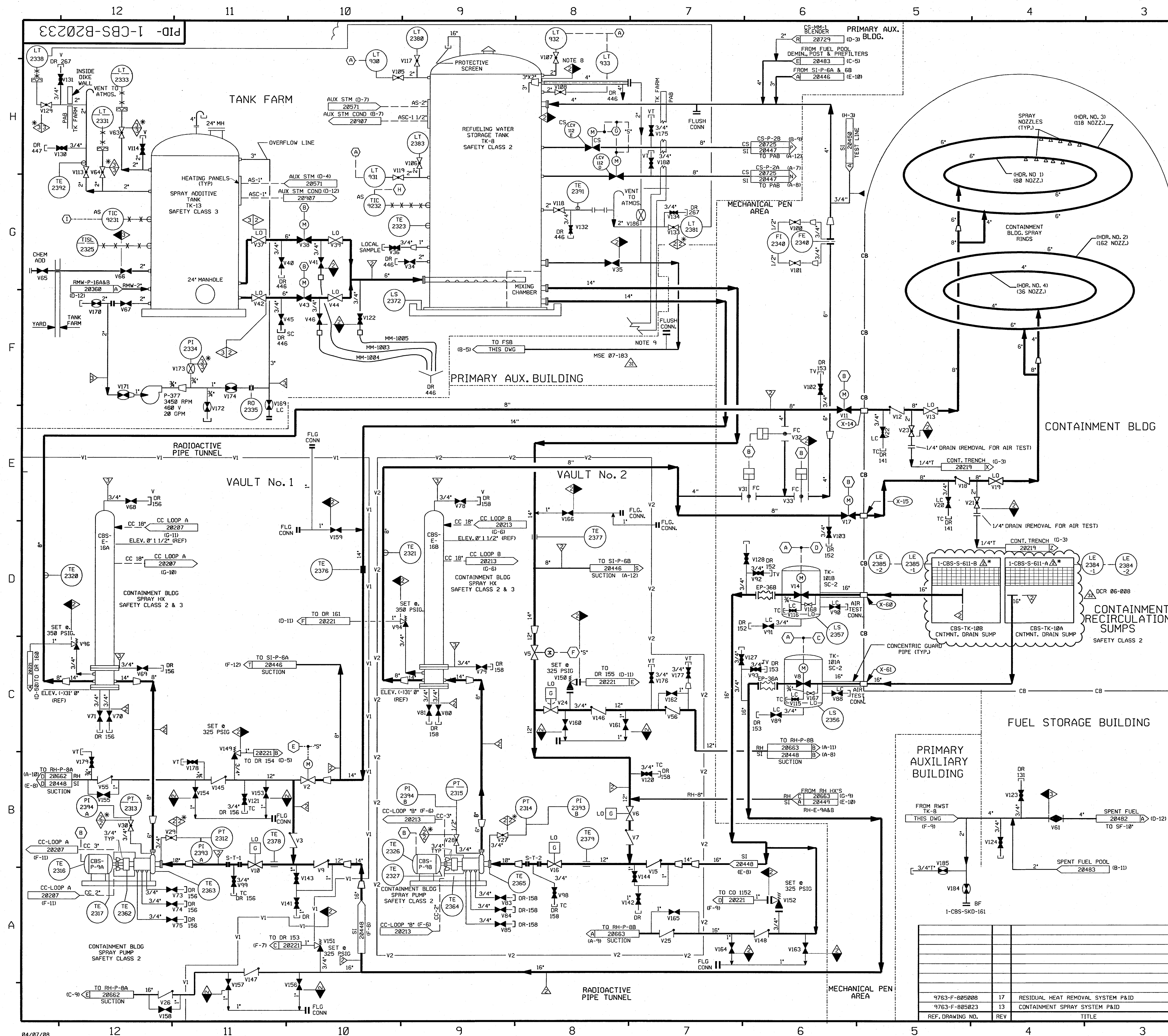




FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2

- NOTES:
- ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTATION HAVE SYSTEM PREFIX CBS, UNLESS NOTED OTHERWISE.
 - THE CBS IS A ONE (1) DRAWING SYSTEM, AN OVERVIEW IS NOT REQUIRED. PORTIONS OF THIS DRAWING ARE DUPLICATED ON DWG. SI-20448 DUE TO DUAL SYSTEM FUNCTIONS.
 - INSTRUMENTATION SYMBOLS.
 - (A) THIS DRAWING
 - (B) CONTAINMENT SPRAY SIGNAL P
 - (C) INTERLOCK FROM RC-V22, RC-V23 ON DWG. RC-20841
 - (D) INTERLOCK FROM RC-V87, RC-V88 ON DWG. RC-20844
 - (E) INTERLOCK FROM RH-V35, 0N DWG. RH-20662 AND V8 THIS DRAWING
 - (F) INTERLOCK FROM RH-V36, 0N DWG. RH-20663 AND V14 THIS DRAWING
 - (G) CS-TK-1 LEVEL LT-185, LT-112 ON DWG. CS-20725
 - (H) STEAM SUPPLY VLV. AS TV-9232 ON DWG. AS-20571
 - (I) STEAM SUPPLY VLV. AS TV-9231 ON DWG. AS-20571
 - VENT AND DRAIN CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-805111 UNLESS NOTED OTHERWISE.

- DELETED
- △ INDICATES REVISION LEVEL
- * DENOTES UPGRADE OF PIPING FROM 301 TO 601 MATERIAL SPEC.
- CLASS BREAK OF THE OVERFLOW LINE IS AT THE TANK TO NOZZLE WELD.
- CONNECTION USED FOR PRE-PLANNED MAKEUP STRATEGY. SEE FP59989.

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

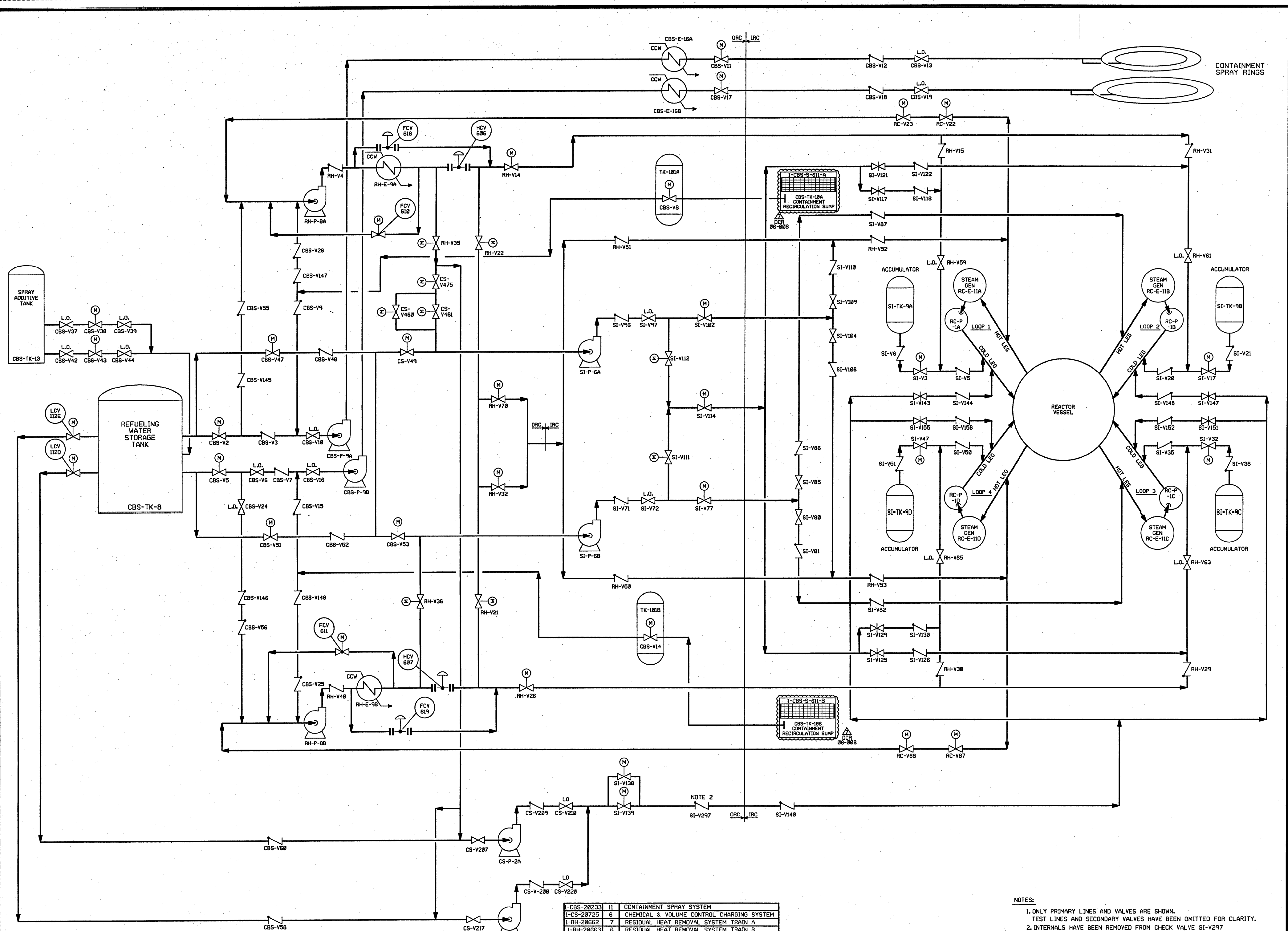
REV	DATE	DSGN	CHKD	CE	DESCRIPTION
32	4/30/03	BCS	JM	JM	INCORP. DCR 06-008 DCN-00
31	1-9-00	BCS	JM	TMD	INCORP. MSE 07-144 REV. 00, MSE 07-183 REV. 00, DCR 05-10 DCN-21
30	6-29-07	BCS	JM	RRB	INCORP. DCR 02-010 DCN-00 & 03
29	10-17-06	JM	BCS	RRB	INCORP. DCR 02-009 DCN 00 & MMOD 03-504 DCN 00
28	6/23/05	BCS	MW	WAK	INCORP. MSE 04-205 REV. 00
27	4-6-05	JM	MPW	RRB	INCORP. MSE 04-196 REV. 01
26	5/11/02	JM	MPW	RRB	INCORP. DCR 01-0012 DCN#00 AND MSE 99-0324 REV. 00
25	2/14/02	BCS	JM	DJM	INCORP. CR 01-02531 REV. 00
24	10/4/00	BCS	MRB	HRM	INCORP. DCR 99-036 DCN-00
23	6/23/00	BCS	MPW	AB	PARTIAL INCORP. DCR 99-036 DCN-00
22	8/13/99	MPW	DWS	GRM	INCORP. DCR 97-31 DCN-05, 06
21	8/11/98	BCS	DWS	GRM	INCORP. DCR 97-31 DCN-00, 04
20	11/30/95	BCS	MPW	DMQ	INCORP. MMOD 95-509 CA0
19	11/11/95	MPW	BCS	RRB	PARTIAL INCORP. MMOD 95-509 CA0
18	12/9/94	MPW	BCL	MHO	INCORP. MMOD 93-545 CA0
17	4/23/92	MRB	BCL	JEV	INCORP. MMOD 91-515 CA0
16	9/5/91	GPW	JM	IV	INCORP. DCR 86-239 CA0
15	5/1/90	MRB	JM	RPN	INCORP. MMOD 89-0552 CA 0
14	11/11/89	MRB	GPW	GRM	PARTIAL INCORP. DCR 87-311 CA19 TRAIN B REVISIONS.
13	9/6/89	MRB	APL	WFO	PARTIAL INCORP. DCR 87-311 CA07 TRAIN A REVISIONS.

FPL ENERGY Seabrook Station

CONTAINMENT SPRAY SYSTEM

PID- 1-CBS-B20233

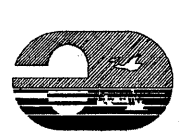
REF. DRAWING NO.	REV	TITLE
9763-F-805008	17	RESIDUAL HEAT REMOVAL SYSTEM P&ID
9763-F-805023	13	CONTAINMENT SPRAY SYSTEM P&ID



1	11	CONTAINMENT SPRAY SYSTEM
1	6	CHEMICAL & VOLUME CONTROL CHARGING SYSTEM
1	7	RESIDUAL HEAT REMOVAL SYSTEM TRAIN A
1	6	RESIDUAL HEAT REMOVAL SYSTEM TRAIN B
1	6	REACTOR COOLANT SYSTEM LOOP 1
1	5	REACTOR COOLANT SYSTEM LOOP 2
1	6	REACTOR COOLANT SYSTEM LOOP 3
1	6	REACTOR COOLANT SYSTEM LOOP 4
1	5	SAFETY INJECTION SYSTEM INTERMEDIATE HEAD
1	6	SAFETY INJECTION SYS. HIGH HEAD INJECTION SYS.
1	6	SAFETY INJECTION SYS. LOW HEAD INJECTION (ACCUMULATORS)
DRAWING	REV	DESCRIPTION

REV	DATE	DRWN	CHKD	ENG	DESCRIPTION
1	4/30/88	JM	BS	TW	INCORP. DCR 87-008 DCN 00
2	12/5/95	MPW	BSC	DMQ	INCORP. MMOD 90-598 CA0
3	11/11/89	MRB	RMC	APL	INCORP. DCR 87-311 CA19, 87-422 CA13
4	9/6/89	MRB	JM	BCL	INCORP. DCR'S 87-311 CA07, 87-422 CA08
3	9/15/88	MRB	RMC	GPM	COMPLETE REDRAW, SUPERCEDES UE&C DRAWING 9763-F-804979

NOTES:
 1. ONLY PRIMARY LINES AND VALVES ARE SHOWN. TEST LINES AND SECONDARY VALVES HAVE BEEN OMITTED FOR CLARITY.
 2. INTERNALS HAVE BEEN REMOVED FROM CHECK VALVE SI-V297

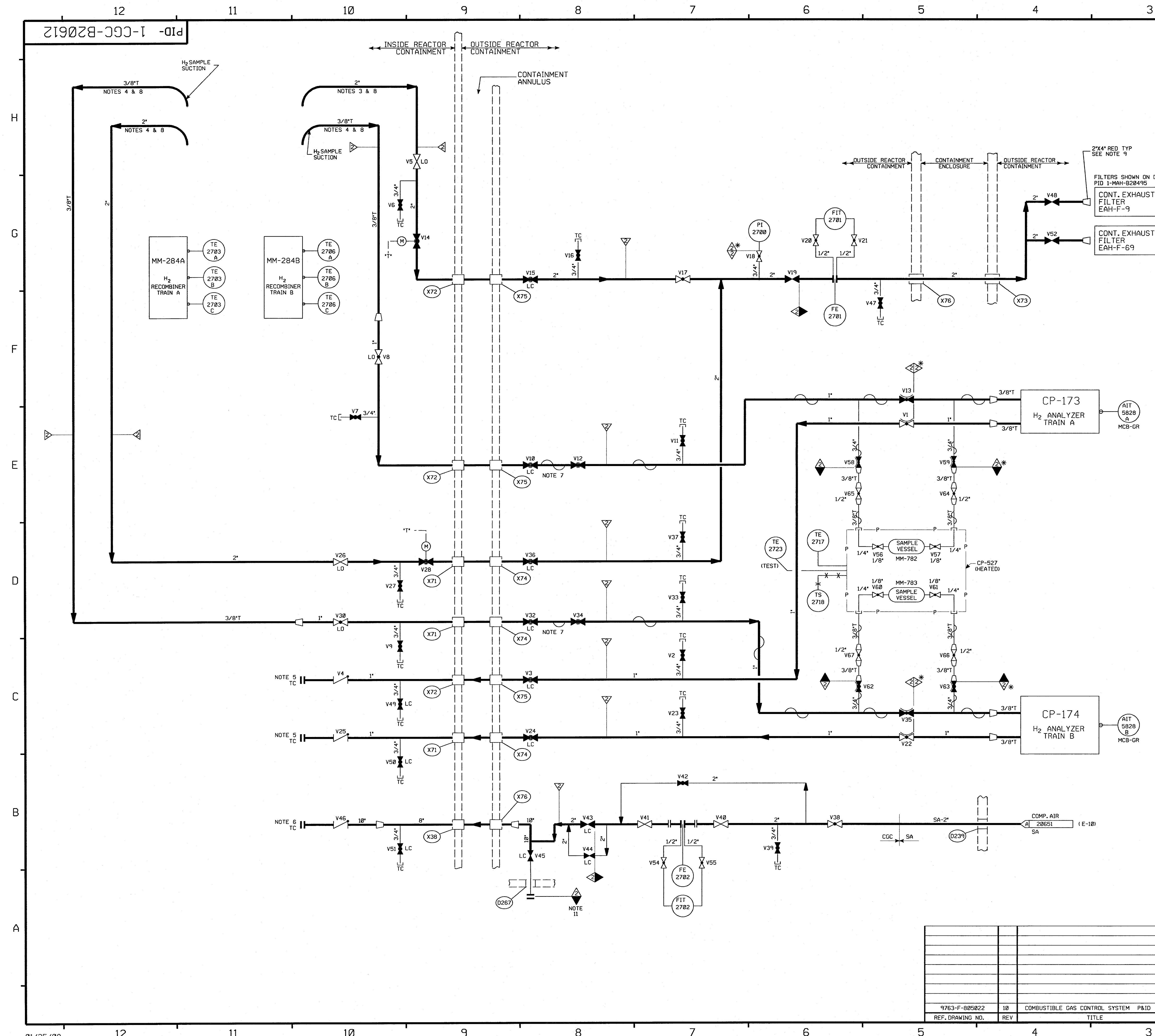


FPL ENERGY Seabrook Station
 ENGINEERED SAFETY
 FEATURES FLOW DIAGRAM
 1-NHY-804979

SECURITY-RELATED INFORMATION – WITHHELD UNDER 5 U.S.C. SECTION 552(b)(4) AND 5 U.S.C. SECTION 552(b)(7)(F)

SECURITY-RELATED INFORMATION – WITHHELD UNDER 5 U.S.C. SECTION 552(b)(4) AND 5 U.S.C. SECTION 552(b)(7)(F)

SECURITY-RELATED INFORMATION – WITHHELD UNDER 5 U.S.C. SECTION 552(b)(4) AND 5 U.S.C. SECTION 552(b)(7)(F)



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

NOTES:

1. THIS IS A ONE DRAWING SYSTEM.
2. ALL PIPING, VALVES, EQUIPMENT & INSTRUMENTS HAVE SYSTEM PREFIX CCC, UNLESS NOTED OTHERWISE.
3. PIPE IS TERMINATED INSIDE THE CONTAINMENT AT THE 183'-6" ELEV. & NEAR SAME AZIMUTH AS PENETRATION.
4. PIPE IS EXTENDED INSIDE CONTAINMENT 180° FROM PENETRATION & TERMINATES AT 183'-6" ELEV.
5. PIPE TERMINATES INSIDE THE CONTAINMENT AT 26'-3" ELEV. NEAR THE PENETRATION. USE BLIND FLANGE FOR TC, REMOVE FOR NORMAL OPERATION.
6. BLIND FLANGE WITH TC FITTING FOR PENETRATION LR TEST. REMOVE FOR NORMAL OPERATION.
7. HEAT TRACED TO 300° F
8. H₂ SAMPLE SUCTION AND PURGE LINES TERMINATE IN A 90° ELBOW WITH OPEN END POINTING DOWN.
9. EACH 4" X 2" RED. IS CENTERED IN THE FILTER INLET OPENING AND LOCATED 5" TO 6" AWAY FROM THE FACE OF THE SCREEN.
10. DELETED
11. BLIND FLANGE REMOVED FOR CONNECTION TO POTABLE AIR COMPRESSORS FOR CONTAINMENT LEAK TEST AND PRESSURIZATION. (CONNECTION USED FOR PRE-PLANNED MAKEUP STRATEGY. SEE FP59989).
12. DELETED
13. VENTS, DRAINS AND TEST CONNECTIONS CODE BREAKS ARE AT THE DOWNSTEAM END OF THE OUTER ISOLATION VALVE PER DESIGN STANDARD I-NHY-085111 UNLESS NOTED.
14. △ - INDICATES REVISION LEVEL

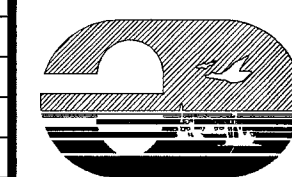
PORTIONS OF THIS DRAWING ARE

NUCLEAR SAFETY RELATED

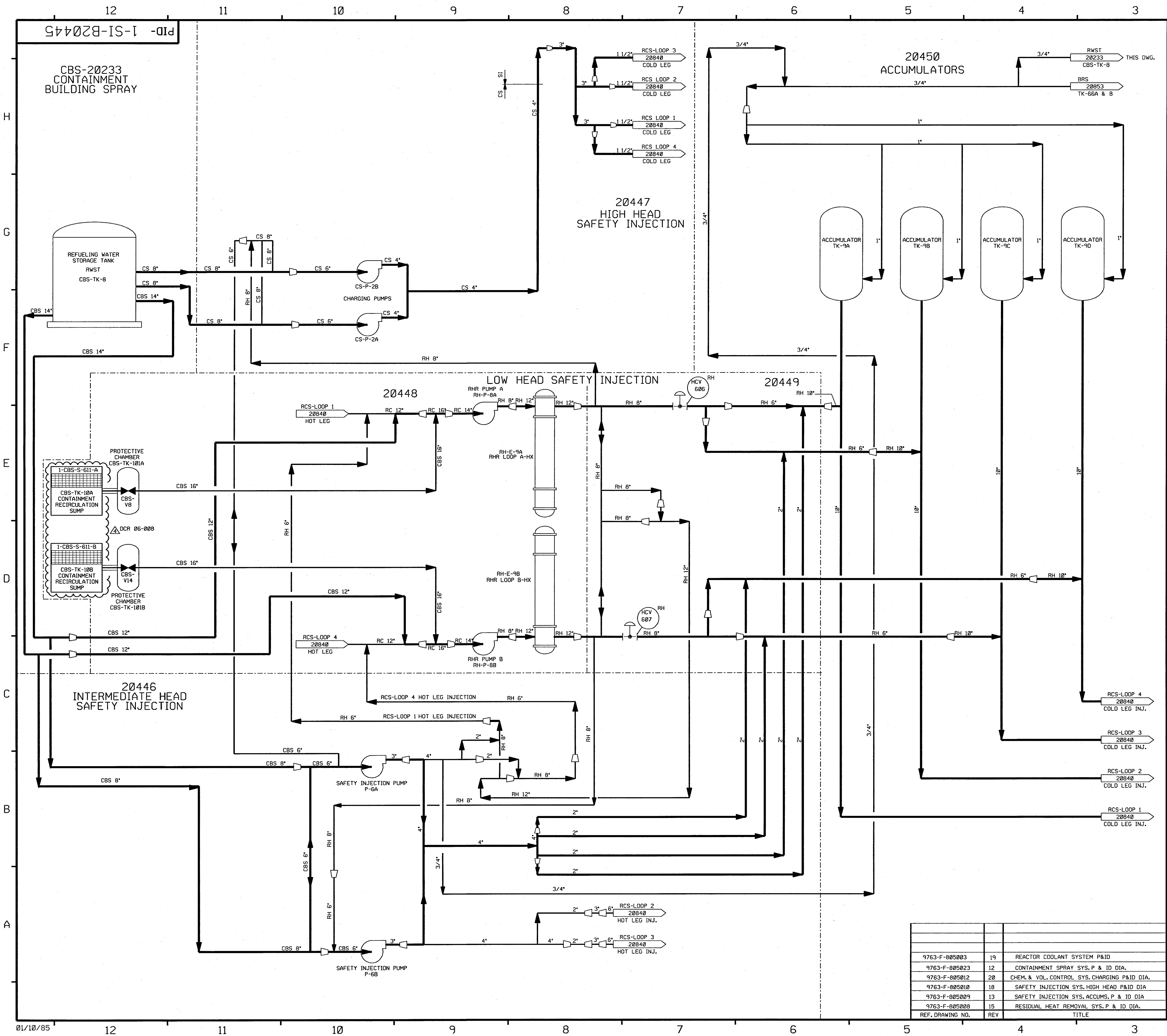
7	1-9-08	GPS	JM	6/17	INCPOR. MSE 07-183 REV 00.
6	6/12/95	BCL	DWS	JDM	INCPOR. MMOD 94-570 CA0
5	4/14/94	BCL	MPW	DMQ	INCPOR. MMOD 93-517 CA0
4	4/13/92	MRB	BCL	JEV	INCPOR. MMOD 91-515 CA0
3	1/19/90	MRB	APL	IW	REVISED TE TAG NO'S PER NHY LOOP DIAG INCORPORATED OCR 89-339 CA 10
2	10/3/85	MRJ	MRJ	RRC	REVISED PIPING PER ERECTION ISO, ADDED NOTES 12, 13 & 14, CONTINUATION FLAG DWG. COORD, CORRECTION REF. (COORD'D H-10) PER UE&C P&ID, DELETED NOTE 10, ADDED NOTE 9 REFERENCE.
1	7/2/86	DWS	JDM	RRC	INCPOR. ECA 08/1802692A, 95/11701A, 15/106587 & UPDATED PER LATEST P&ID, INCORPORATED ECA 05/110978 & ECA 15/106587
0	1/28/86	DWS	JDM	WFD	ISSUED FOR OPERATIONS
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

FPL ENERGY

Seabrook Station

COMBUSTIBLE GAS
CONTROL SYSTEM

PID- 1-CGC-B20612



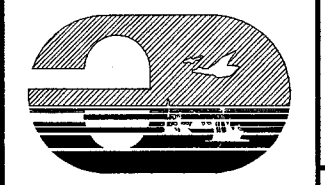
FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 20446 THRU 20450.
PORTIONS OF RH, CS & CBS SYSTEM DUPLICATED ON THIS DRAWING ARE DETAILED ON
RH-20662, RH-20663, CS-20729 & CBS-20233 DUE TO DUAL SYSTEM FUNCTIONS.
 2. ALL PIPES, VALVES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX(S)
UNLESS NOTED OTHERWISE.
 3. Δ INDICATES REVISION LEVEL.

4	4/30/08	JM	BCL	TH	INCPOR DCR 06-008 DCN 00, ADDED P&ID REF. NOTE.
3	10-30/87	GPM	BCL	PAS	REVISED: NOTE 1. DELETED NON SI SYS FLOW PATH PIPING. ADDED: SI SYS FLOW PATH PIPING.
2	2/2/87	MPW	WRD	VVS	ADDED NOTE 3 REVISED PER LATEST SYSTEM DRAWINGS
1	3/10/85	OPD	TAK	WFD	ISSUED FOR OPERATIONS
0	3/5/85	GD	TAK	WFD	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

FPL ENERGY

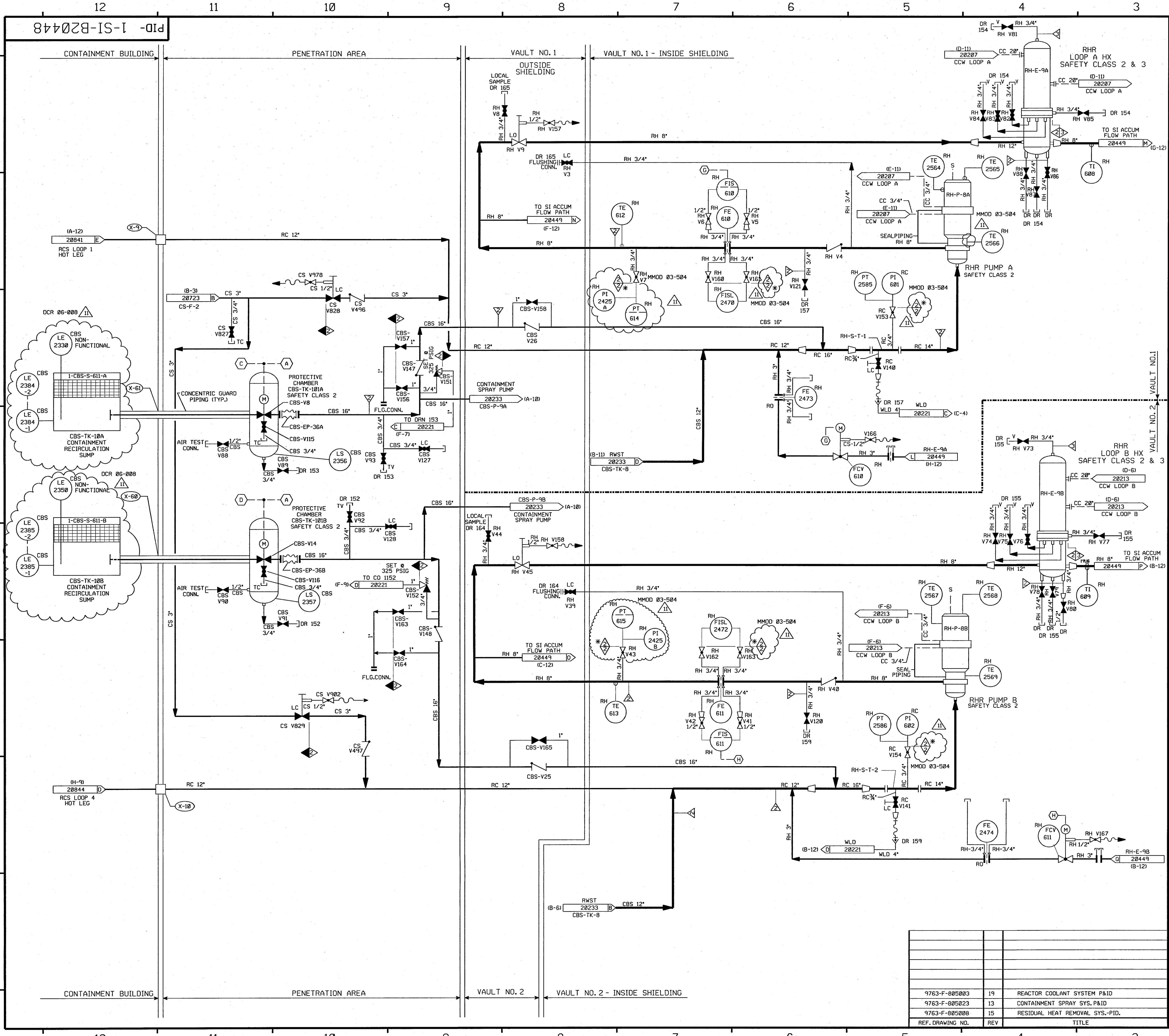
Seabrook Station



SAFETY INJECTION SYSTEM
OVERVIEW

PID- 1-SI-B20445

REF. DRAWING NO.	REV	TITLE
9763-F-805003	19	REACTOR COOLANT SYSTEM P&ID
9763-F-805023	12	CONTAINMENT SPRAY SYS. P & ID DIA.
9763-F-805012	20	CHEM. & VOL. CONTROL SYS. CHARGING P&ID DIA.
9763-F-805010	18	SAFETY INJECTION SYS. HIGH HEAD P&ID DIA
9763-F-805009	13	SAFETY INJECTION SYS. ACCUMS. P & ID DIA
9763-F-805008	15	RESIDUAL HEAT REMOVAL SYS. P & ID DIA.



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

99/115181C

NOTES:

1. WORK THIS DRAWING WITH DRAWINGS 20445 THRU 20450. PORTIONS OF RH & CS SYSTEM DUPLICATED ON THIS DRAWING ARE DETAILED ON RH-20662, RH-20663 & CBS-20233 DUE TO DUAL SYSTEM FUNCTIONS.
2. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX SI, UNLESS NOTED OTHERWISE.
3. DELETED.
4. DELETED.
5. DELETED.
6. INSTRUMENTS.
 - (A) INTERLOCK FROM CBS-LT-930, LT-931, LT-932 & LT-933 ON DWG. 20233.
 - (B) INTERLOCK FROM RC-V22 & RC-V23.
 - (C) INTERLOCK FROM RC-V87 & RC-V88.
 - (D) INTERLOCK BETWEEN RH-FIS-611 AND RH-FCV-611, THIS DRAWING.
 - (E) INTERLOCK BETWEEN RH-FIS-611 AND RH-FCV-611, THIS DRAWING.
7. DELETED.
8. DELETED.
9. DELETED.
10. DELETED.
11. Δ INDICATES REVISION LEVEL.

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

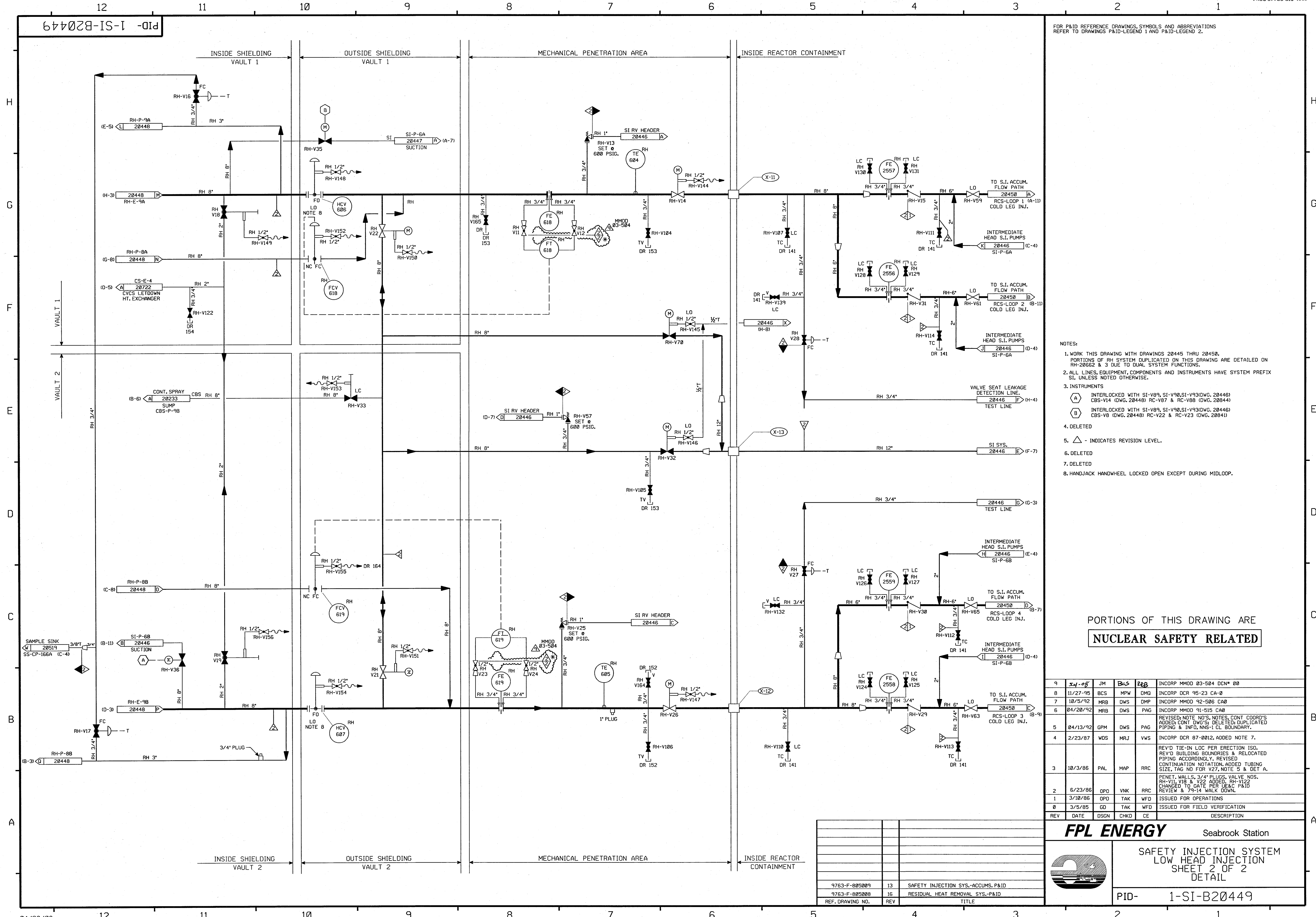
REV	DATE	DSGN	CHKD	CE	DESCRIPTION
11	4/30/08	BCS	JW	MD	INCCORP DCR 06-008 DCN#00, MMOD 03-504 REV. 00
10	9/5/00	BCS	MPW	MAP	INCCORP MMOD 91-555 DCN#03
9	5/7/99	DWS	BCS	HWM	INCCORP MMOD 970618 DCN#00
8	12/9/94	MPW	BCL	MHO	INCCORP MMOD 930545 CA#0
7	5/24/94	BCL	DWS	DMG	PARTIAL INCCORP MMOD 91-555 CA-02
6	11/11/94	MRB	GPM	GRM	INCCORP DCR 87-311 CA 19, 87-422 CA 13 AND REINCCORP DCR 87-349
5	9/6/89	MRB	APL	WFD	INCCORP DCR 87-311 CA07, 87-422 CA08 REV. VALVE NO'S, & INCCORP DCR 87-349 00
4	12/15/87	GPM	DWS	PAG	REVISED: REDUNDANT PIPING, NOTE 1, REF DWG REV. NO. RC-VIS3 & 154 AS OPENED PER LOOP DIA 506650. ADDED CONT. CORDS, INSTR. INSTR. SYS. DESIGNATION & FUNCTION INFO PER UE&C P&ID, CONT. INFO, NOTE 11, DELETED: NON SI SYSTEM PIPING, DUPLICATED NOTES 3, 4, 5, 7, 8, 9 & 10.
3	10/28/86	PAL	MAP	RRC	REVISED BLOS BOUNDARY IDENTIFICATION, INCCORP ECA'S 99/1974C, 19/114412C & 08/116525C, REVISED TO CORRECT VALVE NO'S RH-V140, RH-V141, CBS-V93, CBS-V92 & RH-V3 PER PIPING ERECTION ISO'S, ADDED VALVE NO CS-V829 & PLUG PER PIPING ERECTION ISO'S
2	7/2/86	JOM	BCL	RRC	INC. ECA'S 99/112938, 99/11517B, 99/115181B AND UPDATE PER UE&C P&ID REVIEW
1	3/18/85	OPD	TAK	WFD	ISSUED FOR OPERATIONS
0	3/5/85	GD	TAK	WFD	ISSUED FOR FIELD VERIFICATION

FPL ENERGY Seabrook Station

SAFETY INJECTION SYSTEM
LOW HEAD INJECTION-SHT. 1 OF 2
DETAIL

PID- 1-SI-B20448

PID-1-SI-B20449



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

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 20445 THRU 20450. PORTIONS OF RH SYSTEM DUPLICATED ON THIS DRAWING ARE DETAILED ON RH-20662 & 3 DUE TO DUAL SYSTEM FUNCTIONS.
 2. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX SI, UNLESS NOTED OTHERWISE.
 3. INSTRUMENTS
 - (A) INTERLOCKED WITH SI-V89, SI-V90, SI-V93 (DWG. 20448) CBS-V14 (DWG. 20448) RC-V87 & RC-V88 (DWG. 20844)
 - (B) INTERLOCKED WITH SI-V89, SI-V90, SI-V93 (DWG. 20448) CBS-V8 (DWG. 20448) RC-V22 & RC-V23 (DWG. 20841)
 4. DELETED
 5. Δ - INDICATES REVISION LEVEL.
 6. DELETED
 7. DELETED
 8. HANDJACK HANDWHEEL LOCKED OPEN EXCEPT DURING MIDLOOP.

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

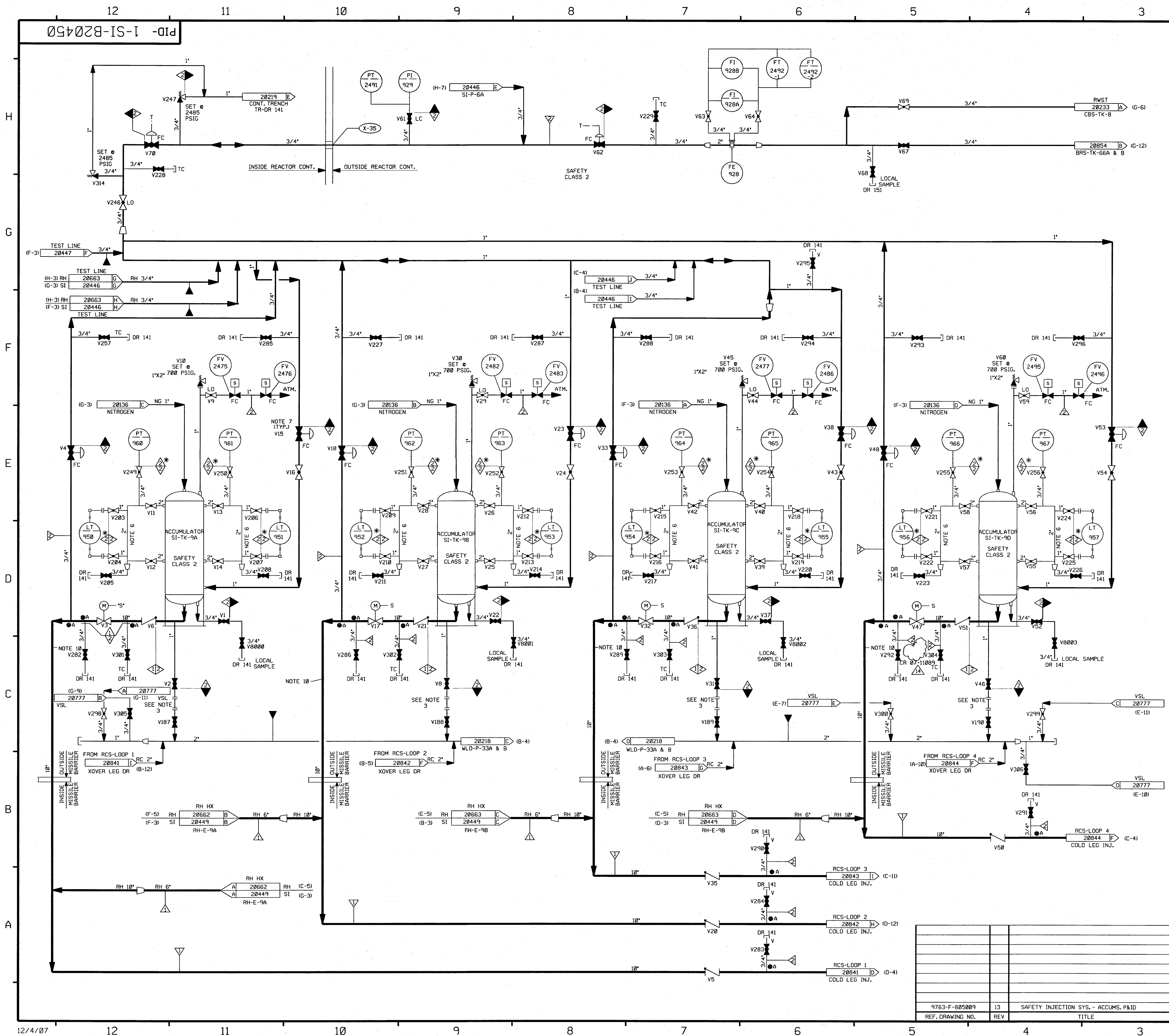
9	11/27/95	JM	BCS	MPW	DMQ	INCORP MMOD 03-504 DCN# 00
8	11/27/95	BCS	MPW	DMQ	INCORP DCR 95-23 CA-0	
7	10/5/92	MRB	DWS	DMP	INCORP MMOD 92-506 CA0	
6	04/20/92	MRB	DWS	PAG	INCORP MMOD 91-515 CA0	
5	04/13/92	GPM	DWS	PAG	REVISED: NOTE NOS, NOTES, CONT COORD'S ADDED: CONT DWG'S; DELETED: DUPLICATED PIPING & INFO, NNS-1 CL BOUNDARY.	
4	2/23/87	WDS	MRJ	VWS	INCORP DCR 87-0012, ADDED NOTE 7.	
3	10/3/86	PAL	MAP	RRC	REV'D TIE-IN LOC PER ERECTION ISO. REV'D BUILDING BOUNDARIES & RELOCATED PIPING ACCORDINGLY, REVISED CONTINUATION NOTATION, ADDED TUBING SIZE, TAG NO FOR V27, NOTE 5 & DET A.	
2	6/23/86	OPD	VNK	RRC	PENET. WALLS, 3/4" PLUGS, VALVE NOS. RH-V11, V18 & V22 ADDED. RH-V12 CHANGED TO GATE PER JEC P&ID REVIEW & 79-14 WALK DOWN.	
1	3/10/86	OPD	TAK	WFD	ISSUED FOR OPERATIONS	
0	3/5/85	GD	TAK	WFD	ISSUED FOR FIELD VERIFICATION	
REV	DATE	DSGN	CHKD	CE	DESCRIPTION	

FPL ENERGY Seabrook Station

**SAFETY INJECTION SYSTEM
LOW HEAD INJECTION
SHEET 2 OF 2
DETAIL**

PID- 1-SI-B20449

9763-F-805009	13	SAFETY INJECTION SYS.-ACCUMS. P&ID
9763-F-805008	16	RESIDUAL HEAT REMOVAL SYS.-P&ID
REF. DRAWING NO.	REV	TITLE

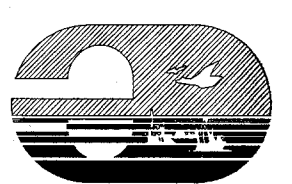


FOR P&ID REFERENCES DRAWINGS, SYMBOLS AND ABBREVIATIONS
REFER TO DRAWINGS P&ID-LEGEND 1 AND P&ID - LEGEND 2.

- NOTES:
1. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS HAVE SYSTEM PREFIX SI, UNLESS NOTED OTHERWISE.
 2. WORK THIS DRAWING WITH DRAWINGS 20445 THRU 20449.
 3. ACCUMULATOR DRAIN TO BE PROVIDED WITH BLIND FLANGE. SPOOL PIECE TO BE INSTALLED ONLY WHEN ACCUMULATOR IS TO BE DRAINED.
 4. DELETED
 5. DELETED
 6. 66" MINIMUM STANDPIPE TO BE PROVIDED BY A/E WITH MARK INDICATING NORMAL WATER LEVEL AS DEFINED IN THE PLANT SETPOINT DOCUMENT. LEVEL TRANSMITTER TAPS ARE LOCATED 8 INCHES ABOVE AND BELOW THE SCRIBE MARK.
 7. DELETED
 8. INDICATES 3/8" FLOW RESTRICTOR INSTALLED. SEE APPLICABLE DETAIL ON DWG RC-20848.
 9. DELETED
 10. PIPING SCHEDULE 140 MUST BE ADHERED TO DUE TO SAFETY ANALYSIS FLOW REQUIREMENTS.
 11. DELETED
 12. DELETED
 13. INDICATES REVISION LEVEL
 14. VENT, DRAIN & TEST LINE CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-800111 UNLESS NOTED OTHERWISE.

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

14	12-7-07	BCS	JM	RRB	INCORP CR 07-11089 REV. 0
13	10/24/06	BCS	JM	JC	INCORP MMOD 03-504 DCN-00
12	6/13/97	DWS	MPW	DMO	INCORP DCR 970002 DCN-00
11	1/17/97	DWS	BCS	DMO	INCORP DCR 970002 DCN-00 & 1
10	5/7/96	BCS	DWS	RRB	INCORP DCR 95-23 CA-6
9	11/13/95	BCS	MPW	RJF	PARTIAL INCORP. DCR 95-23 CA-6
8	9/27/90	MRB	HP	RRC	INCORP MMOD 90-595 CA-01
7	8/24/90	MRB	APL	RRC	INCORPORATED MMOD 90-595 CA-00
6	12/15/87	GPM	DWS	PAG	REVISED NOTE 8 & 14; ADDED DWG CONT. NO'S, TEST LINE, FLOW RESTRICTOR INDICATOR SYMBOL, DELETED NOTES 4, 7, 11 & 12, NNS-1 CL. BOUNDARY.
5	5/20/87	GPM	DWS	VWS	VALVES SI-V8000, 8001, 8002 & 8003 REVISED TO BE SHOWN NORMALLY CLOSED, REVISED CLASS BREAK FOR DRAIN LINES ON VALVES SI-V282, 286, 289 & 292, DELETED NOTE 9 FOR SAME DRAIN LINES & REPLACED WITH NEW FLOW RESTRICTOR INDICATOR SYMBOL. DELETED NOTE 8 FOR DRAIN LINES ON VALVES SI-V301, 302, 303, & 304. REPLACED WITH NEW FLOW INDICATOR SYMBOL, DELETED FLOW ARROW ON HI & LOW SOURCE LINES FOR LT'S ON SI-TK-9A, B, C & D.
4	1/30/87	JDM	MRJ	VWS	INCORP DCR 860033 CA-001
3	10/9/86	MRJ	MAP	RRC	REV PER PIPING ERECTION ISO, (DELETED TEST LINE), CORRECTED INSTRUMENT MOUNTING, ADDED NOTE 14 & DWG LOC COORD.
2	6/27/86	DWS	BCL	RRC	CHANGED VALVE TYPE, ADDED VSL CONT., OPENED VALVES V280 & V306 PER LATEST USRC P&ID, UPDATED DWG. AND GEN. REV.
1	3/18/86	OPD	TAK	WFO	INCORP. DCN 8/340C
0	3/5/85	GD	TAK	WFO	ISSUED FOR OPERATIONS
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

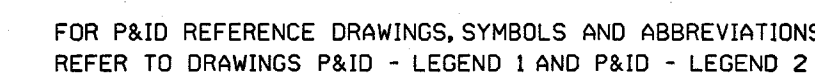
**FPL ENERGY**

Seabrook Station

SAFETY INJECTION SYSTEM
LOW HEAD INJECTION (ACCUMULATORS)
DETAIL

PID-1-SI-B20450

9763-F-805009	13	SAFETY INJECTION SYS. - ACCUMS. P&ID
REF. DRAWING NO.	REV	TITLE



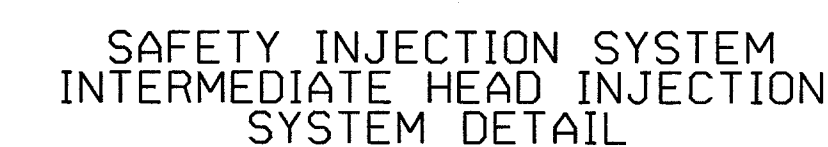
NOTES:

1. WORK THIS DRAWING WITH DRAWINGS 20445, 20447 THRU 20250.
PORTIONS OF RH SYSTEM DUPLICATED ON THIS DRAWING ARE DETAILED ON
RH-28663 DUE TO DUAL SYSTEM FUNCTIONS.
2. ALL VALVE, VALVE EQUIPMENT, COMPONENTS, AND INSTRUMENTS HAVE SYSTEM PREFIX SI
UNLESS NOTED OTHERWISE.
3. (A) = VALVE INTERLOCK FROM RH-V35, RH-V36 (DWG. 20449).
4. PERMANENT SPOOL PIECE INSTALLATION SHOWN. TEMPORARY STRAINER IS USED IN
PLACE OF SPOOL PIECE DURING INITIAL FLUSHING OPERATION. STRAINER TO BE
REMOVED BEFORE PLANT START UP. CONNECTION USED FOR PRE-PLANNED MAKEUP
STRATEGY. (SEE FPP9983) MS
07-183
5. VENT, DRAIN, TEST COUPLERS AND ORIFICE TAP PIPING CODE BREAKS ARE AT THE
DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-805111 UNLESS NOTED
OTHERWISE.
6. DELETED
7. ADJUST VALVES IN FIELD TO LIMIT PUMP RUN OUT THEN LOCK.
8. MINIMUM FLOW ORIFICE SUPPLIED WITH PUMP.
9.  -INDICATES REVISION LEVEL
10.  -INDICATES 3/8" FLOW RESTRICTOR INSTALLED, SEE APPLICABLE DETAIL ON DWG
CR-28648.

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

17	1-3-108	GPS	IM	INCORP MSE 07-183 REV# 00
16	08/31/86	JM	BCS	INCORP. MMOD 03-504 DCN 020 ADDED: COMMON CONTINUATION FLOW ARROW
15	5/8/02	JM	MPW	INCORP DCR 01-0016 DCN#00
14	10/19/00	BCS	MPW	INCORP DCR 99-0036 DCN#00
13	9-14-00	BCS	MPW	PARTIAL INCORP DCR 99-0036 DCN#00
12	5-7-99	DWS	CHM	INCORP MMOD 970618 DCN#00
11	5-26-97	MPW	DWS	INCORP DCR 96-21 DCN#00
10	12/21/95	BCS	MPW	REINCORP DCR 95-23 CA-0
9	11-23/95	BCL	MPW	INCORP DCR 95-23 CA-0
8	6/7/94	BCL	MPW	INCORP MMOD 94-511 CA-0
7	4/4/94	BCL	MPW	INCORP MMOD 93-517 CA-0
6	4/20/92	MRB	DWS	INCORP MMOD'S 91-511 CA0, 91-515 CA0 & 91-622 CA0
				REVISED: PIPING TO CLARIFY REDUNDANT SYS DUPLICATION NOTES 1-8 & 10; ADDED: PIPING TO CLARIFY REDUNDANT SYS DUPLICATION, DVG CONT COORD'S, REF DWS'S, FLOW RESTRICTOR DETAIL ALPHA DESIGNATION DELETED; NNS-1 CLASS BOUNDARY; PIPING CODE BREAKS PER NOTE 5 & 6.
5	12/15/87	GPM	DWS	ADDED P&ID LEGEND NOTE, ADDED CONT DVG REF COORDINATES, INCORP DCR 87-001
4	2/23/87	WDS	MRJ	ADDED NOTE 10, ADDED & REVISED CONTINUATION REFERENCES, REVISED BUILDING BOUNDARY AND LOCATION OF VALVE V248 TO SHOW INSIDE VAULT #2.
3	9/12/86	MRJ	MAP	ADDED NOTE 7 TO V164 & V169
2	4/4/86	DWS	TAK	ISSUED FOR OPERATIONS
1	3/10/86	OPW	TAK	ISSUED FOR FIELD VERIFICATION
0	3/5/85	GD	TAK	
REV	DATE	DSGN	CHKD	DESCRIPTION

FPL ENERGY Seabrook Station



PID- 1-SI-B20446

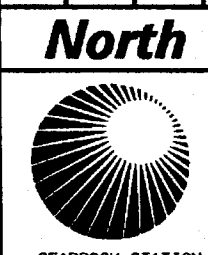
PID-1-SI-B20447

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

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 20445 THRU 20450. PORTIONS OF THE CS SYSTEM DUPLICATED ON THIS DRAWING ARE DETAILED ON CS-20725 DUE TO DUAL SYSTEM FUNCTIONS.
 2. ALL PIPES, VALVES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX SI, UNLESS NOTED OTHERWISE.
 3. DELETED
 4. ADJUST VALVES IN FIELD TO LIMIT PUMP RUN OUT, THEN LOCK.
 5. FLOWMETER ORIFICE TO VERIFY FLOW DURING PREOPERATIONAL TEST.
 6. VENT AND DRAIN CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-805111 UNLESS NOTED OTHERWISE.
 7. Δ INDICATES REVISION LEVEL
 8. $\bullet$ INDICATES 3/8" FLOW RESTRICTOR INSTALLED, SEE APPLICABLE DETAIL ON DRAWING RC-28846.
 9. INTERVALS REMOVED FROM CHECK VALVE SI-V297

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

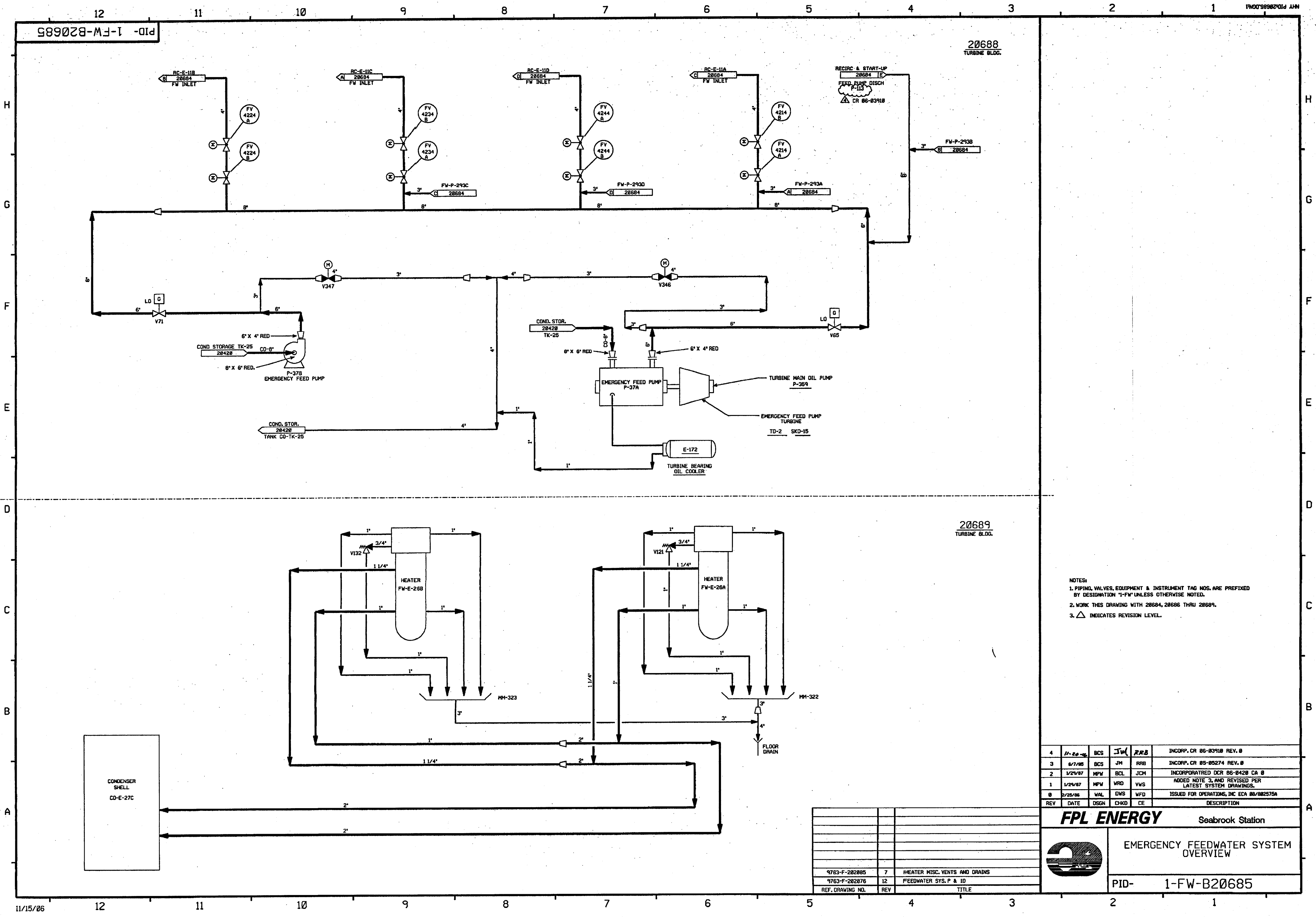
14	4/1/94	RWS		DWS	BES	GOM	INCORP. DCR 98-0045 DCM 88, C-4
13	5/28/97	MPW		DWS	FAC	RRB	INCORP. DCR 96-21 DCM 8
12	11/12/95	BCL		MPW	VMS	RSG	INCORP. MM00 98-598 CAB
11	4/14/94	BCL		MPW	DWS	DMD	INCORP. MM00 93-517 CAB
10	10/8/92	BCL		DWS	MRB	DMP	INCORP. DCR 89-73 CAB
9	4/28/92	MRB		DWS	BCL	JEV	INCORP. DCR 89-12 CAB
8	12/5/89	MRB	RMC	PAL	APL	MFD	INCORP. DCR 89-530 REV 88
7	2/18/89	MRB	RMC	DWS	APL	CH	INCORP. MM00 89-530 REV 88
6	5/30/88	GPH	RMC	APL	BCL	PAS	ADDED "S" SIGNAL FOR V138 PER NHY DWG 509048
5	11/23/87	GPH	JM	DWS	BCL	RRC	INCORPORATED DCR 87-155, REVISED NOTES 1 & 6 ADDED NOTES 8, CONT. DNG. NOS. & COORD'S. FLOW RESTRICTOR INDICATOR SYM. CONTINUATION COORD. DELETED. NOTE 3, NON SI FLOW PATH PIPING, REDUNDANT DNG. CONT., NMS-1 CL. BRK., DUPLICATED TECH. INFO.
4	2/6/87	MRJ	HIV	PAL	BCL	VMS	REVISED FLOW INSTR. SYS. PREFIX PER DWG. H-50624
3	10/10/86	WDS	DWS	BCL	VNK	RRC	REMOVED SAFETY CLASS BRKS PER NOTE 5, ADDED DNG. CODE FOR CONT.
2	5/23/86	PFG	SEK	CAOD	VNK	JNCS	INCORPORATED NCR 82/47A, ECA 80/2246B & UPDATED PER LATEST P & I'D
1	3/18/85	OPD	SKN	TAK	ASK	MFD	ISSUED FOR OPERATIONS
0	3/5/85	GD	MRB	TAK	PEF	MFD	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	DRWN	CHKD	CODE	SES	DESCRIPTION



North Atlantic Energy Service Corporation
SAFETY INJECTION SYSTEM
HIGH HEAD INJECTION SYSTEM
DETAIL

PID- 1-SI-B20447

REF. DRAWING NO.	REV	TITLE
9763-F-980138	6	SAFETY INJECTION SYSTEM, HIGH HEAD-MITD
9763-F-805023	12	CONTAINMENT SPRAY SYSTEM
9763-F-805012	20	CHEM. & VOL. CONTROL SYS.-CHARGING PID
9763-F-805010	18	SAFETY INJECTION SYS., HIGH HEAD PID

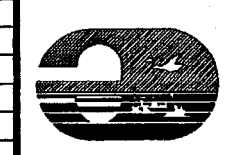


NOTES:
1. PIPING, VALVES, EQUIPMENT & INSTRUMENT TAG NOS. ARE PREFIXED BY DESIGNATION "1-FW" UNLESS OTHERWISE NOTED.
2. WORK THIS DRAWING WITH 28684, 28686 THRU 28689.
3. INDICATES REVISION LEVEL.

4	11-20-85	BCS	JW	RFB	INCORP. CR 86-83918 REV. 0
3	8/7/85	BCS	JM	RFB	INCORP. CR 85-85274 REV. 0
2	1/25/87	MPV	BCL	JCM	INCORPORATED DCR 86-8420 CA 0
1	1/25/87	MPV	VRD	VWS	ADDED NOTE 3, AND REVISED PER LATEST SYSTEM DRAWINGS.
0	2/25/86	WAL	DWS	WFD	ISSUED FOR OPERATIONS, INC ECA 86/882575A
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

FPL ENERGY

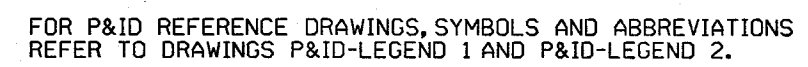
Seabrook Station



EMERGENCY FEEDWATER SYSTEM OVERVIEW

PID- 1-FW-B20685

9763-F-202085	7	HEATER MISC. VENTS AND DRAINS
9763-F-202076	12	FEEDWATER SYS. P & ID
REF. DRAWING NO.	REV	TITLE



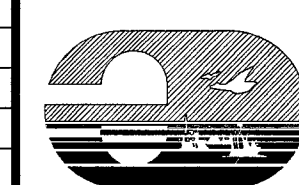
- NOTES:
1. PIPING, VALVES, EQUIPMENT & INSTRUMENT TAG NUMBERS ARE PREFIXED BY DESIGNATION OF "FW" UNLESS NOTED OTHERWISE.
 2. WORK THIS DWG WITH 20684 THRU 20687, & 20689.
 3. VENTS & DRAINS CODE BREAKS ARE AT THE DOWSTREAM END OF THE OUTER ISOLATION VALVE, PER 1-NHY-605111 UNLESS NOTED OTHERWISE.
 4. FW-V346, V347 ARE NORMALLY CLOSED MOTOR OPERATED GLOBE VALVES WHICH ARE OPERABLE FROM THE MAIN CONTROL BOARD & REMOTE SAFE SHUTDOWN PANEL.
 5. Δ INDICATES REVISION LEVEL.
 6. ALL PIPING AND COMPONENTS ASSOCIATED WITH P-37A ARE ASME III CL. 3, ALL PIPING AND COMPONENTS ASSOCIATED WITH T0-2 ARE ANS-3.
 8. DELETED
 9. THIS HEAT TRACING IS NONFUNCTIONAL

PORTIONS OF THIS DRAWING ARE

NUCLEAR SAFETY RELATED

19	5-4-08	JM	BCL	AKB	INCRP MM0D 83-504 DCN 00
18	5/19/03	BCS	JM	MPW	INCRP CR-02-02414
17	11/6/00	BCL	JPW	RRB	INCRP DCR 98-31 DCN-00
16	4/27/99	DWS	RWS	HWM	INCRP MM0D 97816 DCN#00 & DCR 96-2028 DCN 00
15	7/3/98	DWS	MPW	JWB	INCRP MM08505 DCN#00
14	10/23/95	BCL	MPW	GJM	INCRP DCR 94-027 CA-0
13	6/12/95	BCL	DWS	DM	INCRP MM0D 94-92 CA-0
12	5/23/94	DWS	BCL	JCM	INCRP MM0D 910539 CA#0
11	4/14/94	MPW	BCL	DMO	INCRP DCR 860420 CA, 0, 21 & MM0D 93-517 CA-0
10	1/14/92	DWS	MRB	JCM	PARTIAL INCRP DCR 860420 CA#0,21
9	10/7/92	MRB	BCL	JEV	INCRP MM0D 92-545 CA0
8	5/8/92	MRB	MPW	BCL	INCRP MM0D 91-511 CA2
7	4/20/92	MRB	DWS	JEV	INCRP MM0D's 91-515 CA0 & 91-511 CA1
6	9/4/91	GPM	JM	GRW	INCRP MM0D 90-558 CA 00
5	10/29/90	MRB	JM	BCL	ADDED LINE SIZE, REV, PLUG LOCATION
4	3/3/88	MRB	MRB	WFO	REVISID: NOTE 3, CLASS BREAK, PIPING PER AS CONSTRUCTED CONFIGURATION, ABANDONED VENT DESCRIBED IN NOTE 3, DELETED: NNS-1 CLASS BOUNDARY.
3	10/30/87	MPW	BCL	PAS	REINCRP ECA 08/080215A, 19/13455A, 19/080255A, 08/080255A, 08/080255C, 08/080255D, 08/080255E, 08/080255F, 08/080255G, 08/080255H, 08/080255I, 08/080255J, 08/080255K, 08/080255L, 08/080255M, 08/080255N, 08/080255O, 08/080255P, 08/080255Q, 08/080255R, 08/080255S, 08/080255T, 08/080255U, 08/080255V, 08/080255W, 08/080255X, 08/080255Y, 08/080255Z, 08/080255AA, 08/080255AB, 08/080255AC, 08/080255AD, 08/080255AE, 08/080255AF, 08/080255AG, 08/080255AH, 08/080255AI, 08/080255AJ, 08/080255AK, 08/080255AL, 08/080255AM, 08/080255AN, 08/080255AO, 08/080255AP, 08/080255AQ, 08/080255AR, 08/080255AS, 08/080255AT, 08/080255AU, 08/080255AV, 08/080255AW, 08/080255AX, 08/080255AY, 08/080255AZ, 08/080255BA, 08/080255BB, 08/080255BC, 08/080255BD, 08/080255BE, 08/080255BF, 08/080255BG, 08/080255BH, 08/080255BI, 08/080255BJ, 08/080255BK, 08/080255BL, 08/080255BM, 08/080255BN, 08/080255BO, 08/080255BP, 08/080255BQ, 08/080255BR, 08/080255BS, 08/080255BT, 08/080255BU, 08/080255BV, 08/080255BW, 08/080255BX, 08/080255BY, 08/080255BZ, 08/080255CA, 08/080255CB, 08/080255CC, 08/080255CD, 08/080255CE, 08/080255CF, 08/080255CG, 08/080255CH, 08/080255CI, 08/080255CJ, 08/080255CK, 08/080255CL, 08/080255CM, 08/080255CN, 08/080255CO, 08/080255CP, 08/080255CQ, 08/080255CR, 08/080255CS, 08/080255CT, 08/080255CU, 08/080255CV, 08/080255CW, 08/080255CX, 08/080255CY, 08/080255CZ, 08/080255DA, 08/080255DB, 08/080255DC, 08/080255DD, 08/080255DE, 08/080255DF, 08/080255DG, 08/080255DH, 08/080255DI, 08/080255DJ, 08/080255DK, 08/080255DL, 08/080255DM, 08/080255DN, 08/080255DO, 08/080255DP, 08/080255DQ, 08/080255DR, 08/080255DS, 08/080255DT, 08/080255DU, 08/080255DV, 08/080255DW, 08/080255DX, 08/080255DY, 08/080255DZ, 08/080255EA, 08/080255EB, 08/080255EC, 08/080255ED, 08/080255EE, 08/080255EF, 08/080255EG, 08/080255EH, 08/080255EI, 08/080255EJ, 08/080255EK, 08/080255EL, 08/080255EM, 08/080255EN, 08/080255EO, 08/080255EP, 08/080255EQ, 08/080255ER, 08/080255ES, 08/080255ET, 08/080255EU, 08/080255EV, 08/080255EW, 08/080255EX, 08/080255EY, 08/080255EZ, 08/080255FA, 08/080255FB, 08/080255FC, 08/080255FD, 08/080255FE, 08/080255FF, 08/080255FG, 08/080255FH, 08/080255FI, 08/080255FJ, 08/080255FK, 08/080255FL, 08/080255FM, 08/080255FN, 08/080255FO, 08/080255FP, 08/080255FQ, 08/080255FR, 08/080255FS, 08/080255FT, 08/080255FU, 08/080255FV, 08/080255FW, 08/080255FX, 08/080255FY, 08/080255FZ, 08/080255GA, 08/080255GB, 08/080255GC, 08/080255GD, 08/080255GE, 08/080255GF, 08/080255GG, 08/080255GH, 08/080255GI, 08/080255GJ, 08/080255GK, 08/080255GL, 08/080255GM, 08/080255GN, 08/080255GO, 08/080255GP, 08/080255GQ, 08/080255GR, 08/080255GS, 08/080255GT, 08/080255GU, 08/080255GV, 08/080255GW, 08/080255GX, 08/080255GY, 08/080255GZ, 08/080255HA, 08/080255HB, 08/080255HC, 08/080255HD, 08/080255HE, 08/080255HF, 08/080255HG, 08/080255HH, 08/080255HI, 08/080255HJ, 08/080255HK, 08/080255HL, 08/080255HM, 08/080255HN, 08/080255HO, 08/080255HP, 08/080255HQ, 08/080255HR, 08/080255HS, 08/080255HT, 08/080255HU, 08/080255HV, 08/080255HW, 08/080255HX, 08/080255HY, 08/080255HZ, 08/080255IA, 08/080255IB, 08/080255IC, 08/080255ID, 08/080255IE, 08/080255IF, 08/080255IG

FPL ENERGY Seabrook Station



EMERGENCY FEEDWATER SYSTEM DETAILS

PID- 1-FW-B20688

9763-F-202076	12	FEEDWATER SYSTEM P & I DIAGRAM
REF. DRAWING NO.	REV	TITLE