

FLORIDA POWER & LIGHT COMPANY

October 8, 1979
L-79-285

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

Dear Mr. Schwencer:

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Fire Protection

The attached information is applicable to asterisked items 3.1.2, 3.1.6, 3.1.7, and 3.1.15 in the Safety Evaluation for Amendments 45 and 37 to Operating License DPR-31 and DPR-41, respectively. Information on items 3.1.1(4) and 3.1.1(5) is being developed and will be submitted by approximately December 15, 1979.

Mr. Darrell Eisenhut's letter to me dated August 17, 1979 requested that we use our best efforts to improve our schedule for completion of our fire protection modifications. Accordingly, we request that you approve these proposed modifications as soon as possible. Your approval is needed by November 30, 1979 in order to maintain our current schedule.

Very truly yours,

Robert E. Uhrig
Vice President
Advanced Systems & Technology

REU/ah

Appendices (4)

cc: Mr. James P. O'Reilly, Region II (without drawings)
Robert Lowenstein, Esquire (without drawings)

REGULATORY DOCKET FILE COPY

7910150531

App 6
3/3
Add:
BRWMAN 1/8

APPENDIX A

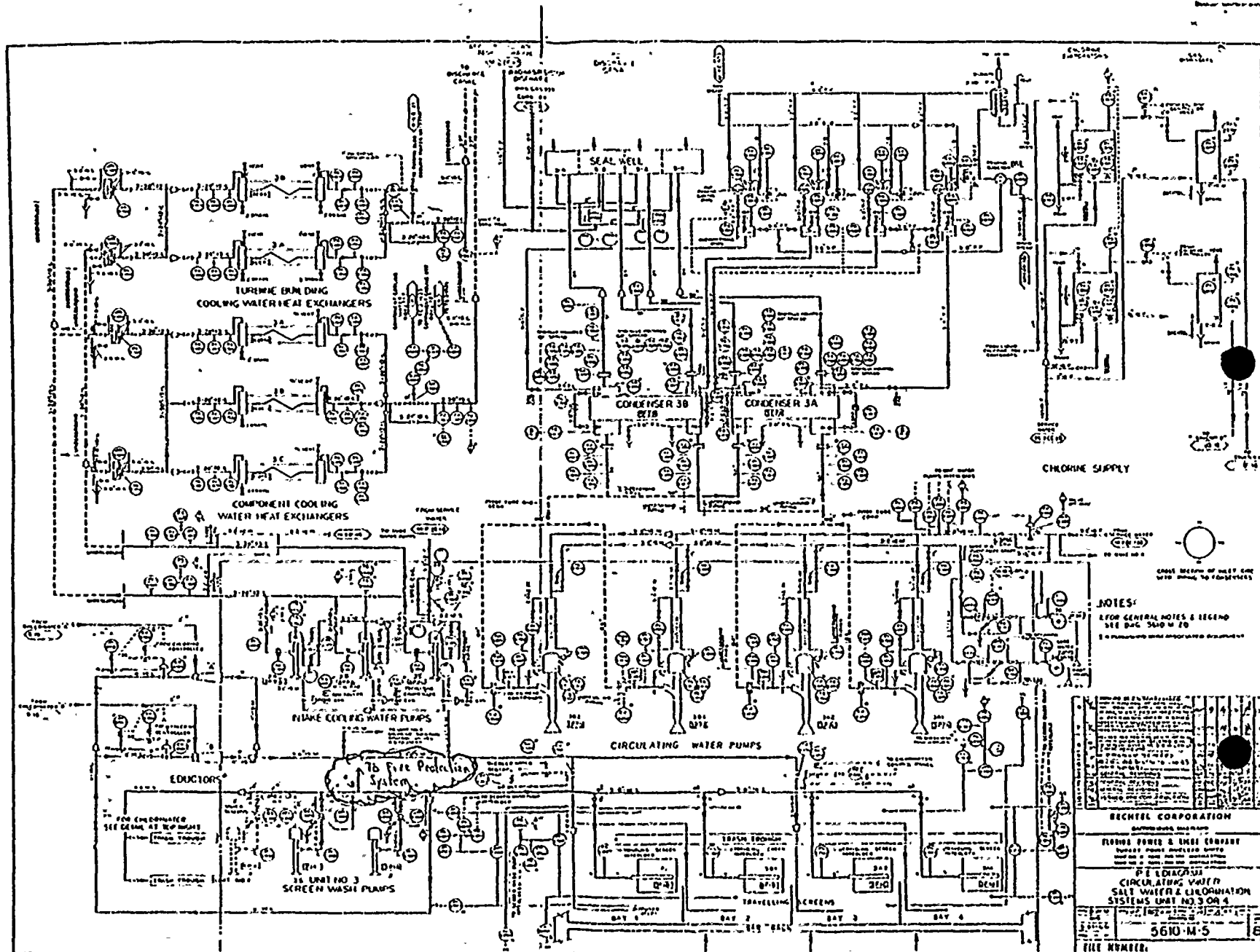
Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Fire Protection

FIRE WATER SUPPLY (3.1.2)

Reference: Amendment 45/37 dated March 21, 1979

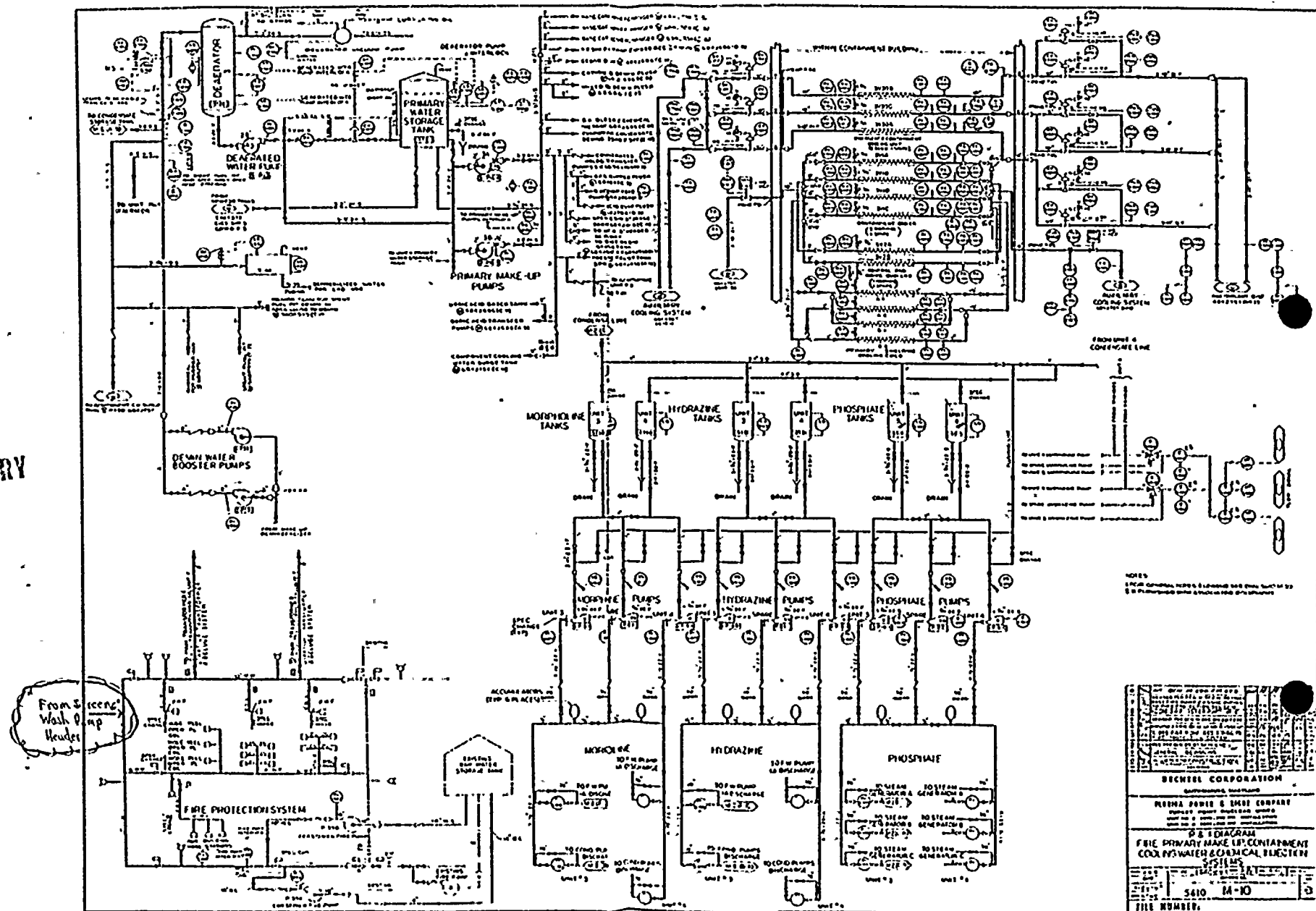
As per item 3.1.2 of referenced letter, we are transmitting herewith a copy of Bechtel Dwgs. 5610-M-5 and M-10, which have been marked up to show a 6" connection on the discharge header of the screen wash pumps as well as a 6" connection on the fire protection system main supply header. Both of these connections will terminate in a 6" fire hose fitting. In the unlikely event that water from the fire protection system normal supply is unavailable, a 6" hose will be used to interconnect the screen wash pumps with the fire protection system and thus provide an alternate source of fire water.

PRELIMINARY

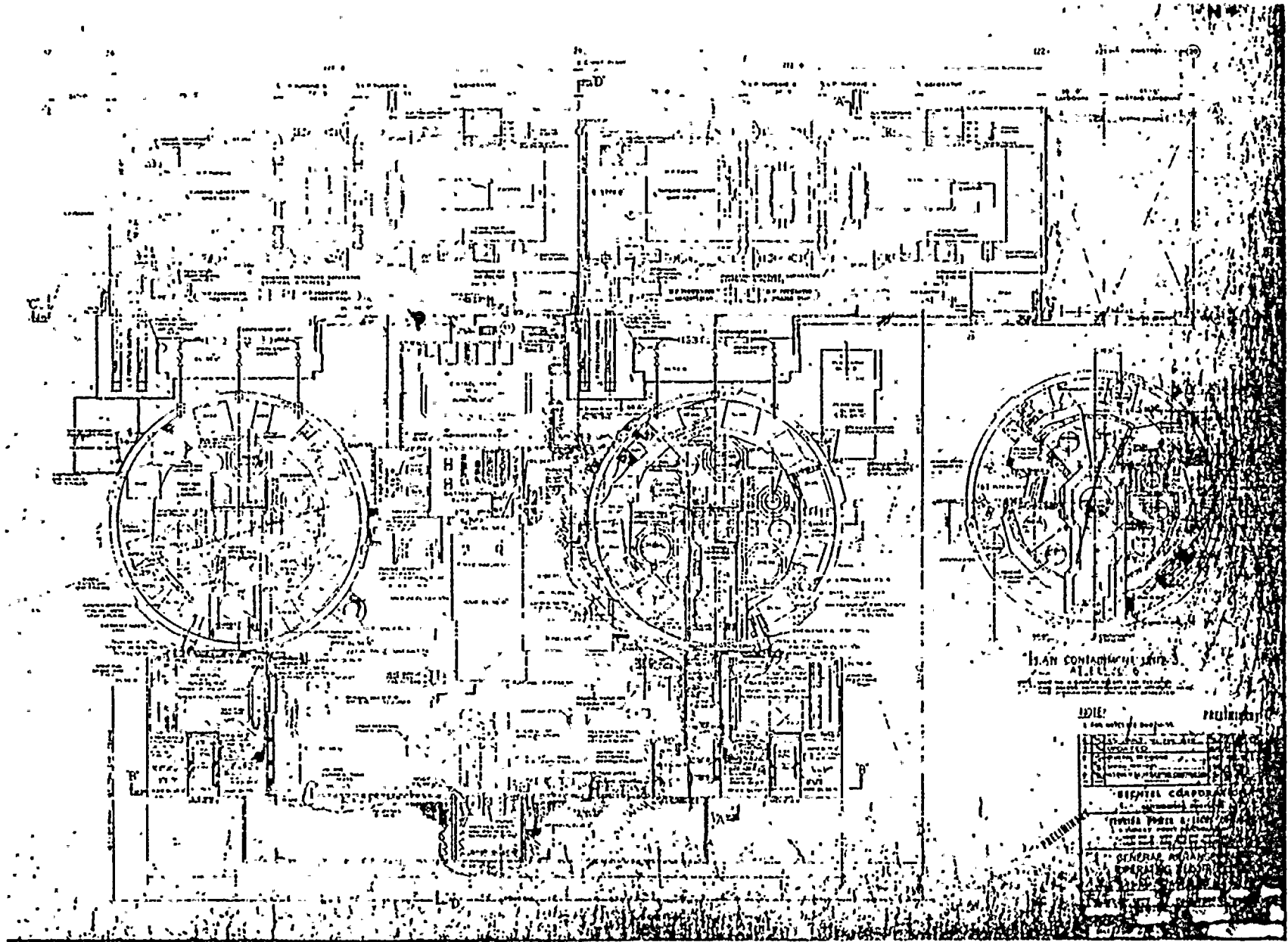


PRELIMINARY

PRELIMINARY



PRELIMINARY



PLAN CONTINGENT 1917
ALBUQUERQUE

INDEX		PAGE	
1	PLAN CONTINGENT 1917	1	1
2	PLAN CONTINGENT 1917	2	2
3	PLAN CONTINGENT 1917	3	3
4	PLAN CONTINGENT 1917	4	4
5	PLAN CONTINGENT 1917	5	5
6	PLAN CONTINGENT 1917	6	6
7	PLAN CONTINGENT 1917	7	7
8	PLAN CONTINGENT 1917	8	8
9	PLAN CONTINGENT 1917	9	9
10	PLAN CONTINGENT 1917	10	10
11	PLAN CONTINGENT 1917	11	11
12	PLAN CONTINGENT 1917	12	12
13	PLAN CONTINGENT 1917	13	13
14	PLAN CONTINGENT 1917	14	14
15	PLAN CONTINGENT 1917	15	15
16	PLAN CONTINGENT 1917	16	16
17	PLAN CONTINGENT 1917	17	17
18	PLAN CONTINGENT 1917	18	18
19	PLAN CONTINGENT 1917	19	19
20	PLAN CONTINGENT 1917	20	20
21	PLAN CONTINGENT 1917	21	21
22	PLAN CONTINGENT 1917	22	22
23	PLAN CONTINGENT 1917	23	23
24	PLAN CONTINGENT 1917	24	24
25	PLAN CONTINGENT 1917	25	25
26	PLAN CONTINGENT 1917	26	26
27	PLAN CONTINGENT 1917	27	27
28	PLAN CONTINGENT 1917	28	28
29	PLAN CONTINGENT 1917	29	29
30	PLAN CONTINGENT 1917	30	30
31	PLAN CONTINGENT 1917	31	31
32	PLAN CONTINGENT 1917	32	32
33	PLAN CONTINGENT 1917	33	33
34	PLAN CONTINGENT 1917	34	34
35	PLAN CONTINGENT 1917	35	35
36	PLAN CONTINGENT 1917	36	36
37	PLAN CONTINGENT 1917	37	37
38	PLAN CONTINGENT 1917	38	38
39	PLAN CONTINGENT 1917	39	39
40	PLAN CONTINGENT 1917	40	40
41	PLAN CONTINGENT 1917	41	41
42	PLAN CONTINGENT 1917	42	42
43	PLAN CONTINGENT 1917	43	43
44	PLAN CONTINGENT 1917	44	44
45	PLAN CONTINGENT 1917	45	45
46	PLAN CONTINGENT 1917	46	46
47	PLAN CONTINGENT 1917	47	47
48	PLAN CONTINGENT 1917	48	48
49	PLAN CONTINGENT 1917	49	49
50	PLAN CONTINGENT 1917	50	50
51	PLAN CONTINGENT 1917	51	51
52	PLAN CONTINGENT 1917	52	52
53	PLAN CONTINGENT 1917	53	53
54	PLAN CONTINGENT 1917	54	54
55	PLAN CONTINGENT 1917	55	55
56	PLAN CONTINGENT 1917	56	56
57	PLAN CONTINGENT 1917	57	57
58	PLAN CONTINGENT 1917	58	58
59	PLAN CONTINGENT 1917	59	59
60	PLAN CONTINGENT 1917	60	60
61	PLAN CONTINGENT 1917	61	61
62	PLAN CONTINGENT 1917	62	62
63	PLAN CONTINGENT 1917	63	63
64	PLAN CONTINGENT 1917	64	64
65	PLAN CONTINGENT 1917	65	65
66	PLAN CONTINGENT 1917	66	66
67	PLAN CONTINGENT 1917	67	67
68	PLAN CONTINGENT 1917	68	68
69	PLAN CONTINGENT 1917	69	69
70	PLAN CONTINGENT 1917	70	70
71	PLAN CONTINGENT 1917	71	71
72	PLAN CONTINGENT 1917	72	72
73	PLAN CONTINGENT 1917	73	73
74	PLAN CONTINGENT 1917	74	74
75	PLAN CONTINGENT 1917	75	75
76	PLAN CONTINGENT 1917	76	76
77	PLAN CONTINGENT 1917	77	77
78	PLAN CONTINGENT 1917	78	78
79	PLAN CONTINGENT 1917	79	79
80	PLAN CONTINGENT 1917	80	80
81	PLAN CONTINGENT 1917	81	81
82	PLAN CONTINGENT 1917	82	82
83	PLAN CONTINGENT 1917	83	83
84	PLAN CONTINGENT 1917	84	84
85	PLAN CONTINGENT 1917	85	85
86	PLAN CONTINGENT 1917	86	86
87	PLAN CONTINGENT 1917	87	87
88	PLAN CONTINGENT 1917	88	88
89	PLAN CONTINGENT 1917	89	89
90	PLAN CONTINGENT 1917	90	90
91	PLAN CONTINGENT 1917	91	91
92	PLAN CONTINGENT 1917	92	92
93	PLAN CONTINGENT 1917	93	93
94	PLAN CONTINGENT 1917	94	94
95	PLAN CONTINGENT 1917	95	95
96	PLAN CONTINGENT 1917	96	96
97	PLAN CONTINGENT 1917	97	97
98	PLAN CONTINGENT 1917	98	98
99	PLAN CONTINGENT 1917	99	99
100	PLAN CONTINGENT 1917	100	100

APPENDIX B

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Fire Protection

WATER SUPPRESSION SYSTEMS (3.1.6)

Plant Change/Modification (PC/M) packages 79-71 (Water Curtain for Unit 3 Switchgear Room Door & Vent) and 79-72 (Water Curtain for Unit 4 Switchgear Room Door & Vent) are attached.

AUG 1979 SH.4

AP 0190.15

PAGE 37

2/28/77

PC/M No. 79-71 Rev.0

FLORIDA POWER & LIGHT COMPANY
TURKEY POINT UNITS 3 & 4
NON-NUCLEAR SAFETY RELATED
PLANT CHANGE MODIFICATION
DESCRIPTION SHEET

Unit (s) No. 3

a) Title WATER CURTAIN FOR UNIT #3 SWITCHGEAR RM. DOOR & VENT

b) Description (attach detailed sketch or wiring diagram or other appropriate documentation).

ADD A WATER CURTAIN FOR THE DOOR AND VENT OPENINGS ON THE WEST SIDE OF THE SWITCHGEAR ROOM. SEE ATTACHMENT 2

c) Purpose/Reason for Request (If this PC/M constitutes a change in the plant as described in the FSAR, attach written safety evaluation).

NRC REQUEST FOR FIRE PROTECTION FROM A POTENTIAL FIRE .
ON THE START UP OR AUXILIARY TRANSFORMERS

d) Priority and Estimated Cost/Completion time/Manhours (Include plant conditions required for implementation and when PC/M needs to be accomplished).

THE PRIORITY FOR THIS TASK IS LOW.
IT MUST BE COMPLETED BY DECEMBER 1980
THE ESTIMATED COST IS \$4,000.

- e) Recommended inspections, acceptance tests, and operational or functional tests.

FUNCTIONAL TEST PER GUIDELINE NO. 10 IN ATTACHMENT NO. 5
HYDRO TEST PER GUIDELINE NO. 11 IN ATTACHMENT NO. 5

- f) Areas affected by completing this PC/M.

1. List drawings affected and attach one marked up copy of each.
5610-M-10, 5610-M-142, 5610-M-110, 5610-M-112

2. List procedures affected and attach one marked up copy of each or one marked up copy of each of the affected pages.

NONE

3. List changes required in spares carried by Stores.

SEE BILL OF MATERIAL

4. List changes in FSAR and attach one marked up copy of each FSAR page affected.

FIG. 9.6-1

5. List changes in the Breaker List or the Instrument Index and attach one marked up copy of each of the affected pages.

NONE

6. List changes in the Inservice Inspection Program.

NONE

ATTACHMENT 1

SAFETY EVALUATION

This change does not involve an unreviewed safety question because:

1. a. With respect to the probability of occurrence of an accident previously evaluated in the FSAR:

There are no accidents involving a fire that were evaluated in the FSAR.

- b. With respect to the consequence of an accident previously evaluated in the FSAR:

See 1a above.

- c. With respect to the probability of malfunction of equipment important to safety previously evaluated in the FSAR:

There is no change to safety related equipment.
The water spray will be tested to verify that it will not spray on safety related switch gear.

- d. With respect to the consequences of the malfunction of equipment important to safety previously evaluated in the FSAR:

There is no evaluation of an equipment malfunction involving a fire or water spray in the FSAR:

2. a. With respect to the possibility of an accident of a different type than analyzed in the FSAR:

See 1c/above

- b. With respect to the possibility of malfunction of a different type than analyzed in the FSAR:

See 1c above.

- c. With respect to the margin of safety as defined in the basis for any technical specification:

There is no margin of safety for electrical equipment defined in the technical specification. There is no physical change to any electrical equipment. The change will be tested to verify that the spray does not get on the switch gear.

BY R. WATERBURY

DATE 6-20-79



NOV. 1979 51.8
SHEET NO. 23 OF 23

CHKD. BY Q

DATE 6/20/79

FLORIDA POWER & LIGHT COMPANY

PROJECT NO.

N

EL 42'-0"

(23)

EDGE OF
SWITCHGEAR
RM

MEZZ BEAM 30 W.F. 99

RUN PIPE ALONG BOTTOM FLA

6" TO 10"
TYP

1'-11 1/2"

EXISTING
FIRE LINE

9'-11 1/2"

EL 18'-0"

ATTACHMENT 2
VIEW A-A UNIT # 3
FIG. 2

REV NO.	DATE	DESCRIPTION	BY	CH	COR	APP	APP	DATE
DWG NO. - BCS 79-71-5								

BY R. WATERBURY DATE 20-79

CHKD. BY Q

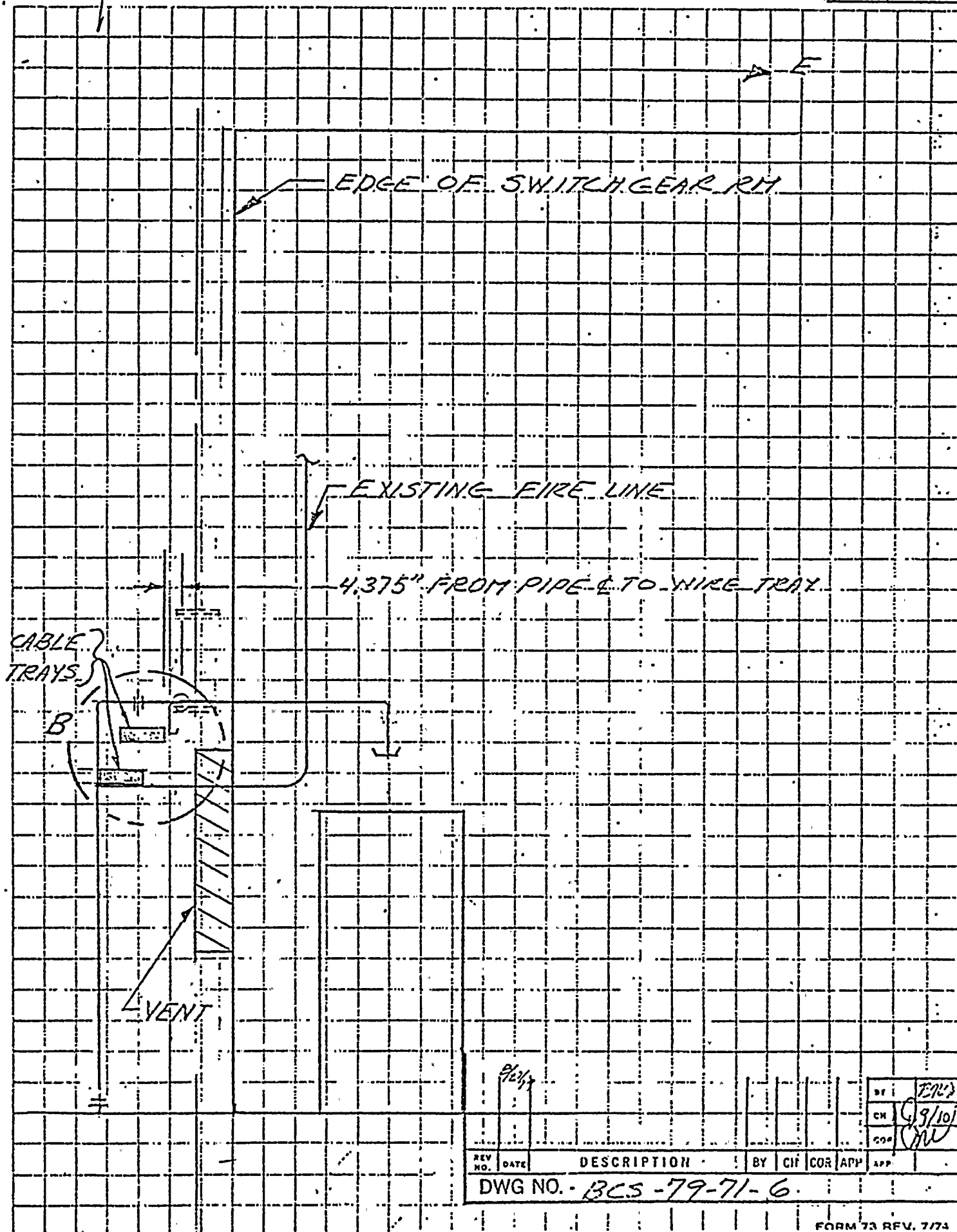
DATE 8/20/79



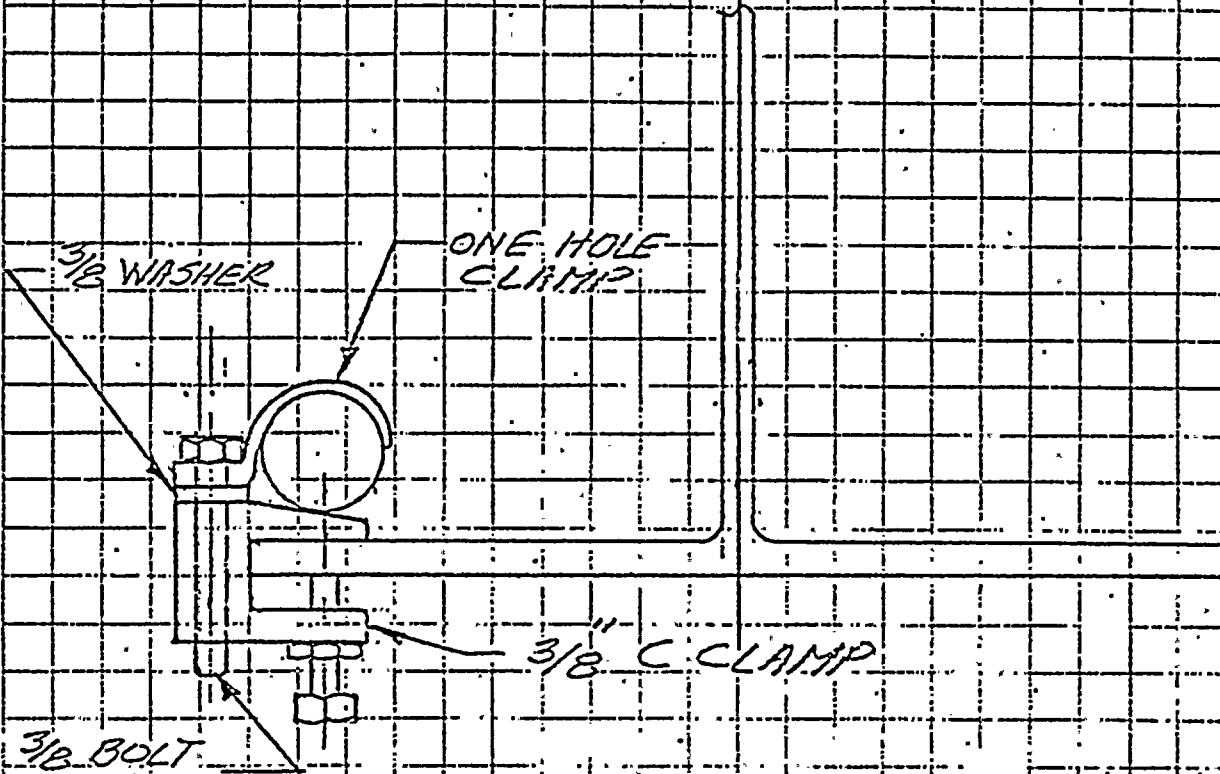
FC-717-71 REV. 6
AUG. 1979 SH. 9

SHEET NO. _____ OF _____

PROJECT NO. _____



REV NO.		DATE	DESCRIPTION	BY	CHK	COR	APP	APP
1		8/20/79	DWG NO. - BCS-79-71-6					



ATTACHMENT 2
 TYPICAL SUPPORT OF
 PIPE TO STRUCTURAL
 STEEL

FIG. 4

FLORIDA POWER & LIGHT CO. - PLANT: _____									
BY: <u>WJW</u> CH: <u>9/10</u> CON: <u>10</u>									
REV	NO.	DATE	DESCRIPTION	BY	CH	COR	APP	APP	
DWG NO.: <u>BCS-79-71-7</u>									

BY R. WATERBURY DATE 7-8-79

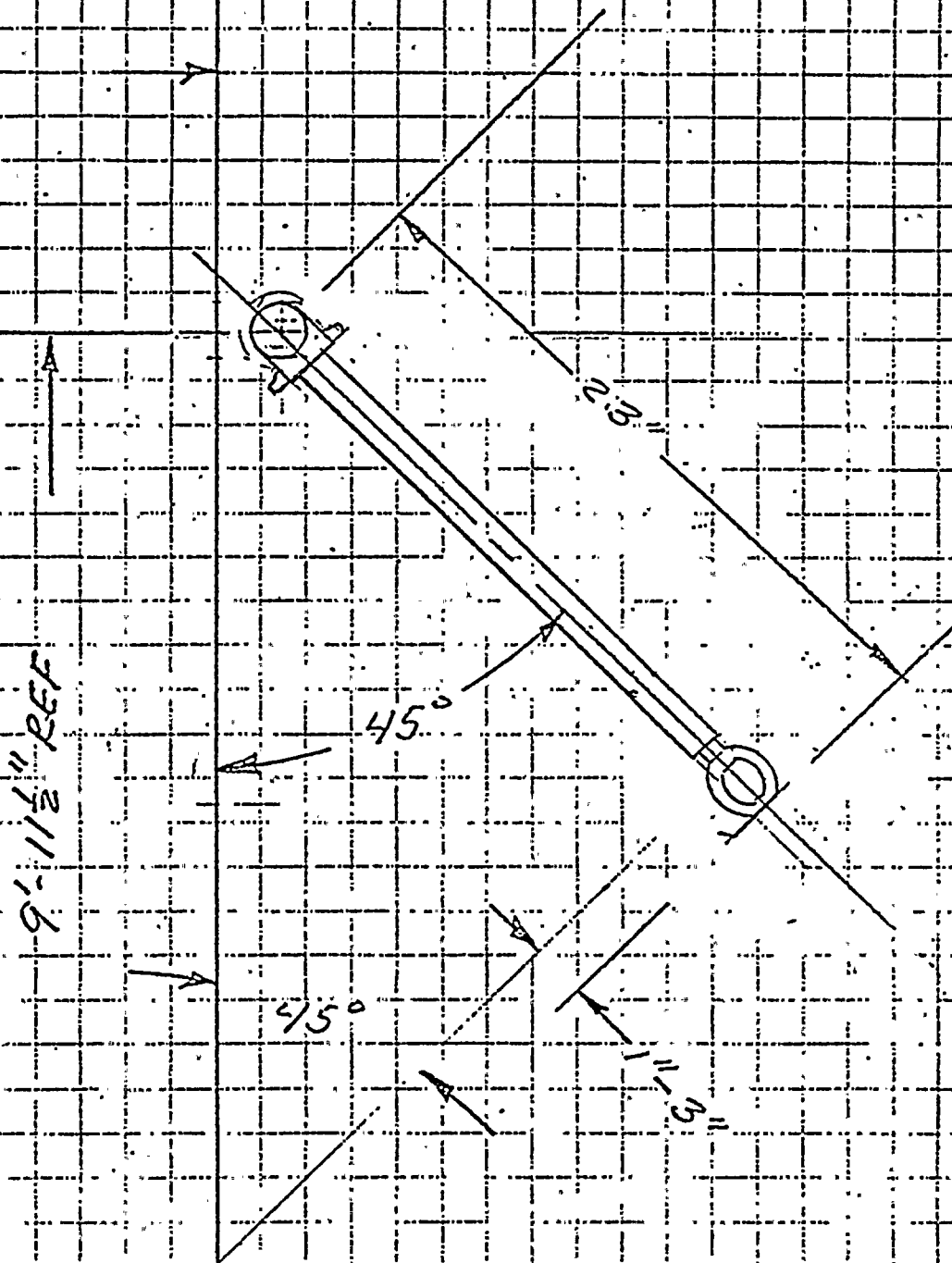


PER 7-11-79 RETO
AUG. 1979 SH. 11:
SHEET NO. _____ OF _____

CHKD. BY J. DATE 8/26/79

PROJECT NO. _____

SWITCH GEAR RM WALL ABOVE
DOOR



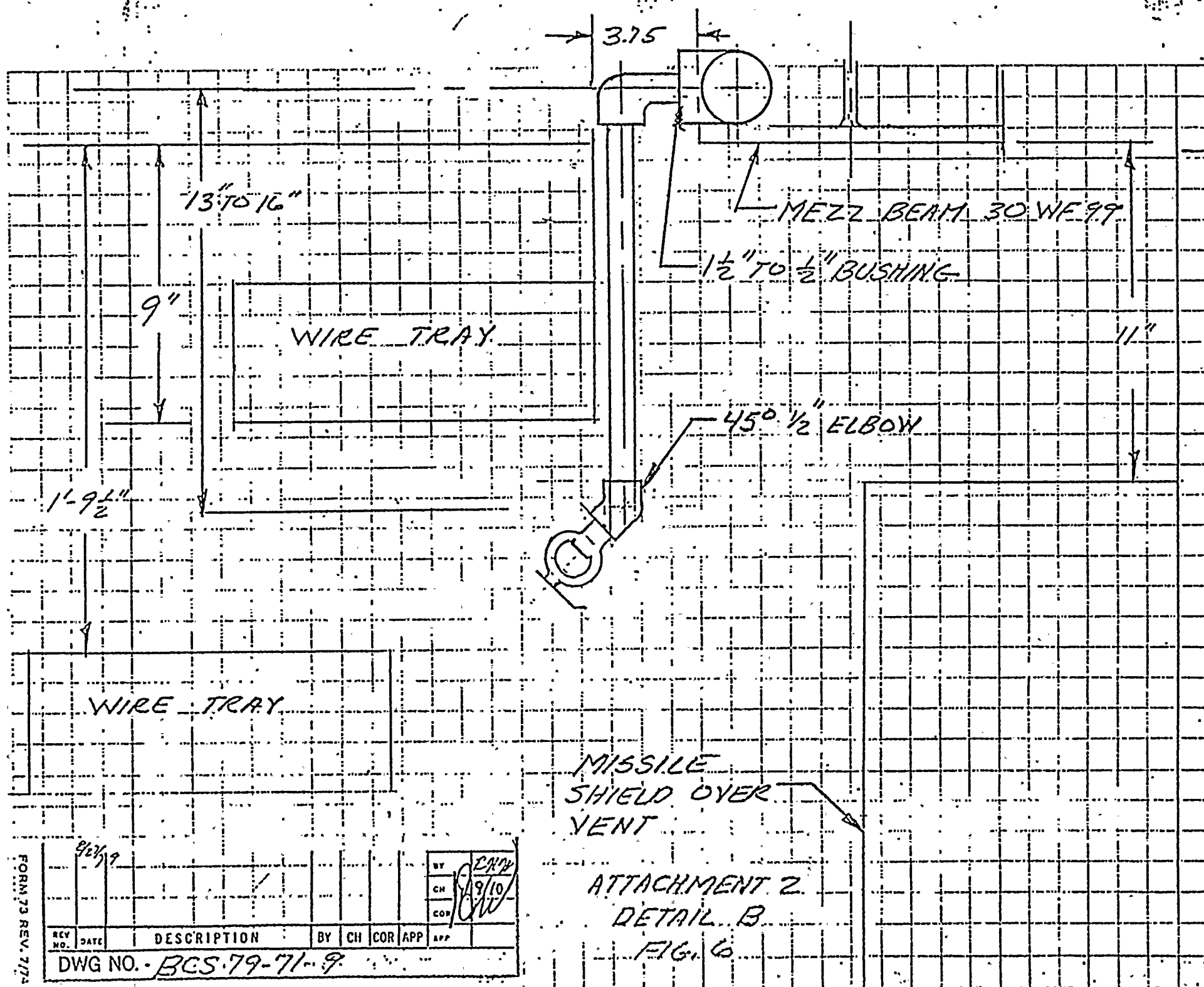
DOOR

ATTACHMENT 2
DETAIL A
FIG. 5

9-7-79

REV NO.	DATE	DESCRIPTION	BY	CH	CCR	APP	APP
DWG NO. - BCS-79-71-8							

BY R. Waterbury
CH J.
CCR J.

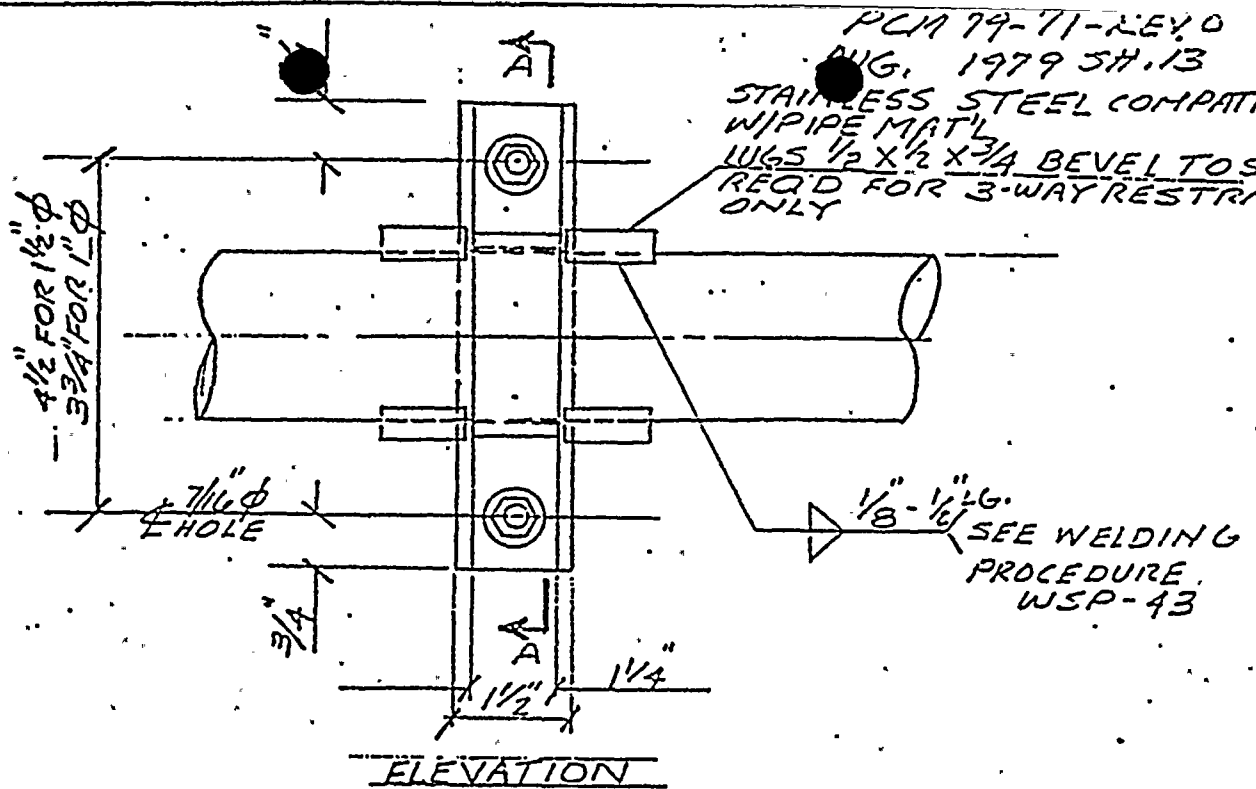


MISSILE
SHIELD OVER
VENT

ATTACHMENT 2
DETAIL B
FIG. 6

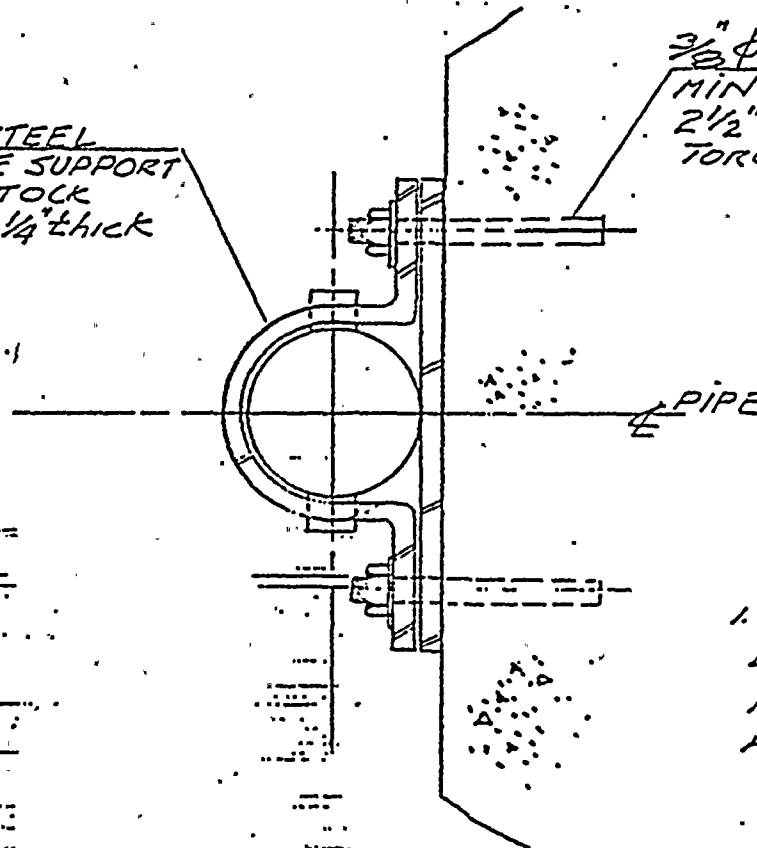
REV NO.	DATE	DESCRIPTION	BY	CH	COR	APP	APP
1	8/2/79		E. W. KREBS				
DWG NO. - BCS-79-71-9							

PC/M 79-71-REV. 0
 AUG. 1979 SH. 13
 STAINLESS STEEL COMPATIBLE
 W/PIPE MAT'L
 WLG 1/2 X 1/2 X 3/4 BEVEL TO SUIT
 REQ'D FOR 3-WAY RESTRAINT
 ONLY



STD STEEL
 U-PIPE SUPPORT
 BAR STOCK
 STEEL 1/4" THICK

3/8" phi X 3 1/2" LG. HILTI KWIK BOLT
 MIN. EMBEDMENT DEPTH
 2 1/2"
 TORQUE TO 35 FT-LBS.



NOTES:

1. WORK THIS SKETCH
 ENCLOSURE.
 INSTALLATION PROCEDURE
 PC/M 79-71

APPROVED:

DIVISION ENGINEER

FORM 1343 REV. 10/69
 DRAWN BY T. ROGERE
 CHECKED
 CORRECT

NO.	DATE	REVISION	BY	CH	CORR	APP

BCS 79-71-11
 FLORIDA POWER & LIGHT COMPANY
 DATE 8/30/79
 SCALE NTS

C - TR 83079

ATTACHMENT 3DRAWING NOTES:

1. $1\frac{1}{2}$ " PIPE TO BE SUPPORTED AT INTERVALS OF LESS THAN 9 FT.
2. USE "C" CLAMPS TO ATTACH PIPING TO STRUCTURE AS SHOWN IN FIG. 4.
3. USE $\frac{3}{8} \times 3\frac{1}{2}$ " HULLI QUICK BOLTS TO ATTACH PIPE TO CONCRETE PER FPL DWG. BCS 79-71-11 EXCEPT WELDED LUGS ARE NOT REQUIRED.
4. SUPPORT PIPE AT END OF LINE SO LESS THAN 18" IS CANTILEVERED ON ENDS.
5. WELD THREDOLET TO EXISTING LINE PER FPL PTP WPI-A OR BECHTEL PI-T WELDING PROCEDURE.
6. ALL JOINTS TO BE THREADED EXCEPT FOR THREDOLET WELD TO EXISTING WATER LINE. ALL THREADED JOINTS TO BE PER ANSI B2.1.
7. ALL THREADED JOINTS TO USE TITE SEAL COMPOUND.

ATTACHMENT 4
BILL OF MATERIAL

<u>QUANTITY</u>	<u>DESCRIPTION</u>
50 FT	1 1/2" GALVANIZED WATER PIPE SCH40 ASTM 120
3	1 1/2" TEES* (1 SPARE)
1	1 1/2", 3,000# THREDOLET
1	1 1/2" THREADED 'UNIONS'
3	1 1/2"x 1/2" THREADED BUSHINGS
5	1 1/2" THREADED ELBOWS
3	1/2" THREADED ELBOWS
3	1/2" F.M. OR U.L. 286°F SIDEWALL SPRINKLER + HEAT COLLECTOR
10 FT	1/2" GALVANIZED WATER PIPE ASTM A120
1#	PIPE COMPOUND (TITE SEAL OR EQUIV.)
5	3/8" C CLAMP GRINELL FIG. 62 OR EQUIVALENT
8	1 1/2" CLAMP PER FPL DWG. BCS-79-71-11
10	3/8" GALVANIZED WASHERS
5	3/8 N.C. GALVANIZED BOLTS 2 1/2" LG.
5	3/8" DIA. X5" HILTI QUICK BOLTS
4	1/2" 45° ELBOWS (2 SPARE)

* ALL FITTINGS TO BE PER ANSI B16.11 AND GALVANIZED.

ATTACHMENT 5

INSTALLATION AND CONSTRUCTION GUIDELINES

The following guidelines are for the construction and installation of the water curtain.

1. Isolate hose station with post indicator valves.
2. Drain out as much water as possible from hose station.
3. Drill 2" holes in existing water line for threadolet.
4. Weld in threadolet
5. Install 1 1/2" piping for main supply line to where sprinklers branch off.
6. Install 1 1/2" to 1/2" bushings where sprinklers branch off.
7. Install 1/2" elbows and pipe to sprinklers.
8. Connect 1 1/2" piping to existing pipe with union.
9. Flush system until water runs clear.
10. Heat 3 sprinkler heads so they become activated, and install these in position. With the 4 KV. bus de-energized and electrical dept. present, open vent and door and gradually open post indicator valve to verify the spray does not go directly on the switch gear. If spray goes on switch gear rotate head to avoid switch gear, but still wet vent and door.
11. Install new sprinkler heads and hydrotest new piping, at 200 psi for 2 hours per NFPA 13 Section 1-11.3.1.
12. Paint outside of new pipe with a primer such as Subox Surfa-Prep. No 100 or equivalent. Then apply a finish coat of Subox #475-13 E-Z FLO Fire Engine Red enamel or equivalent.

FLORIDA POWER & LIGHT COMPANY
TURKEY POINT UNITS 3 & 4
NON-NUCLEAR SAFETY RELATED
PLANT CHANGE MODIFICATION
DESCRIPTION SHEET

Aug. 1979 SH.4

AP 0190.15

PAGE 37

2/28/77

PC/M No. 79-72 Rev.0

Unit (s) No. 4

- a) Title WATER CURTAIN FOR UNIT #4 SWITCHGEAR RM. DOOR & VENT
- b) Description (attach detailed sketch or wiring diagram or other appropriate documentation).

ADD A WATER CURTAIN FOR THE DOOR AND VENT OPENINGS ON THE WEST SIDE OF THE SWITCHGEAR ROOM. SEE ATTACHMENT 2.
- c) Purpose/Reason for Request (If this PC/M constitutes a change in the plant as described in the FSAR, attach written safety evaluation).

NRC REQUEST FOR FIRE PROTECTION FROM A POTENTIAL FIRE ON THE START UP OR AUXILIARY TRANSFORMERS.
- d) Priority and Estimated Cost/Completion time/Manhours (Include plant conditions required for implementation and when PC/M needs to be accomplished).

THE PRIORITY FOR THIS TASK IS LOW.
IT MUST BE COMPLETED BY DECEMBER 1980.
THE ESTIMATED COST IS \$4,000.

- e) Recommended inspections, acceptance tests, and operational or functional tests..

FUNCTIONAL TEST PER GUIDELINE NO. 10 IN ATTACHMENT NO. 5
HYDRO TEST PER GUIDELINE NO. 11 IN ATTACHMENT NO. 5

- f) Areas affected by completing this PC/M.

1. List drawings affected and attach one marked up copy of each.
5610-M-10, 5610-M-142
AREA-3 DWGS: DO NOT SHOW EXISTING PIPING. THIS AREA MAY BE PART OF THE UPDATE PROGRAM.
2. List procedures affected and attach one marked up copy of each or one marked up copy of each of the affected pages.

NONE

3. List changes required in spares carried by Stores.
SEE BILL OF MATERIAL

4. List changes in FSAR and attach one marked up copy of each FSAR page affected.

FIG. 9.6-1

5. List changes in the Breaker List or the Instrument Index and attach one marked up copy of each of the affected pages.

NONE

6. List changes in the Inservice Inspection Program.

NONE

ATTACHMENT 1

SAFETY EVALUATION

This change does not involve an unreviewed safety question because:

1. a. With respect to the probability of occurrence of an accident previously evaluated in the FSAR:

There are no accidents involving a fire that were evaluated in the FSAR.

- b. With respect to the consequence of an accident previously evaluated in the FSAR:

See 1a above.

- c. With respect to the probability of malfunction of equipment important to safety previously evaluated in the FSAR:

There is no change to safety related equipment.

The water spray will be tested to verify that it will not spray on safety related switch gear.

- d. With respect to the consequences of the malfunction of equipment important to safety previously evaluated in the FSAR:

There is no evaluation of an equipment malfunction involving a fire or water spray in the FSAR:

2. a. With respect to the possibility of an accident of a different type than analyzed in the FSAR:

See 1c above

- b. With respect to the possibility of malfunction of a different type than analyzed in the FSAR:

See 1c above.

3. With respect to the margin of safety as defined in the basis for any technical specification:

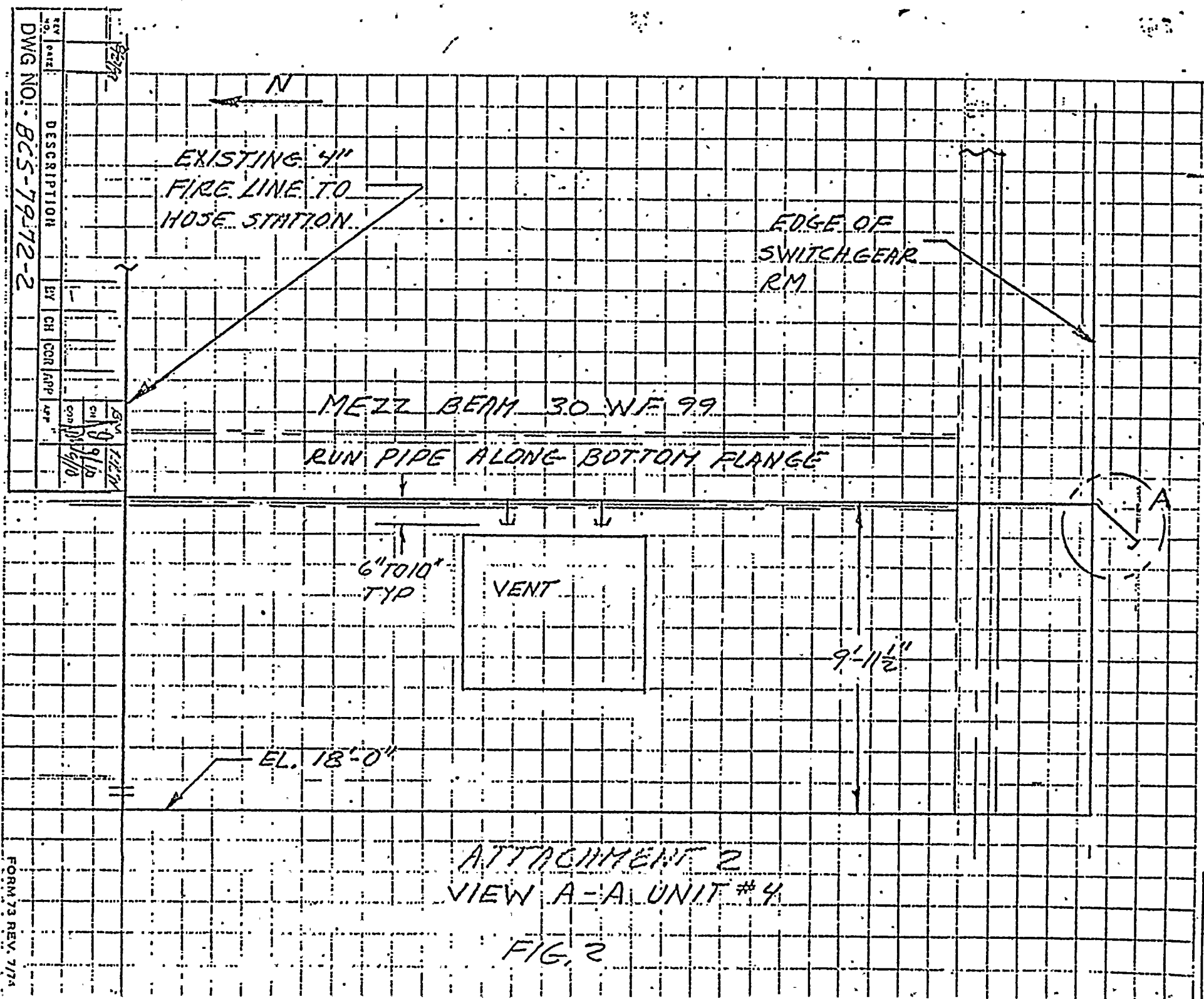
There is no margin of safety for electrical equipment defined in the technical specification. There is no physical change to any electrical equipment. The change will be tested to verify that the spray does not get on the switch gear.

117 281.7
SHEET NO. _____ OF _____
PROJECT NO. _____

FIG. 1

WELD THREADED LET TO
EXISTING 4" LINE FROM
HOSE STATION ON TURBINE
DECK

FORM 73 REV. 7/73



ATTACHMENT 2
 VIEW A-A UNIT #4
 FIG. 2

DWG NO.	REV	DATE	DESCRIPTION	BY	CH	COR	APP	L.P.	GM	FILED
									CH	FILED
BGS-79-72-2									10	7/20/79

BY R. WATERBURY DATE 6-29-79

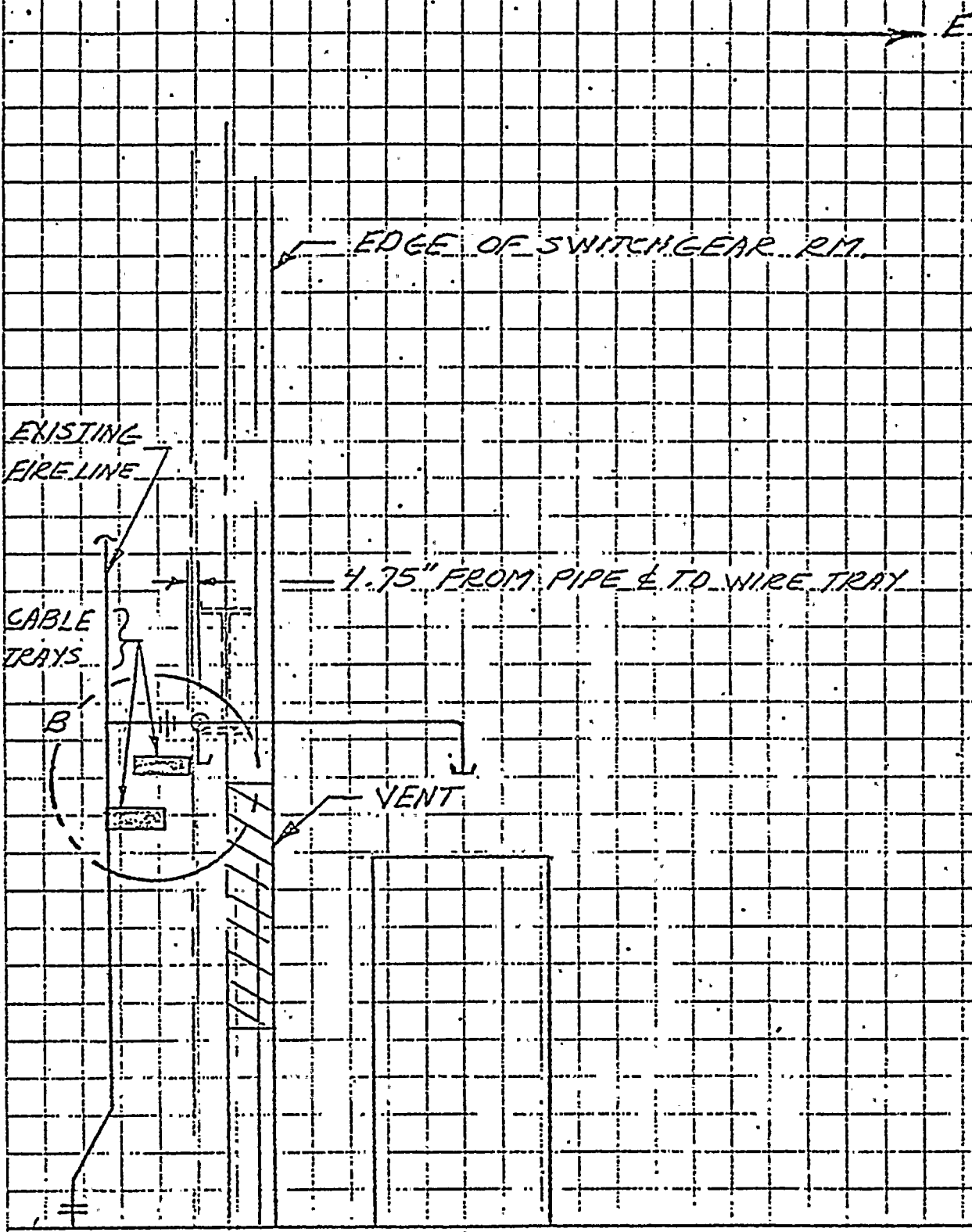


SHEET NO. 1977 OF 37

CHKD. BY 10. DATE 7/20/79

FLORIDA POWER & LIGHT COMPANY

PROJECT NO. _____



REV NO.	DATE	DESCRIPTION	BY	CH	CGR	APP	APP
1	7/20/79						
2							
3							
4							
5							
6							
7							
8							
9							
10							

7/20/79

7/20/79

7/20/79

7/20/79

7/20/79

7/20/79

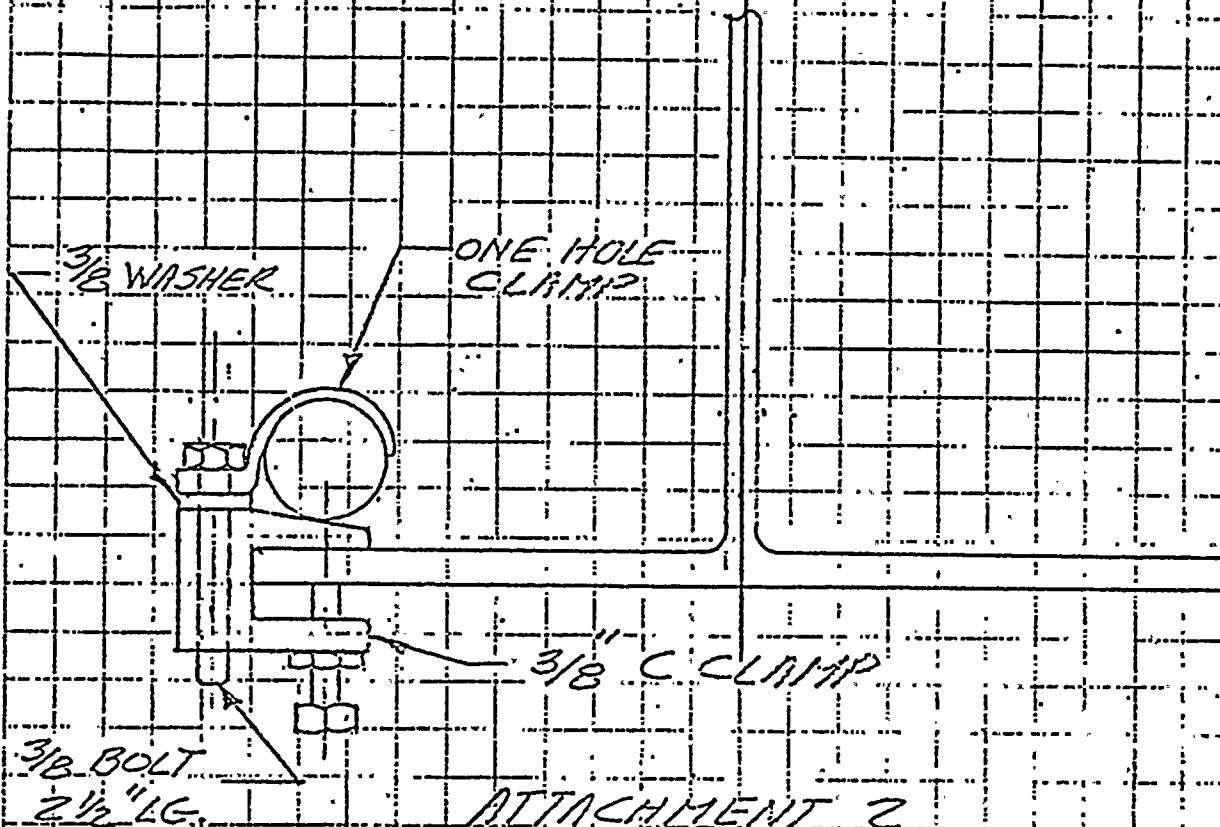
7/20/79

7/20/79

7/20/79

7/20/79

ATTACHMENT 2
VIEW B-B UNIT #4
FIG. 3



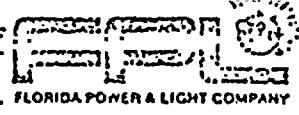
ATTACHMENT 2
TYPICAL SUPPORT OF
PIPE TO STRUCTURAL
STEEL

FIG. 4

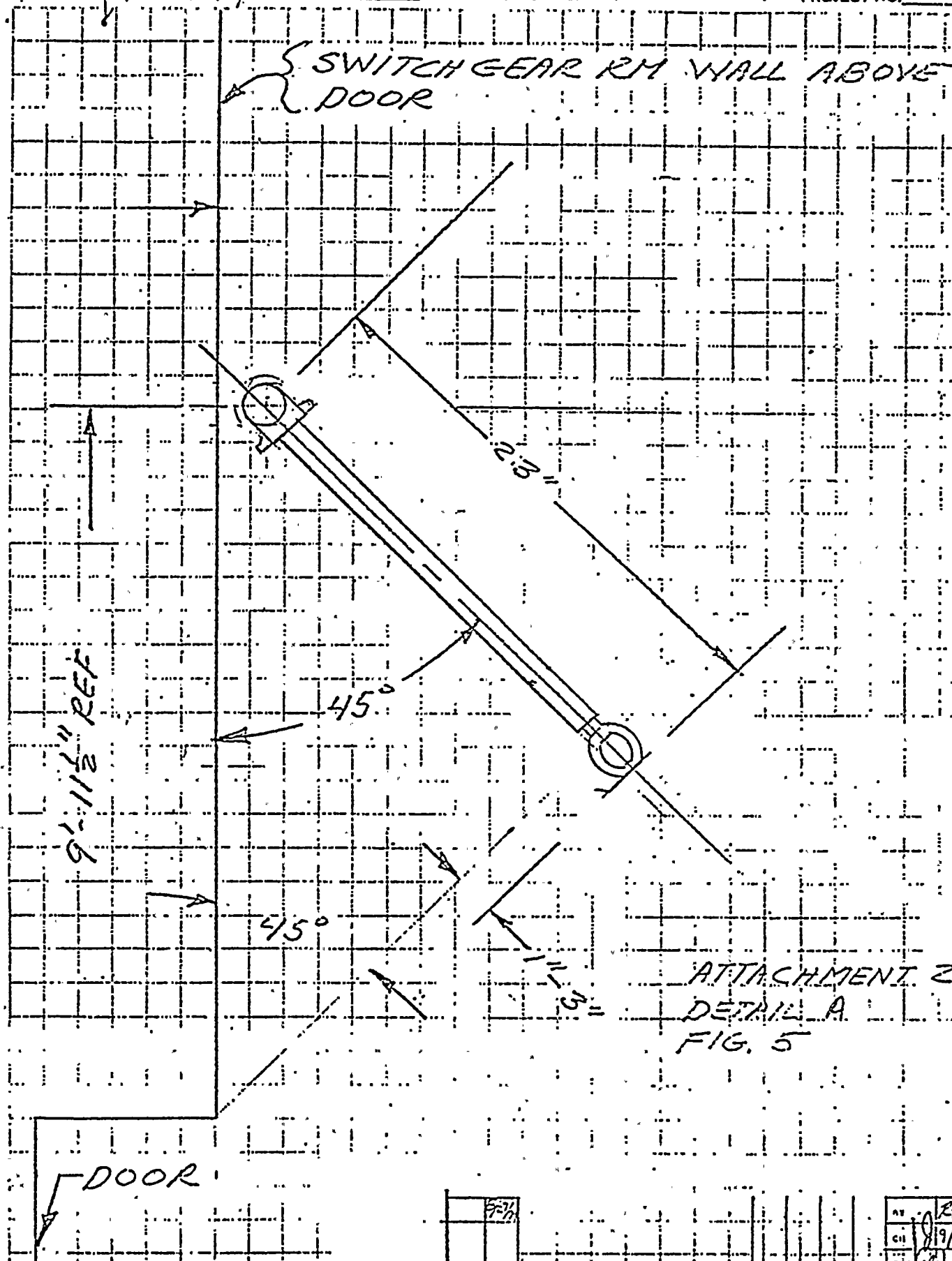
REV. NO.	DATE	DESCRIPTION	BY	CHK	COR	APP	APP
1	8/21/79						
DWG NO. - B.C.S. - 7.9 - 72 - 4							

by RMH
in 9/10
cc 9/1

BY R. WATERBURY DATE 7-18-79
 CHKD. BY J. J. DATE 8/26/79



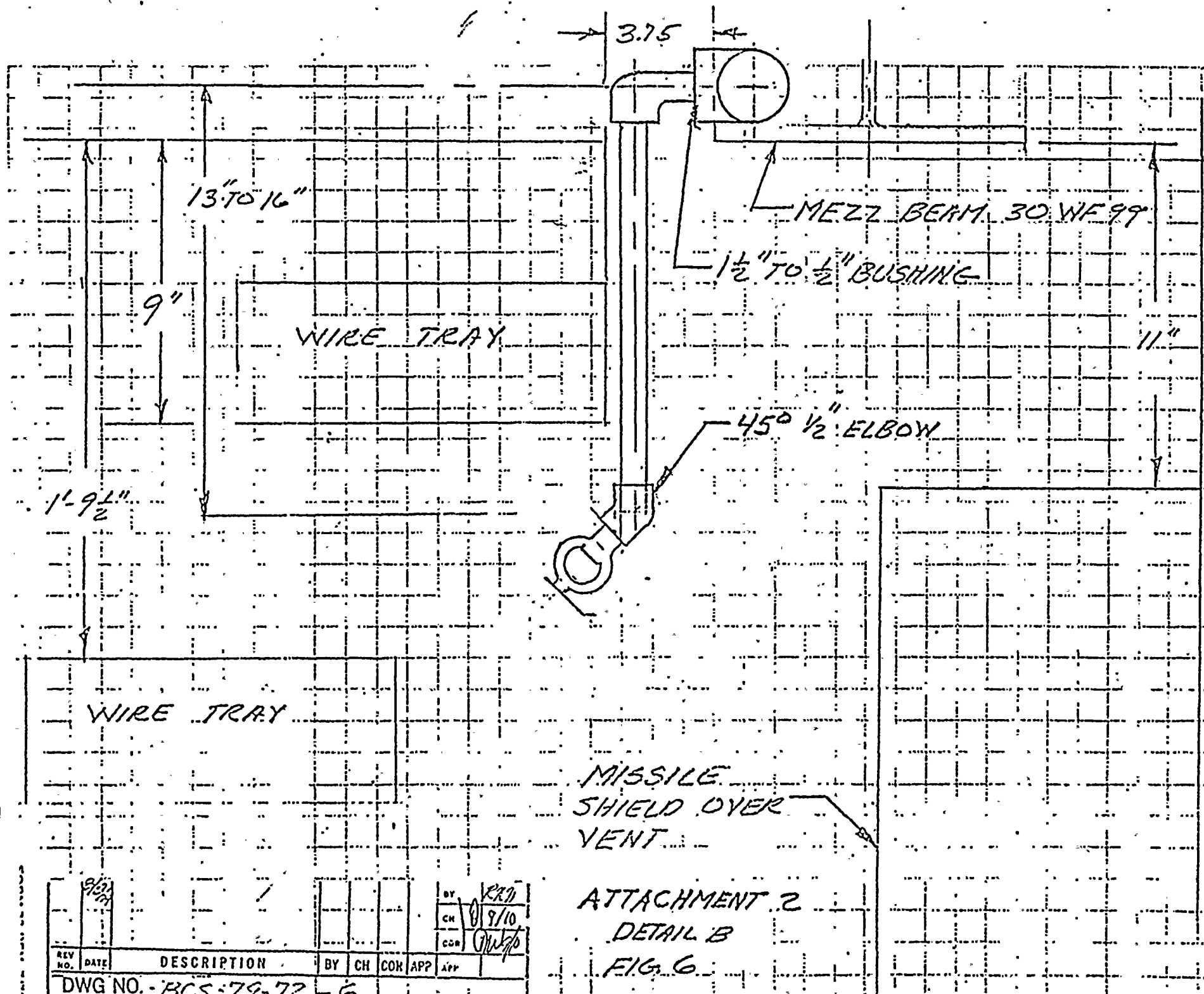
AUG 1979 54.11
 SHEET NO. 01
 PROJECT NO. _____



ATTACHMENT 2
 DETAIL A
 FIG. 5

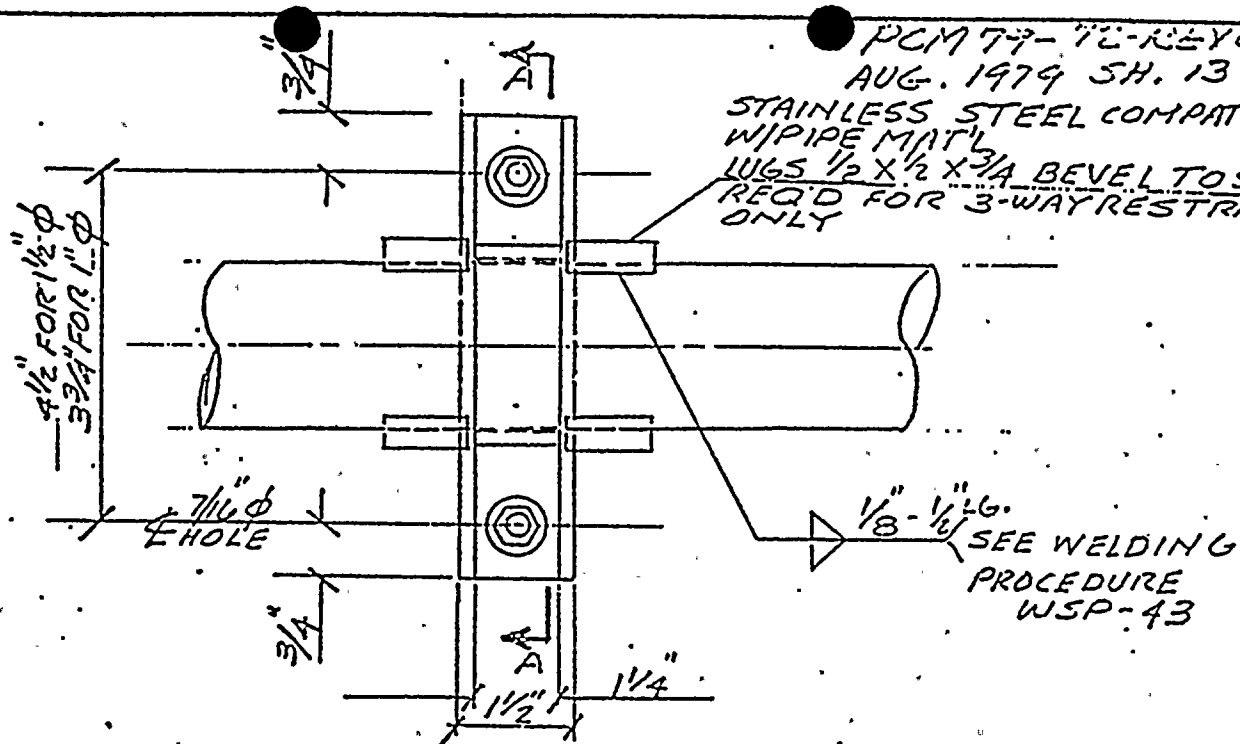
REV NO.	DATE	DESCRIPTION	BY	CH	CGR	APP	APP
1	7-18-79						
DWG NO. - <u>EC-5-79-77-5</u>							

ADG. 1979 SH. 1.2
SHEET NO. _____ OF _____
PROJECT NO. _____



PCM 79-72-KEYD
AUG. 1979 SH. 13

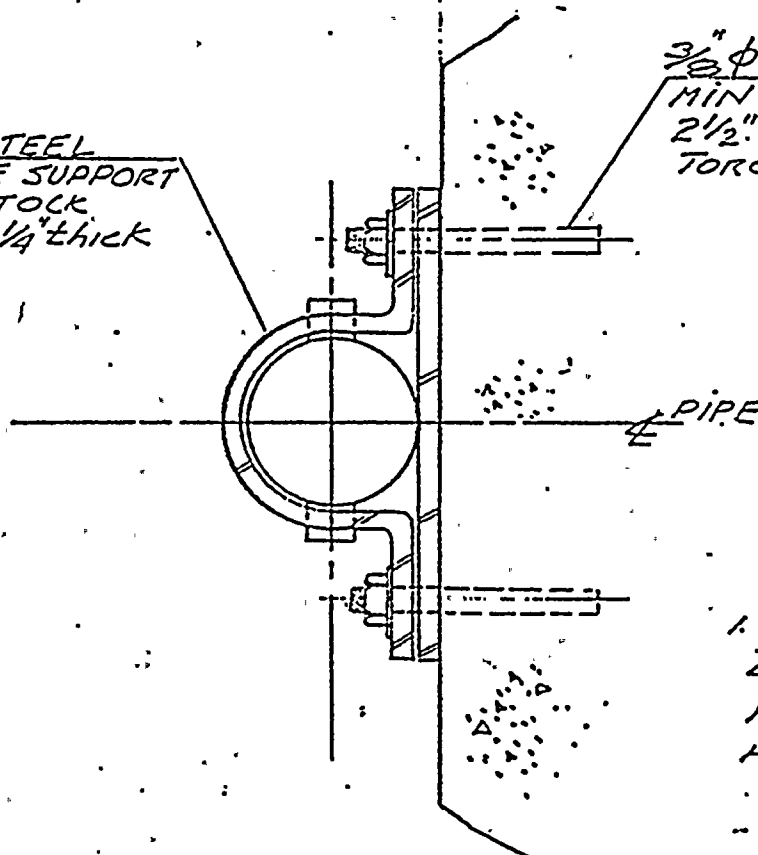
STAINLESS STEEL COMPATIBLE
WIPIPE MITL
LUGS $1/2 \times 1/2 \times 3/4$ BEVEL TO SUIT
REQ'D FOR 3-WAY RESTRAINT.
ONLY



ELEVATION

STD STEEL
U-PIPE SUPPORT
BAR STOCK
STEEL $1/4$ " THICK

$3/8 \phi \times 3 1/2$ LG. HILTI KWIK BOLTS
MIN. EMBEDMENT DEPTH
 $2 1/2$ "
TORQUE TO 35 FT.-LBS.



SECTION A-A

NOTES:

1. WORK THIS SKETCH
ENCLOSURE.
INSTALLATION PROCEDURE
PCM 79-72

PLS 79-72-7
FLORIDA POWER & LIGHT COMPANY
DATE 8/30/79
SCALE NTS

APPROVED:

DIVISION ENGINEER

AWN BY	T. ROOFER
CKED	B. J. [signature]
RECT	B. J. [signature]

ATTACHMENT 3DRAWING NOTES:

1. $1\frac{1}{2}$ " PIPE TO BE SUPPORTED AT INTERVALS OF LESS THAN 9 FT.
2. USE "C" CLAMPS TO ATTACH PIPING TO STRUCTURE AS SHOWN IN FIG. 4.
3. USE $\frac{3}{8} \times 3\frac{1}{2}$ " HILL QUICK BOLTS TO ATTACH PIPE TO CONCRETE PER FPL Dwg. BCSTP-7 EXCEPT WELDED LUGS ARE NOT REQUIRED.
4. SUPPORT PIPE AT END OF LINE SO LESS THAN 18" IS CANTILEVERED ON ENDS.
5. WELD THREADED TO EXISTING LINE PER FPL PTP WPI-A OR BECHTEL P1-T WELDING PROCEDURE.
6. ALL JOINTS TO BE THREADED EXCEPT FOR THREADED WELD TO EXISTING WATER LINE. ALL THREADED JOINTS TO BE PER ANSI B2.1.
7. ALL THREADED JOINTS TO USE TITE SEAL COMPOUND.

ATTACHMENT 4
BILL OF MATERIAL

<u>QUANTITY</u>	<u>DESCRIPTION</u>
50 FT	1 1/2" GALVANIZED WATER PIPE SCH40 ASTM 120
3	1 1/2" TEES* (1 SPARE)
2	1 1/2", 3,000# THREADOLET
2	1 1/2" THREADED UNIONS
5	1 1/2" x 1/2" THREADED BUSHINGS
7	1 1/2" THREADED ELBOWS
5	1/2" THREADED ELBOWS
8	1/2" F.M. OR U.L. 286°F SIDEWALL SPRINKLER + HEAT COLLECTOR
10 FT	1/2" GALVANIZED WATER PIPE ASTM A120
1#	PIPE COMPOUND (TITE SEAL OR EQUIV.)
5	3/8" C CLAMP GRINELL FIG. 62 OR EQUIVALENT
8	1 1/2" CLAMP PER FPL DWG. BCS-79-71-11
10	3/8" GALVANIZED WASHERS
5	3/8" N.C. GALVANIZED BOLTS 2 1/2" LG.
5	3/8" DIA. X5" HILTI QUICK BOLTS
4	1/2" 45° ELBOWS (2 SPARE)

* ALL FITTINGS TO BE PER ANSI B16.11 AND GALVANIZED.

ATTACHMENT 5

INSTALLATION AND CONSTRUCTION GUIDELINES

The following guidelines are for the construction and installation of the water curtain.

1. Isolate hose station with post indicator valves.
2. Drain out as much water as possible from hose station.
3. Drill 2" holes in existing water line for threadolet.
4. Weld in threadolet
5. Install 1 1/2" piping for main supply line to where sprinklers branch off.
6. Install 1 1/2" to 1/2" bushings where sprinklers branch off.
7. Install 1/2" elbows and pipe to sprinklers.
8. Connect 1 1/2" piping to existing pipe with union.
9. Flush system until water runs clear.
10. Heat 3 sprinkler heads so they become activated, and install these in position. With the 4 KV. bus de-energized and electrical dept. present, open vent and door and gradually open post indicator valve to verify the spray does not go directly on the switch gear. If spray goes on switch gear rotate head to avoid switch gear, but still wet vent and door.
11. Install new sprinkler heads and hydrotest new piping, at 200 psi for 2 hours per NFPA 13 Section 1-11.3.1.
12. Paint outside of new pipe with a primer such as Subox Surfa-Prep. No 100 or equivalent. Then apply a finish coat of Subox #475-13 E-Z FLO Fire Engine Red enamel or equivalent.

APPENDIX C

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Fire Protection

FOAM SUPPRESSION (3.1.7)

PC/M package 79-97 (Diesel Generator Room Foam Suppression Penetrations)
is attached.

FLORIDA POWER & LIGHT COMPANY
TURKEY POINT UNITS 3 & 4

NUCLEAR SAFETY RELATED
PLANT CHANGE/MODIFICATION
DESCRIPTION SHEET

Unit(s) No. 3 & 4

- a) Title Diesel Generator Room Foam Suppression Penetrations
- b) Description (Attach detailed sketch, drawing, wiring diagram or other appropriate documentation and list as enclosures on the cover sheet.)

This PC/M includes the sketches, specifications, and procedures for the installation of 3-4" ϕ penetrations through the Diesel Generator Room exterior walls and doors. The penetrations have been designed with fast release covers to maintain a structural seal when not used and to provide a quick access to the interior of the Diesel Generator Room when needed.

- c) Purpose or Reason for Change (Why the change is necessary, including appropriate related references and background or historical information.)

The penetrations will be installed to provide an unobstructed outlet for the insertion of fire deterrent foam via an existing nozzle. Insertion of the foam will suppress any interior fire which will adversely affect the function of the Emergency Diesel Generator System. The size and locations of the penetrations are such as to maximize the effective coverage of foam directed into the interior of the building. The proposed penetrations are a fire protection commitment to the NRC.

PRELIMINARY

2/28/77

PC/M No. 79-97

- d) Written safety evaluation (If the PC/M will change the facility as described in the FSAR this section must be completed.) (See Appendix A for suggested format.)

The foam suppression penetrations have been sized and located so as not to affect the structural integrity of the doors or walls of the Emergency Diesel Generator Building. No change has been made to the building which will affect its operation or function. By inspection the proposed change to the structure does not decrease the margins of safety as defined in the basis for a Technical Specification.

The probability of occurrence or the consequences of a design basis accident or malfunction of equipment important to the safety of the Plant previously evaluated in the FSAR has not been increased. There is no possibility of accident or malfunction different than those previously evaluated.

Since this PC/M has not in any way affected the safety of the Plant, it can be concluded that this PC/M does not pose any unreviewed safety questions.

Signed Thomas E. Roberts Dated 9/24/79

PRELIMINARY

- e) References (Include sources of information used; i.e., standards, codes, specifications, FSAR, texts, etc.)

Turkey Point Units 3 & 4 FSAR and
Technical Specifications

AISC Manual, 1970

Bechtel Drawing 5610-C-379, Rev. 4

Bechtel Drawing 5610-C-380, Rev. 3

- f) Design Inputs and Sources (Include Design Bases and the source of the Design Base, i.e. FSAR, specification, etc. If the design inputs will be changed as a result of completing this PC/M, the items of Quality Procedure 3.6, Figure 3.6-1, are required to be addressed and documented.)

Penetrations are sized and located in a manner so as to preclude significant stresses due to dead load, live load, seismic load, or tornado loads & missiles. Since the penetrations are composed of structural steel components, their material strength properties exceed the material strength properties of the aluminum door panels. Additionally the penetrations are covered with oversize cover plates sized to distribute surface loads symmetrically into the existing structure. Therefore the doors will satisfy or exceed the original design parameters to which the doors have been analyzed. Penetrations through the walls are located on the west face. This area is protected by a structural overhang. Due to the nature of the design and conservative assumptions, no formal calculations have been generated.

PRELIMINARY

- g) Priority and Estimated Cost/Completion Time/Manhours (Include plant conditions required for implementation and when PC/M needs to be accomplished.)

Priority - High (NRC Fire Protection Commitment)

Estimated Cost: \$500.00 (mat'ls)

Estimated Completion Time: 12/1/79

Manhours: 80 hrs.

Plant Condition: Any Phase

PRELIMINARY

- h) Material, parts, and equipment required to implement PC/M.

1. 4 9/16" ϕ hole punch
2. Core drill w/ 5 1/2" ϕ diamond drill bit
3. Metal detector
4. ASTM A53 Grade A Schedule 40 4" ϕ galvanized carbon steel pipe. Galvanizing in accordance with ASTM A120.
5. ASTM A36 plate material 1/4" thick Galvanized in accordance with ASTM A123.
6. 3/8" x 4" ASTM A307 Grade B bolts with washers and wing nuts of compatible material, Galvanized in accordance with ASTM A153.
7. 3/8" x 2" ASTM A307 Grade B studs with washers and wing nuts of compatible material, Galvanized in accordance with ASTM A153.
8. 1/8" thick neoprene gasket material
9. Silicon Sealer
10. Organic Zinc Rich Coating
11. Por Rok Anchoring Cement as manufactured by Hallemite, Lehn, and Fink or equal.
12. Miscellaneous weld rod, tools, etc.

Note: Material quantities may be estimated from the installation sketches.

Any materials other than those specified must be approved by Project Office Engineering prior to installation.

- i) Quality Control Requirements (Inspections, operational tests, functional tests, procedures, hold points, etc.)

- i.1 Documentation
certification of compliance shall be furnished for all steel material.
- i.2 Welding shall be in accordance with Florida Power & Light
Welding Procedure No. WPS-5
(See Attached)

j) Areas affected by completing this PC/M.

1. List drawings affected and attach one marked up copy of each.

5610-C-379, Rev. 4

5610-C-380, Rev. 3

PRELIMINARY

2. List procedures affected and attach one marked up copy of each.

None Known

3. List changes required in spares carried by Stores.

None

4. List changes in FSAR and attach one marked up copy of each FSAR page affected.

None

5. List technical manuals affected and attach one marked up copy of each page affected.

None

6. List changes in the Breaker List or the Instrument Index and attach one marked up copy of each of the affected pages.

None

7. List changes in the Inservice Inspection Program.

None

TURKEY POINT UNITS 3 & 4

DIESEL GENERATOR ROOM FOAM SUPPRESSION
PENETRATIONS UNIT 3

IMPLEMENTATION PROCEDURE

PC/M 79-97

PRELIMINARY

A. General

All welding shall be in accordance with FP&L Welding Procedure Spec.WPS-5. Prior to welding, grind off galvanizing on surfaces to be welded. After welding is completed, all areas where galvanizing is eliminated and/or damaged shall be coated with 2-3 mils of organic zinc rich coating, ZRC or equal. Prior to application of coating, clean and prepare the affected areas in accordance with SSPC-SP-3.

B. Door Penetrations

- B.1. Cut a 4 9/16" ϕ hole through the specified doors at the locations as shown on the Installation sketches.
- B.2. Weld pipe ears to the schedule 40 penetration pipe as shown.
- B.3. Slide penetration pipe into the applicable door starting from the interior face of the door.
- B.4. Drill 7/16" ϕ holes through the pipe ears and the door as shown.
- B.5. Seal the specified seams with Silicon Sealer.
- B.6. Install the 3/8" ϕ bolts as shown and tack weld bolt head to the pipe ear.
- B.7. Place the 1/8" thick neoprene gasket.
- B.8. Lubricate the threaded ends of the bolts with a light grease and attach the face plate as shown. Wing nuts shall be tightened finger tight.

C. Wall Penetrations

- C.1. Core drill 5 1/2" ϕ hole through the specified walls at the locations as shown on the Installation sketches. Prior to drilling, a metal detector and/or stud finder shall be used to locate rebar on the interior and exterior faces of the specified wall. As a guide, reinforcement in the wall is shown on the Installation sketches. The rebar shall be mapped on each face of the wall using chalk or a marker which can be readily seen and removed. The penetration may be relocated plus or minus one foot in any direction in order to avoid cutting rebar during the process of core drilling. In the event that core drilling results in rebar being cut through, the

size, numbers, and location shall be recorded. This information shall be forwarded to Project Office Engineering immediately.

- C.2. Weld the ring plate to the schedule 40 penetration pipe as shown. Weld the 3/8" ϕ studs to the ring plate as shown.
- C.3. Place penetration pipe into the applicable wall and center the pipe in the hole with wedges. Weld the pipe ears to the penetration pipe as shown. Grout the annular space between the outside of the penetration pipe and the wall with Por Rok Anchoring Cement.
- C.4. Place the 1/8" thick neoprene gasket.
- C.5. Lubricate the threaded ends of the 3/8" ϕ studs with a light grease and attach the face plate as shown. Wing nuts shall be tightened finger tight.

PRELIMINARY

FLORIDA POWER & LIGHT COMPANY
ST. LUCIE PLANT - UNIT #2
1983 - 890 MFG EXTENSION
REVIEW AND APPROVAL RECORD
FOR
SITE WELDING PROCEDURES

PRELIMINARY

WELDING PROCEDURE NO. WPS 5 REV. NO. 0 NO. OF SHEETS 2

TITLE SHIELDED METAL ARC WELDING

REVIEWED BY:

REVIEWED BY:

[Signature] 2/16/78 [Signature] 2/16/78
(SITE PROJECT ENGINEER) DATE (PROJECT QUALITY CONTROL SUPV.) DATE

[Signature] 2-16-78 [Signature] 2/16/78
(SR. RESIDENT ENGINEER) DATE (QUALITY ASSURANCE, FPL) DATE
EPP REVIEW NOT REQUIRED.

[Signature] 2-17-78 [Signature] 2-8-78
(EPP) DATE (MATERIALS ENG.)

APPROVED BY:

APPROVED BY:

[Signature] 2-17-78
(WELDING CONTROL SUP'T) DATE

[Signature] 2-17-78
(SITE MANAGER) DATE

Welding Procedure has been qualified to the latest
edition of 1977 ASME Boiler and pressure vessel
code Section IX, with '77 Summer Addendas.

REV. NO. DESCRIPTION OF CHANGE REV. BY APP'D BY FPL

PRELIMINARY

QW-422 WELDING PROCEDURE SPECIFICATION (WPS)
(See QW-201.1, Section IX, 1977 ASME Boiler and Pressure Vessel Code)

Company Name FLORIDA POWER & LIGHT CO
Welding Procedure Specification No. WPS-5 Date Jan. 18, 1978 Supporting PQR No. FPL 11-3-15-1
Revisions 0 Jan. 18, 1978 FPL 11-3-15-2
FPL 11-1.7-5
Welding Process(es) SMAW Type(s) MANUAL FPL 11-.75-5

JOINTS (QW-422)
Groove Design V, U or -J
Backing: Yes Yes No No
Backing Material (Type) Same Nom. Composition as base mtl.
Other This specification may also be used for filler and socket welds.

BASE METALS (QW-422)
P No. 1 to P. No. 1
Thickness Range 1/16" thru 3"
Pipe Dia. Range All
Other

FILLER METALS (QW-424)
F No. 4 Other
A No. 1 & 2 Other
Spec No. (SFA) 5.1 & 5.5
AWS No. (Class) E7018 or E7018 A1
Size of Electrode 3/32", 1/8", 5/32", & 3/16" Ø
Size of Filler NA
Electrode-Flux (Class) NONE
Consumable Insert NONE
Other

POSITION (QW-425)
Position of Groove All
Welding Progression Vertical Uphill
Other

PREHEAT (QW-426) 3/4" or less - 500°F Min and
over 3/4" - 250°F Min.
Preheat Temp. 500°F Max.
Interpass Temp. during welding
Preheat Maintenance during welding
Other

POSTWELD HEAT TREATMENT (QW-427)
Temperature 11500 ± 250°F
Time Range One hour per inch of thickness.
Other PHWT required over 1 1/2" thick; not required on 1 1/2" or less.

GAS (QW-428) NONE
Shielding Gas(es)
Percent Composition (mixtures)
Flow Rate NA
Gas Backing NA
Trailing Shielding Gas Composition
Other

ELECTRICAL CHARACTERISTICS (QW-429)
Current AC or DC DC Polarity Reverse
Amps (Range) Volts (Range)
Other See chart below for amperage and voltage ranges.

TECHNIQUE (QW-410)
Travel Speed (Range) NA
String or Weave Bead Weave
Orifice or Gas Cup Size NA
Initial & Interpass Cleaning (Brushing, Grinding, etc) Shall be by grinding, chipping, or thermal gouging.
Method of Back Gouging Arc Air grinding, chipping.
Oscillation Max of 4 times electrode dia.
Contact Tube to Work Distance NA
Multiple or Single Pass (per side) Multipass
Multiple or Single Electrodes Single
Other

Electrode Ø	Amperage	Voltage
3/32"	65-115	21-24
1/8"	90-145	21-24
5/32"	120-205	21-24
3/16"	170-275	23-26

NOTES:

1. All carbon oxides from thermal gouging shall be removed by grinding prior to welding.
2. Arc starts and stops shall be staggered one inch from those in the proceeding pass.

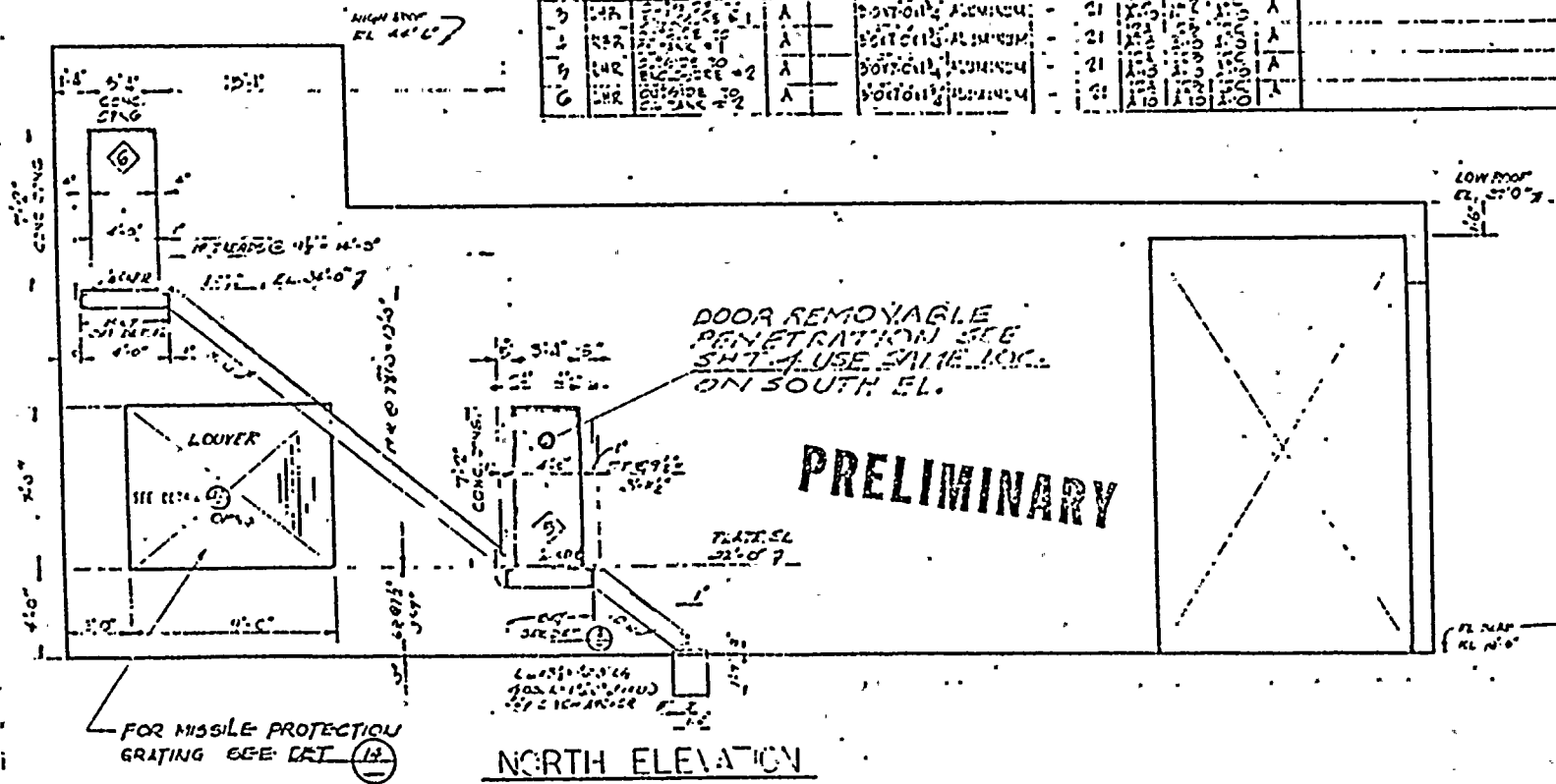
PRELIMINARY

INSTALLATION SKETCHES

PLM 79-97

RE: 7-1000

DOOR SCHEDULE - DIESEL GENERATOR ENCLOSURE									
DOOR NO.	DOOR TYPE	LOCATION	DOOR MATERIAL	DOOR WEIGHT (LBS)	FRAME	DOOR NO.	DOOR TYPE	LOCATION	DOOR MATERIAL
1	LVR	DOOR NO. 1	A		DOOR NO. 1	DOOR NO. 1	DOOR NO. 1	DOOR NO. 1	DOOR NO. 1
2	RHR	DOOR NO. 2	A		DOOR NO. 2	DOOR NO. 2	DOOR NO. 2	DOOR NO. 2	DOOR NO. 2
3	LVR	DOOR NO. 3	A		DOOR NO. 3	DOOR NO. 3	DOOR NO. 3	DOOR NO. 3	DOOR NO. 3
4	RHR	DOOR NO. 4	A		DOOR NO. 4	DOOR NO. 4	DOOR NO. 4	DOOR NO. 4	DOOR NO. 4
5	LVR	DOOR NO. 5	A		DOOR NO. 5	DOOR NO. 5	DOOR NO. 5	DOOR NO. 5	DOOR NO. 5
6	RHR	DOOR NO. 6	A		DOOR NO. 6	DOOR NO. 6	DOOR NO. 6	DOOR NO. 6	DOOR NO. 6



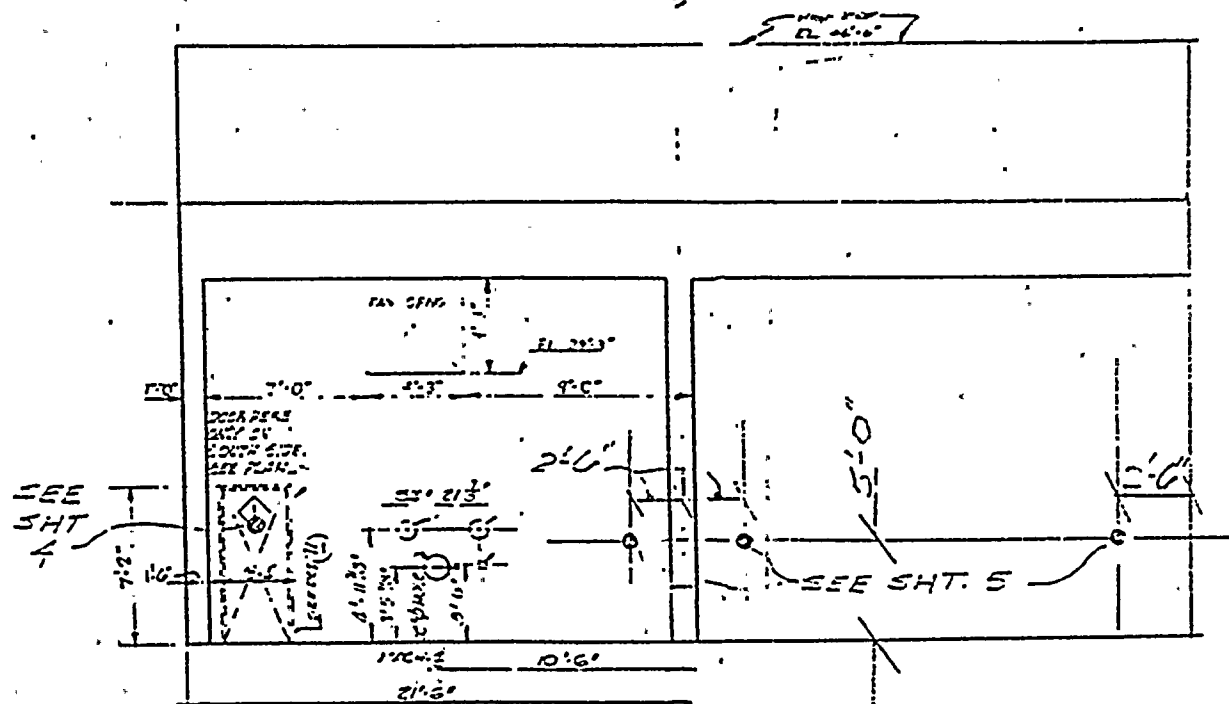
DATE 11/13/77

CIVIL E.

DATE

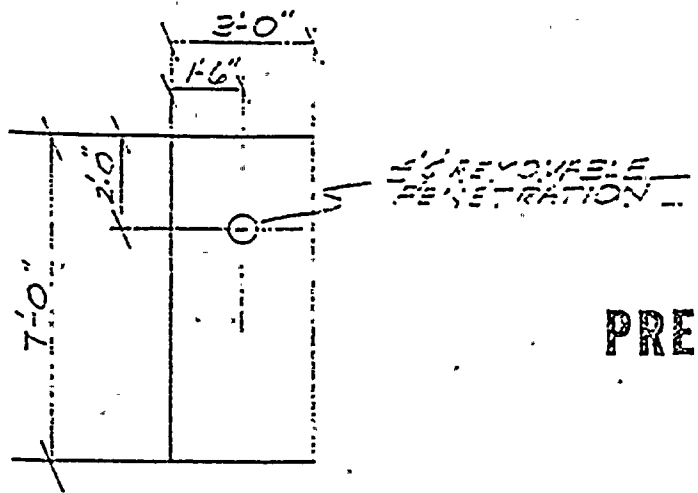
3. 5.
4725

MINETAKA ABOUT 2 INCHES FOR DOOR.



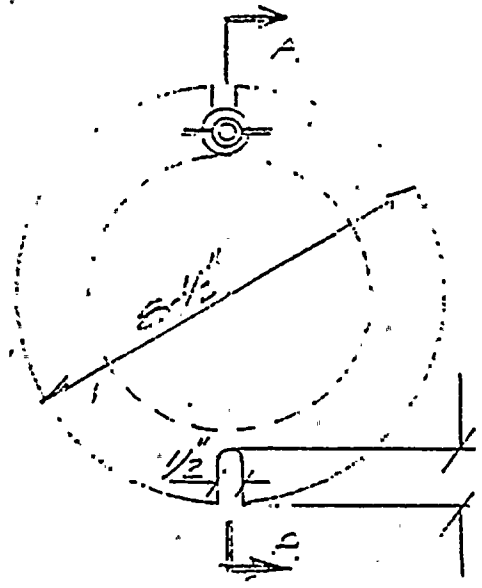
WEST ELEVATION

PRELIMINARY

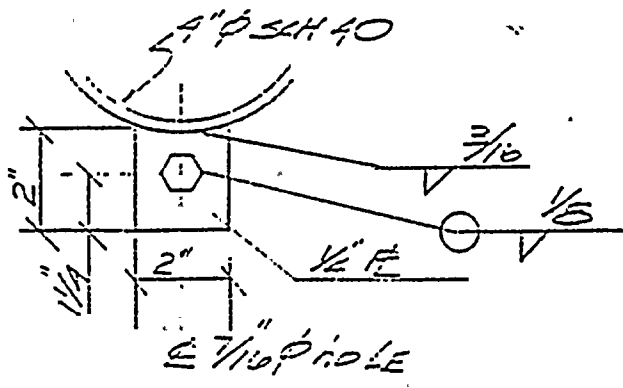


PRELIMINARY

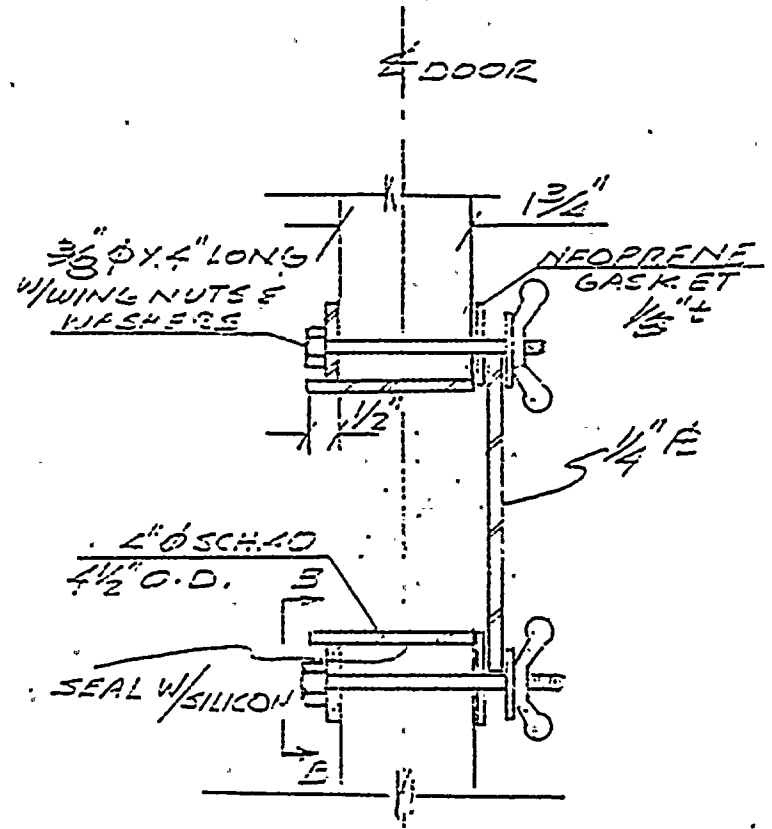
ELEVATION DOOR
TYPICAL NOTE



DETAIL - ELEVATION
(FACE PLATE)



SECTION E.P.
(PIPE FLANGE)



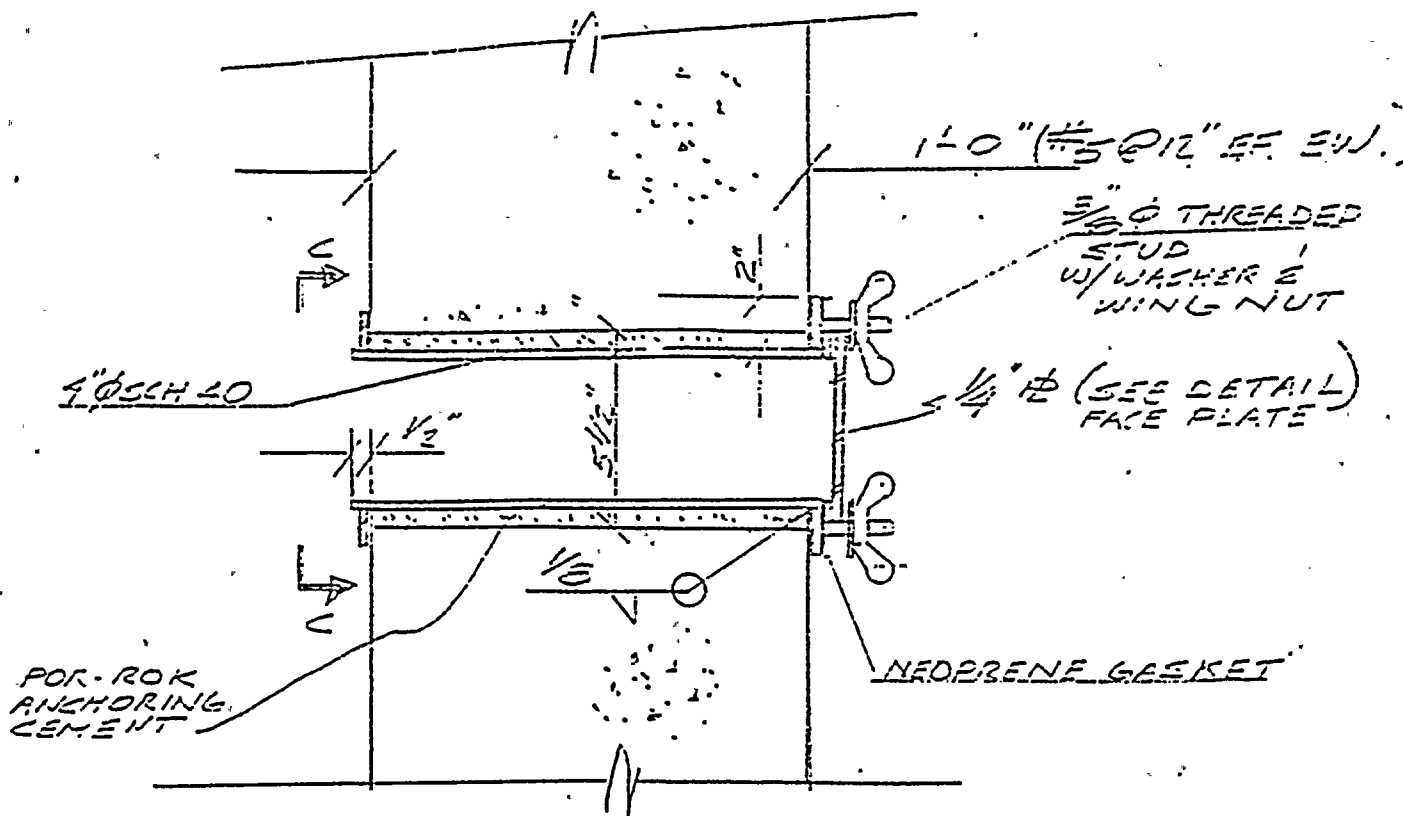
SECTION A-A

DRWD. BY

DATE

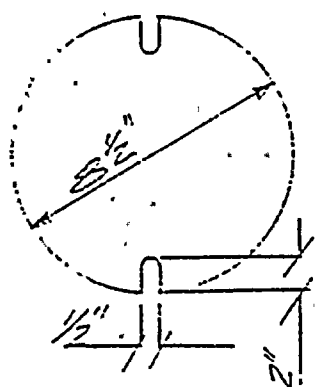
100% QUALITY ASSURANCE

PROJECT NO. FT-554

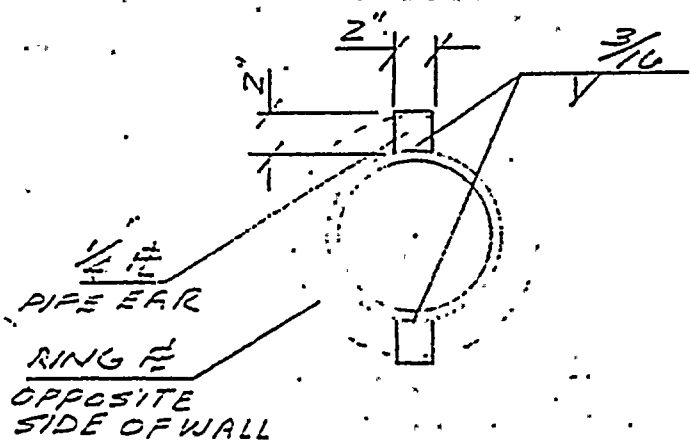


PRELIMINARY

ELEVATION REMOVABLE WALL PENETRATION NTS



DETAIL
FACE PLATE



SECTION C-C

FORM 12-REV

APPENDIX D

Re: Turkey Point Units 3 & 4
Docket Nos. 50-250 & 50-251
Fire Protection

CONTROL OF COMBUSTIBLES (3.1.15)

Reference: Amendment 45/37 dated March 21, 1979

As per item 3.1.15(1) of referenced letter, we are transmitting herewith a copy of General Arrangement Dwg. BCS-79-82-001, which depicts the preliminary layout of the hydrogen line outside of the Auxiliary Building. As shown on the drawing, the hydrogen line will run on the Auxiliary Building roof to a point near the Units 3 and 4 volume control tanks, where it penetrates the roof and is routed to the respective tanks.