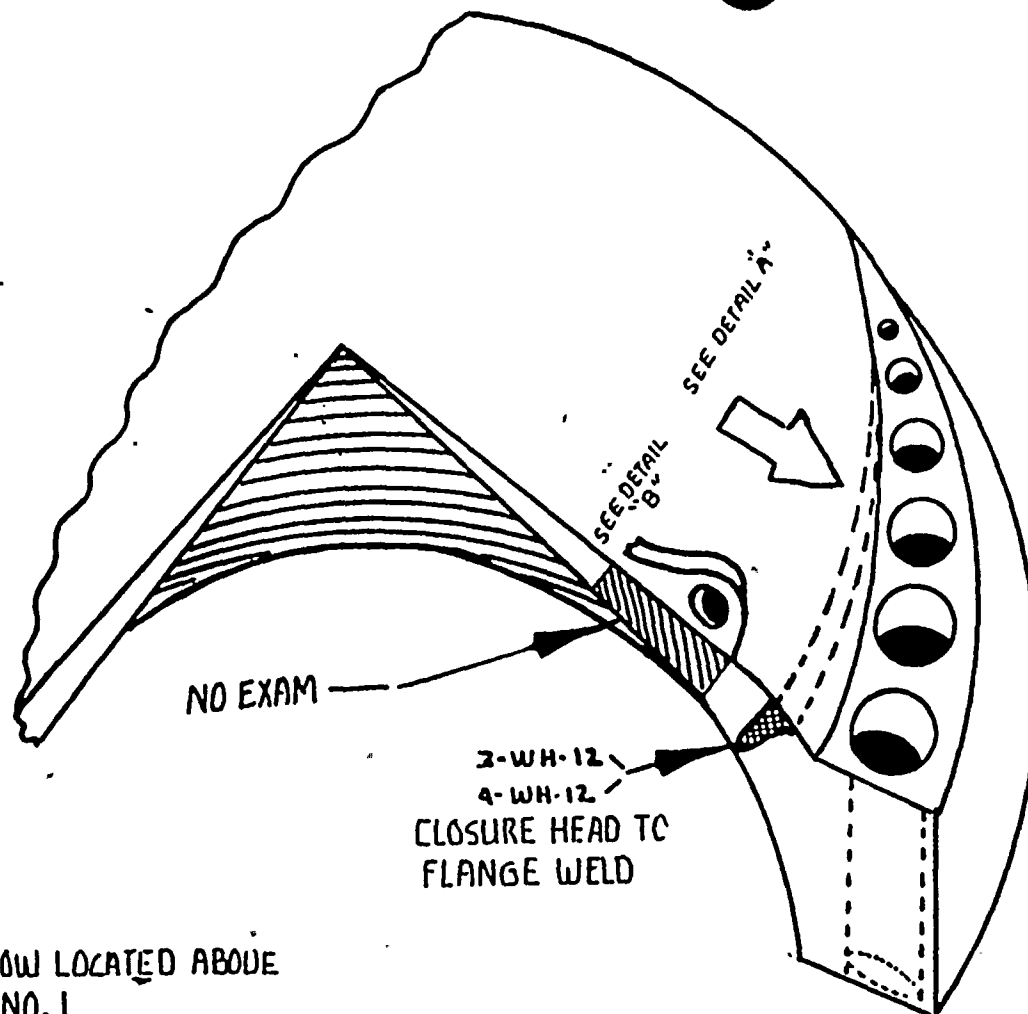
F. IMPLEMENTATION SCHEDULE

- FIRST INSPECTION INTERVAL

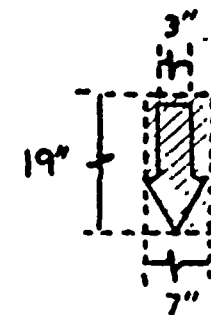
G. ATTACHMENTS

- FIGURE NO. 1 - RPV CLOSURE HEAD CUT AWAY VIEW, DENOTING MEASUREMENTS OF LIMITATIONS.
- FIGURE NO. 2 - RPV CLOSURE HEAD LIMITATION LOCATIONS

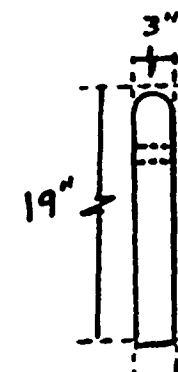




WELDED ARROW LOCATED ABOVE
STUD HOLE NO. 1



DETAIL "A"
WELDED ARROW



DETAIL "B"
WELDED LIFTING LUG
TYPICAL 3 PLACES

TURKEY POINT UNIT 3/4

DATE: 5-30-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

RPV CLOSURE HEAD (CUTAWAY VIEW) AREA'S
THAT CAN NOT BE EXAMINED DUE TO LIMITATIONS

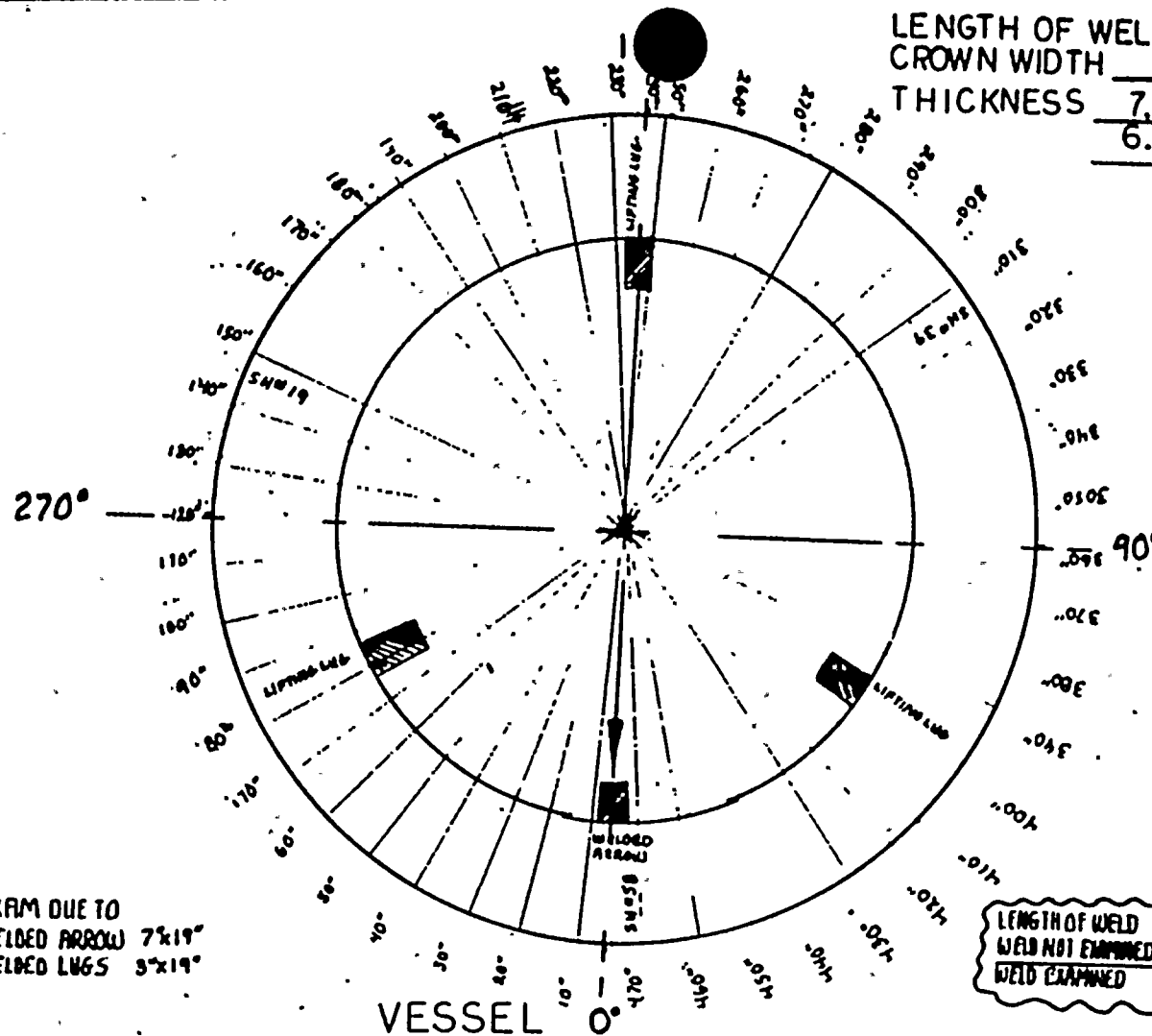
RELIEF REQUEST NO 14

DRAWING NUMBER

FIGURE NO. 1



LENGTH OF WELD 481"
 CROWN WIDTH 2-1/4"
 THICKNESS 7.2" HEAD
 6.7" E



NO EXAM DUE TO
 1. WELDED ARROW 7x19"
 2. WELDED LUGS 3x19"

LENGTH OF WELD 481"
 WELD NOT EXAMINED 16"
 WELD EXAMINED 465"

TURKEY POINT UNIT 3/4

DATE: 5-30-84	DRAWN BY: E L ANDERSON	APPROVED BY:
SCALE: NONE	REVISED:	
RPV CLOSURE HEAD WELDED ATTACHMENT LOCATIONS		
RELIEF REQUEST NO. 14		DRAWING NUMBER: FIGURE NO. 2



TURKEY POINT UNIT 4
FIRST INSPECTION INTERVAL
RELIEF REQUESTS

RELIEF REQUEST # 15

A. COMPONENT IDENTIFICATION:

CLASS 1 - Reactor Vessel

B. EXAMINATION REQUIREMENTS:

Exam Cat. Item No.

B-C Bl.3 - VOLUMETRIC EXAMINATION SHALL CUMULATIVELY
COVER 100% OF EACH CIRCUMFERENTIAL WELD.

B-D Bl.4 - VOLUMETRIC EXAMINATION (INCLUDES NOZZLE
TO VESSEL WELD AND ADJACENT AREAS OF
NOZZLE AND VESSEL); SHALL COVER 100%
OF THE VOLUME TO BE INSPECTED.

C. RELIEF REQUESTED:

Relief is requested from the code volume not achieved in the performance of mechanized ultrasonic examination of the following vessel outlet nozzle and flange to shell welds.

ITEM Bl.3 (WELD 4-WR-18)	FIG. NO. CIS-V-01
ITEM Bl.4 (Weld 4-DO-A, B & C)	FIG. NO. CIS-V-04

D. BASIS FOR RELIEF:

Configuration prohibit 100% ultrasonic examination coverage of the required code examination volume. The limitations and justification for each weld from code examination is discussed below including applicable Tables and Figures.

1.0 NOZZLE TO SHELL WELD LIMITATIONS
 Bl.4, (Weld 4-DO-A, B & C)

When performing computerized UT examinations of the NOZZLE TO SHELL WELDS from the vessel wall, several areas were described as having limited examination scans. These limitations were restricted to the last several scans of the nozzle to shell examination and were due to the physical limitations imposed by the adjacent nozzles. The limitations all occurred in the vicinity of the 90 or 180 degree nozzle azimuth relative to nozzle orientation. Figure no. 1 depicts those areas not examined and Table no. 1 provides the percent of weld volume not examined.



RELIEF REQUEST # 15 CONTINUED

2.0 4-WR-18 (RPV SHELL TO FLANGE WELD) Bl.3

2.1 The areas receiving no coverage during the examination performed from the upper shell side are depicted in Figure No. 2.

2.2 Figure No. 3 depicts those areas that did not receive 0 degree, 45 degree transverse or 60 degree transverse weld coverage due to the geometric configuration of the flange radius located just above the weld. Percent of coverage limitation is contained in Table 1.

2.3 Examinations performed from the shell side of the weld, essentially provided 100 percent coverage of the weld and 1/2T of base material on the shell side.

The extent of examination volume achieved ultrasonically and the alternative system pressure tests, provide assurance of an acceptable level of quality and safety.

E. ALTERNATIVE EXAMINATION

- 1) Periodic System Leakage tests per category B-P, Table IWB-2500.
- 2) Inservice hydrostatic test per category B-P, Table IWB-2500.

F. IMPLEMENTATION SCHEDULE

- FIRST INSPECTION INTERVAL

G. ATTACHMENTS TO RELIEF REQUEST NO. 15

TABLE NO. 1	NOZZLE TO SHELL WELD LIMITATIONS
TABLE NO. 2	RPV SHELL TO FLANGE WELD LIMITATIONS
FIGURE NO. 1	OUTLET NOZZLE TO SHELL WELD
FIGURE NO. 2	RPV SHELL TO FLANGE WELD
FIGURE NO. 3	RPV SHELL TO FLANGE WELD
FIGURE CIS-V-01	RPV CIRCUMFERENTIAL WELD LOCATIONS
FIGURE CIS-V-04	RPV NOZZLE ORIENTATION



RELIEF REQUEST # 15 CONTINUED

TABLE NO. 1

RPV NOZZLE TO SHELL WELD LIMITATIONS

EXAMINATION AREA	EXAMINATION TYPE	LIMITS % OF WELD
OUTLET NOZZLE WELDS	PARALLEL SCANS	12
OUTLET NOZZLE WELDS	TRANSVERSE SCANS	42

RELIEF REQUEST # 15 CONTINUED

TABLE NO. 2
AREAS OF LIMITED COVERAGE - RPV SHELL TO FLANGE WELD

TOTAL WELD COVERAGE LIMITATIONS

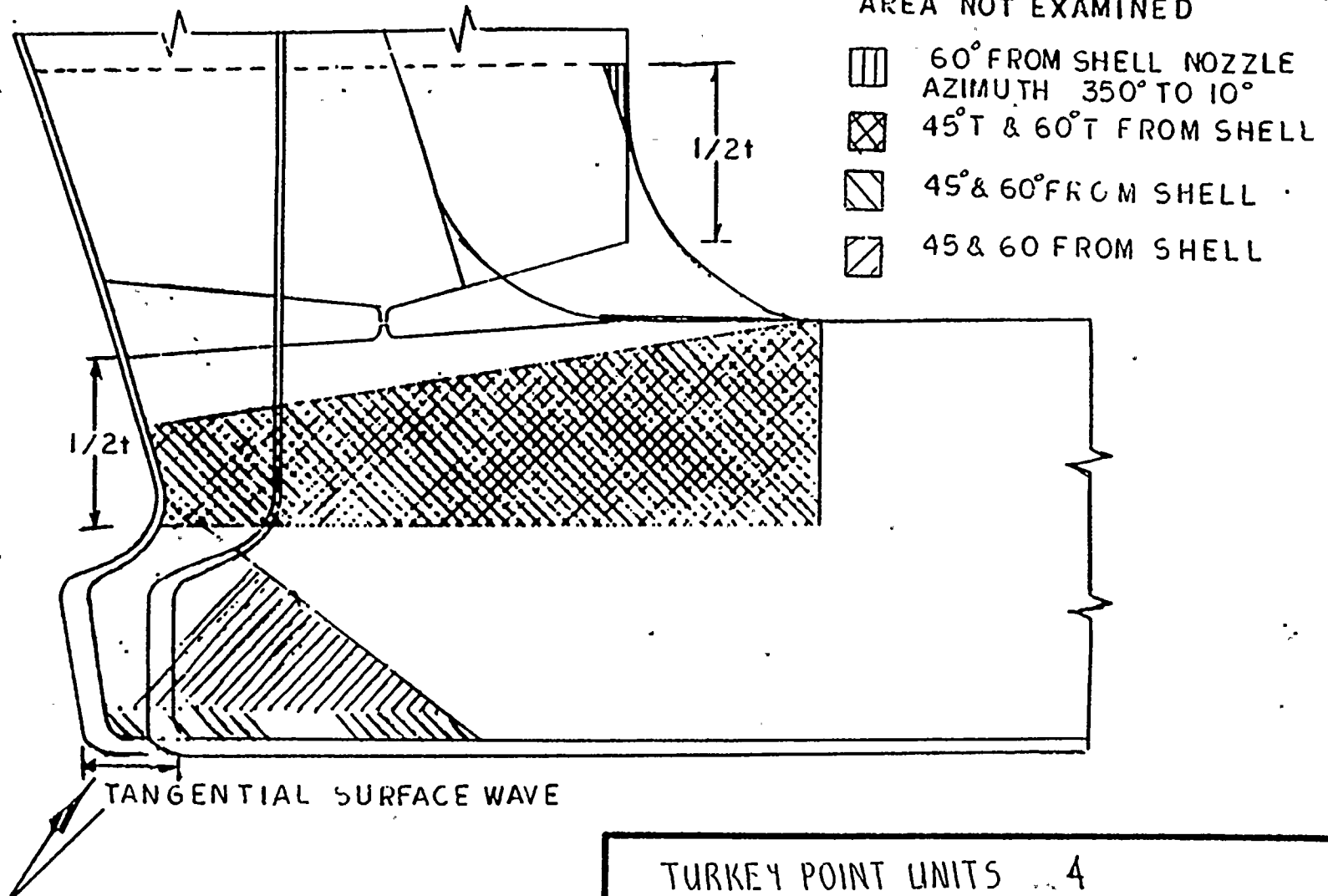
SEARCH UNIT ANGLE	% OF WELD AND REQUIRED VOLUME
-------------------	-------------------------------

0	60
45	25
60	20
45T	60
60T	60

TOTAL WELD LENGTH = 488.51"



TYPICAL OUTLET NOZZLE AREA NOT EXAMINED



TURKEY POINT UNITS 4

DATE: 5-29-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

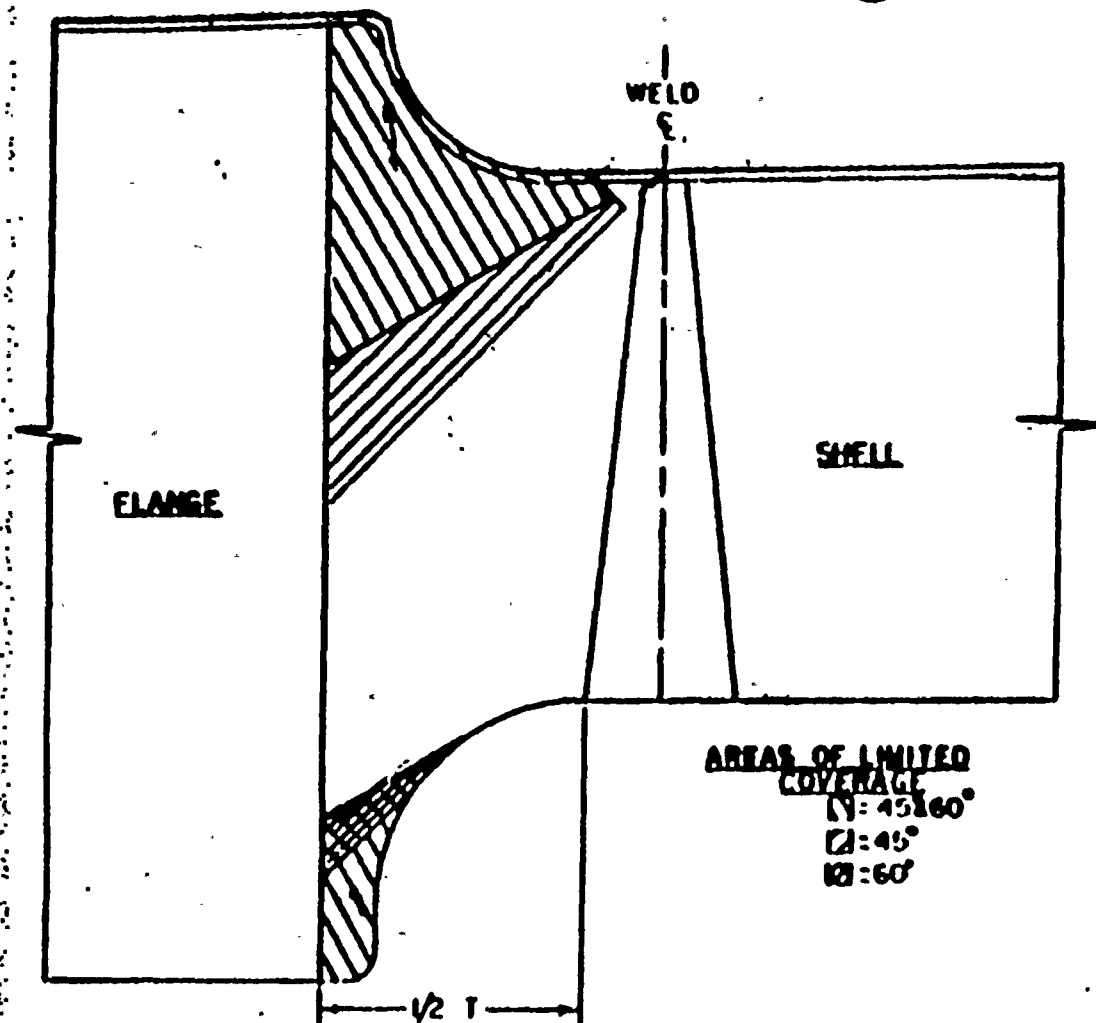
OUTLET NOZZLE TO SHELL WELD

RELIEF REQUEST NO 15

DRAWING NUMBER

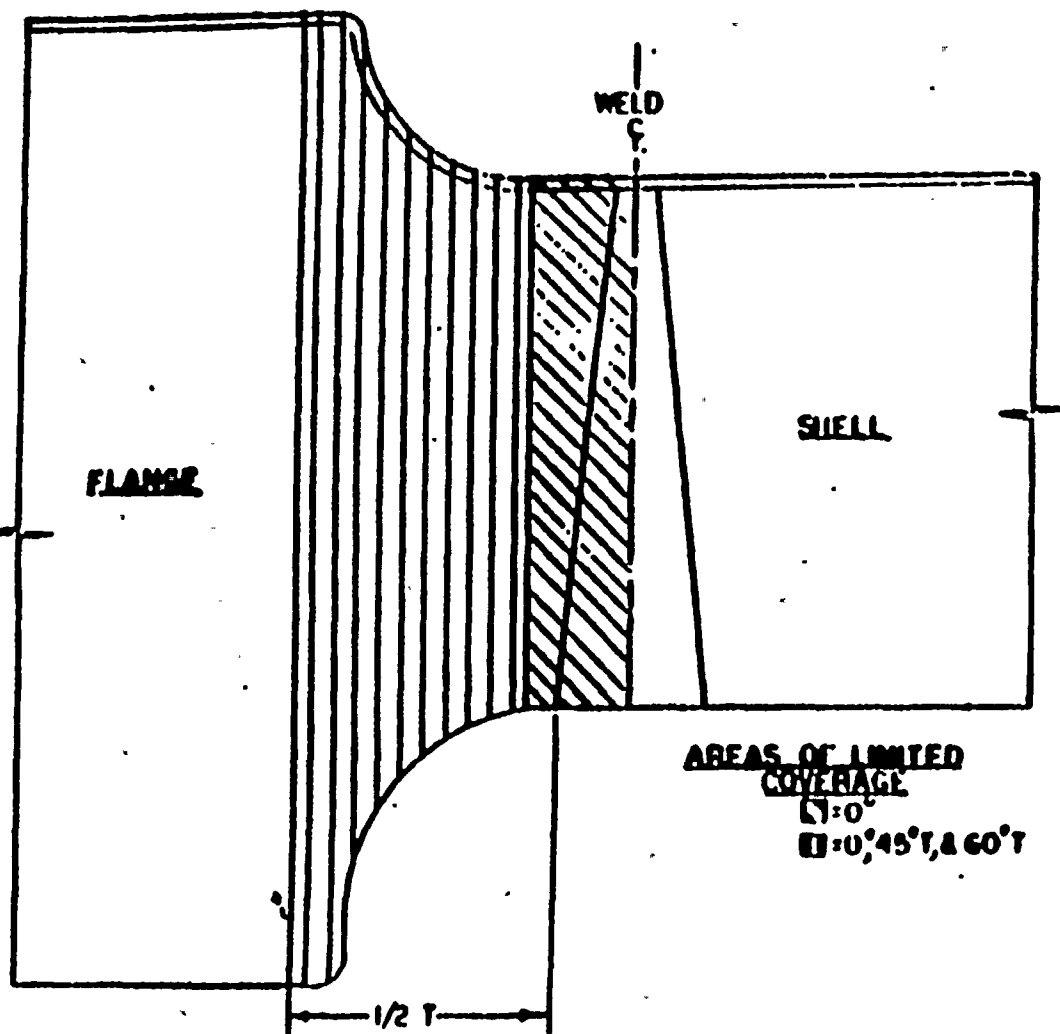
FIGURE NO. |





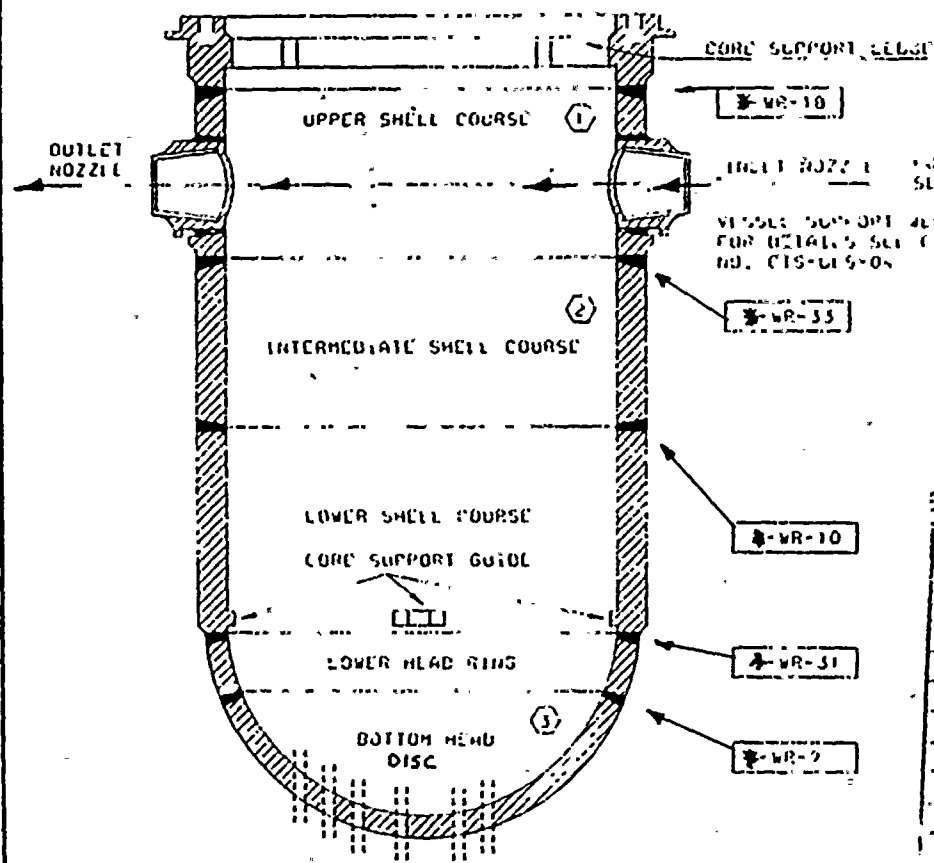
TURKEY POINT UNITS 4		
DATE: 5-29-84	DRAWN BY: E.L. ANDERSON	APPROVED BY:
SCALE: NONE	REVISED:	
RPV SHELL TO FLANGE WELD		4-WR-18
RELIEF REQUEST NO. 15		FIGURE NO. 2





TURKEY POINT UNITS 4		
DATE: 5-29-84	DRAWN BY: F.L. ANDERSON	APPROVED BY:
SCALE: NONE	REVISED:	
RPV SHELL TO FLANGE WELD		4-WR-18
RELIEF REQUEST NO 15		DRAWING NUMBER FIGURE NO. 3

MATING SURFACES
FOR FLANGE LIGAMENT AREA
SEE FIG. NO. CIS-UCS-03



U.S. NAVAL ORIENTATION & IDENTIFICATION
SL 117-63, ETS 115-04

WISLA 500 301 4111 101.
FOR 021415 501 015.
00, 015-015-05

* ADD A 3 OR 4. DEPENDING ON WHICH UNIT.

INDEX

- | | | |
|---|------------|-------------------|
| ① | 2 MIN. | 150 MIN. CLADDING |
| ② | 7-3/4 MIN. | 150 MIN. CLADDING |
| ③ | 4 3/4 MIN. | 150 MIN. CLADDING |

NOTES

1. 155 1/2 I.D. TO CLADDING
2. FOR LIMITATIONS SEE RELIANT REQUEST NO. 1
3. UT EXAMS LAW REGULATORY GROUP 1.150

[illegible]

SIZE	MATERIAL	SPECS
SCM		TYPL

REFERENCE DRAWINGS	REV
WESTINGHOUSE 117974C	9

(50) INSTRUMENTATION NOZZLES
1-1/2 O.D. SEC
FIG. NO. C15-UES-00

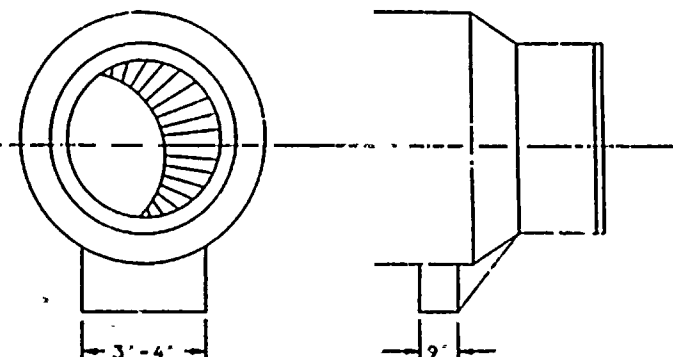
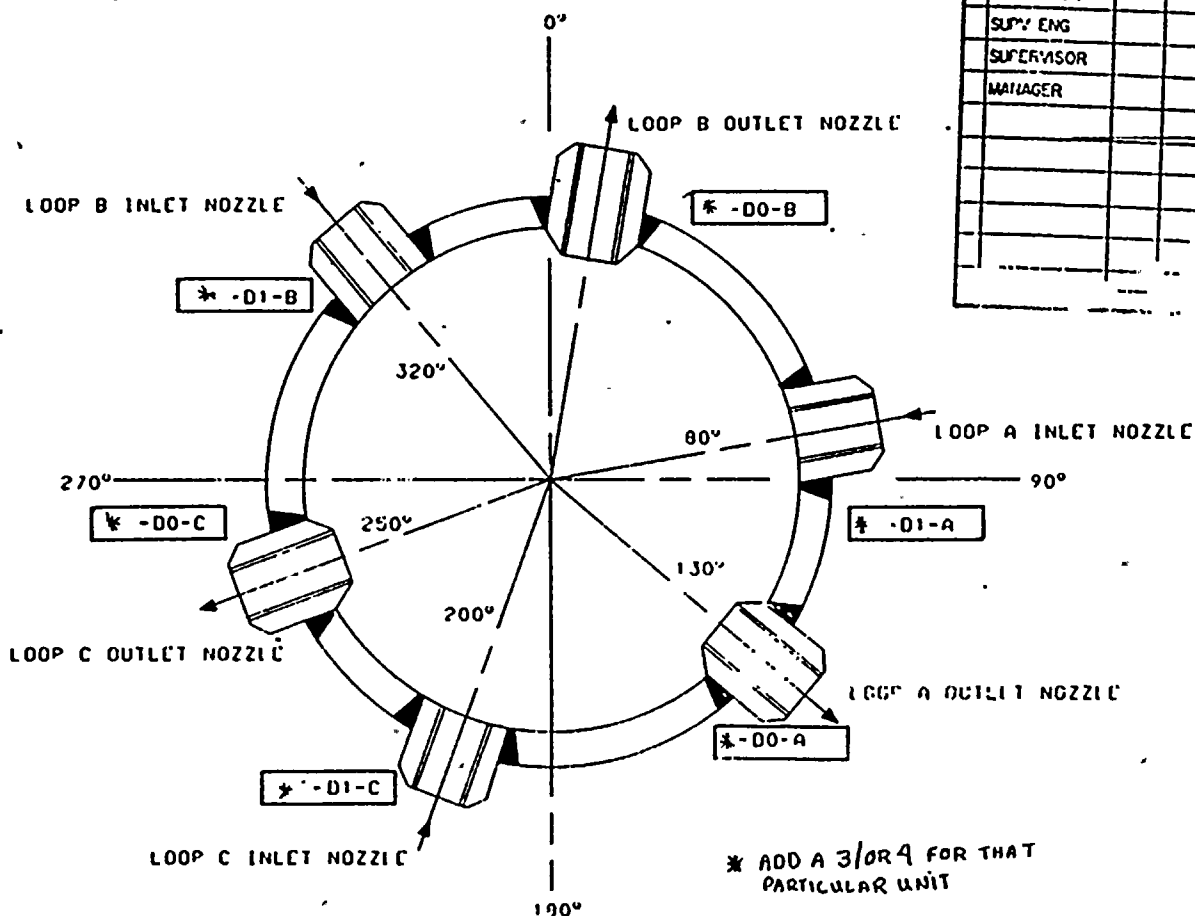
CODES & INSPECTION SECTION
TURKEY POINT UNIT 3/4

SCALE _____ APPROVED BY _____ DRAWN BY J.A.F
DATE _____ REVISED _____
REACTOR PRESSURE VESSEL CIRCUMFERENTIAL
WELD LOCATIONS INSTRUMENTATION NOZZLES
LINE NUMBER SPRV1
EPL (ECLAL) DRAWING NUMBER CIS-V-01

[illegible]



1. FOR INNER RADIUS (XAMS ADD (IRS) TO NOZZLE IDENTIFICATION. EXAMPLE *-DO-B-IRS
2. FOR VESSEL SUPPORT IDENTIFICATION ADD (S) TO NOZZLE ID. EXAMPLE *-DO-B-S.

[illegible]

VESSEL SUPPORT
WELDED PAD DETAIL

SIZE	MATERIAL	SPCS
SCN		TYPE

REFERENCE DRAWING: REV
WESTINGHOUSE 117874C 2

CODES & INSPECTIONS SECTION
TURKEY POINT UNIT 3/4

SCALE	APPROVED BY:	DRAWN BY WTD
DATE		REVISED
REACTOR PRESSURE VESSEL PRIMARY NOZZLE ORIENTATION & NOZZLE TO SHELL WELD LOCATIONS. NOZZLE INNER RADIUS		
FPL	CAD	DRAWING NUMBER CIS-V-04

[illegible]



TURKEY POINT UNIT 3/4
SECOND INSPECTION INTERVAL
RELIEF REQUESTS

RELIEF REQUEST # 1

A. COMPONENT IDENTIFICATION:

CLASS 1 - Reactor Vessel

B. EXAMINATION REQUIREMENTS:

Exam Cat. Item No.

B-C B1.30 - VOLUMETRIC EXAMINATION SHELL TO FLANGE
WELD, INCLUDES ESSENTIALLY 100% OF WELD
LENGTH.

B-D B3.90 - VOLUMETRIC EXAMINATION (INCLUDES NOZZLE
TO VESSEL WELD AND ADJACENT AREAS OF
NOZZLE AND VESSEL)

C. RELIEF REQUESTED:

Relief is requested from the code volume not achievable in the performance of mechanized ultrasonic examination of the following vessel outlet nozzle and flange to shell welds.

ITEM B1.30 (WELD 3-WR-18 & 4-WR-18)	DWG. CIS-V-01
ITEM B3.90 (Weld 3-DO-A, B & C)	DWG. CIS-V-04
(WELD 4-DO-A, B & C)	DWG. CIS-V-04

D. BASIS FOR RELIEF:

Configuration prohibit 100% ultrasonic examination coverage of the required code examination volume. The limitations and justification for each weld from code examination is discussed below including applicable Tables and Figures.

1.0 NOZZLE TO SHELL WELD LIMITATIONS
B3.90,

When performing computerized UT examinations of the NOZZLE TO SHELL WELDS from the vessel wall, several areas were described as having limited examination scans. These limitations were restricted to the last several scans of the nozzle to shell examination and were due to the physical limitations imposed by the adjacent nozzles. The limitations all occurred in the vicinity of the 90 or 180 degree nozzle azimuth relative to nozzle orientation. Figure no. 1 depicts those areas not examined and Table no. 1 provides the percent of weld volume not examined.



RELIEF REQUEST # 1 CONTINUED

2.0 RPV SHELL TO FLANGE WELD Bl.30

2.1 The areas receiving no coverage during the examination performed from the upper shell side are depicted in Figure No. 2.

2.2 Figure No. 3 depicts those areas that did not receive 0 degree, 45 degree transverse or 60 degree transverse weld coverage due to the geometric configuration of the flange radius located just above the weld. Percent of coverage limitation is contained in Table 1.

2.3 Examinations performed from the shell side of the weld, essentially provided 100 percent coverage of the weld and 1/2T of base material on the shell side.

The extent of examination volume achieved ultrasonically and the alternative system pressure tests provide assurance of an acceptable level of quality and safety.

E. ALTERNATIVE EXAMINATION

- 1) Periodic System Leakage tests per category B-P, Table IWB-2500-1.
- 2) Inservice hydrostatic test per category B-P, Table IWB-2500-1.

F. IMPLEMENTATION SCHEDULE

- TWO NOZZLE EXAMINATIONS (EXAM CAT. B-D) (PROGRAM B) AND 50% OF THE SHELL TO FLANGE WELDS SHALL BE EXAMINED BY THE END OF THE FIRST INSPECTION PERIOD

G. ATTACHMENTS TO RELIEF REQUEST NO. 1

TABLE NO. 1	NOZZLE TO SHELL WELD LIMITATIONS
TABLE NO. 2	RPV SHELL TO FLANGE WELD LIMITATIONS
FIGURE NO. 1	OUTLET NOZZLE TO SHELL WELD
FIGURE NO. 2	RPV SHELL TO FLANGE WELD
FIGURE NO. 3	RPV SHELL TO FLANGE WELD
FIGURE CIS-V-01	RPV CIRCUMFERENTIAL WELD LOCATIONS
FIGURE CIS-V-04	RPV NOZZLE ORIENTATION



RELIEF REQUEST # 1 CONTINUED

TABLE NO. 1

RPV NOZZLE TO SHELL WELD LIMITATIONS

EXAMINATION AREA	EXAMINATION TYPE	LIMITS % OF WELD
------------------	------------------	------------------

OUTLET NOZZLE WELDS	PARALLEL SCANS	12
OUTLET NOZZLE WELDS	TRANSVERSE SCANS	42



RELIEF REQUEST # 1 CONTINUED

TABLE NO. 2
AREAS OF LIMITED COVERAGE - RPV SHELL TO FLANGE WELD

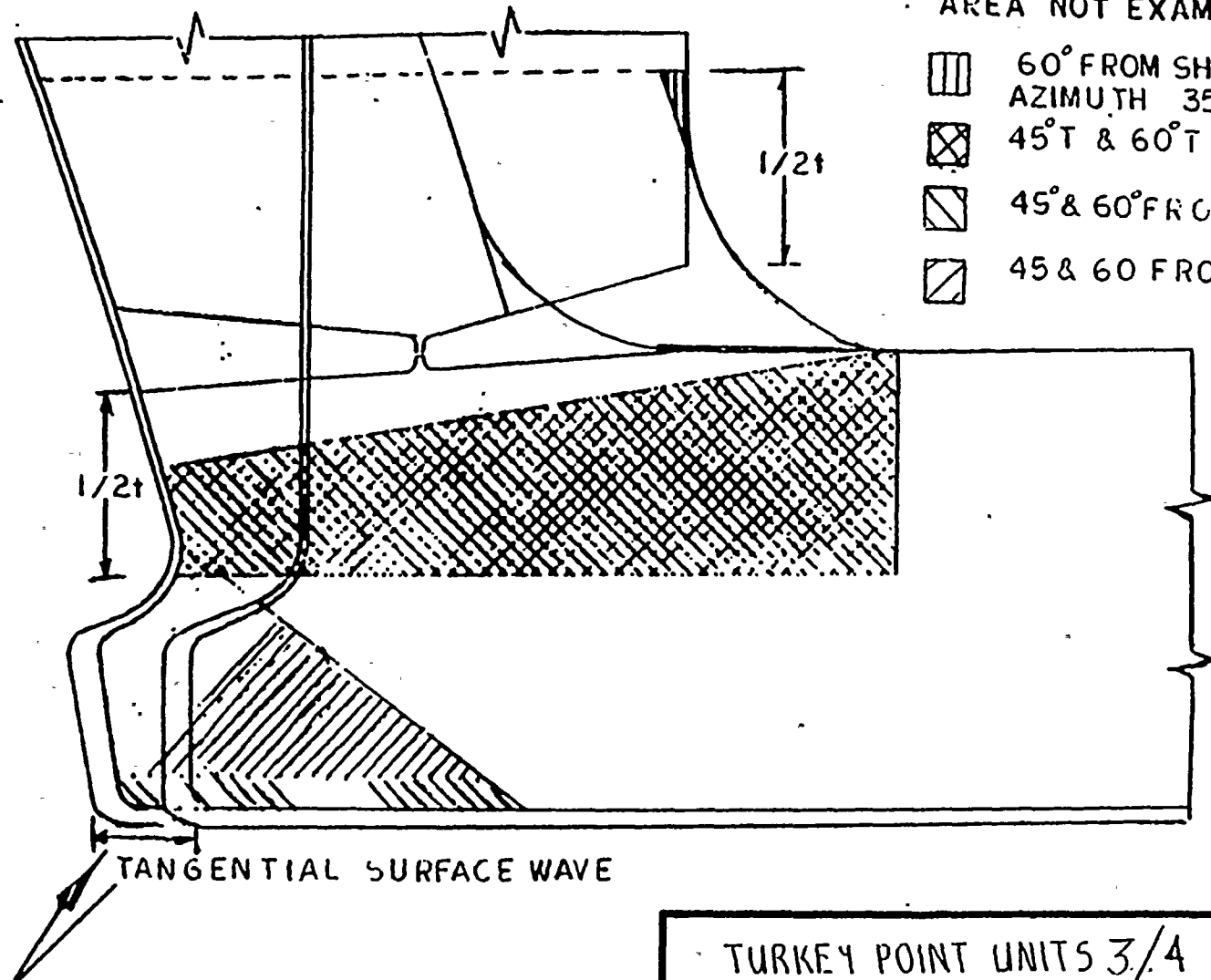
TOTAL WELD COVERAGE LIMITATIONS





SEARCH UNIT ANGLE	LIMITS % OF WELD
0	60
45	25
60	20
45T	60
60T	60

TOTAL WELD LENGTH = 488.51"



TYPICAL OUTLET NOZZLE AREA NOT EXAMINED



-  60° FROM SHELL NOZZLE
AZIMUTH 350° TO 10°
-  45°T & 60°T FROM SHELL
-  45° & 60° FROM SHELL
-  45 & 60 FROM SHELL

TURKEY POINT UNITS 3/4

DATE: 5-29-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

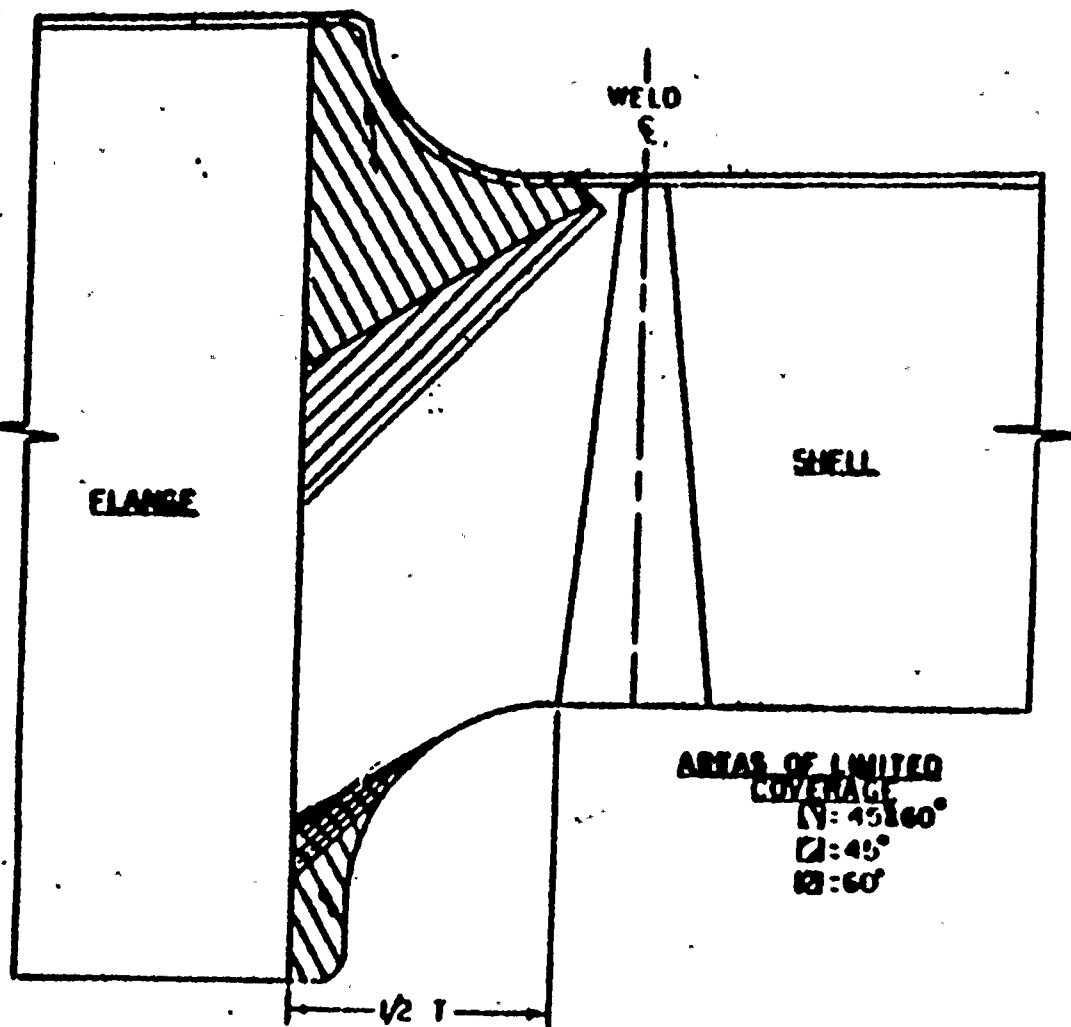
OUTLET NOZZLE TO SHELL WELD

RELIEF REQUEST NO 1

DRAWING NUMBER

FIGURE NO 1





AREAS OF LIMITED
COVERAGE
Y: 45/60°
Z: 45°
W: 60°

TURKEY POINT UNITS 3/4

DATE: 5-29-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

RPV SHELL TO FLANGE WELD

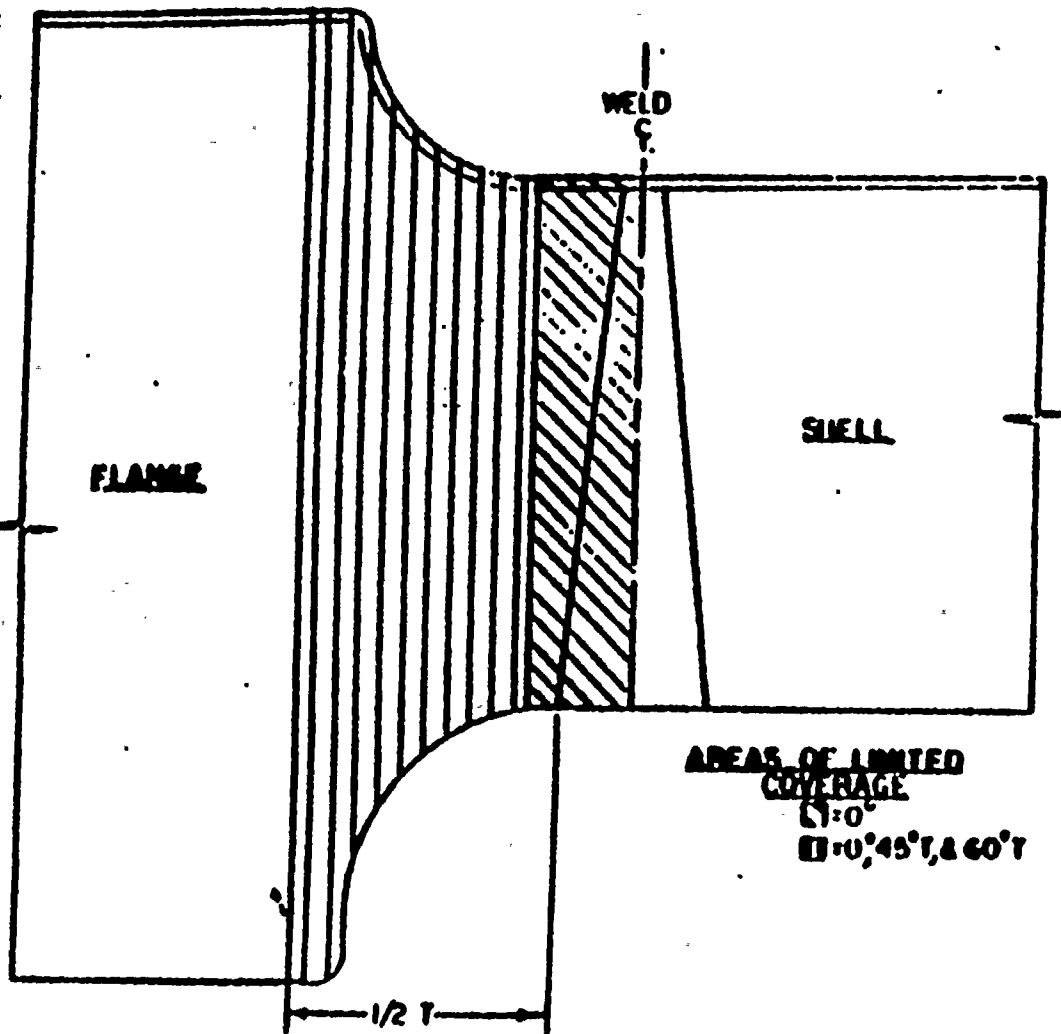
3-WR-18

4-WR-18

RELIEF REQUEST NO. 1-

DRAWING NUMBER

FIGURE NO. 2



TURKEY POINT UNITS 3/4

DATE: 5-29-84

DRAWN BY: F.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

RPV SHELL TO FLANGE WELD

3-WR-18

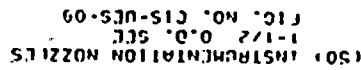
4-WR-18

RELIEF REQUEST NO 1

DRAWING NUMBER

FIGURE NO. 3



[illegible]

NOV 27 1964
U.S. DEPARTMENT OF THE ARMY
WASHINGTON, D.C.

90-519-513 70-00
 90-519-513 70-00
 90-519-513 70-00

01-2A-8

44-38861-53

01-44-*

15-8-51

6-24-*

ניסוח

- | TIME | |
|------|--------------|
| ① | 4 MIN. |
| ② | 7-8 1/2 MIN. |
| ③ | 9 1/2 MIN. |

* MOD A 3 OR 4. DEPENDING ON WHICH UNIT.

1.	155-172
2.	108-114
3.	91-100

7011 47% 11:5
50105 1010174

6
RECEIVED
JAN 11 1961
FBI

COODES & INSPECTION SECTION

10-A-510



1. FOR INNER RADIUS (XAMS ADD (IRS) TO NOZZLE IDENTIFICATION. EXAMPLE *-00-B-IRS
2. FOR VESSEL SUPPORT IDENTIFICATION ADD (S) TO NOZZLE ID. EXAMPLE *-00-B-S.

Technical drawing of a nozzle. The left view is a cross-section showing a circular nozzle with a conical internal structure. The angle of the cone is labeled as $3^{\circ}-4^{\circ}$. The right view is a side view showing the nozzle's profile, with a conical section and a cylindrical section. The angle of the conical section is labeled as 9° .

VESSEL SUPPORT
WELDED PAD DETAIL

SIZE	MATERIAL	SPECS
	SCH	TYPE

WESTINGHOUSE 117874C 9

CODES & INSPECTIONS SECTION
TURKEY POINT UNIT 3/4

SCALE	APPROVED BY:	DRAWN BY WTD
DATE		REVISED
REACTOR PRESSURE VESSEL PRIMARY NOZZLE ORIENTATION & NOZZLE TO SHELL WELD LOCATIONS, NOZZLE INNER RADIUS		

EPL CAD DRAWING NUMBER CIS-V-04

NO	DATE	REVISION	BY	CM	CDR	APP	NO	DATE	REVISION	BY	CM	CDR	APP
----	------	----------	----	----	-----	-----	----	------	----------	----	----	-----	-----

TURKEY POINT UNITS 3 & 4
SECOND INSPECTION INTERVAL
INSERVICE INSPECTION

RELIEF REQUEST # 3

A. COMPONENT IDENTIFICATION:

- CLASS 1 - REGENERATIVE HEAT EXCHANGER

B. EXAMINATION REQUIREMENTS:

Exam Cat. Item No.

- 1) B-B B2.61 - VOLUMETRIC EXAMINATION, TO INCLUDE 100% OF THE LENGTH OF CIRCUMFERENTIAL TUBE SHEET TO SHELL WELD.
- 2) B-D B3.150 - VOLUMETRIC EXAMINATION TO INCLUDE 100% OF
B3.160 EACH NOZZLE TO VESSEL WELD AND NOZZLE INSIDE RADIUS AREA
- 3) B-H B8.40 - VOLUMETRIC OR SURFACE EXAMINATION TO INCLUDE 100% OF EACH INTEGRALLY WELDED SUPPORT OF ONE EXCHANGER.
- 4) B-J B9.21 - SURFACE EXAMINATION TO INCLUDE 100% OF WELD SURFACE ON APPROXIMATELY 25% OF THE TOTAL INTERCONNECTING PIPING JOINTS

C. RELIEF REQUESTED

Relief is requested from code volume and surface area not achievable in performance of ultrasonic and surface examination on the Regenerative heat exchanger or vessel, interconnecting piping and support welds.

Item B2.61	SHELL TO TUBESHEET	PTP-3	3 WELDS	TABLE 1
		PTP-4	3 WELDS	TABLE 1
Item B3.150	NOZZLE TO SHELL	PTP-3	6 WELDS	TABLE 1
B3.160		PTP-4	6 WELDS	TABLE 1
Item B8.40	WELDED SUPPORT	PTP-3	1 WELD	TABLE 1
		PTP-4	1 WELD	TABLE 1
Item B9.21	INTERSTAGE PIPING	PTP-3	6 WELDS	TABLE 1
		PTP-4	6 WELDS	TABLE 1

D. BASIS FOR RELIEF:

Configuration, limited accessibility, high radiation levels, and supports prohibit 100% ultrasonic and surface examination coverage of the required code examination volume and surface area. The limitations and justification for each weld from code examination is discussed below including applicable Tables

RELIEF REQUEST # 3 CONTINUED

and Figures.

The amount of associated effort and supporting work to comply with the code requirements is not justified for the following reasons:

- 1) To perform these examinations, large expenditures of manhours and man-rem are required with essentially no compensating increase in plant safety, coupled by the increase in radiation (see figure nos.3 and 4 for comparison in radiation levels from 11-2-82 to 10-9-83 exposure. Additional areas contributing to the justification are as follows: (surveys were taken on Turkey Point 3, verification was made against Turkey point 4, and determined that the surveys in this relief were identical to unit 4.)
 - Florida Power & Light Company performed examinations on both Units 3 & 4 heat exchangers during the first and second inspection periods. The coverage and/or the examination limitations are depicted in figure no. 1.(The RGX examination coverage and/or examination limitations.) The regenerative heat exchanger component design arrangement and accessibility are not normally conducive to meaningful examination.(see fig. no. 2 for design configuration)
 - Additional temporary shielding must be installed for any examination, except for the visual method. As a consequence, this would reduce the access to the component for examination due to existing space conditions.
 - The component has to be uninsulated for examination. Typically, surfaces also have to be conditioned resulting in additional manrem and creating significant cleanliness problems.
 - Table no. 1 defines the identification of all Regenerative heat exchanger welds.

The alternate examinations and system pressure tests provides assurance of an acceptable level of quality and safety.

E. ALTERNATIVE EXAMINATION

In lieu of volumetric and surface examinationn perform visual (VT-2 & VT-3) examinations during system pressure tests.



RELIEF REQUEST # 3 CONTINUED

F. IMPLEMENTATION SCHEDULE

- 1) During each refueling outage the following will be performed:
 - a. Perform a visual examination (VT-3) at the beginning of the refueling outage for leakage and boric acid cumulation.
 - b. Prior to return to operation a visual examination (VT-2) will be performed during the system leakage test.
- 2) Perform a visual examination (VT-2) during the system hydrostatic pressure test at or near the end of the inspection interval.

G. ATTACHMENTS

FIGURE NO. 1	EXAMINATION LIMITATIONS
FIGURE NO. 2	DESIGN CONFIGURATION OF REGENERATIVE HEAT EXCHANGER
FIGURE NO. 3	RADIATION SURVEY 1982
FIGURE NO. 4	RADIATION SURVEY 1983
FIGURE CIS-V-11	REGENERATIVE HEAT EXCHANGER SHELL I,II,III
TABLE NO. 1	LIST OF AFFECTED WELDS

REGENERATIVE HEAT EXCHANGER WELD IDENTIFICATION

RELIEF REQUEST NO. 3

TABLE NO. 1

HEAD TO SHELL	SHELL TO TUBE SHEET- PRIMARY	TUBE SHEET TO SHELL- SECONDARY	CHANNEL HEAD WELD SECONDARY
RGX-(I)-1	* RGX-(I)-2	RGX-(I)-3	RGX-(I)-4
RGX-(II)-1	* RGX-(II)-2	RGX-(II)-3	RGX-(II)-4
RGX-(III)-1	* RGX-(III)-2	RGX-(III)-3	RGX-(III)-4

SHELL I

SHELL II

SHELL III

NOZZLE WELDS

* RGX-(I)-9
RGX-(I)-10
* RGX-(I)-11
RGX-(I)-12

* RGX-(II)-9
RGX-(II)-10
* RGX-(II)-11
RGX-(II)-12

* RGX-(III)-9
RGX-(III)-10
* RGX-(III)-11
RGX-(III)-12

NOZZLE TO PIPE INTERSTAGE PIPING

SHELL I

SHELL II

SHELL III

INTEGRALLY WELDED SUPPORTS

* RGX-(I)-7
RGX-(I)-8
* RGX-(I)-9
RGX-(I)-5

* RGX-(II)-5
RGX-(II)-6
* RGX-(II)-7
RGX-(II)-8

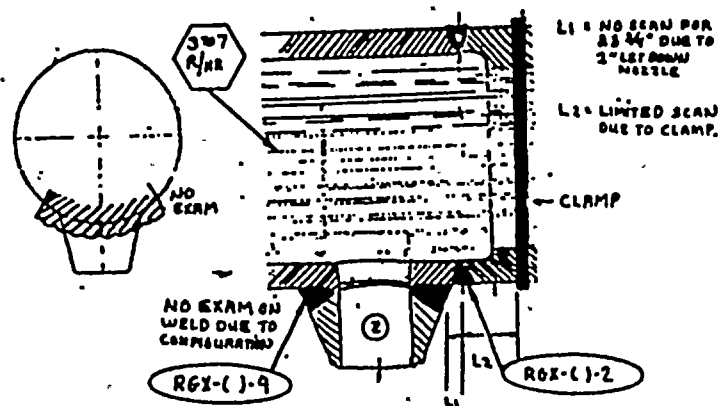
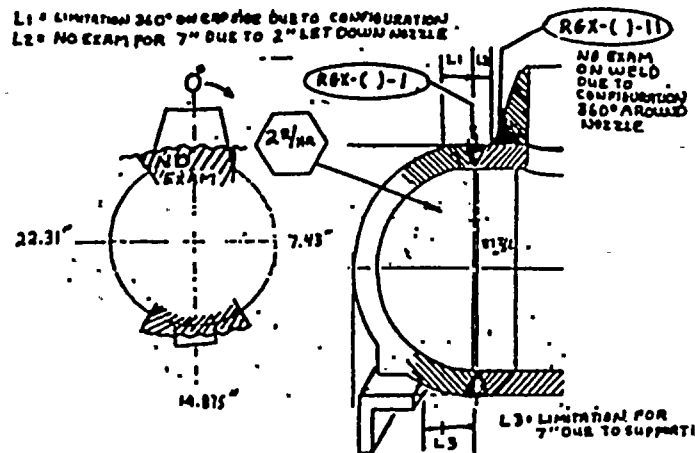
* RGX-(III)-7
* RGX-(III)-5
RGX-(III)-6
RGX-(III)-8

* RGX-(I)-LUG
* RGX-(II)-LUG
* RGX-(III)-LUG

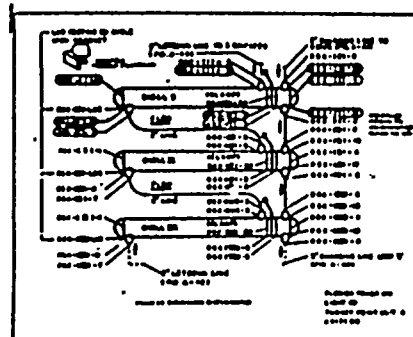
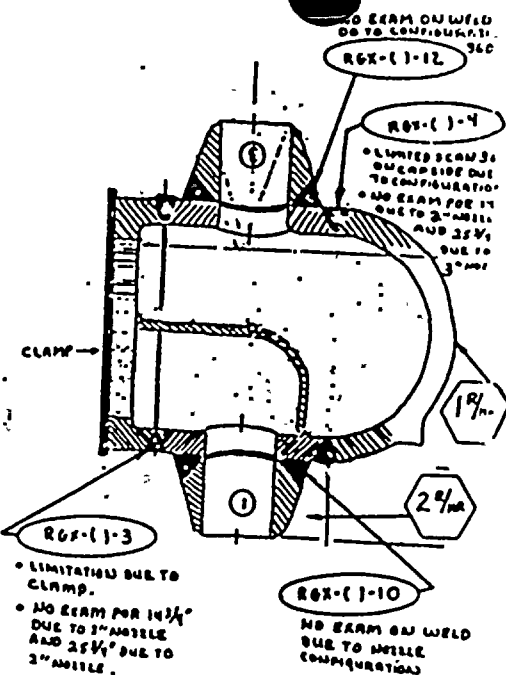
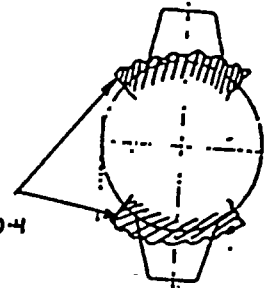
NOTE * = DENOTES EXAMINATIONS REQUIRED BY CODE



L1 = LIMITATION 360° ON EXPOSED DUE TO CONFIGURATION
L2 = NO EXAM FOR 7" DUE TO 2" LET DOWN ANGLE



NO EXAM
R6X-()-4



• Radiation Readings
IN REM/HR AT
CONTACT.

TURKEY POINT UNIT-3/4

DATE: 5-30-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

REGENERATIVE HEAT EXCHANGER COVERAGE AND/OR
EXAMINATION LIMITATIONS

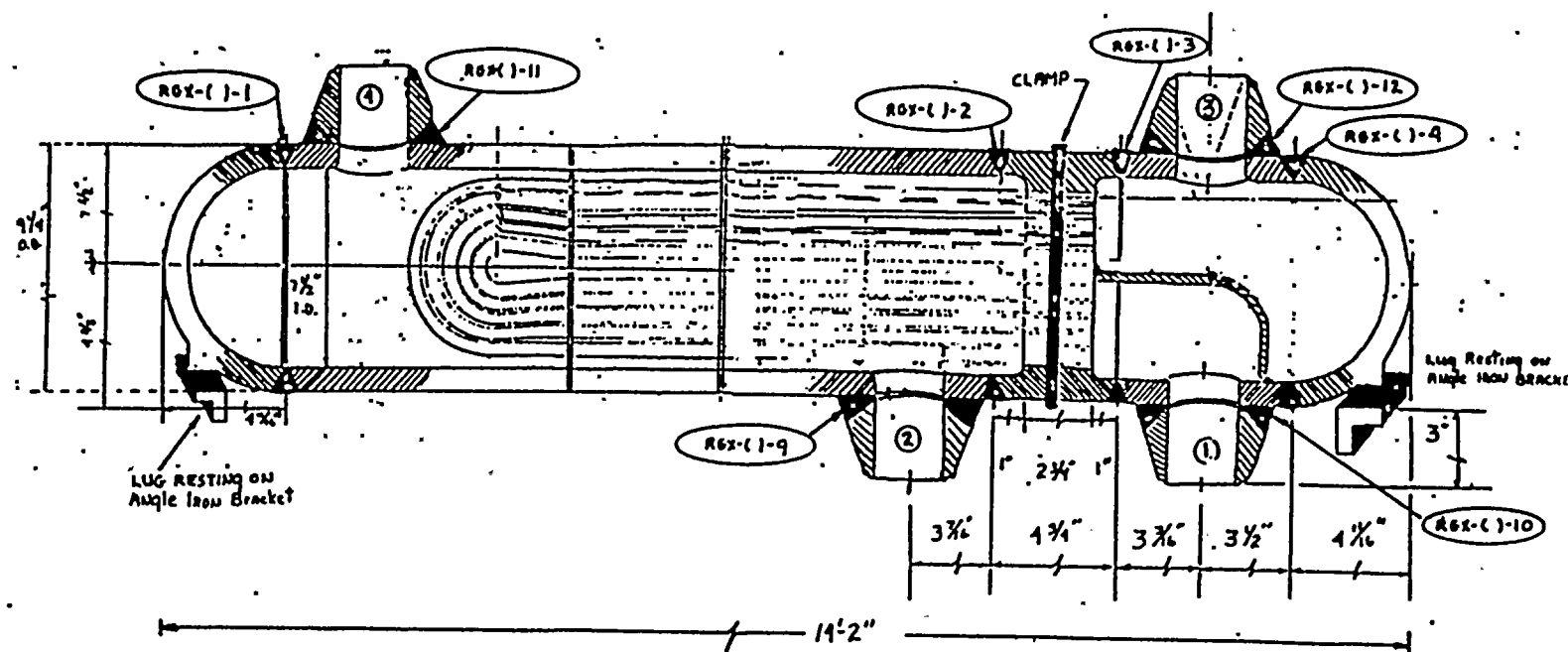
RELIEF REQUEST NO. 3

DRAWING NUMBER

FIGURE NO. 1



- ① 3" CHARGING LINE
- ② 2" LETDOWN LINE
- ③ 3" CHARGING LINE
- ④ 2" LETDOWN LINE



TURKEY POINT UNIT 3/4

DATE: 5-30-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

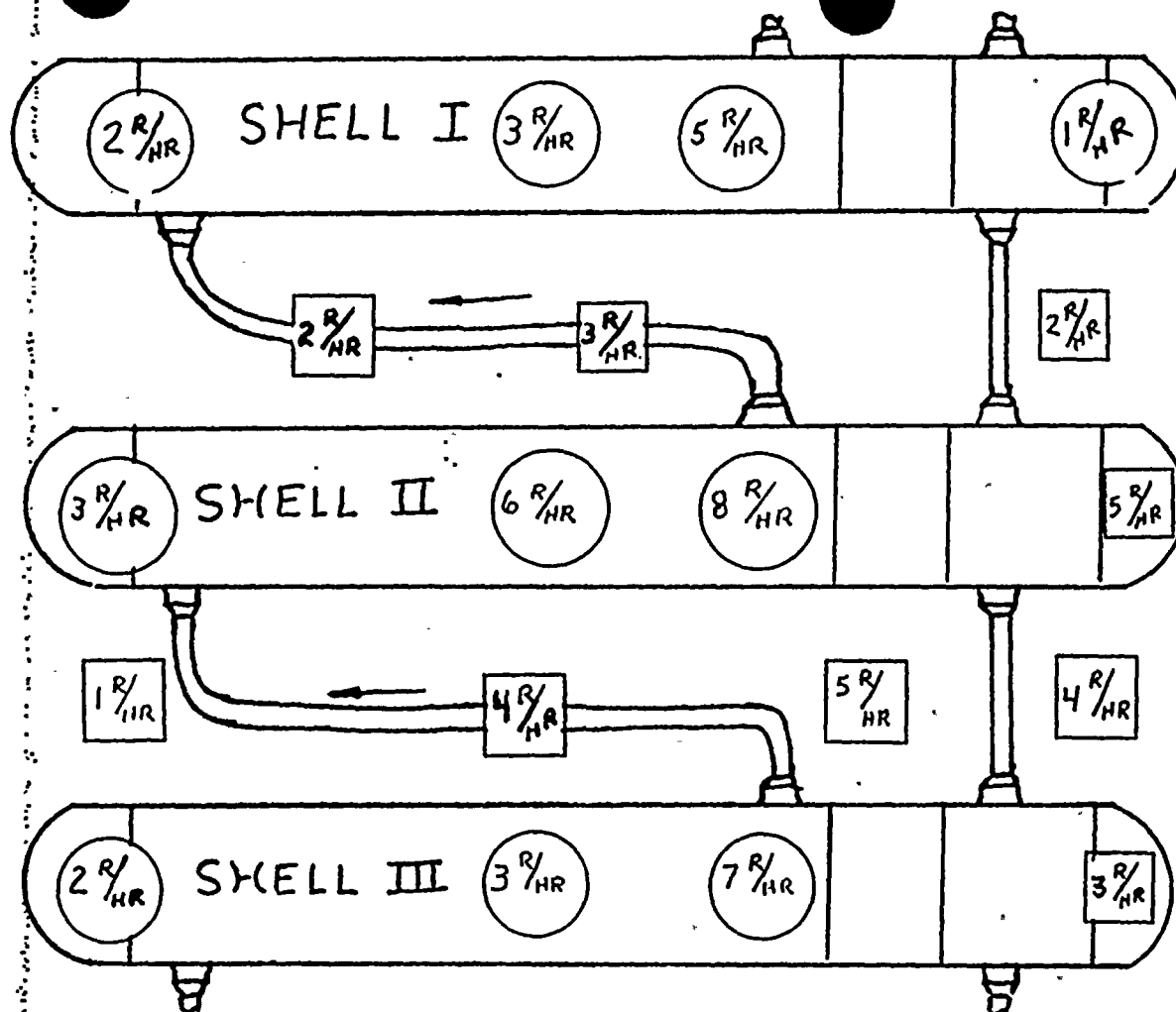
REGENERATIVE HEAT EXCHANGER DESIGN AND WELD
IDENTIFICATION DRAWING

RELIEF REQUEST NO. 3

DRAWING NUMBER

FIGURE NO. 2





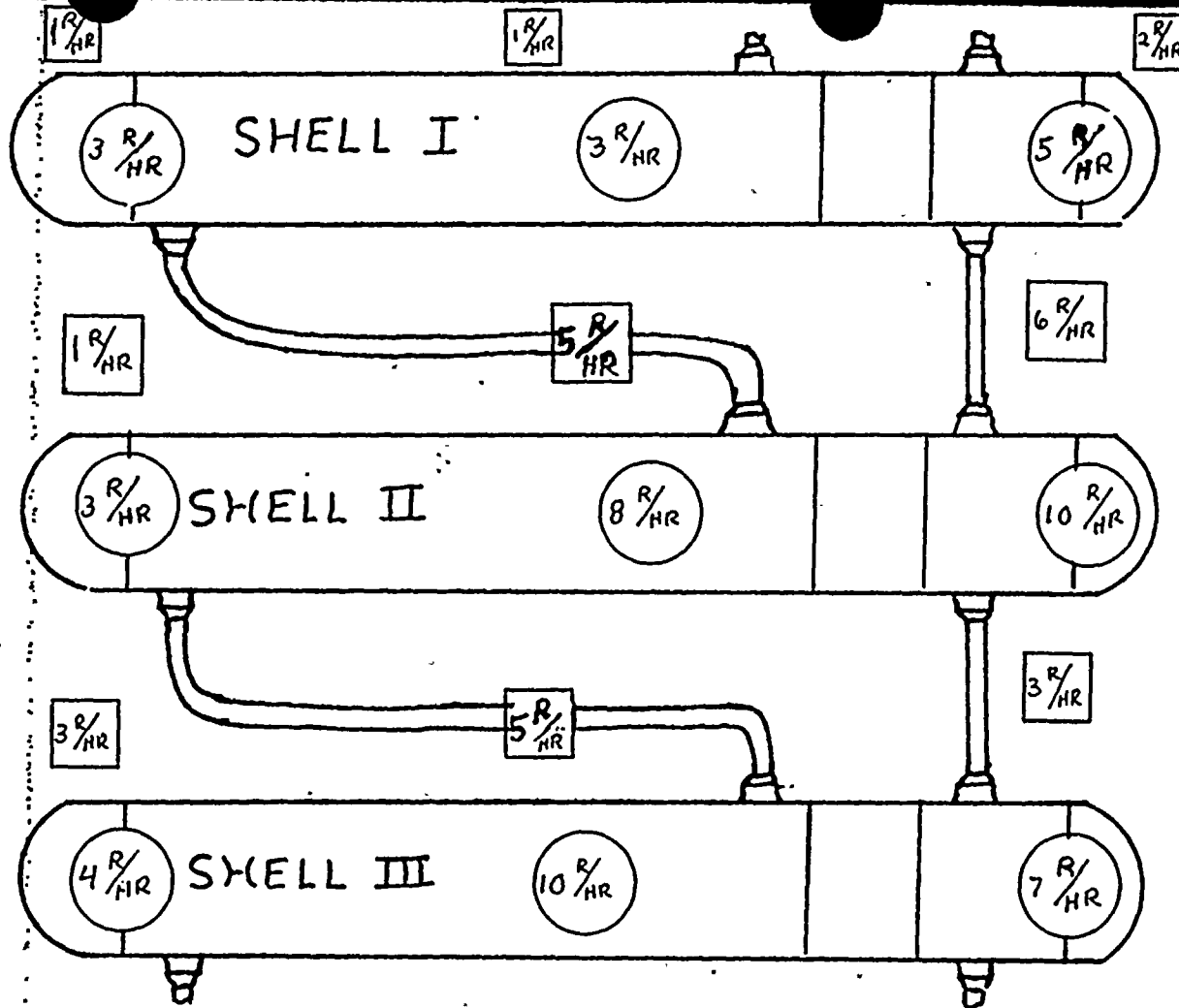
□ = R/HR AT CONTACT

○ = R/HR AT 18"

TURKEY POINT UNIT 3/4

DATE: 5-30-84	DRAWN BY: E.L. ANDERSON	APPROVED BY:
SCALE: NONE	REVISED:	
REGENERATIVE HEAT EXCHANGER RADIATION SURVEY AS OF 11/2/82		
RELIEF REQUEST NO. 3		DRAWING NUMBER FIGURE NO. 3





□ = R/HR AT CONTACT

○ = R/HR AT 18"

TURKEY POINT UNIT 3/4

DATE: 5-30-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

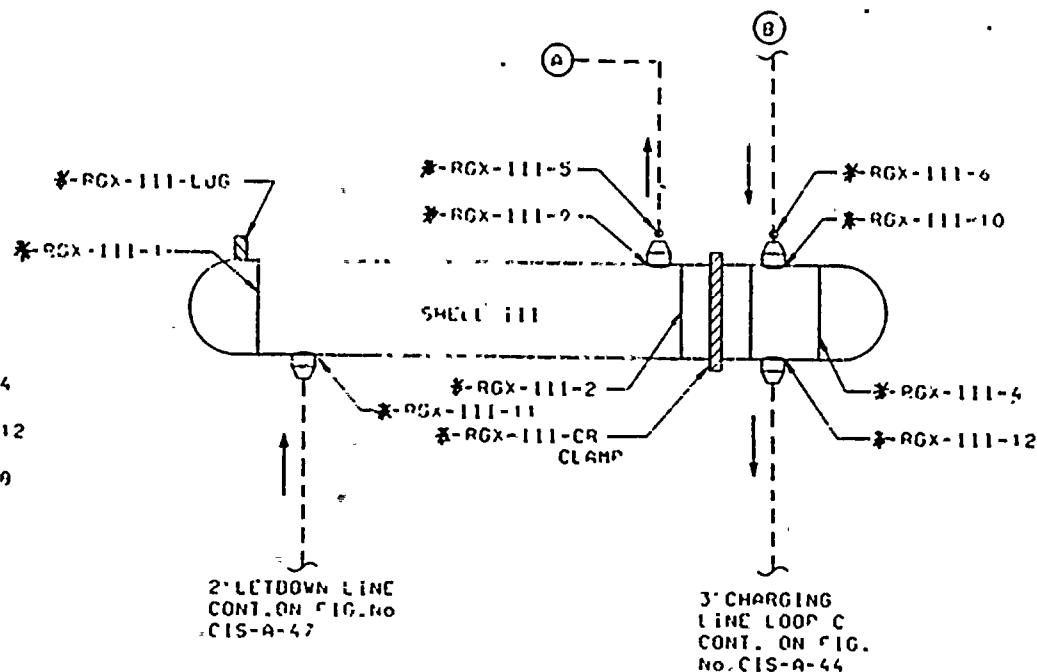
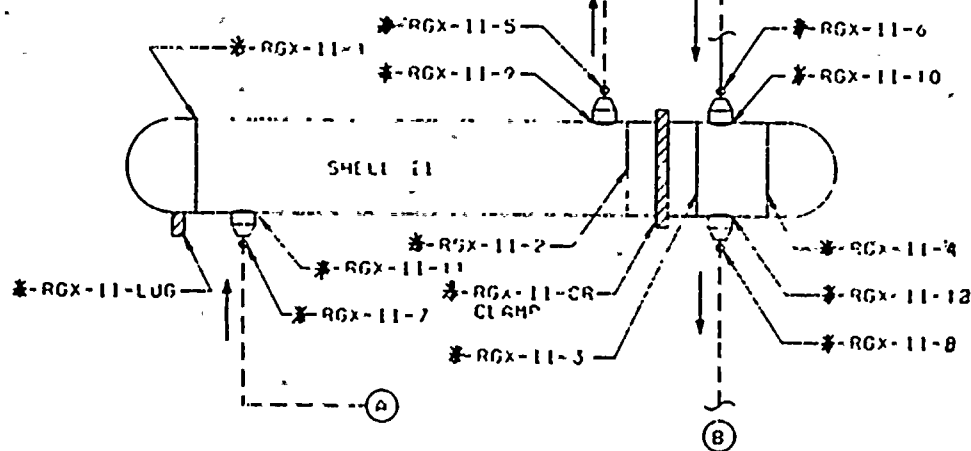
REGENERATIVE HEAT EXCHANGER RADIATION SURVEY
AS OF 10/9/83

RELIEF REQUEST NO. 3

DRAWING NUMBER

FIGURE NO. 4





SIZE	MAJORIAL	TREES
SCN		TYPE

SENTRY DWG. A04175-A044 9

SCALE	APPROVED BY	DRAWN BY WTD
DATE		REVISED
REGENERATIVE HEAT EXCHANGER SHELL 1-SHELL 11.8 SHELL 111		
EPL CAD		DRAWING NUMBER CIS-V-11



TURKEY POINT UNITS 3/4

SECOND INSPECTION INTERVAL

INSERVICE INSPECTION

RELIEF REQUEST # 6/7

A. COMPONENT CLASSIFICATION:

- CLASS 1 - REACTOR COOLANT PUMP

B. EXAMINATION REQUIREMENTS:

Exam Cat. Item No.

B-L-2 B12.10 - VOLUMETRIC EXAMINATION, TO INCLUDE 100%
OF PRESSURE RETAINING WELDS OR A SUPPLEMENTARY
SURFACE EXAMINATION ON ONE PUMP IN EACH GROUP
OF PUMPS PERFORMING SIMILAR FUNCTIONS IN THE
SYSTEM.

B-L-2 B12.20 - VISUAL EXAMINATION OF THE INTERNAL PRESSURE
BOUNDARY SURFACES ON ONE PUMP IN EACH OF THE
GROUP OF PUMPS PERFORMING SIMILAR FUNCTIONS
IN THE SYSTEM.

C. RELIEF REQUESTED:

Relief is requested from code volumetric or supplementary surface) and visual examinations of the Reactor Coolant Pump Casing welds and internals during the Inspection Interval. These include the following pumps (including 3 applicable: casing welds per pump):

Item No. B12.10/B12.20	3-RCP-A	4-RCP-A	FIG. NO. 6
	3-RCP-B	4-RCP-B	FIG. NO. 6
	3-RCP-C	4-RCP-C	FIG. NO. 6

D. BASIS FOR RELIEF:

Volumetric (ultrasonic) examination is not feasible due to the material construction of the pump casing. Configuration of the pump design requires disassembly of the pump (including internal parts) to perform radiographic examination. Supplementary surface examination is not practical due to the porous nature of the natural construction based on examination conducted on one pump (PTP-3), during the first interval. Visual examination is not practical since it requires total disassembly of the pump. The limitations and justification for code relief is dicussed below including applicable figures.

- 1) **STATE-OF-THE-ART ULTRASONIC TECHNIQUES** have not been developed to meet the code requirements. In the event that an ultrasonic examination technique is developed that meets the code requirements, the intent of the code will be followed.



RELIEF REQUEST # 6/7 CONTINUED

Florida Power & Light Company has representation on the ASME Code committees, and keeps abreast of State-of-the-Art developments in all aspects of nondestructive examination methods in the industry.

- 2) Radiographic examination is not possible without the complete disassembly of the pump (see figure 1). To perform this examination, large expenditures of manhours and man-rem are required with essentially no compensating increase in plant safety. Based on actual data compiled from the radiographic examination of the Turkey Point Unit No. 3 reactor coolant pump casing welds and visual examination of the internal boundary surface on one pump, in excess of 5900 manhours and 46 man-rem exposure was expended in the disassembly, examinations and reassembly of the pump. These examinations are conducted under somewhat adverse conditions which have far reaching effects as depicted in Figures 2 thru Figure 5.
- 3) There is a very low probability, based upon industry experience, to disassembly pump(s) for maintenance purposes. There is no requirement by the pump manufacture (Westinghouse) to disassemble the pump(s) as part of normal maintenance or inspection. Accordingly, Florida Power & Light Company's procedures do not require disassembly of the pump(s) for maintenance or inspection purposes. There are no reported failures within the pump casings with these model pump(s). It's note worthy to mention that removal of the pump impeller does not provide access to the casing internal surfaces which would still prohibit the inspection (visual and volumetric) of the pump to code requirements. See Figure 1 for items to be removed for code ISI examination compliance.
- 4) Florida Power & Light Company feels that adequate safety margins are inherent in the basic pump design. The structural integrity afforded by the existing pump casing material will not significantly degrade over its lifetime. The reactor coolant pump casing material, cast stainless steel (ASTM A351-CF8M), is widely used in the nuclear industry and has performed extremely well. The presence of some delta ferrite (typically 5% or more) substantially increases resistance to intergranular corrosion and stress corrosion cracking. The delta ferrite also results in improved resistance to pitting corrosion.
- 5) Florida Power & Light Company feels that the satisfactory inspection results achieved in February 1982 (see D.2), coupled with the same inspections conducted by three (3) other utility company's and employing the same manufactures model pumps, provides additional assurance as to the pump's casing integrity.



RELIEF REQUEST # 6/7 CONTINUED

E. ALTERNATE EXAMINATIONS:

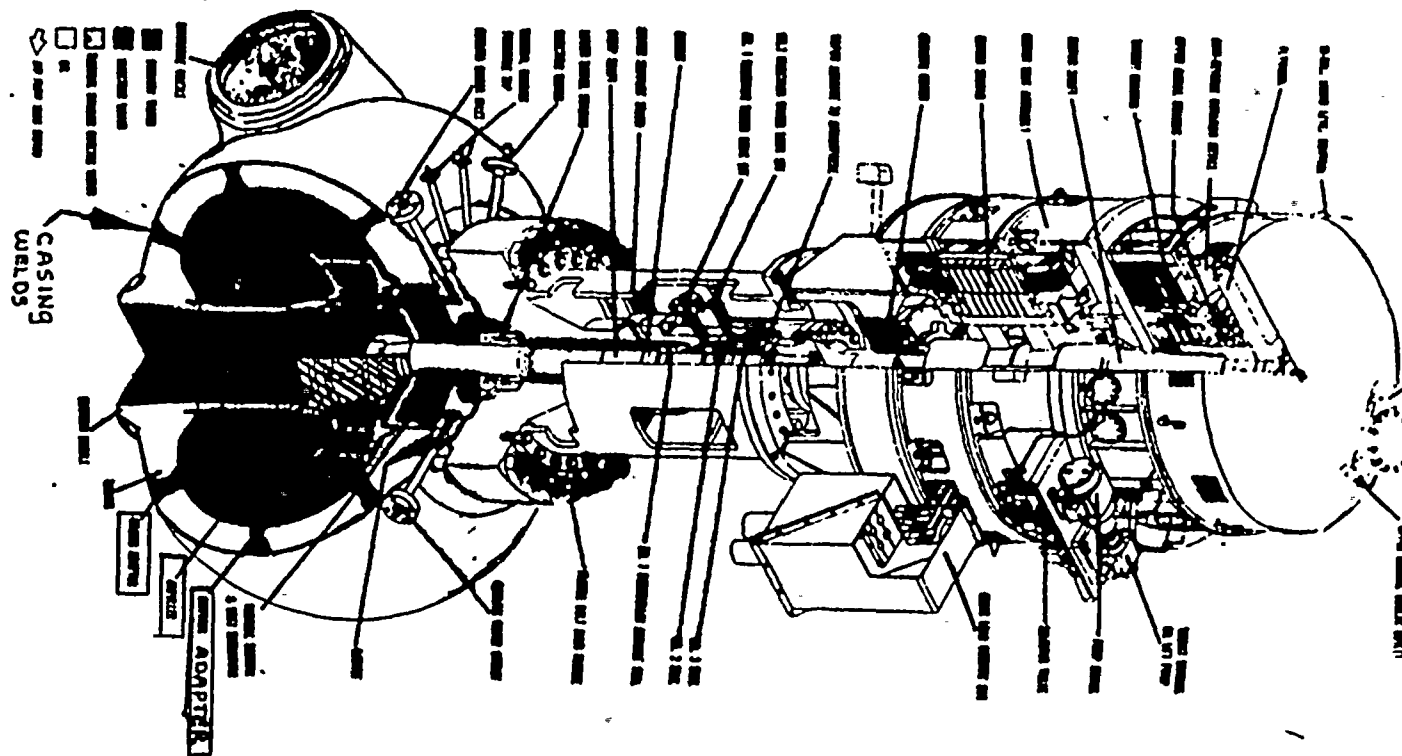
- 1) Manufacture's shop radiographs, ASME Section III
- 2) Hydrostatic Tests, ASME Section XI
- 3) 100% visual examination of the external surfaces only of one pump casing welds to the extent and frequency of examination category B-L-1
- 4) The alternate examination and tests provide assurance of an acceptable level of quality and safety.


F. IMPLEMENTATION SCHEDULE

At or near the end of the Inspection Interval

G. ATTACHMENTS TO RELIEF REQUEST NO. 6/7

FIGURE NO. 1	REACTOR COOLANT PUMP
FIGURE NO. 2	GENERAL SURVEY OF RCP AREA PRIOR TO RT (MINAC) AND DURING THE (MINAC) EXAMINATION 14' EL.
FIGURE NO. 3	GENERAL SURVEY OF RCP AREA PRIOR TO RT (MINAC) AND DURING THE (MINAC) EXAMINATION 30'6" EL.
FIGURE NO. 4	GENERAL SURVEY OF RCP AREA PRIOR TO RT (MINAC) AND DURING THE (MINAC) EXAMINATION 58' EL.
FIGURE NO. 5	RADIATION SURVEY READINGS
FIGURE NO. 6	REACTOR COOLANT PUMP WELD IDENTIFICATION & LOCATION



 = ITEMS WHICH
MUST BE REMOVED
FOR ISI

TURKEY POINT UNIT 3/4

DATE: 5-30-84

DRAWN BY
E. L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED



REACTOR COOLANT PUMP

RELIEF REQUEST NO. 617

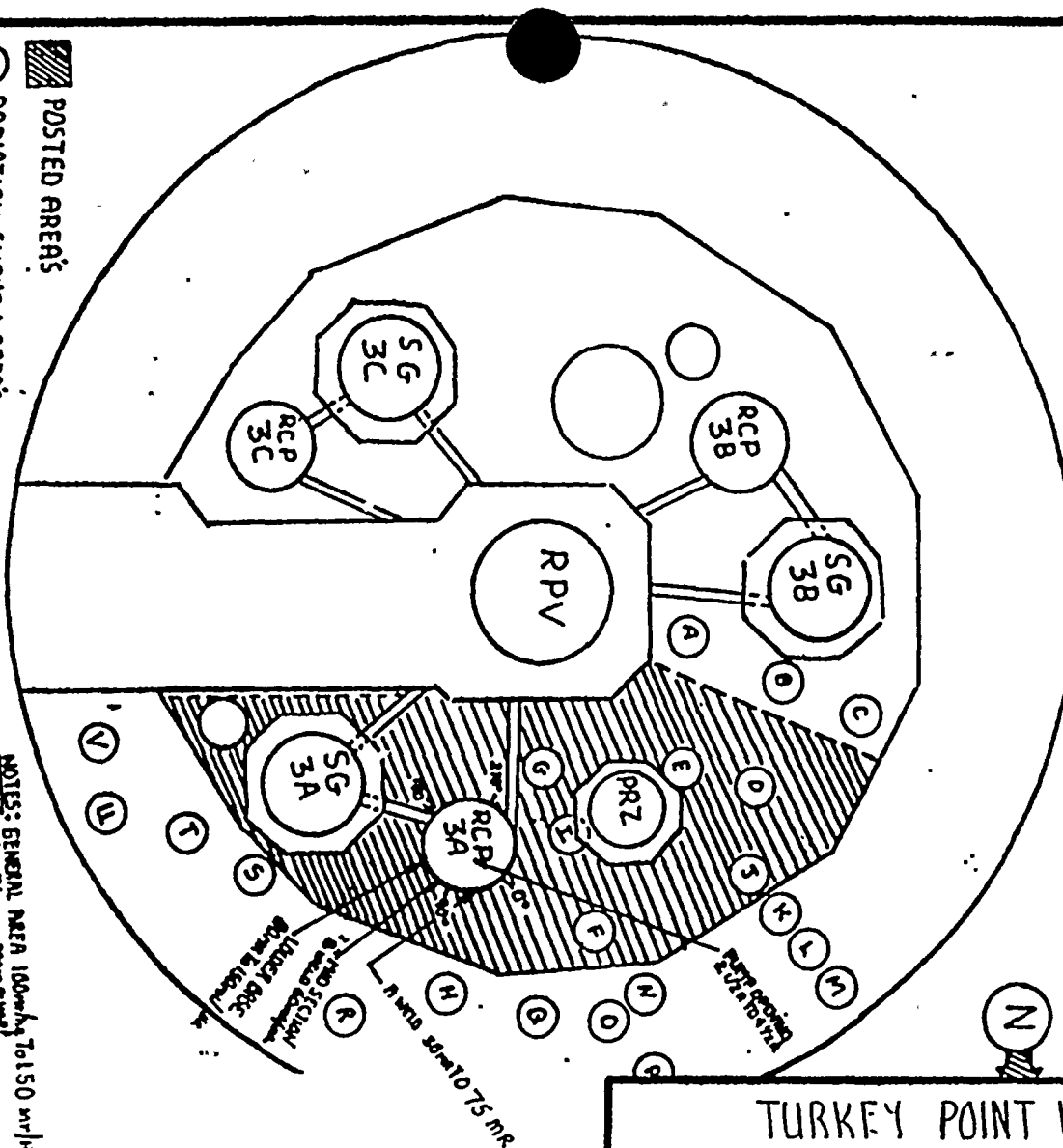
DRAWING NUMBER

FIGURE NO. 1



 POSTED AREAS
 RADIATION SURVEY AREAS
 SEE FIG. 5 FOR VALUES

NOTES: GENERAL AREA 100m/h To 150 m/h
 2' TO 3' ABOVE FROM PUMP



TURKEY POINT UNIT 3/4

DATE: 5-30-84

DRAWN BY
EL. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

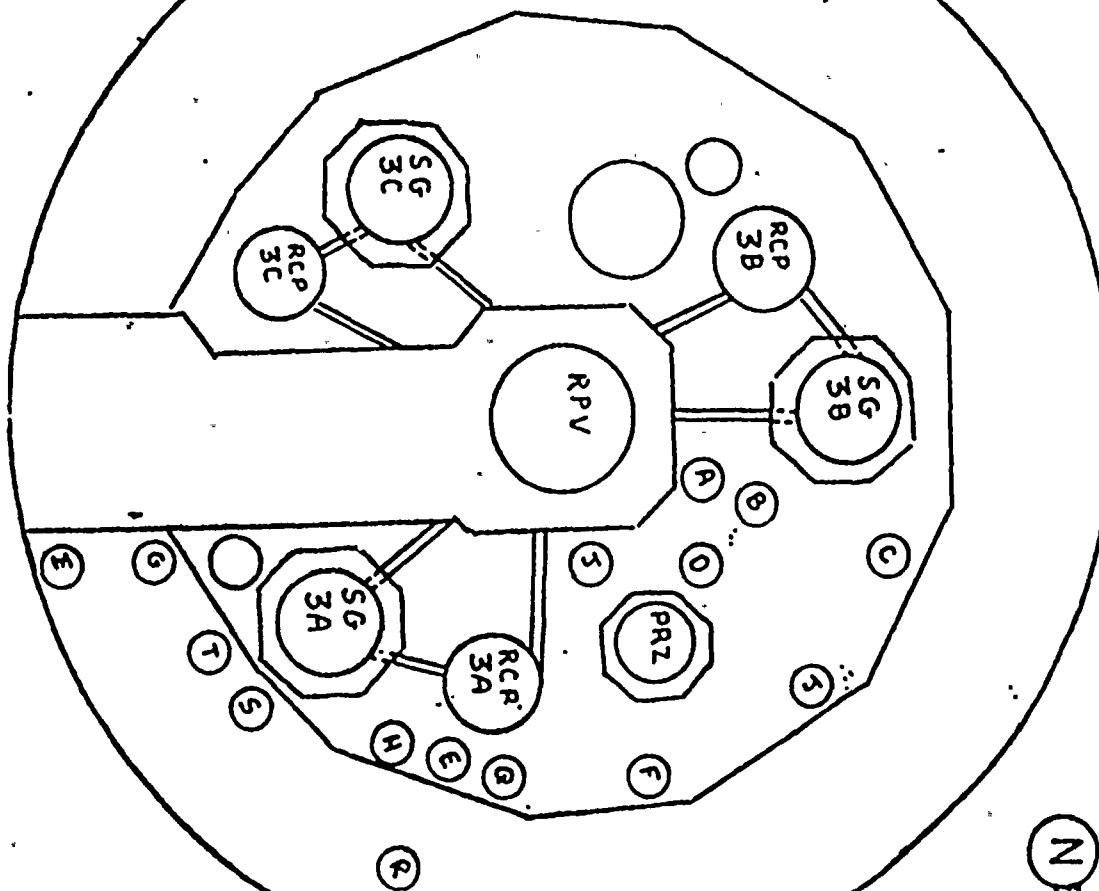
GENERAL SURVEY OF RCP AREA PRIOR TO RT (MINAC)
 AND DURING THE (MINAC) EXAMINATION 14' ELEVATION

RELIEF REQUEST NO. 617

FIGURE NO. 2



○ RADIATION SURVEY AREA'S
SEE FIG. 5 FOR VALUES



TURKEY POINT UNIT 3/4

DATE: 5-30-84

DRAWN BY
EL ANDERSON

APPROVED BY:

SCALE: NONE

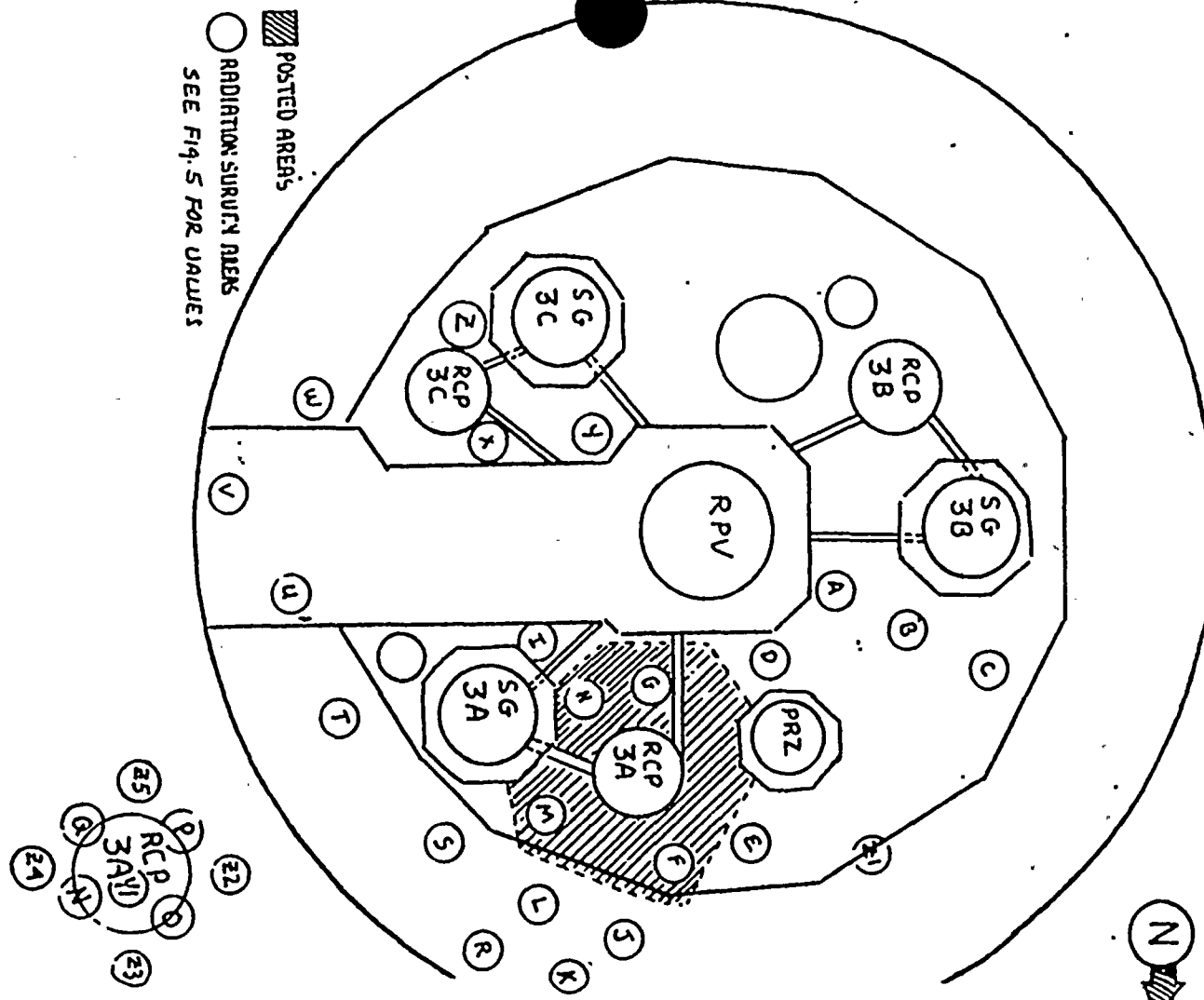
REVISED

GENERAL SURVEY OF RCP AREA PRIOR TO RT (MINAC)
AND DURING THE (MINAC) EXAMINATION 30'-6" ELEVATION

RELIEF REQUEST NO. 617

REVISION NUMBER

FIGURE NO. 3



TURKEY POINT UNIT 3/4

DATE: 5-30-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

GENERAL SURVEY OF RCP AREA PRIOR TO RT(MINAC)
AND DURING THE(MINAC) EXAMINATION 58' ELEVATION

RELIEF REQUEST NO. 617

DRAWING NUMBER

FIGURE NO. 4



RELIEF REQUEST NO. 6/7

FIGURE NO. 5

RADIATION SURVEY READINGS

ITEM NO.	ELEVATIONS					
	14'		30'-6"		58'	
	PRIOR	DURING	PRIOR	DURING	PRIOR	DURING
A	100				7	7
B	100	150	1		3	5
C	80		4			
D	90			1	7	7
E	70		4		45	
F	70	75	.4	.6	.8	
G	100		2		4	4
H	5		.4	.5	2	3
I			14		3.5	4
J				.6	.8	.8
K					.4	.5
L					.4	
M		.3			.7	1
N		5			10	400
O		25			10	400
P		2			10	400
Q		5			10	400
R		2.5			.4	
S		50			.5	.5
T		5			1.5	1.5
U		2.5			10	
V					5	
W					6	7
X					5	5
Y					10	15
Z						5
Z1						4
Z2						15
Z3						15
Z4						15
Z5						15
Y1						600

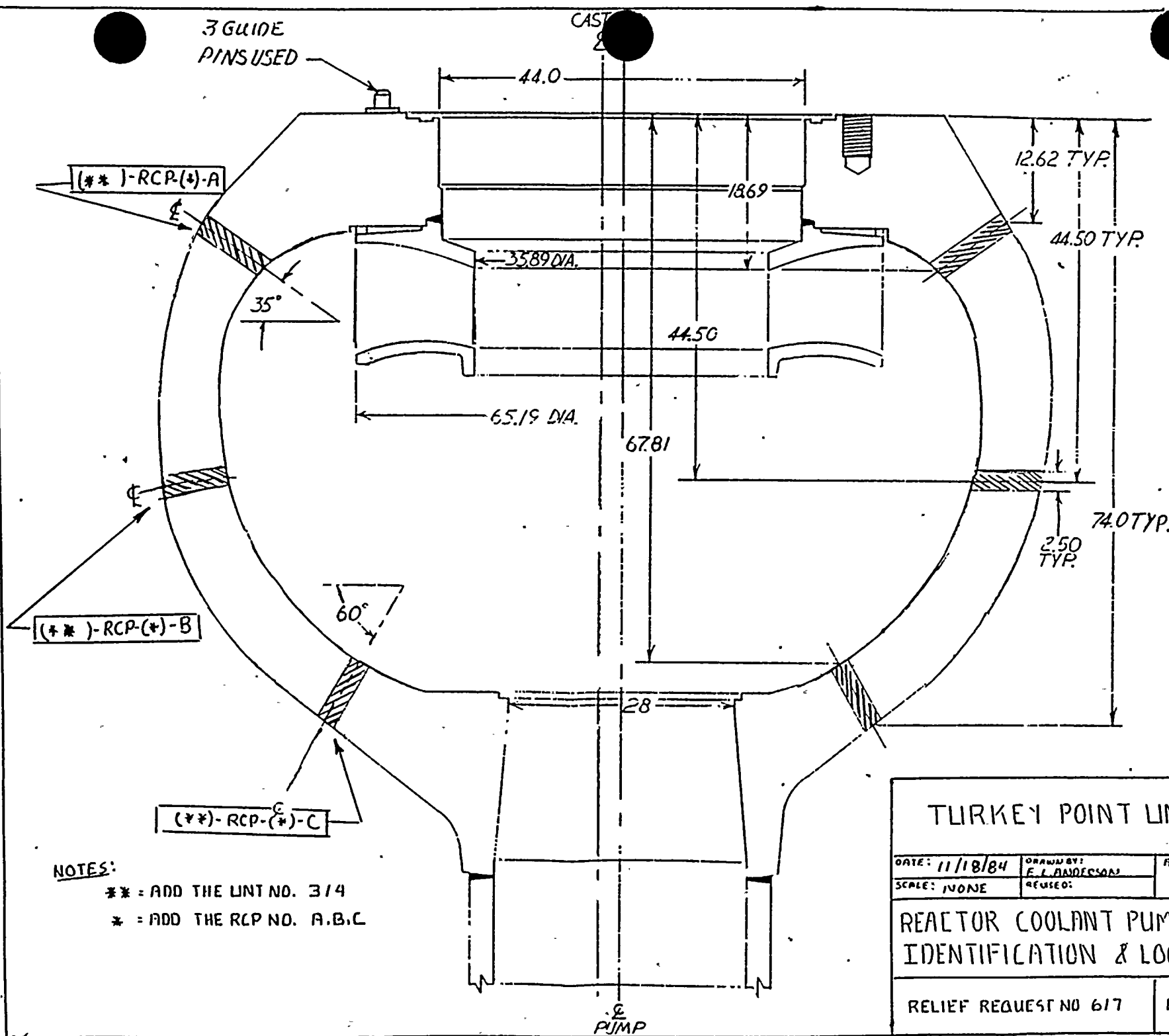
NOTES:

1. ALL DOSE RATES ARE IN MREM/HOUR
2. READINGS FOR DURING WERE TAKEN DURING 360 DEGREE ROTATIONAL SHOT AT 100% POWER.



3 GUIDE
PINS USED

CAST



NOTES:

- ** = ADD THE UNIT NO. 3/4
- * = ADD THE RCP NO. A,B,C

TURKEY POINT UNIT 3/4

DATE: 11/18/84	DRAWN BY: F. L. ANDERSON	APPROVED BY:
SCALE: NONE	REUSED:	
REACTOR COOLANT PUMP WELD IDENTIFICATION & LOCATION		
RELIEF REQUEST NO 617		FIGURE NO. 6



TURKEY POINT UNITS 3 & 4
SECOND INSPECTION INTERVAL
INSERVICE INSPECTION

RELIEF REQUEST # 8

A. COMPONENT IDENTIFICATION:

- CLASS 1 - VALVE BODIES

B. EXAMINATION REQUIREMENTS:

Exam Cat. Item No.

B-M-2 B12.50 - VISUAL EXAMINATION (VT-3) OF INTERNAL
SURFACES - VALVES

NRC QUESTION NO. 5 OF SECOND REQUEST FOR ADDITIONAL INFORMATION

Please indicate whether the entries under Item B12.50 of Appendix A in your May 4, 1984, submittal mean that you have identified a total of 13 valve groups in the Turkey Point Plant that fit footnote 3 for Item B12.50. For how many of these groups have you examined one or more valves? What were the results of these examinations? If this information has been previously submitted to NRC, you may refer to specific pages in previously submitted documents.

RESPONSE: The 13 valves identified in the Program represents the total number of valves, not groups, to code requirements (note 3). The records under review show that eight (8) different valves have been examined during the repair or maintenance of the valves. Some of these more than once. Since these records do not always report the manufacture, we do not know how many groups they represent. We will transmit this information upon completion of our review. Accordingly, we will revise the relief request, and update the program to reflect this information.

NOTE: There were no reported findings of the valve body internal surfaces.



INSERVICE INSPECTION

RELIEF REQUEST # 9

A. COMPONENT IDENTIFICATION:

- CLASS 1 - REACTOR COOLANT PUMP

B. EXAMINATION REQUIREMENTS:

Exam Cat. Item No.

B-K-1 B10.20 - VOLUMETRIC OR SURFACE EXAMINATION, INTEGRALLY-
WELDED EXTERNAL SUPPORT ATTACHMENTS
INCLUDES THE WELDS TO THE PRESSURE
-RETAINING BOUNDARY AND THE BASE
METAL BENEATH THE WELD ZONE AND ALONG
THE SUPPORT ATTACHMENT MEMBER FOR A
DISTANCE OF TWO SUPPORT THICKNESSES

C. RELIEF REQUESTED:

Relief is requested from code volumetric or surface examination of inaccessible weld and adjacent areas of the pump support members not achievable during the Inspection Interval. These include the following welds: Item B5.4

3-RCP-A-L1,2 & 3
3-RCP-B-L1,2 & 3
3-RCP-C-L1,2 & 3

4-RCP-A-L1,2 & 3 FIGURE NO. 1
4-RCP-B-L1,2 & 3 FIGURE NO. 1
4-RCP-C-L1,2 & 3 FIGURE NO. 1

D. BASIS FOR RELIEF:

Configuration of the integrally welded supports as welded to the pump body and structural interfaces prohibit meaningful nor conclusive ultrasonic or radiographic code examination. Further 100% surface examination coverage is not achievable due to the inaccessibility of portions of the weld.. Figure no. 1 provides a graphic view of what areas of the lug cannot be examined.

The alternate examinations and tests provide assurance of an acceptable level of quality and safety.

E. ALTERNATIVE EXAMINATION

- 1) Perform surface examinations per the ISI schedule.
- 2) Perform VT-3 examination to the extent practical on areas inaccessible for surface examination per surface ISI schedule.

RELIEF REQUEST # 9 CONTINUED

- 3) Upon disassembly of a pump from the pad, conduct a surface examination on the inaccessible area.

F. IMPLEMENTATION SCHEDULE

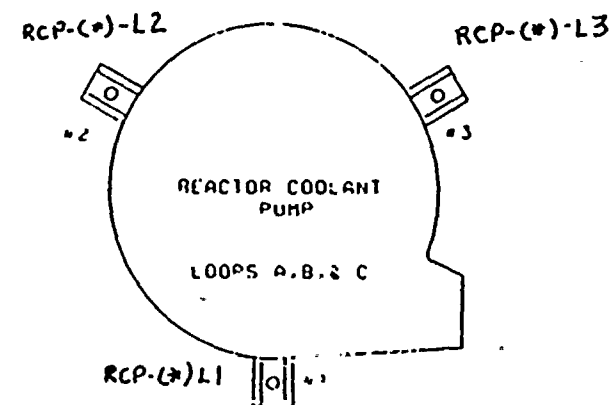
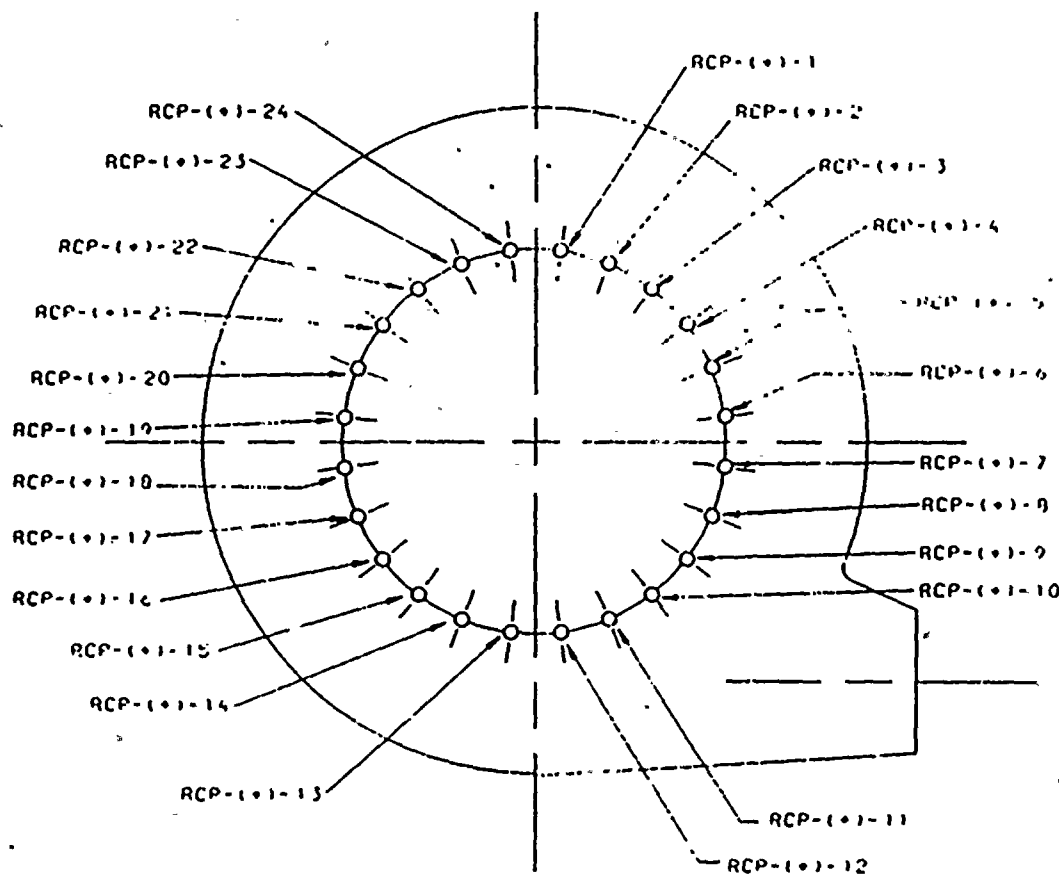
- SECOND INSPECTION INTERVAL

G. ATTACHMENTS

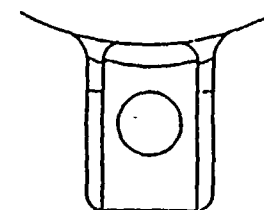
FIGURE NO. 1 - RCP INTEGRAL WELDED LUGS EXAMINATION LIMITATIONS. (Typical all 6 Reactor Coolant Pumps)

FIGURE NO. CIS-V-13 - REACTOR COOLANT PUMP MAIN FLANGE STUD & NUTS AND PUMP SUPPORTS





PUMP SUPPORT LOCATION
LOOPS A, B, & C



SUPPORT DETAIL
FROM ABOVE

SIZE	MATERIAL SPEC.	
	SCM	TYPE

IDENTIFICATION OF APPLICABLE STUDS AND NUTS SHALL BE MADE BY INSERTING THE FOLLOWING DESIGNATIONS IN PLACE OF (*)

MAIN COOLANT PUMP LOOP A STUDS- (FSA)
 MAIN COOLANT PUMP LOOP A NUTS- (FNA)
 MAIN COOLANT PUMP LOOP B STUDS- (FSB)
 MAIN COOLANT PUMP LOOP B NUTS- (FNB)
 MAIN COOLANT PUMP LOOP C STUDS- (FCS)
 MAIN COOLANT PUMP LOOP C NUTS- (FNC)
 MAIN COOLANT PUMP LOOP A SUPPORTS- (A)
 MAIN COOLANT PUMP LOOP B SUPPORTS- (B)
 MAIN COOLANT PUMP LOOP C SUPPORTS- (C)

REFERENCE DRAWING.

REV

CODES & INSPECTIONS SECTION
 TURKEY POINT UNIT 3/4

SCALE	APPROVED BY	DRAWN BY WLD
DATE		REVISED
REACTOR COOLANT PUMP MAIN FLANGE STUDS & NUTS AND PUMP SUPPORT LUGS		
FPL CARD		DRAWING NUMBER CIS-V-13

NO	DATE	REVISION	BY	CHK	CLP	APP	NO	DATE	REVISION	BY	CHK	CLP	APP
----	------	----------	----	-----	-----	-----	----	------	----------	----	-----	-----	-----



TURKEY POINT UNITS 4
SECOND INSPECTION INTERVAL
RELIEF REQUEST

RELIEF REQUEST # 10

A. COMPONENT IDENTIFICATION:

CLASS 1 - REACTOR COOLANT and AUXILIARY COOLING
SYSTEM WELDS

B. EXAMINATION REQUIREMENTS:

Exam Cat.	Item No.	
1) B-J	B9.11	- VOLUMETRIC AND SURFACE EXAMINATION OF CIRCUMFERENTIAL WELDS EQUAL TO OR GREATER THAN 4 INCH NOMINAL PIPE SIZE.
2) B-J	B9.31	- VOLUMETRIC AND SURFACE EXAMINATION OF BRANCH CONNECTIONS WELDS EQUAL TO OR GREATER THAN 4 INCH NOMINAL PIPE SIZE.

C. RELIEF REQUESTED

Relief is requested from code volume and area not achievable by ultrasonic and surface examination of the following welds:

Item B4.5 (12"-RC-3)	6" OF CIRCUMFERENTIAL WELD	FIG. 1 (UT & PT)
Item B4.5 (14"-AC-4)	5" OF CIRCUMFERENTIAL WELD	FIG. 2 (UT ONLY)
Item B4.6 (12"/10"-RC)	AN AREA 4" x 3" OF CIRC. WELD	FIG. 3 (UT & PT)

C. BASIS FOR RELIEF:

Configuration, permanent attachments and/or structural interferences prohibit 100% ultrasonic and surface (as applicable) examination coverage of the required code examination volume and surface. The limitations and justification for each weld is depicted in the attached Figures.

Fig. no. 1 Limitation due to welded plate at 180 degrees

Fig. no. 2 Limitation due to proximity of adjacent pipe run at 270 degrees.

Fig. no. 3 Limitation due to location of thermocouple at 100 degrees

RELIEF REQUEST # 10 CONTINUED

The extent of examination volume and area achieved and the alternative tests, provide assurance of an acceptable level of quality and safety.

E. ALTERNATIVE EXAMINATION

- 1) Periodic System Leakage tests per category B-P,
Table IWB-2500-1;
- 2) Inservice hydrostatic test per category B-P,
Table IWB-2500-1;

E. IMPLEMENTATION SCHEDULE

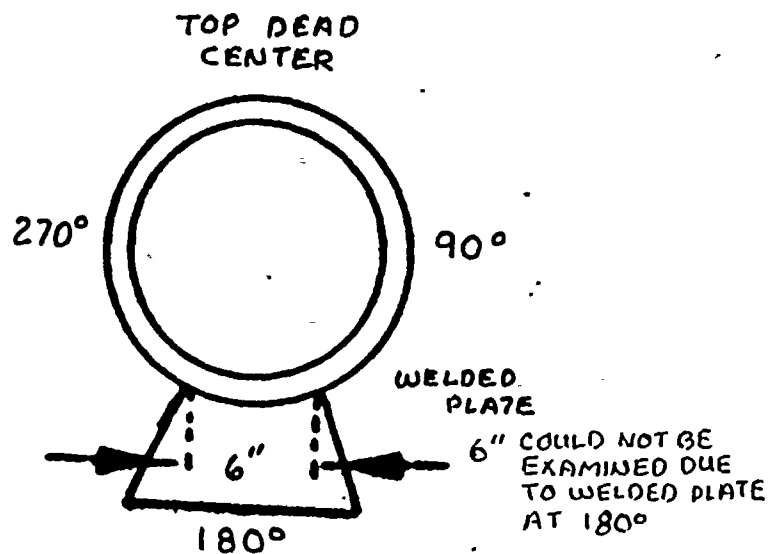
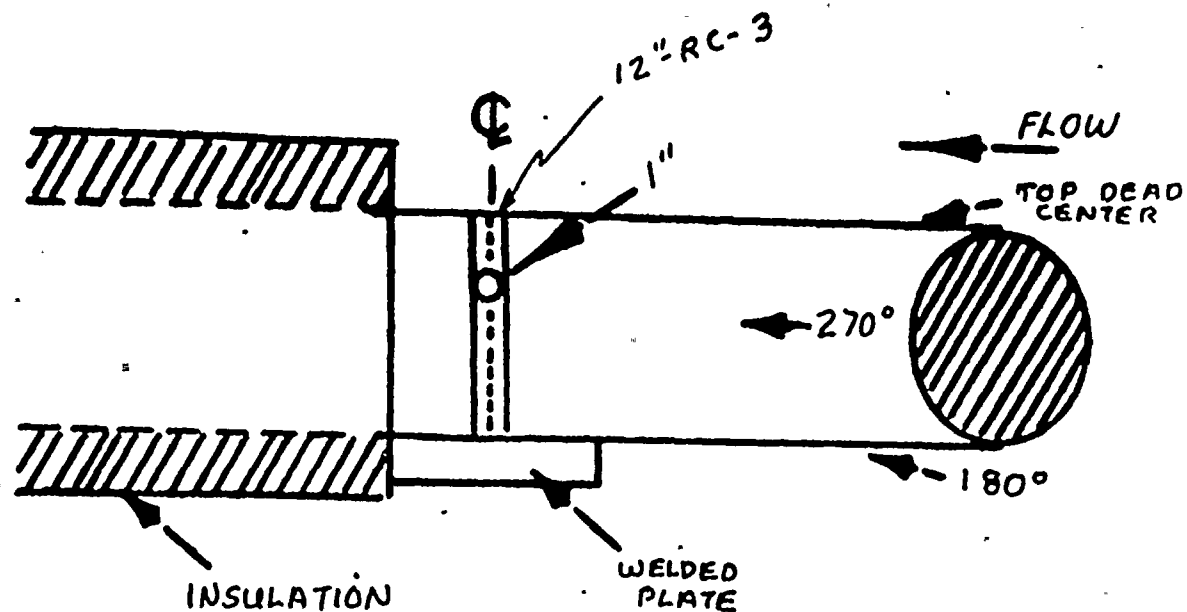
- SECOND INSPECTION INTERVAL

F. ATTACHMENTS

FIGURE NO. 1 12" REACTOR COOLANT LINE LIMITATION
FIGURE NO. 2 14" AUXILIARY COOLANT LINE LIMITATION
FIGURE NO. 3 10" REACTOR COOLANT BRANCH CONNECTION
LIMITATION.

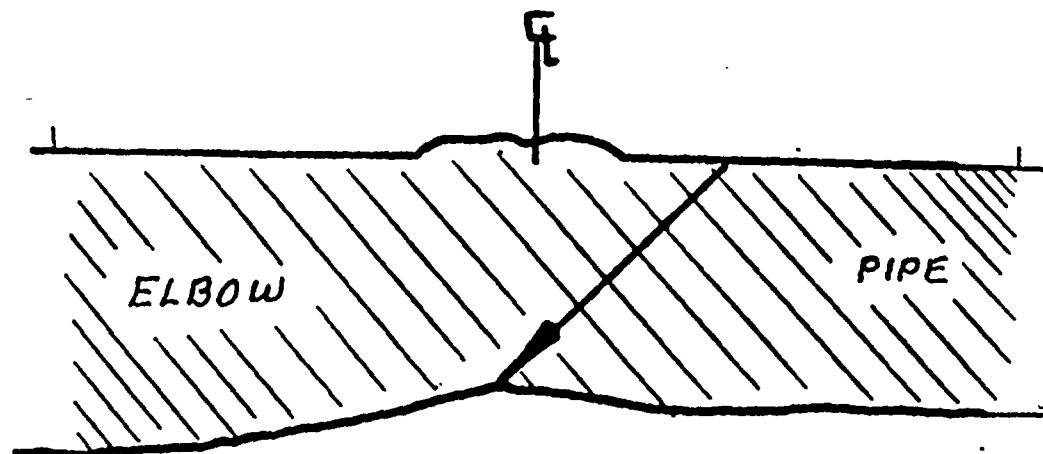
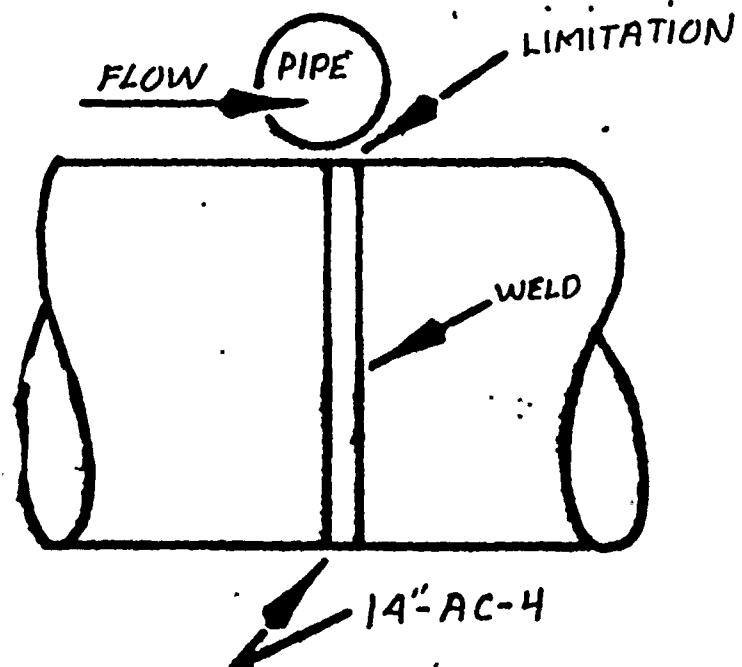


UNIT NO. 4 ONLY

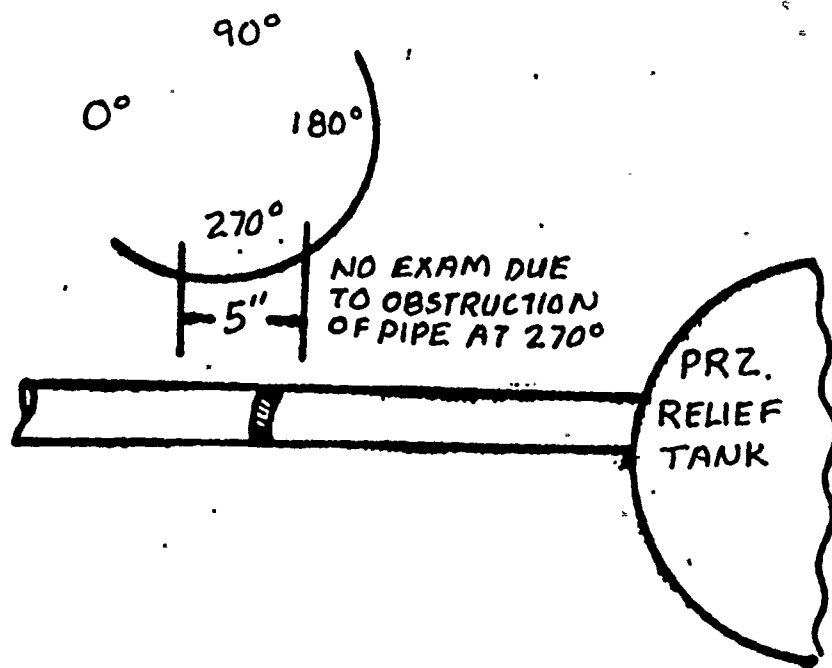


TURKEY POINT UNIT NO. 4		
DATE: 5-30-84	DRAWN BY: E.I. ANDERSON	APPROVED BY:
SCALE: NONE	REVISION:	
REACTOR COOLANT SYSTEM WELD 12" RC-3		
RELIEF REQUEST NO. 10	FIGURE NO. 1	





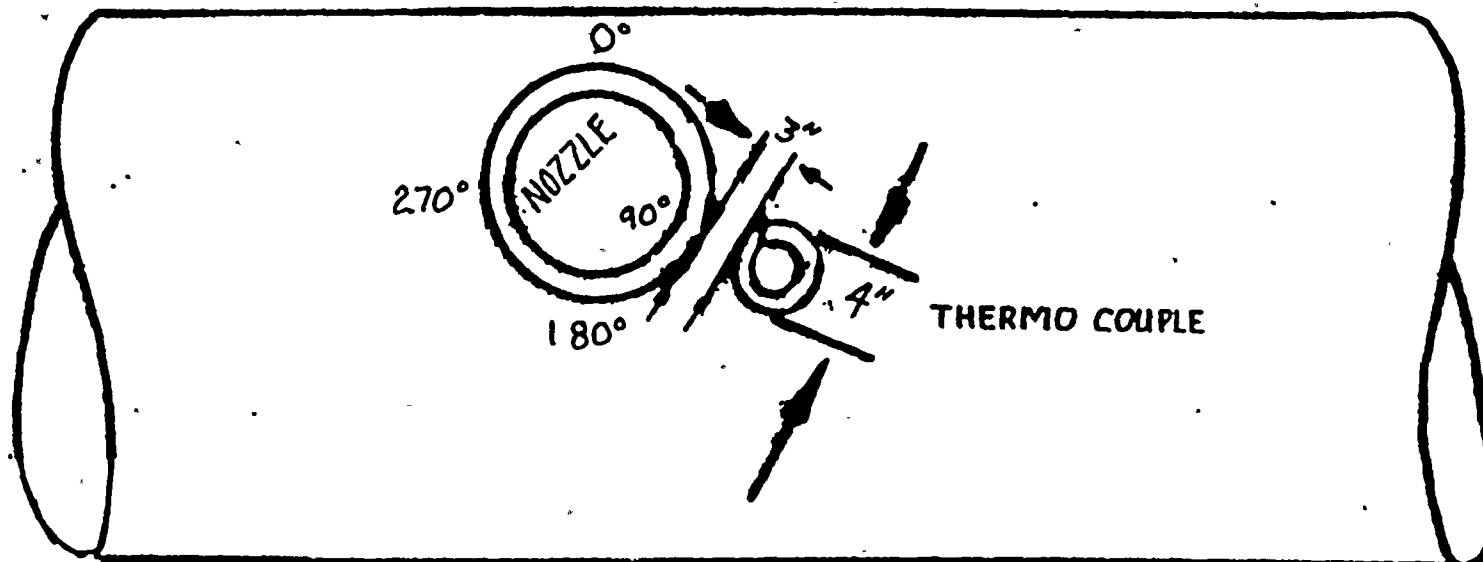
FULL SCALE PLOT
AREA NOT EXAMINED



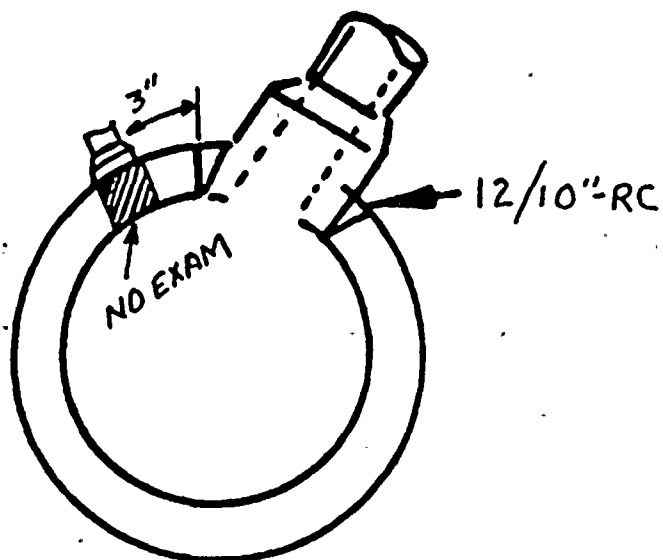
TURKEY POINT UNIT : 4		
DATE: 5-30-84	DRAWN BY: E.L. ANDERSON	APPROVED BY:
SCALE: NONE	REVISIONS	
FUXILIARY COOLANT SYSTEM WELD 14"-AC-4		
RELIEF REQUEST NO. 10	DRAWING NUMBER FIGURE NO. 2	



UNIT NO. 4 ONLY



A 3"x4" AREA CAN NOT BE SCANNED DUE
TO THERMO COUPLE



TURKEY POINT UNIT 4

DATE: 5-30-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

REACTOR COOLANT SYSTEM WELD 12/10"-RC
10" BRANCH CONNECTION

RELIEF REQUEST NO.

10

DRAWING NUMBER

FIGURE NO. 3



TURKEY POINT UNITS 3/4

SECOND INSPECTION INTERVAL

INSERVICE INSPECTION

RELIEF REQUEST NO. 12

A. COMPONENT IDENTIFICATION

- CLASS 1 - REACTOR VESSEL CLOSURE HEAD

B. EXAMINATION REQUIREMENTS

Exam Cat. Item No.

B-A Bl.40 VOLUMETRIC AND SURFACE EXAMINATION OF HEAD TO
 FLANGE WELD INCLUDES 100% OF THE CIRCUMFERENTIAL
 WELD LENGTH.

C. RELIEF REQUESTED

Relief is requested from code volume not achievable by ultrasonic examination of the vessel closure head -to- flange weld.

- 1) Item Bl.40 - (WELD 3-WH-12) 16" OF CIRCUMFERENTIAL FIG. NO. 1/2
WELD (HEAD SIDE)

No examination from the flange surface.

- 2) Item Bl.40 - (WELD 4-WH-12) 16" OF CIRCUMFERENTIAL FIG. NO. 1/2
WELD (HEAD SIDE)

No examination from the flange surface.

D. BASIS FOR RELIEF

Configuration and permanent attachments prohibit 100% Ultrasonic examination coverage of the required examination volume.

- FIGURE NO. 1. Limitations due to welded arrow located above stud hole No. 1. The arrow limits 7" of circumferential scanning of the closure head weld.

No examination achieved from the flange surface due to configuration.

- FIGURE NO. 2 Limitations due to 3 welded lugs located 120 degrees apart, between stud holes 10/11, 29/30 and 48/49. Each lug limits 3" of circumferential scanning of the closure head.
Therefore, the combined length (limitation) due to the arrow (7") plus the lugs (3"x3") totals 16" of weld not examined.



RELIEF REQUEST # 12 CONTINUED

The extent of examination volume and area achieved and the alternative tests provide assurance of an acceptable level of quality and safety.

E. ALTERNATIVE EXAMINATIONS

- 1) Periodic System Leakage tests per category B-P, table IWB-2500-1;
- 2) Inservice Hydrostatic test per category B-P, table IWB-2500-1;

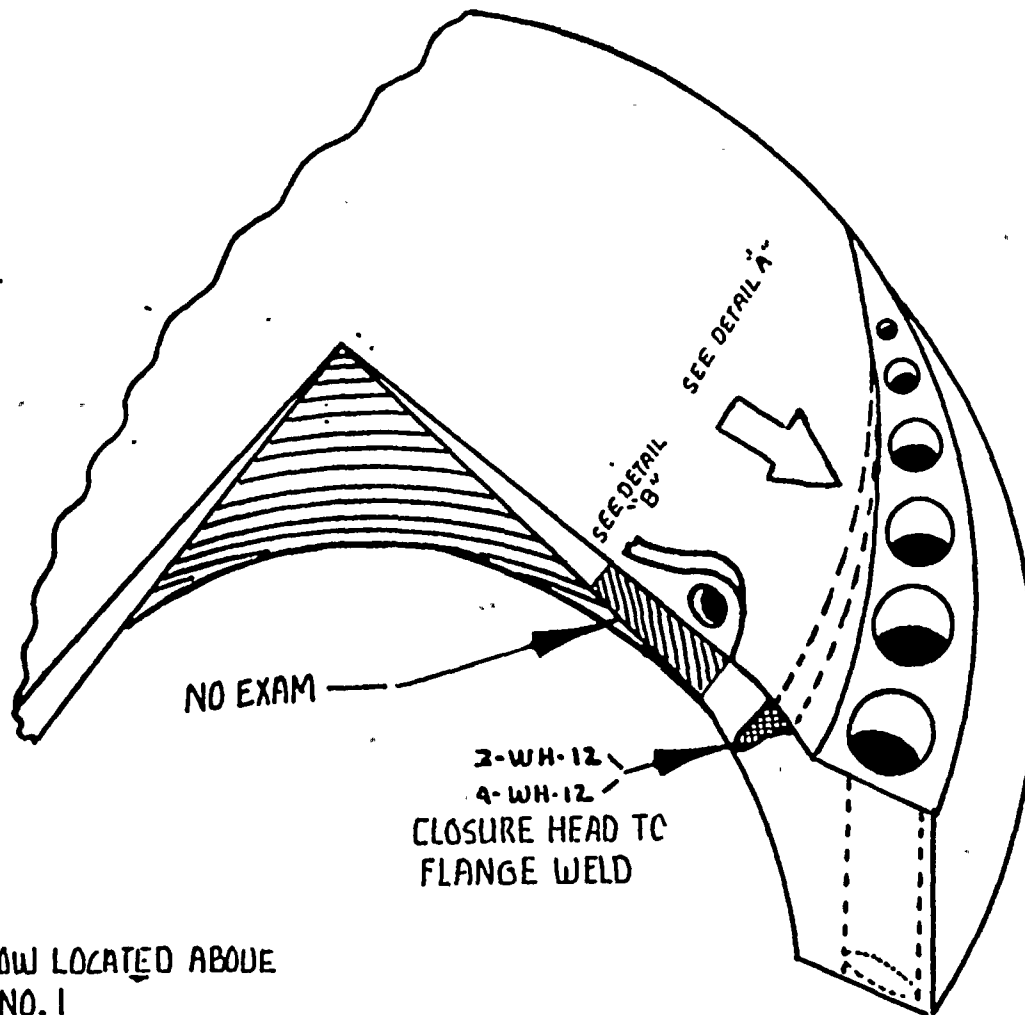
F. IMPLEMENTATION SCHEDULE

- SECOND INSPECTION INTERVAL

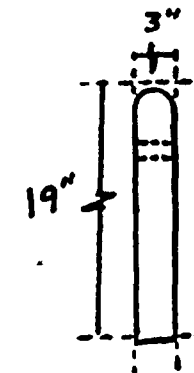
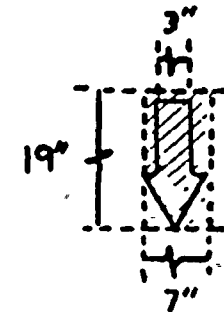
G. ATTACHMENTS

- FIGURE NO. 1 - RPV CLOSURE HEAD CUT AWAY VIEW, DENOTING MEASUREMENTS OF LIMITATIONS.
- FIGURE NO. 2 - RPV CLOSURE HEAD LIMITATION LOCATIONS





WELDED ARROW LOCATED ABOVE
STUD HOLE NO. 1



TURKEY POINT UNIT 3/4

DATE: 5-30-84

DRAWN BY
E.L. ANDERSON

APPROVED BY:

SCALE: NONE

REVISED

RPV CLOSURE HEAD (CUTAWAY VIEW) AREA'S
THAT CAN NOT BE EXAMINED DUE TO LIMITATIONS

RELIEF REQUEST NO

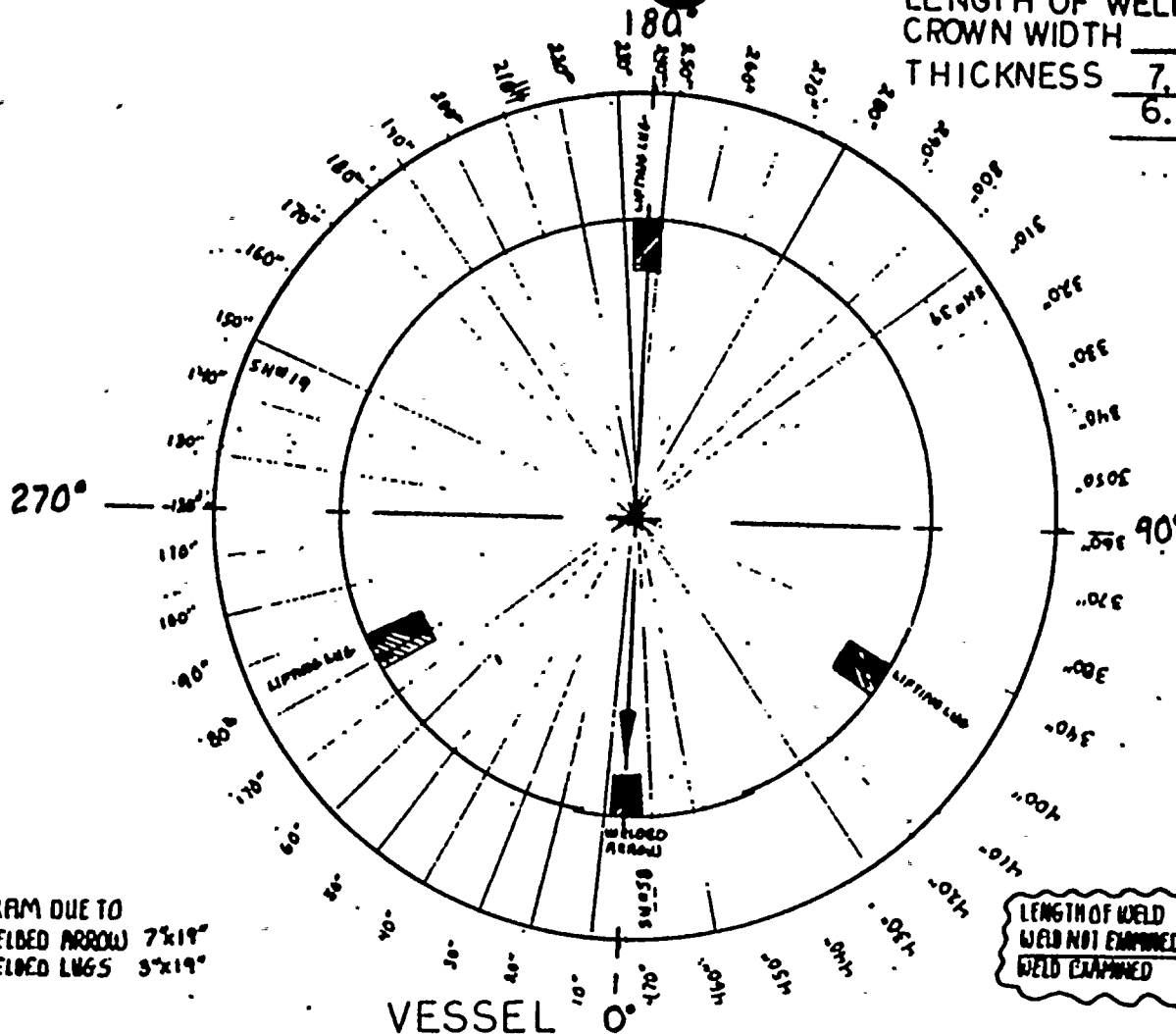
12

DRAWING NUMBER

FIGURE NO. 1



LENGTH OF WELD 481"
 CROWN WIDTH 2-1/4"
 THICKNESS 7.2" HEAD
 6.7" C



NO EXAM DUE TO
 1. WELDED ARROW 7"x19"
 2. WELDED LUGS 5"x19"

LENGTH OF WELD 481"
 WELD NOT EXAMINED 16"
 WELD EXAMINED 465"

TURKEY POINT UNIT 3/4

DATE: 5-30-84	DRAWN BY: EL ANDERSON	APPROVED BY:
SCALE: NONE	REVISED	

RPV CLOSURE HEAD WELDED ATTACHMENT LOCATIONS

RELIEF REQUEST NO. 12	DRAWING NUMBER FIGURE NO. 2
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