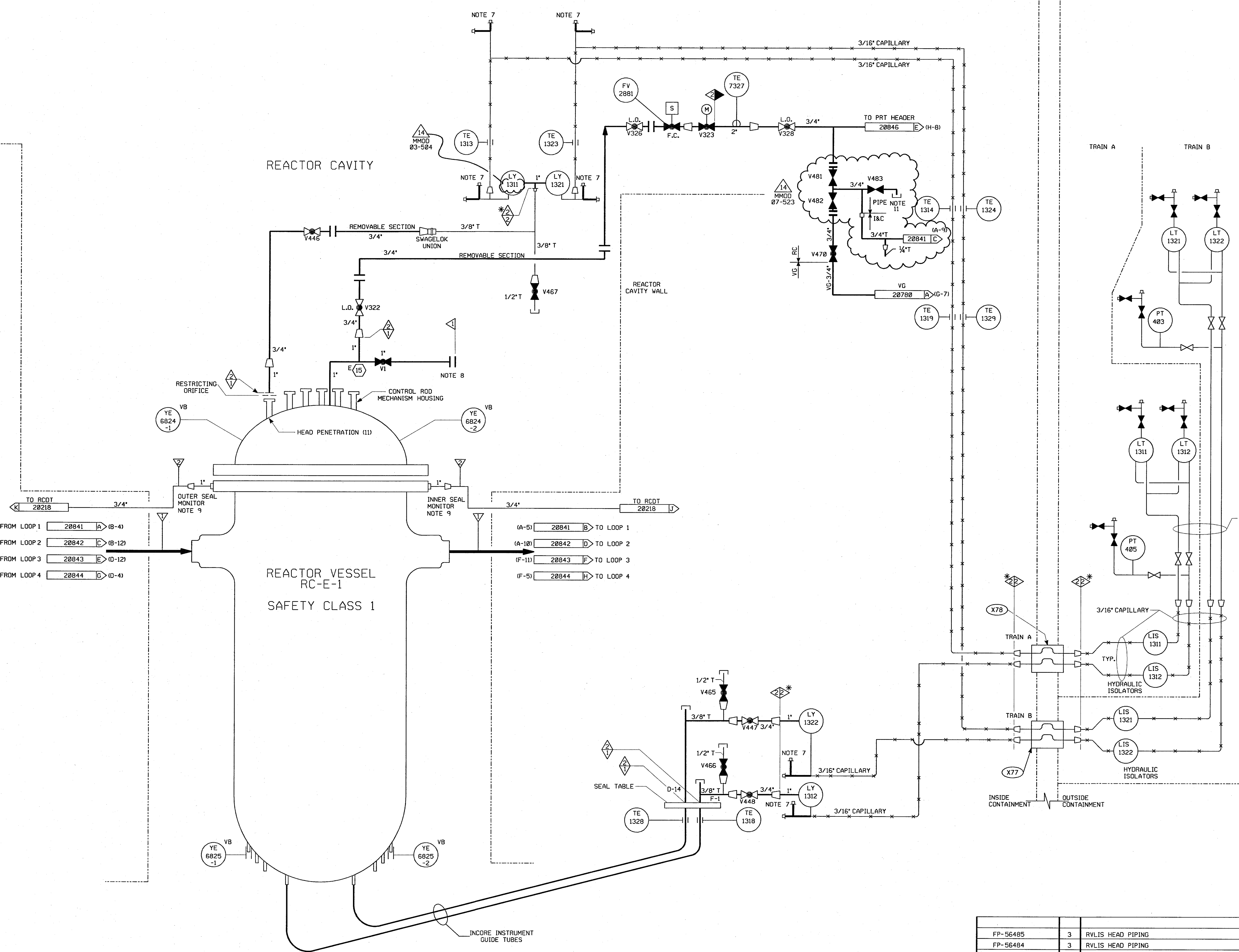


FROM LOOP 1 20841 A (B-4)



FROM LOOP 2 20842 C (B-12)

FROM LOOP 3 20843 E (D-12)

FROM LOOP 4 20844 G (D-4)



NOTES:

1.  INDICATES GENERAL NOTE NUMBER.- REFER TO DRAWING 20848 FOR GENERAL NOTES.
2. WORK THIS DRAWING WITH 20840, 20841,20842, 20843, 20844, 20845 & 20848.
3. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTATION HAVE SYSTEM PREFIX "RC" UNLESS OTHERWISE NOTED
4. VENTS, DRAINS & TEST CONN. CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-00511 UNLESS NOTED OTHERWISE.
5.  - INDICATES REVISION LEVEL.
6. DELETED
7. CAPILLARY FILL & VENT VALVE; SEE FP-56496
8. DURING PLANT OPERATION VENT IS SEALED WITH A SAFETY CLASS 1 BLIND FLANGE
9. CLASS 1 TO CLASS 2 BOUNDARY AT THE METALLIC O-RING AND THE REACTOR VESSEL FLANGE.
10. DELETED

11. 1/8" HOLE DRILLED IN CAP TO ALLOW FOR PRESSURE RELIEF, IF UPSTREAM VALVES LEAK BY. (REF MM0D 07-523)

MM0D

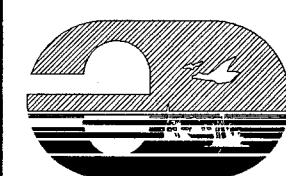
PORTIONS OF THIS DRAWING ARE

<b>NUCLEAR SAFETY RELATED</b>
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14	4/3/08	BCS	JWA	WFO	INCPOR MMOD 07-523 DCN 00, 02 & MMOD 03-504 DCN 00
13	4/20/06	JM	BCS	RFB	INCPOR CR 06-03016 REV 00
12	10/25/02	BCS	MRB	WFZ	INCPOR, DCR 96-00079 DCN-40
11	4/30/99	RCS	DWS	GMC	INCPOR, DCR 96-00079 DCN= 0
10	4/16/97	BCS	MPW	WNF	INCPOR, DCR 96-0015 CA 01
9	11/12/95	MPW	BCS	MMO	INCPOR, DCR 92-37 CA 01
8	11/11/89	MRB	PAL	GPM	INCPOR, DCR'S 87-136 CA 11 & 86-116 CA-03 REVISED CONTINUATION TAG LETTERS
7	12/15/87	GPM	DWS	PAS	REVISED; NOTES, RENUMBERED NOTES. ADDED NOTE 4 & 9. FLOW RESTRICTOR INDICATOR SYMBOL DELETED; NOTE 6 & NNS-1 CLASS BOUNDARY, INCOMPLETE ITEMS ECA 05/104902F (CORRECTLY INCPOR. PER FP-56902 PREVIOUS REV.)
6	11/04/86	JDM	BCL	RRC	REVISED SEAL TABLE INST. TAG CONNECTIONS PER FP-56902, ADDED CONT. FLAG REF. CORRUPT AND INCOMPLETE ITEM. CORRECTED DRAFTING ERRORS, REMOVED ELECTRICAL SIGNALS PER USE&P, ADID.
0	3-7-85	GFS	JNM	WFO	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY**

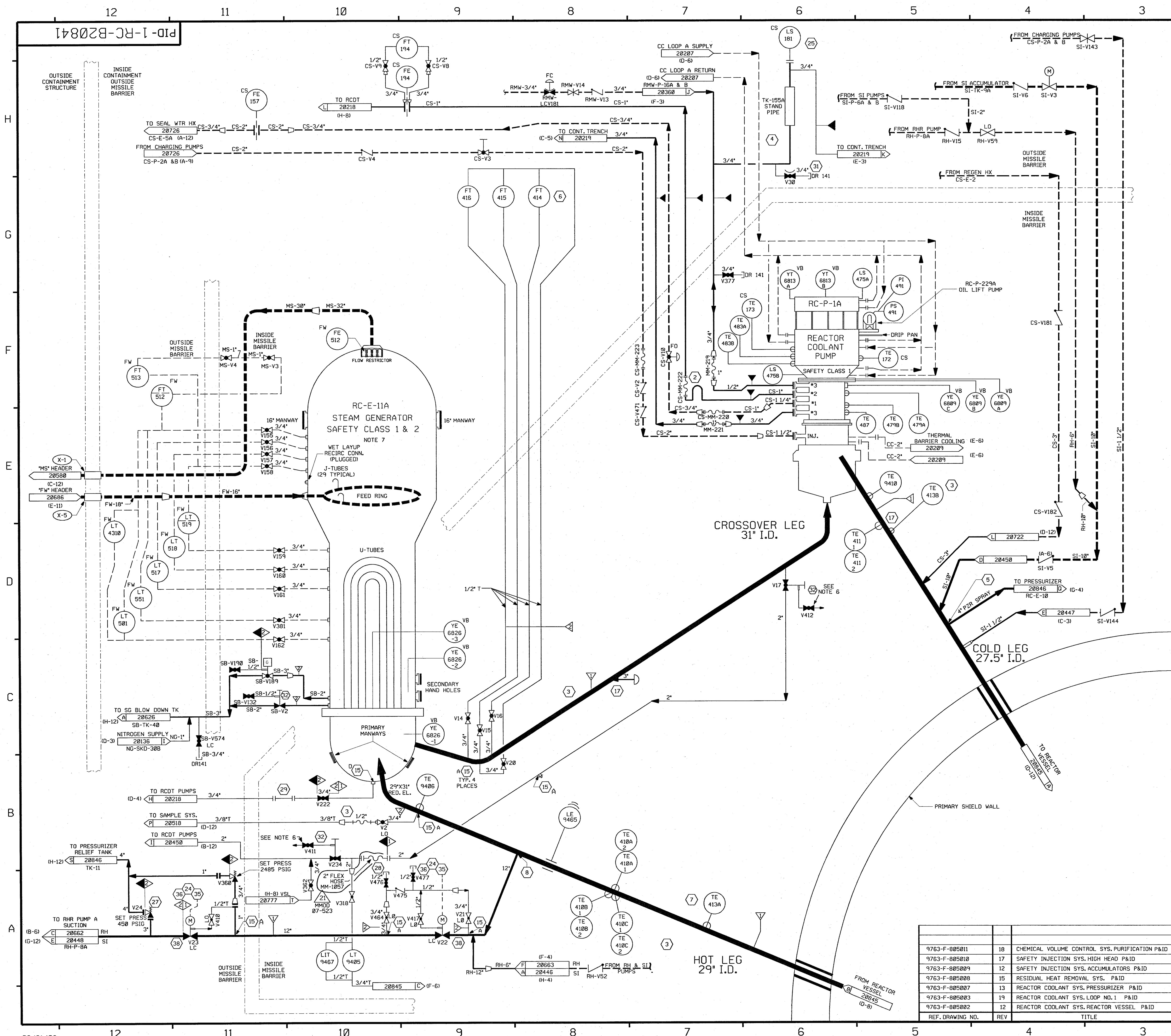
Seabrook Station



REACTOR COOLANT SYSTEM  
REACTOR VESSEL P & ID

PID- 1-RC-B20845

FP-56485	3	RVLIS HEAD PIPING
FP-56484	3	RVLIS HEAD PIPING
FP-56982	1	RVLIS SEAL TABLE TAP & PIPING
FP-56496	1	1TT BARTON TEE IN LINE FILL VALVES
FP-56493	1	HIGH VOLUME SENSOR
FP-56827	1	RVLIS CAPILLARY SCHEMATIC
9763-F-505275	0	INSTRUMENT INSTALLATION - RVLIS
9763-F-805002	13	RCS REACTOR VESSEL P&ID
REF. DRAWING NO.	REV	TITI F



FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2

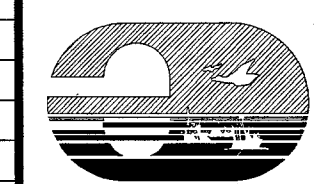
- NOTES:
- INDICATES GENERAL NOTE NUMBER - REFER TO DRAWING 20848 FOR GENERAL NOTES.
  - WORK THIS DRAWING WITH DRAWINGS 20840 AND 20842 THROUGH 20846 AND 20848.
  - ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTATION HAVE SYSTEM PREFIX RC UNLESS OTHERWISE NOTED.
  - VENT, DRAIN & TEST CONN. CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-805111, UNLESS NOTED OTHERWISE.
  - INDICATES REVISION LEVEL.
  - VALVE STEM LEAK-OFF ISOLATION VALVES V411 & V412 ARE TO BE MAINTAINED CLOSED, VALVE STEM LEAK-OFF TO BE CONSIDERED INOPERABLE.
  - STEAM GENERATOR SHELL SIDE IS ANS SAFETY CLASS 2 AND MANUFACTURED AS ASME CODE CLASS 1.

PORTIONS OF THIS DRAWING ARE  
**NUCLEAR SAFETY RELATED**

21	4/3/08	JM	BCS	RRB	INCORP MMOD 07-523 DCN 00
20	2/23/07	BCS	JM	RRB	INCORP CR 06-10182 REV. 0
19	8/12/03	BCS	JM	MPW	INCORP CR 03-06508 REV. 0
18	11/2/00	BCS	MPW	JPS	INCORP DCR 00-0010 DCN-00
17	7/3/98	DWS	MPW	DJM	INCORP DCR 910046 DCN#00
16	6/3/97	MPW	DWS	JPS	INCORP MMOD 97-567 DCN#00
15	11/17/95	BCS	RRC	DMQ	INCORP DCR 95-23 CA#11
14	11/11/95	BCL	MPW	RRB	INCORP DCR 95-23 CA#0, 03
13	7/22/94	BCL	DWS	JEV	INCORP DCR 94-14 CA#0
12	11/23/92	DWS	BCL	ES	INCORP DCR 900003 CA#0
11	4-14-92	MRB	DWS	JEV	INCORP MMOD 91-515 CA#0
10	3/5/91	GPM	FCB	IW	INCORP DCR 86-239 CA#0
9	8/23/91	GPM	JM	WFZ	INCORP DCR 89-51 CA#06
8	12/29/89	MRB	APL	WFD	INCORP DCR 87-136 CA-03 & MMOD 89-599 CA#0
7	10/14/88	MRB	GPM	RRC	INCORP NCR 86-60 REV 1 ADDED VALVE LEAKOFF SYMBOL TO CLARIFY CLASS BREAK FOR SB-V189 & V2 PER UE & C P & ID 805003.
6	10/30/87	GPM	BCL	PAG	REV'D: PIPING PER ERECTION ISOMETRIC, GEN. NOTE NO. 5, NOTES: RENUMBERED NOTES, MOVED TECH. NOTES TO GEN. NOTES ON DWG. RC-20848, ADDED DETAIL LETTER DESIGNATION FOR FLOW RESTRICTOR, DELETED DUPLICATED PIPING & INFO OF ASSOC. SYS. FLEX HOSES, REDUNDANT CL. BOUNDARY & NOTES.
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY**

Seabrook Station

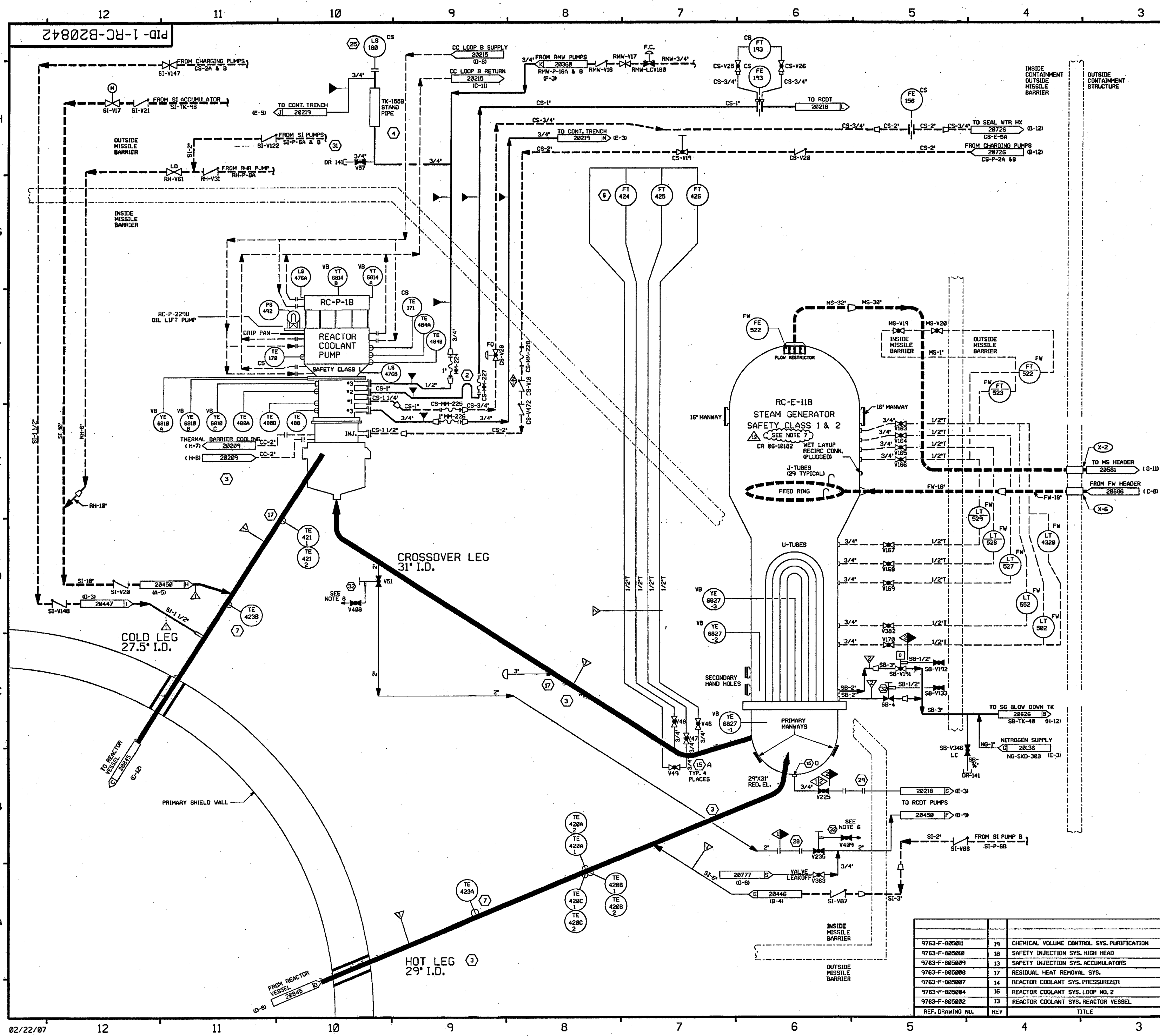


REACTOR COOLANT SYSTEM  
LOOP NO. 1

PID- 1-RC-B20841

REF. DRAWING NO.	REV	TITLE
9763-F-805011	18	CHEMICAL VOLUME CONTROL SYS. PURIFICATION P&ID
9763-F-805010	17	SAFETY INJECTION SYS. HIGH HEAD P&ID
9763-F-805009	12	SAFETY INJECTION SYS. ACCUMULATORS P&ID
9763-F-805008	15	RESIDUAL HEAT REMOVAL SYS. P&ID
9763-F-805007	13	REACTOR COOLANT SYS. PRESSURIZER P&ID
9763-F-805003	19	REACTOR COOLANT SYS. LOOP NO. 1 P&ID
9763-F-805002	12	REACTOR COOLANT SYS. REACTOR VESSEL P&ID





FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2

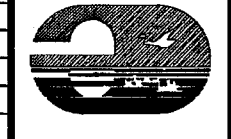
NOTES:

- INDICATES GENERAL NOTE NUMBER - REFER TO DRAWING 20848 FOR GENERAL NOTES.
- WORK THIS DRAWING WITH DRAWINGS 20848, 20841 AND 20843 THROUGH 20846 AND 20848.
- ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTATION HAVE SYSTEM PREFIX RC UNLESS OTHERWISE NOTED.
- VENT, DRAIN & TEST CONN. CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-005111 UNLESS NOTED OTHERWISE.
- INDICATES REVISION LEVEL.
- VALVE STEM LEAK-OFF ISOLATION VALVES V408 & V409 ARE TO BE MAINTAINED CLOSED. VALVE STEM LEAK-OFF TO BE CONSIDERED INOPERABLE.
- THE STEAM GENERATOR SHELL SIDE IS ANS SAFETY CLASS 2 AND WAS MANUFACTURED AS ASME CODE CLASS 1.

CR 06-10102

PORTIONS OF THIS DRAWING ARE  
**NUCLEAR SAFETY RELATED**

12	2-23-97	BCS	JFM	222	INCORP CR 06-10102 REV. 0
11	7/22/98	DWS	MPV	DJM	INCORP DCR 910946 DCM#08
10	7/22/98	BCL	DWS	JMC	INCORP DCR 94-14 CA#0
9	11/3/92	DWS	BCL	ES	INCORP DCR 900003 CA#0
8	4/14/92	MRB	DWS	JED	INCORP. MM00 91-515 CA#0
7	12/29/89	MRB	APL	WFO	INCORP. MM00 89-599 CA
6	10/14/88	MRB	GPM	RRC	INCORP. NCR 86-68 REV 1 ADDED VALVE LEAKOFF SYMBOL TO CLARIFY CLASS BREAK FOR SB-V191 & SB-V4 PER LEAC P&ID 005004
5	12/15/87	GPM	DWS	PAG	REV'D PIPING PER ERECTION ISO. NOTES, RENUMBERED NOTES, TRANSFERRED TECH. NOTES TO GENERAL NOTES ON DWG RC-20846. ADDED GENERAL NOTE NO'S, DETAIL LETTER DESIGNATION FOR FLOW RESTRICTOR, CONT. COORD. DELETED DUPLICATED PIPING & INFO. OF ASSOC. SYS'S, FLEX HOSES, REDUNDANT CL. BOUNDARY & NOTES.
4	3/10/87	GPM	DWS	VWS	DELETED Y1742A & B AND NOTE 5, ADDED YESSHWA, S & C, Y17614A & B PER DRAWING 9763-H-006309
3	3/10/87	JDM	QPO	VWS	INCORP DCR 87-0074
2	10/17/86	PAL	BCL	RRC	ADDED 3/4" DIM TO ROOT VLV LINES, CORRECTED TUBING LINE SIZE TO 1/2" WAS 3/4", DELETED REF DWGS N/A REVISED TO CLARIFY DUPLICATIONS OF ASSOC. SYS. ADDED NCR 06/08A TO INCORP. ITEMS LIST, MS-V296 WAS Y296 PER LEAC P&ID ADDED REF LOCA CODE, RELOCATED MS-V19 & MS-V28 IN ERROR ADDED NOTE 12
1	3/21/86	TAK	DWS	WFO	ISSUED FOR OPERATIONS
0	7/16/85	GFS	TAK	WFO	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

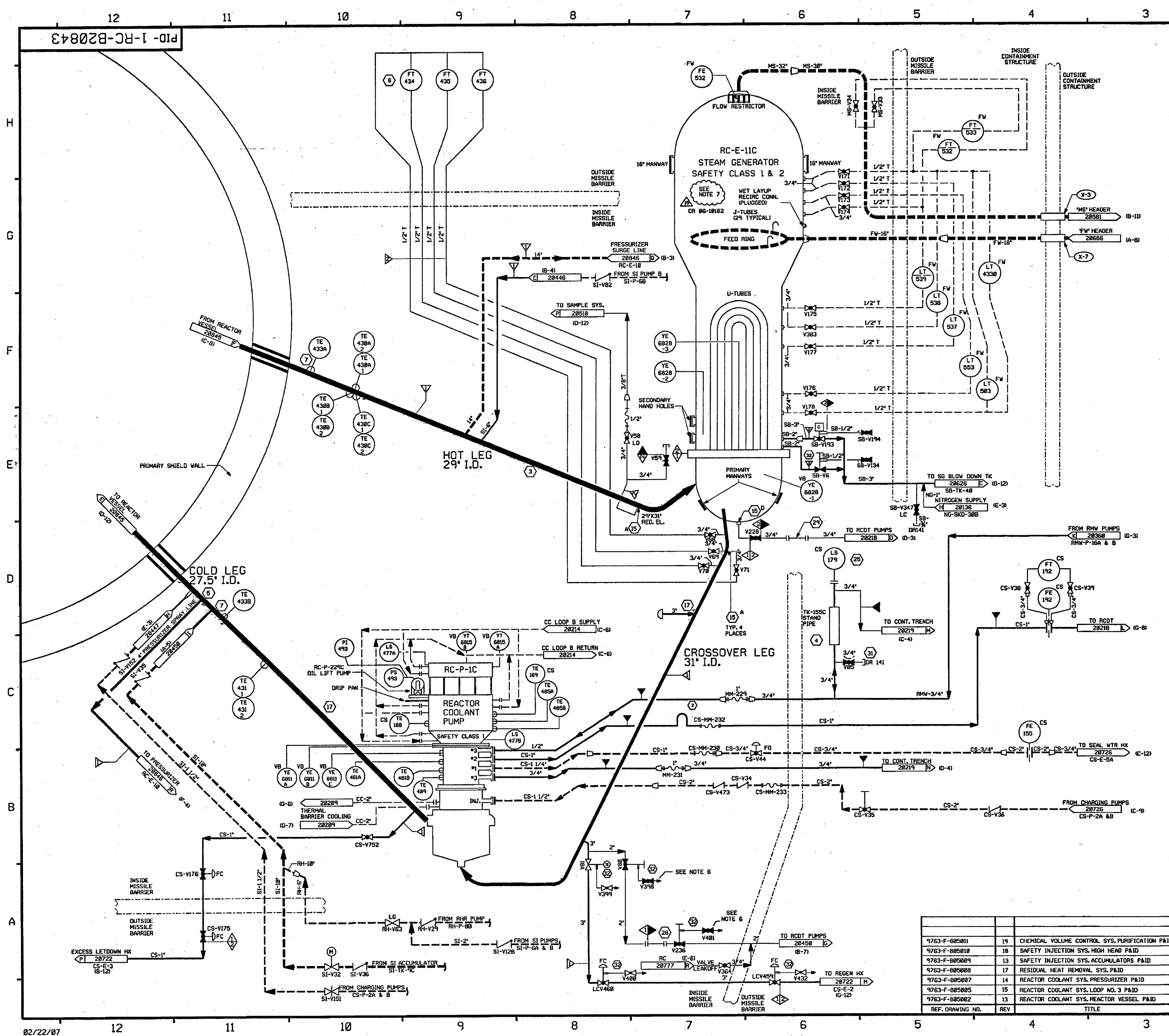
**FPL ENERGY**

Seabrook Station

REACTOR COOLANT SYSTEM  
LOOP NO. 2

PID- 1-RC-B20842

REF. DRAWING NO.	REV	TITLE
9763-F-005011	19	CHEMICAL VOLUME CONTROL SYS. PURIFICATION
9763-F-005010	18	SAFETY INJECTION SYS. HIGH HEAD
9763-F-005009	13	SAFETY INJECTION SYS. ACCUMULATORS
9763-F-005008	17	RESIDUAL HEAT REMOVAL SYS.
9763-F-005007	14	REACTOR COOLANT SYS. PRESSURIZER
9763-F-005004	16	REACTOR COOLANT SYS. LOOP NO. 2
9763-F-005002	13	REACTOR COOLANT SYS. REACTOR VESSEL

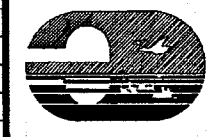


FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2

- NOTES:
1. INDICATES GENERAL NOTE NUMBER - REFER TO DRAWING 28848 FOR GENERAL NOTES.
  2. WORK THIS DRAWING WITH DRAWINGS 28840, 28841, 28842, AND 28844 THROUGH 28846 AND 28848.
  3. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTATION HAVE SYSTEM PREFIX RC UNLESS OTHERWISE NOTED.
  4. VENTS, DRAINS & TEST CONN. CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-885111 UNLESS NOTED OTHERWISE.
  5. INDICATES REVISION LEVEL.
  6. VALVE STEM LEAK-OFF ISOLATION VALVES V392, V394, V395, V396, V398, V401 & V402 ARE TO BE MAINTAINED CLOSED. VALVE STEM LEAK-OFF TO BE CONSIDERED INOPERABLE.
  7. THE STEAM GENERATOR SHELL SIDE IS ANS SAFETY CLASS 2 AND WAS MANUFACTURED AS ASME CODE CLASS 1.
- CR 86-18182

PORTIONS OF THIS DRAWING ARE  
**NUCLEAR SAFETY RELATED**

15	2-23-97	BCS	JM	PEB	INCORP. CR 86-18182 REV.9
14	7/3/96	MPW	DWS	DJM	INCORP. DCR 91-46 DCN 88
13	7/22/94	BCL	DWS	JMCC	INCORP. DCR 94-14 CA*8
12	11-3-92	DWS	BCL	ES	INCORP. DCR 98-3 CA*8 & 98-48 CA*8
11	4-21-92	MRB	BCL	JEV	INCORP. MMOD 91-515 CA8
10	9/24/91	MRB	GPM	WFD	INCORP. MMOD 91-582 CA26
9	10/18/90	MRB	JM	RSG	RE-INCORP. ECA 85/103368B
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

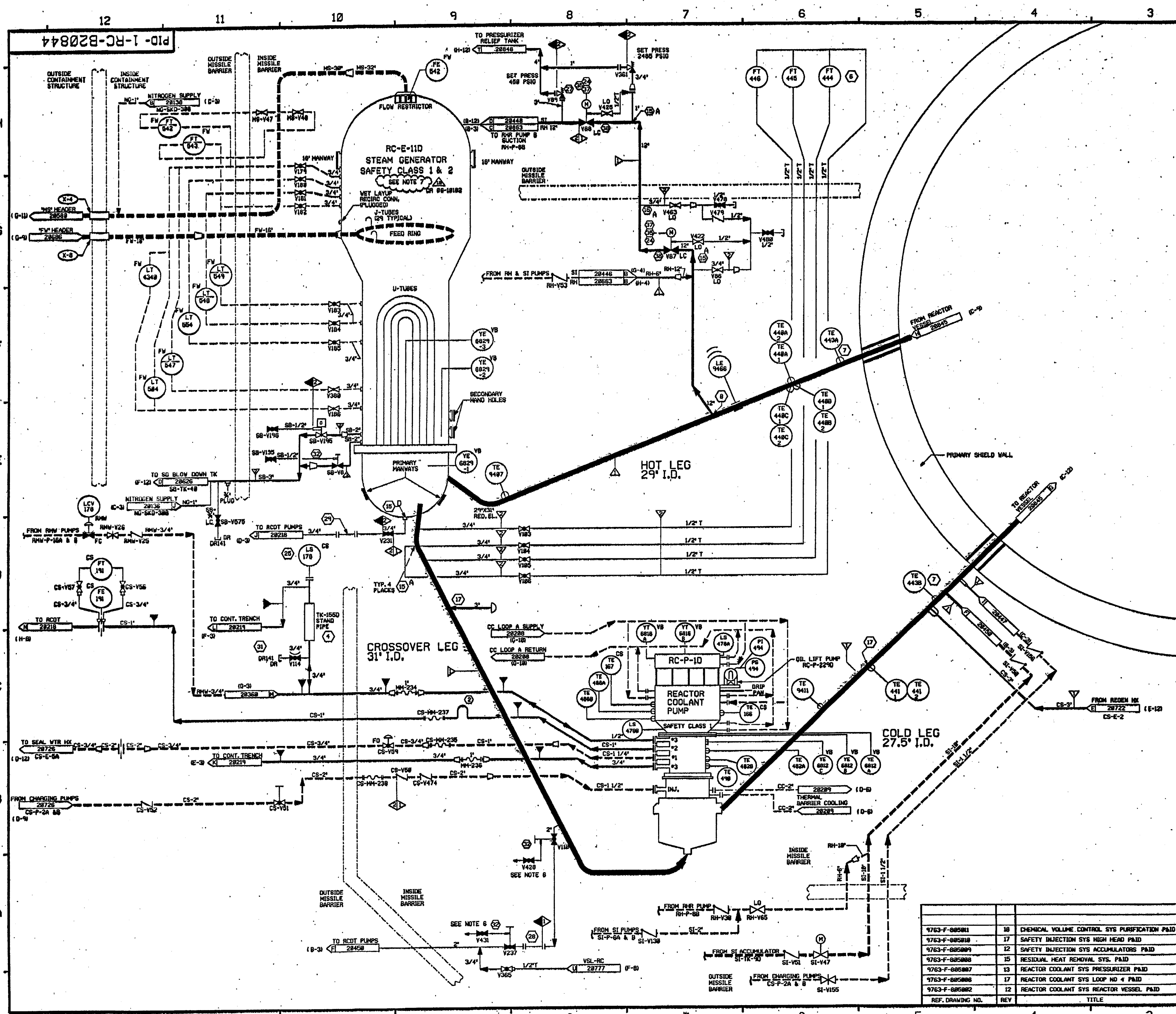
**FPL ENERGY**

Seabrook Station

REACTOR COOLANT SYSTEM  
LOOP NO. 3

PID- 1-RC-B20843

REF. DRAWING NO.	REV	TITLE
9763-F-805811	19	CHEMICAL VOLUME CONTROL SYS. PURIFICATION P&ID
9763-F-805810	18	SAFETY INJECTION SYS. HIGH HEAD P&ID
9763-F-805809	13	SAFETY INJECTION SYS. ACCUMULATORS P&ID
9763-F-805808	17	RESIDUAL HEAT REMOVAL SYS. P&ID
9763-F-805807	14	REACTOR COOLANT SYS. PRESSURIZER P&ID
9763-F-805805	15	REACTOR COOLANT SYS. LOOP NO. 3 P&ID
9763-F-805802	13	REACTOR COOLANT SYS. REACTOR VESSEL P&ID



FOR PAID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWING PAID - LEGEND 1 AND PAID - LEGEND 2

- NOTES
1. ○ INDICATES GENERAL NOTE NUMBER - REFER TO DRAWING 20840 FOR GENERAL NOTES.
  2. WORK THIS DRAWING WITH DRAWINGS 20840 THROUGH 20843 AND 20845 THROUGH 20848 & 20849.
  3. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTATION HAVE SYSTEM PREFIX RC UNLESS OTHERWISE NOTED.
  4. VENT, DRAIN AND TEST CONNECTIONS ARE AT THE DOWNSTREAM END OF THE ISOLATION VALVE PER 1-WHY-88533 UNLESS NOTED OTHERWISE.
  5. △ - INDICATES REVISION LEVEL.
  6. VALVE STEM LEAK-OFF ISOLATION VALVES V420 & V430 ARE TO BE MAINTAINED CLOSED. VALVE STEM LEAK-OFF TO BE CONSIDERED IMPROBABLE.
  7. THE STEAM GENERATOR SHELL SIDE IS AWS CLASS 2 AND WAS MANUFACTURED AS AWS CODE CLASS 1.  
CR 86-18082

PORTIONS OF THIS DRAWING ARE  
**NUCLEAR SAFETY RELATED**

REV	DATE	DSGN	CHNG	CE	DESCRIPTION
18	3-21-77	BCS	JTM	SES	INCCRP CR 86-18082 REV. 8
17	1/2/76	MPW	DWS	DJM	INCCRP DCR 75-46 DCM 88
16	8/28/75	MPW	BCS	VVS	INCCRP MHOD 76-558 DCM 81
15	11/22/76	MPW	BCS	DMO	INCCRP DCR 75-23 CA* 8, 3 & 11
14	7/22/74	BCL	DWS	JDOC	INCCRP DCR 74-8814 CA* 8
13	11/3/72	DMS	BCL	ES	INCCRP DCR 70-8803 CA* 8
12	4-28-72	MWB	DWS	RFB	INCCRP MHOD 74-515 CA* 8
11	9/21/70	MWB	GPM	WFO	INCCRP MHOD 74-582 CA* 8
10	9/5/71	GPM	FCB	IV	INCCRP DCR 86-231 CA* 8
REV	DATE	DSGN	CHNG	CE	DESCRIPTION

**FPL ENERGY**

Seabrook Station

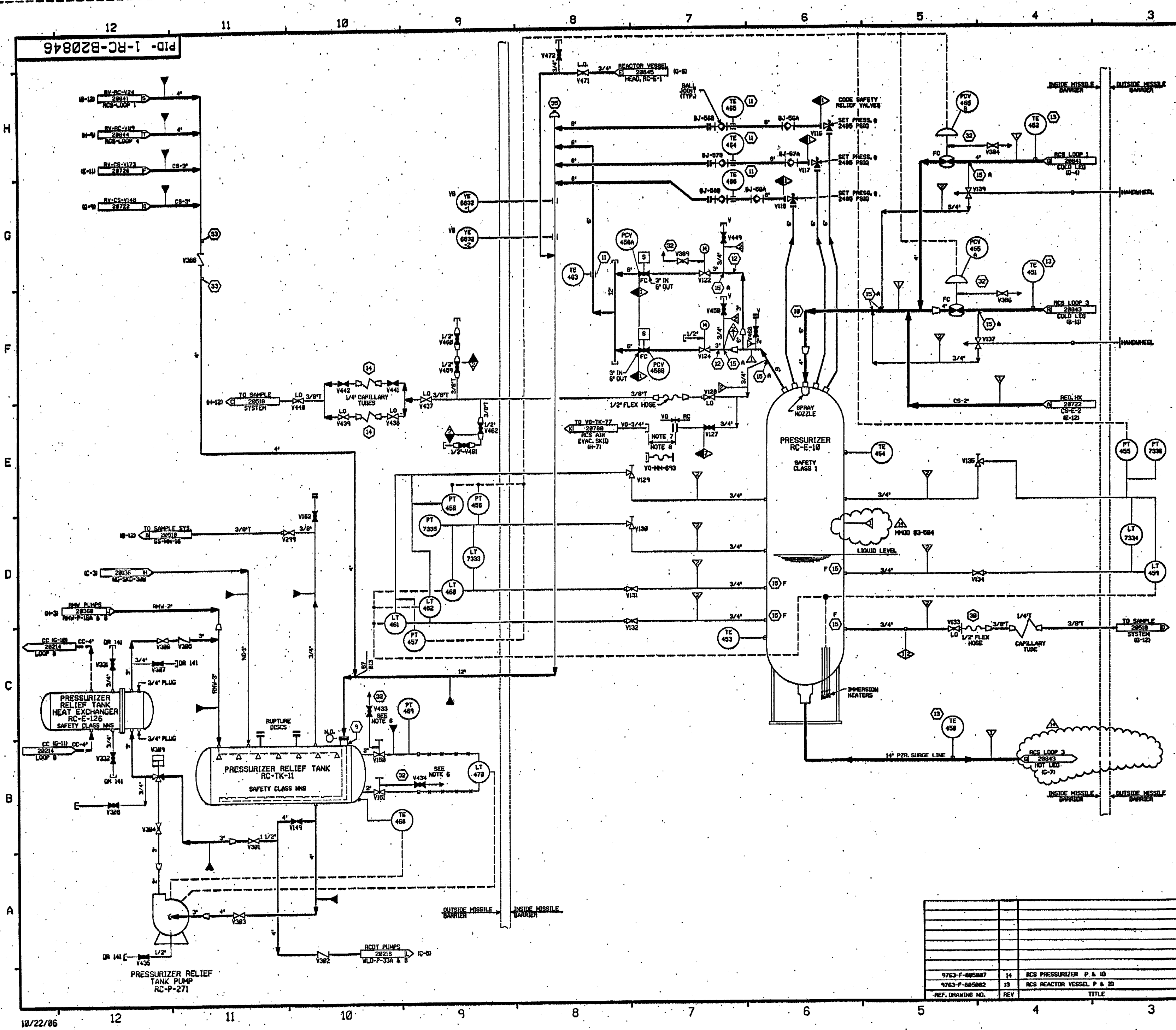


**REACTOR COOLANT SYSTEM  
LOOP NO. 4**

PID- 1-RC-B20844

REF. DRAWING NO.	REV	TITLE
9763-F-885801	16	CHEMICAL VOLUME CONTROL SYS PURIFICATION PAID
9763-F-885818	17	SAFETY INJECTION SYS HIGH HEAD PAID
9763-F-885809	12	SAFETY INJECTION SYS ACCUMULATORS PAID
9763-F-885808	15	RESIDUAL HEAT REMOVAL SYS. PAID
9763-F-885807	13	REACTOR COOLANT SYS PRESSURIZER PAID
9763-F-885806	17	REACTOR COOLANT SYS LOOP NO 4 PAID
9763-F-885802	12	REACTOR COOLANT SYS REACTOR VESSEL PAID





FOR PAID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWINGS PAID - LEGEND 1 AND PAID - LEGEND 2

- NOTES:
1. INDICATES GENERAL NOTE NUMBER REFER TO DRAWING 20846 FOR GENERAL NOTES.
  2. WORK THIS DRAWING WITH DRAWINGS 20846 THRU 20848 & 20849.
  3. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX, RC, UNLESS NOTED OTHERWISE.
  4. VENT, DRAIN & TEST COIL CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-MY-0001 UNLESS NOTED OTHERWISE.
  5. INDICATES REVISION LEVEL.
  6. VALVE STEM LEAK-OFF ISOLATION VALVES V433 & V434 ARE TO BE MAINTAINED CLOSED. VALVE STEM LEAK-OFF TO BE CONSIDERED IMPERMEABLE.
  7. TYPON TUBING (REINFORCED POLYURETHANE "UREBRAC") TUBING TO BE INSTALLED WHEN REQUIRED DURING SHUTDOWN MODE FOR VENTING RC SYSTEM.
  8. DURING PRE-OUTAGE PRESSURIZER PURGING, A TEMPORARY SPOOL PIECE, TAG 1-RC-B20846-01, 1/2" DIA. 1/2" LONG, IS TO BE INSTALLED. TEMPORARY SPOOL PIECE WILL BE REMOVED FOLLOWING COMPLETION OF PURGING ACTIVITIES DCR 97-18.

PORTIONS OF THIS DRAWING ARE  
**NUCLEAR SAFETY RELATED**

14	10/22/86	RC	JM	RC	INCORP. HMD 82-584 DCH-88 CORRECT CONTRADICTION
13	12/18/87	RC	JM	RC	INCORP. DCR 82-582 DCH 88
12	12/18/87	RC	DNS	ETH	INCORP. DCR 97-16 DCH 88, 84
11	5/13/87	DNS	RC	DNS	INCORP. DCR 97-088 CH-88
10	5/26/87	RC	DNS	RC	INCORP. DCH 96-86 CH-88
9	5/14/87	RC	DNS	WZ	PARTIAL INCORP. DCR 97-16 CH-88
8	12/18/87	RC	FC	BCL	INCORP. HMD 91-581 CH-88
7	1/24/88	RC	JM	MLO	INCORP. DCR 91-582 CH-88
6	1/24/88	RC	FC	JV	INCORP. ECA 85/085088
5	12/28/89	RC	CCM	MAC	INCORPORATED DCR 86-116 CH 8
4	12/13/86	RC	GPM	MTJ	INCORPORATED DCR 86-28 REV 8
3	12/18/87	GPM	DNS	PAG	REVISED NOTE 1, 2 AND 4. EQUIP. CL. PER LEAC PAID. ADDED DETAIL LETTER DESIGNATION FOR FLOW RESTRICTION ORIF. CORP. PAID. REF. NOTE DELETED. DUPLICATED INFO OF ASSOC. SYSTEM FLEX HOSES.
2	11/8/86	JM	PAL	RC	REMOVED PIPE SPEC BREAKS. INCORP. ECA 19/185388
1	1/28/86	PAL	BCL	RC	INCORP. ECA 19/185388 REV. LEAKOFF. CONF. FOR 1/2" DIA. 1/2" LONG. SPOOL PIECE. LOCALITY WITHDRAWN. NEW-APPLICABLE REF. INCORPORATED NOTE 5 AND DETAIL PREFIX FOR 1/2" INCH. INCORP. ECA 8/11/83 & 8/18/82-41A
REV	DATE	DSGN	CHKD	CE	ISSUED FOR OPERATIONS
10/22/86					

**FPL ENERGY**

Seabrook Station



REACTOR COOLANT SYSTEM  
PRESSURIZER

PID- 1-RC-B20846

REV	DATE	DSGN	CHKD	CE	TITLE
14	10/22/86	RC	JM	RC	RCS PRESSURIZER P & ID
13	12/18/87	RC	JM	RC	RCS REACTOR VESSEL P & ID
12	12/18/87	RC	DNS	ETH	RCS PRESSURIZER P & ID
11	5/13/87	DNS	RC	DNS	RCS PRESSURIZER P & ID
10	5/26/87	RC	DNS	RC	RCS PRESSURIZER P & ID
9	5/14/87	RC	DNS	WZ	RCS PRESSURIZER P & ID
8	12/18/87	RC	FC	BCL	RCS PRESSURIZER P & ID
7	1/24/88	RC	JM	MLO	RCS PRESSURIZER P & ID
6	1/24/88	RC	FC	JV	RCS PRESSURIZER P & ID
5	12/28/89	RC	CCM	MAC	RCS PRESSURIZER P & ID
4	12/13/86	RC	GPM	MTJ	RCS PRESSURIZER P & ID
3	12/18/87	GPM	DNS	PAG	RCS PRESSURIZER P & ID
2	11/8/86	JM	PAL	RC	RCS PRESSURIZER P & ID
1	1/28/86	PAL	BCL	RC	RCS PRESSURIZER P & ID



7

5

1

22

10

1

1. ALL INSTRUMENTS ARE FOR UNIT 1 & 2.
2. THIS DWG INCLUDES INSTRUMENTS FROM OTHER SYSTEMS USED FOR LEAK DETECTION.
3. THE READING OF THE INSTRUMENTS IS:  
 (1) PRESSURE (IN) IN THE WATER LINE IS 100 PSIG  
 (2) PRESSURE (IN) IN THE AIR LINE IS 100 PSIG  
 (3) CABLE USED FOR GROUND CONNECTION.
4. MAX. CABLE LENGTH IS 250 FT.  
 LD-LE-8333-1 (IDENTICAL TO LD-LE-8333) TO BE INSTALLED SPARE. CABLEING TO BE RUN NEAR THE BOTTOM OF THE TOWER TO AVOID PENETRATION AND COILS.

REFERENCES:  
M-510000(SIS)  
M-500006  
  
SD-25  
SD-26  
SD-30  
SD-32  
SD-69  
DBD-RM-01  
SD-91  
F-500037-2,3,4  
M-510004  
M-500376

LEAK DETECTION SYSTEM  
INSTRUMENTATION ENGINEERING DIAGRAM

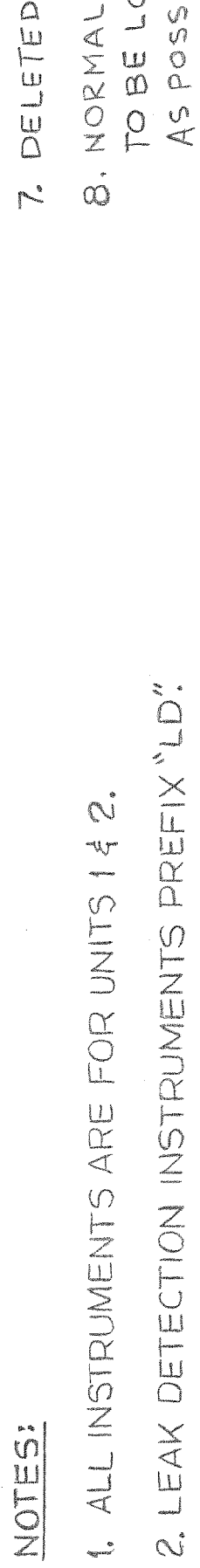
*North Atlantic*  
Energy Service Corporation

Seabrook  
Station

1-NHY-500037-1

1-NHY-500037-1





Non-Functional  
Abandoned in place

## REFERENCES:

510000 (SIS)  
500006  
500037-1,3,4  
SD 91

510004

6. DELETED

LEAK DETECTION SYSTEM

INSTRUMENTATION ENGINEERING DIAGRAM

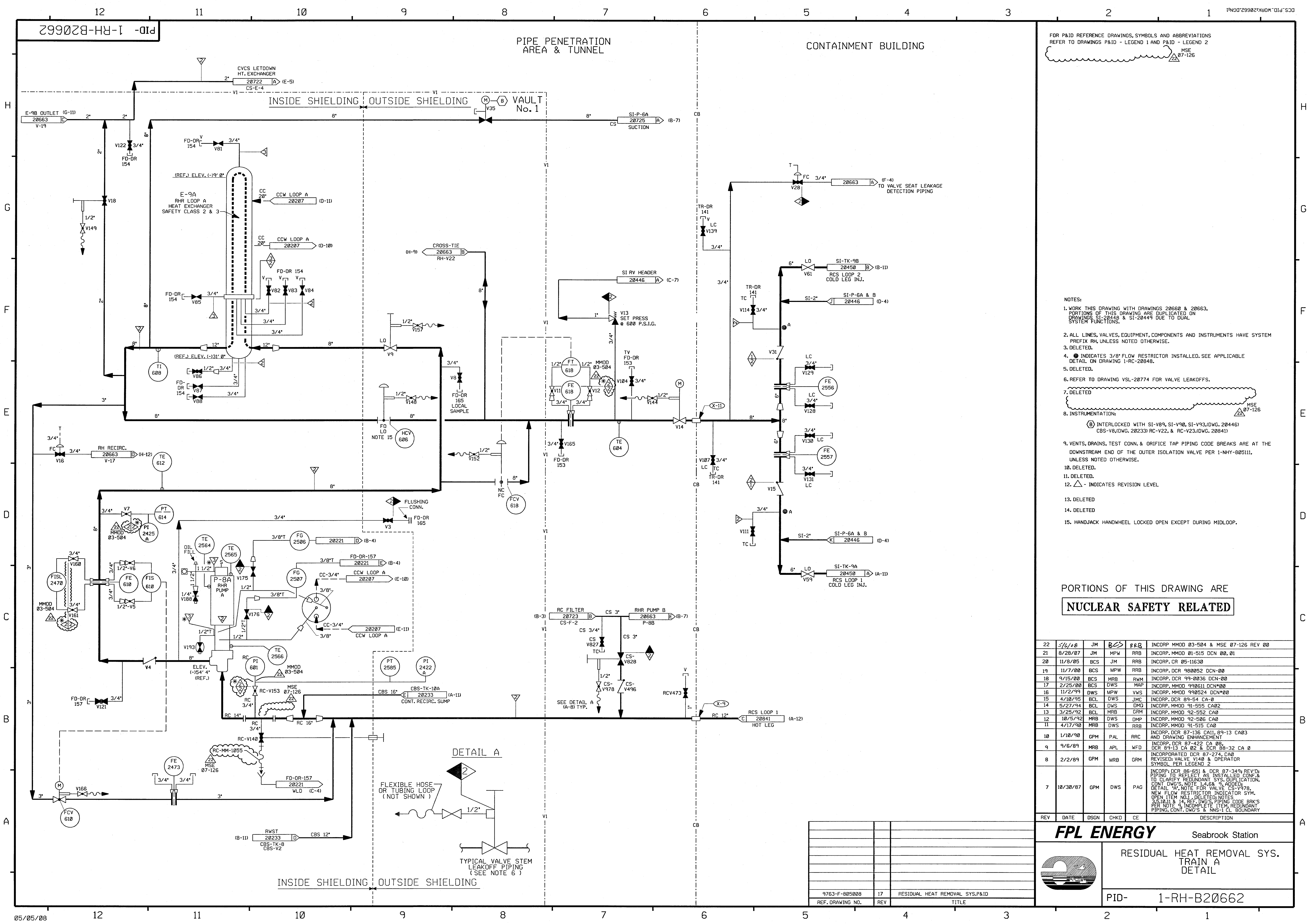
**North Atlantic**  
Energy Service Corporation

1-NHY-500037-2

4

21

1

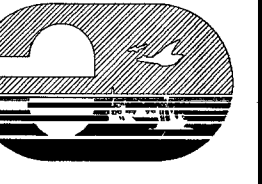


FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2  
MSE 07-126

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 20660 & 20663. PORTIONS OF THIS DRAWING ARE DUPLICATED ON DRAWINGS SI-20448 & SI-20449 DUE TO DUAL SYSTEM FUNCTIONS.
  2. ALL LINES, VALVES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX RH, UNLESS NOTED OTHERWISE.
  3. DELETED.
  4. ● INDICATES 3/8" FLOW RESTRICTOR INSTALLED. SEE APPLICABLE DETAIL ON DRAWING 1-RC-20848.
  5. DELETED.
  6. REFER TO DRAWING VSL-20774 FOR VALVE LEAKOFFS.
  7. DELETED.
  8. INSTRUMENTATION:  
(B) INTERLOCKED WITH SI-V89, SI-V90, SI-V93, (DWG. 20446)  
CBS-V8, (DWG. 20233) RC-V22, & RC-V23, (DWG. 20841)
  9. VENTS, DRAINS, TEST CONN. & ORIFICE TAP PIPING CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-805111, UNLESS NOTED OTHERWISE.
  10. DELETED.
  11. DELETED.
  12. △ - INDICATES REVISION LEVEL
  13. DELETED
  14. DELETED
  15. HANDJACK HANDWHEEL LOCKED OPEN EXCEPT DURING MIDLOOP.

PORTIONS OF THIS DRAWING ARE  
**NUCLEAR SAFETY RELATED**

22	5/4/88	JM	BCS	PER	INCORP. MMOD 03-504 & MSE 07-126 REV 00
21	8/28/87	JM	MPW	RRB	INCORP. MMOD 01-515 DCN 00, 01
20	11/8/85	BCS	JM	RRB	INCORP. CR 05-11630
19	11/7/80	BCS	MPW	RRB	INCORP. DCR 980852 DCN-00
18	9/15/80	BCS	MRB	RWM	INCORP. DCR 99-2036 DCN-00
17	2/25/80	BCS	DWS	MAP	INCORP. MMOD 990611 DCN-00
16	11/2/79	DWS	MPW	VWS	INCORP. MMOD 990524 DCN-00
15	4/10/75	BCL	DWS	JMC	INCORP. DCR 89-54 CA-0
14	5/27/74	BCL	DWS	DMO	INCORP. MMOD 91-555 CA02
13	3/25/72	BCL	MRB	GRM	INCORP. MMOD 92-552 CA0
12	10/5/72	MRB	DWS	DMP	INCORP. MMOD 92-506 CA0
11	4/17/70	MRB	DWS	RRB	INCORP. MMOD 91-515 CA0
10	1/10/70	GPM	PAL	RRC	INCORP. DCR 87-136 CA11, 89-13 CA03 AND DRAWING ENHANCEMENT
9	9/6/69	MRB	APL	WFD	INCORP. DCR 87-422 CA 00, DCR 89-13 CA 02 & DCR 89-32 CA 0
8	2/2/69	GPM	MRB	GRM	INCORPORATED DCR 87-274, CA0 REVISED: VALVE V140 & OPERATOR SYMBOL, DER LEGEND 2
7	10/30/67	GPM	DWS	PAG	INCORP. DCR 86-651 & DCR 87-349 REV'D; PIPING TO REFLECT AS INSTALLED CONF. & TO CLARIFY REDUNDANT SYS. DUPLICATION, CONT. DWG'S NOTE 1-4.6 & 9, ADDED. DETAIL "A", NOTE FOR VALVE CS-V978, NEW FLOW RESTRICTOR INDICATOR SYM., OPEN ITEM NO. 1, DELETED; NOTES 3.5, 11.1 & 14, REF. DWG'S PIPING CODE BRK'S PER NOTE 9, INCOMPLETE ITEM, REDUNDANT PIPING, CONT. DWG'S & NNS-1 CL. BOUNDARY
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY**

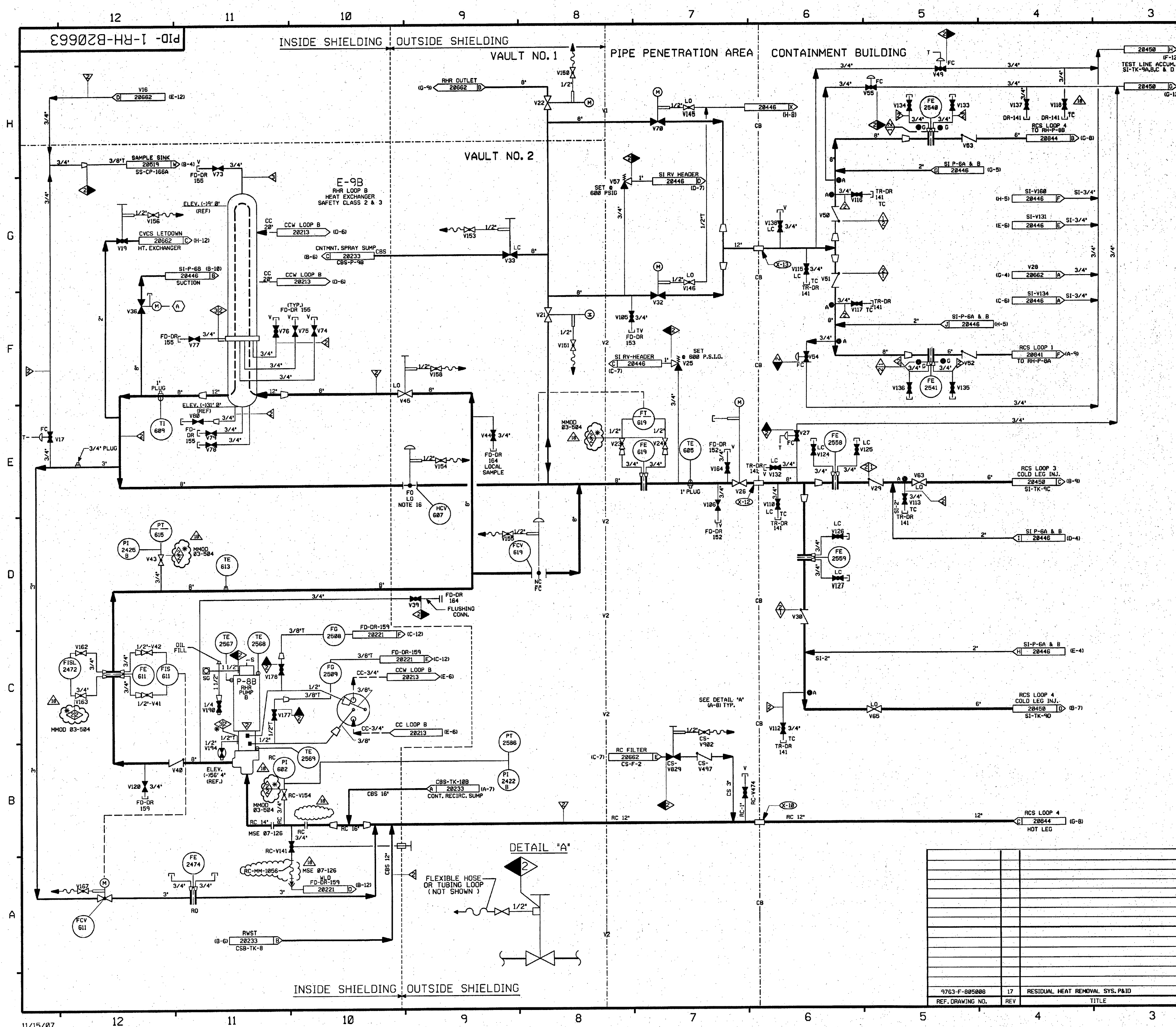
Seabrook Station

RESIDUAL HEAT REMOVAL SYS. TRAIN A  
DETAIL

PID- 1-RH-B20662

9763-F-805008	17	RESIDUAL HEAT REMOVAL SYS. P&ID
REF. DRAWING NO.	REV	TITLE





FOR PAID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2  
FURTHER ENGINEERING EVALUATION  
TO EFFECT ECA 99/116181C.

- NOTES:
- WORK THIS DRAWING WITH DRAWINGS 28668 & 28662. PORTIONS OF THIS DRAWING ARE DUPLICATED ON DRAWING SI-28446, SI-28448 & SI-28449 DUE TO DUAL SYSTEM FUNCTIONS.
  - ALL LINES, VALVES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX RH, UNLESS NOTED OTHERWISE.
  - INDICATES 3/8" FLOW RESTRICTOR INSTALLED. SEE APPLICABLE DETAIL ON DRAWING RC-28846.
  - DELETED
  - REFER TO DRAWING VSL-28774 FOR VALVE LEAKOFFS.
  - DELETED
  - INSTRUMENTATION:
    - INTERLOCKED WITH SI-V89, SI-V90, SI-V93, (DWG. 28446) CBS-V14, (DWG. 28233) RC-V87, & RC-V88 (DWG. 28844).
  - VENTS, DRAINS, TEST CONN. & ORIFICE TAP PIPING CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-685111, UNLESS NOTED OTHERWISE.
  - DELETED
  - DELETED
  - DELETED
  - DELETED
  - DELETED
  - INDICATES OPEN ITEM NUMBER.
  - HANDJACK HANDWHEEL LOCKED OPEN EXCEPT DURING MIDLOOP.

PORTIONS OF THIS DRAWING ARE  
**NUCLEAR SAFETY RELATED**

REV	DATE	DSGN	CHKD	SES	DESCRIPTION
18	11-24-87	BCS	JM	2RB	INCCORP MSE 87-126 REV. 8, MMOD 83-584 DCN-8
17	4/8/85	JM	BCS	RRB	INCCORP DCR 82-882 DCN 85 & CLOSED DRAIN VALVES
16	8/22/80	BCS	DWS	ARB	INCCORP DCR 99-8836 DCN-88
15	4/7/88	DWS	BCS	MPW	INCCORP MMOD 990611 DCN#88
14	9/21/99	DWS	MPW	VWS	REINCCORP DCR 890813 CA#80 INCCORP MMOD 99-524 DCN-80
13	11/14/87	BCS	MPW	DMD	PARTIAL INCCORP MMOD 91-565 CA#8
12	11/27/85	BCL	MPW	DMD	INCCORP DCR 95-23 CA#8
11	4/18/95	BCL	DWS	JHDC	INCCORP DCR 89-54 CA#8
10	3/28/84	BCL	MRB	QPM	INCCORP MMOD 92-562 CA#8
9	10/5/82	MRB	DWS	DMP	INCCORP MMOD 92-596 CA#8
8	4/17/82	MRB	DWS	RRB	INCCORP MMOD 91-515 CA#8
7	11/11/89	MRB	PAL	GRM	INCCORP DCR 87-422 CA 13, 89-13 CA 83, 89-32 CA#8 87-136 CA#1 & 86-712 DRAWING ENHANCEMENTS
6	10/30/87	GPM	DWS	PAS	REVISED DCR 87-349 REVISED TO REFLECT AS INSTALLED CONF. & TO CLARIFY REDUNDANT SYS. DRAINING DWS CON'S. NOTES 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000

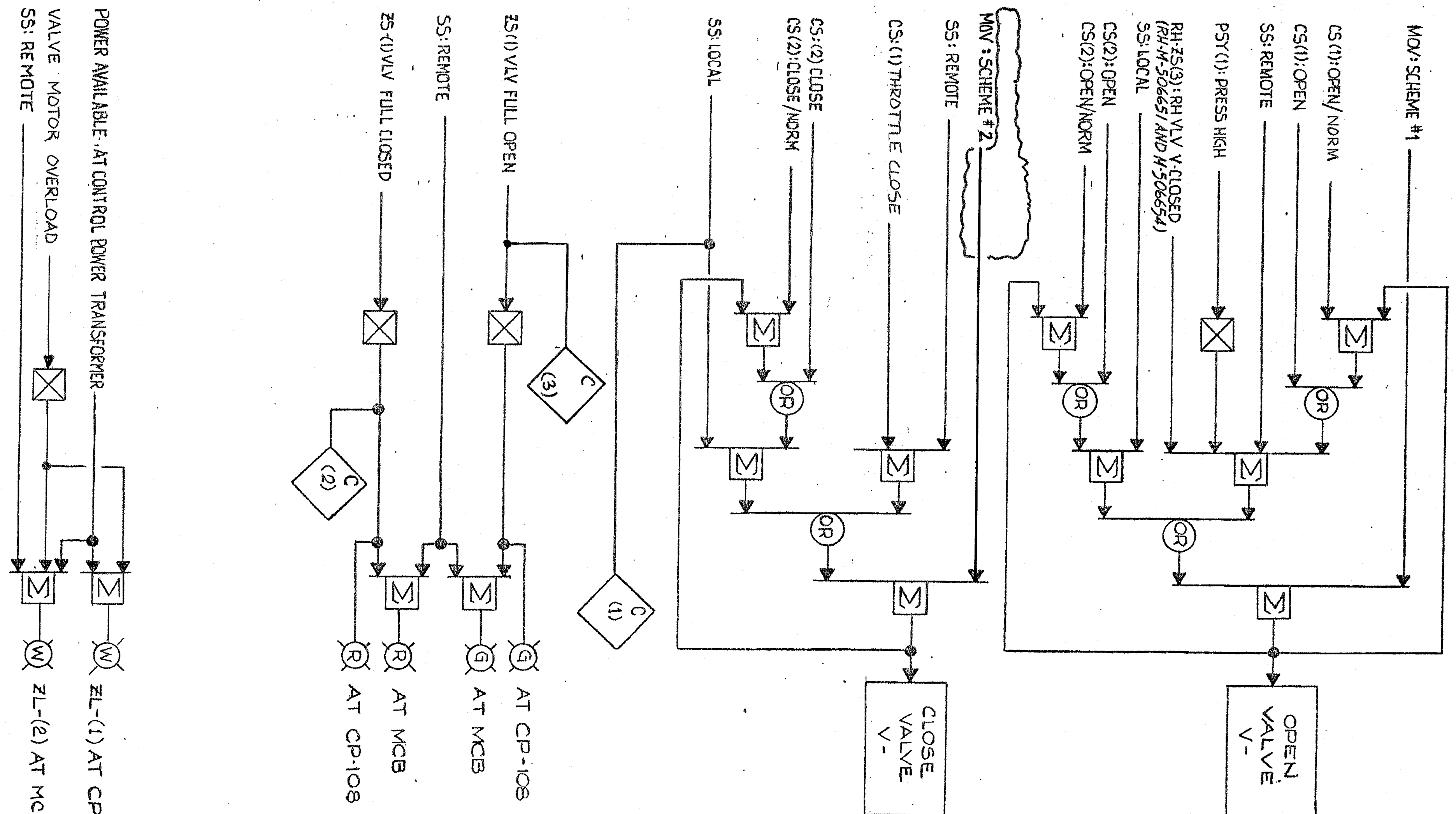
**FPL ENERGY**

Seabrook Station

RESIDUAL HEAT REMOVAL SYS.  
TRAIN B CROSS-TIE  
DETAIL

PID- 1-RH-B20663

REF. DRAWING NO.	REV	TITLE
9763-F-885808	17	RESIDUAL HEAT REMOVAL SYS. P&ID



SEE DWG. M-503748 FOR  
TABULATION & NOTES

THIS DWG SUPERSEDES  
9763-M-500010 SHT 82 REV-P1

ISSUED-FOR-CONSTRUCTION

15	8/21/99	MRJ	JWB	RPN	RWM	INCORP DCR 97-21 DCN-15
14	8/23/98	JWB	MRB	JWR	CM	PART OF DCR 97-21 DCN-13
13	6/12/97	MRB	JWB	JPS	RWM	PARTIAL INCORP. DCR 97-21, DCN-10
12	6-5-97	MRB	JWB	JPS	JPS	INCORP. DCR 97-021, DCN-04
11	8/29/91	MRB	GPM	APL	RPN	INCORP: DCR 89-24, CA- DCR 86-239, CA-1
10	3/26/87	BCE	HK	TPN	RPN	ECA 05/118 202 B 9763-M-503747 AND SUPERCEDES UE&C DWG. 5
REV	DATE	DRWN	CHKD	CE	LDE	DESCRIPTION

NUCLEAR SAFETY RELATED

RC-ISOLATION VALVES  
LOGIC DIAGRAM

New Hampshire  
**Yankee**

Seabrook  
Station

1-NHY- 503747 REV 15



CONTINUED FROM DWG M-503747

TRAIN	VALVE No.	CS (1)	ZL (2)	SS (1)	PST (1)	PST (2)	RH-ZS (3)	ZS (1)	FP 30001 SHT-	COMPUTER ID/IRTL
		CS (2)	ZL (2)	SS (1)	PST (1)	PST (2)	RH-ZS (3)	ZS (1)	FP 30001 SHT-	(1) (2) (3)
B	V22	7302-1	7302-1	7302-1	403A	2465-B	7302B	370		D7442 D4446 D7467
		7302-2	7302-2	7302		V35				4 6 5
A	V23	7303-1	7303-1	7303-1	405A	2465-A		369		D7440 D4447 D7469
		7303-2	7303-2	7303		V35				3 5 7
A	V88	7311-1	7311-1	7311	405A	2466-A	7311A	371		D7441 D4449 D7464
		7311-2	7311-2	7311		V36				3 5 6
B	V87	7310-1	7310-1	403A	2466-B			372		D7443 D4448 D7466
		7310-2	7310-2	7310		V36				4 6 6

THIS DWG SUPERSEDES  
9763-M-500010 SH 83 REV P1

ISSUED-FOR-CONSTRUCTION

NUCLEAR SAFETY RELATED

RC-ISOLATION VALVES  
LOGIC DIAGRAM

New Hampshire  
Yankee

Seabrook  
Station

1-NHY- 503748 REV 10

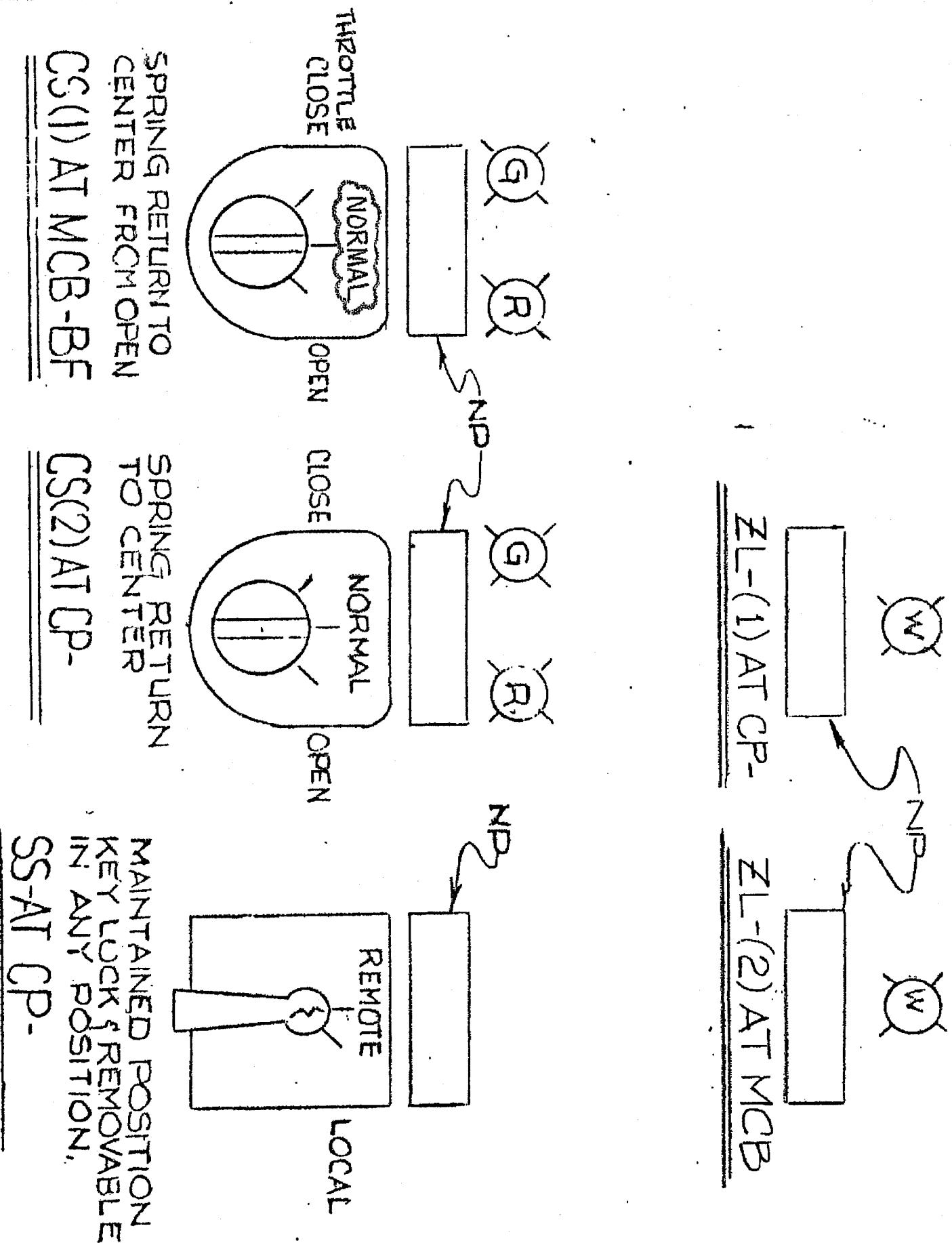
NOTES

- FOR DESCRIPTION OF LOGIC SYMBOLS  
SEE M-503100.
- ZS-(1) LIMIT SWITCH ARE MOUNTED  
INSIDE MOTOR.

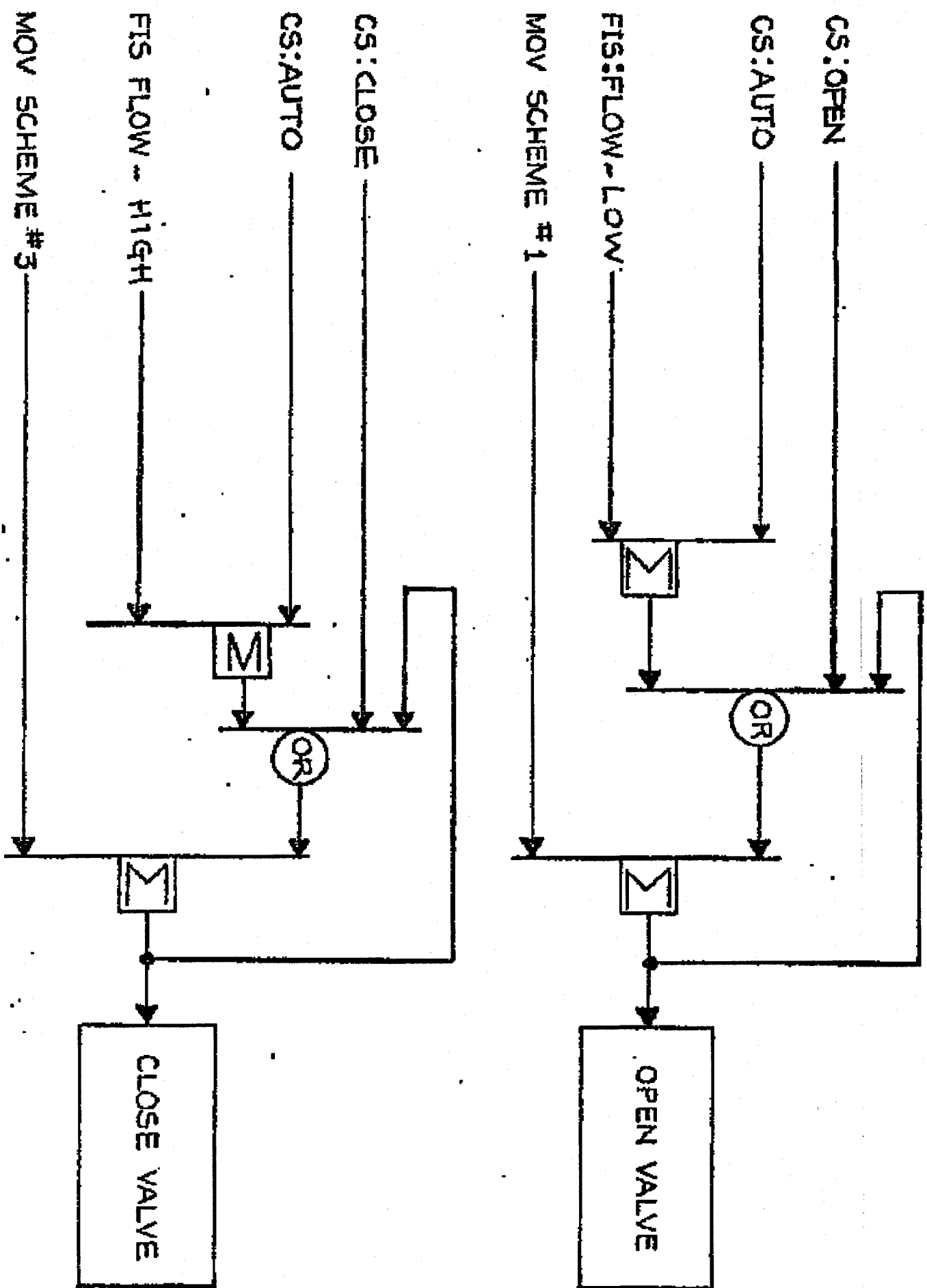
REFERENCE DOCUMENTS

FP N° (SEE TABLE)  
SD-NAH/NCH-281  
M-506635  
M-506636  
M-503747  
RH-M-506651  
RH-M-506654  
C-509036

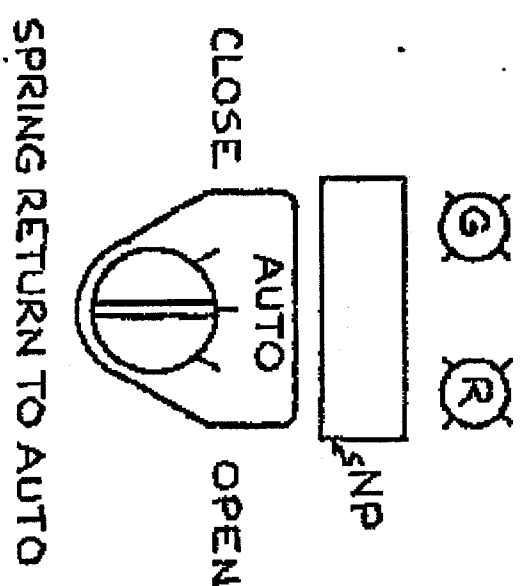
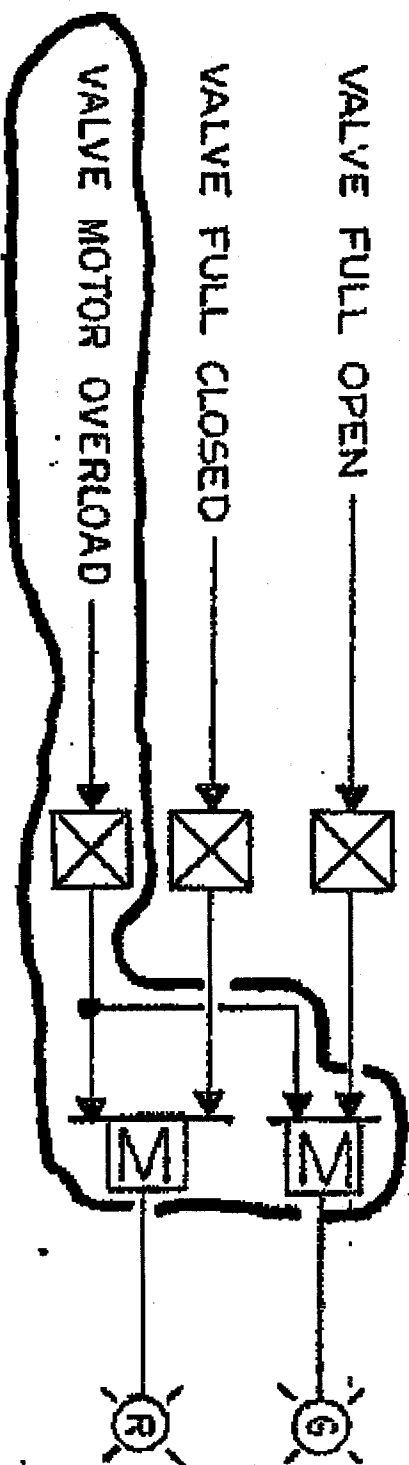
(PART OF THIS DWG. WAS PART  
OF M-503747)



1-NHY- 503748 REV 10



TRAIN	RH PUMP RECIRC. VLV FCV-	CS-	FIS-	LOGIC REF FP-30001 SH.
A	610	610	610	212
B	611	611	611	213



CS AT MCB

ISSUED-FOR-CONSTRUCTION

NUCLEAR SAFETY RELATED

RH PUMPS LOW FLOW RECIRC VLVS  
LOGIC DIAGRAM

New Hampshire  
Yankee

Seabrook  
Station

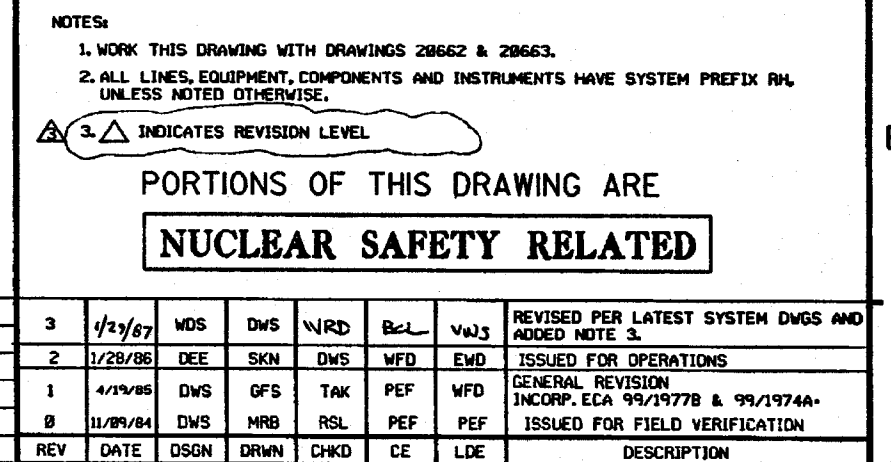
1-NHY- 503764

6	2-28-85	SB-16055	RPN	EM	HK	LRV	RPN	-	-
5	11-15-80	DCN 03-0884A		JAW	M	JFO	RPN	-	-
4	2-14-80	REV'D REFERENCE		IO	W	JFB	IR	-	-
3	5-3-78	REV'D NOTE 1		ME	CE	JIC	AL	-	-
9	4/2/81	HP	APL	CEM	JFB	DCR 86-403, CA-4, TRN 'E'			
8	3/2/81	HP	APL	CEM	BER	DCR 86-403, CA-0, TRN 'A'			
7	3/2/81	RCE	HK	TPN	N/A	9763-M-503764 SUPERCEDES UE&C DWG3			
REV	DATE	DRWN	CHKD	CE	LDE	DESCRIPTION			

NOTES  
1-FOR DESCRIPTION OF LOGIC  
SYMBOLS SEE M-503100

REFERENCE DOCUMENTS  
9763-M-506650  
9763-F-805008  
9763-M-506653  
SD-NAH/NCH-283





PORTIONS OF THIS DRAWING ARE

<b>NUCLEAR SAFETY RELATED</b>
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3	4/23/67	WDS	DWS	WRD	BCL	WJ3	REVISED PER LATEST SYSTEM DWGS AND ADD NOTE 3.
2	1/28/66	DEE	SKN	DWS	WFD	EWD	ISSUED FOR OPERATIONS
1	4/19/65	DWS	QFS	TAK	PEF	WFD	GENERAL REVISION INCORP. ECA 99/19778 & 99/1974A.
0	11/06/64	DWS	MRB	RSL	PEF	PEF	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	DRWN	CHKD	CE	LDE	DESCRIPTION

PSN

PUBLIC SERVICE OF NEW HAMPSHIRE



## RESIDUAL HEAT REMOVAL SYS. OVERVIEW

SEABROOK STATION

PID- 1-RH-B20660