

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-00511 UNLESS NOTED OTHERWISE.
 - DELETED
 - △ INDICATES REVISION LEVEL
 - DELETED
 - CLASS BREAK OF THE OVERFLOW LINE IS AT THE TANK TO NOZZLE WELD.
 - CONNECTION USED FOR PRE-PLANNED MAKEUP STRATEGY. SEE FF59989.
 - BLIND FLANGE IS INSTALLED WHEN HOSE IS NOT CONNECTED.

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

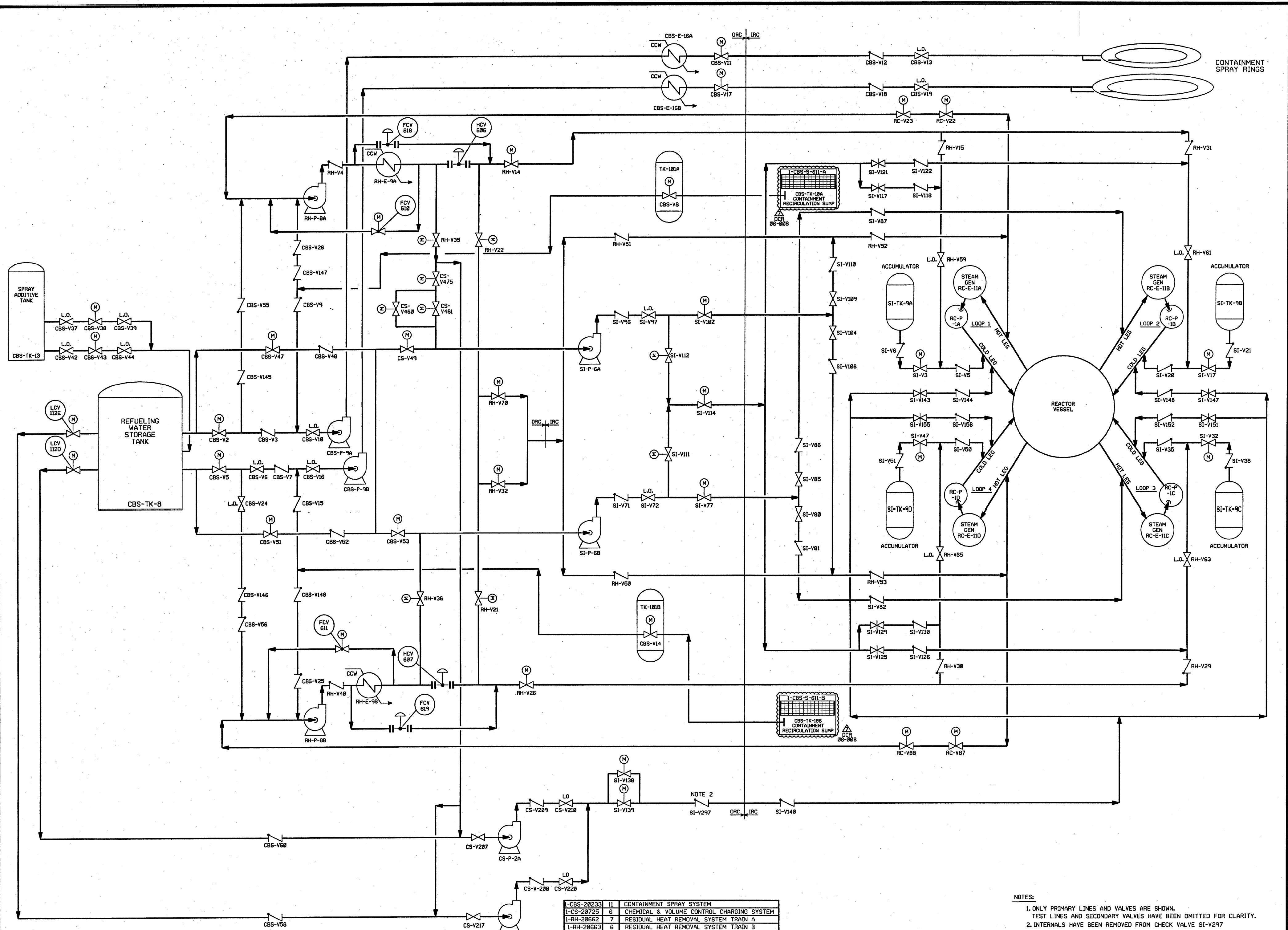
REV	DATE	DSGN	CHKD	CE	DESCRIPTION
37	11/12/09	JM	Bcs	JM	INCORP EC*274981
36	5/2/11	JM	Bcs	STB	INCORP EC*145086
35	9/29/09	JM	Bcs	TAS	INCORP EC*12725
34	9/24/09	JM	Bcs	TAS	PARTIAL INCORP EC*12725
33	7/27/09	GPS/JM	Bcs	TAS	REINCORP EC12585 & EC5963 (06DCR10 DCN 00 & 03) ADDED VALVE FUNCTION LABELS & CLASS BREAKS. INCORP AR*6779
32	04/30/08	Bcs	JM	TMD	INCORP. DCR 06-008 DCN-00
31	1-9-08	Bcs	JM	TMD	INCORP. MSE 07-144 REV. 00, MSE 07-183 REV. 00, DCR 06-10 DCN-21
30	6-29-07	Bcs	JM	RRB	INCORP. DCR 06-10 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	MPW	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	HWM	INCORP. DCR 99-036 DCN-00
23	8/23/00	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	GPM	JM	IW	INCORP. DCR 86-239 CA0
15	5/1/90	MRB	JM	RPN	INCORP. MMOD 89-0552 CA 0
14	11/11/89	MRB	GPM	GRM	INCORP. DCR 87-311 CA19 TRAIN B REVISIONS.
13	9/6/89	MRB	APL	WFD	PARTIAL INCORP. DCR 87-311 CA07 TRAIN A REVISIONS.

NEXTERA ENERGY
SEABROOK

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
		TITLE

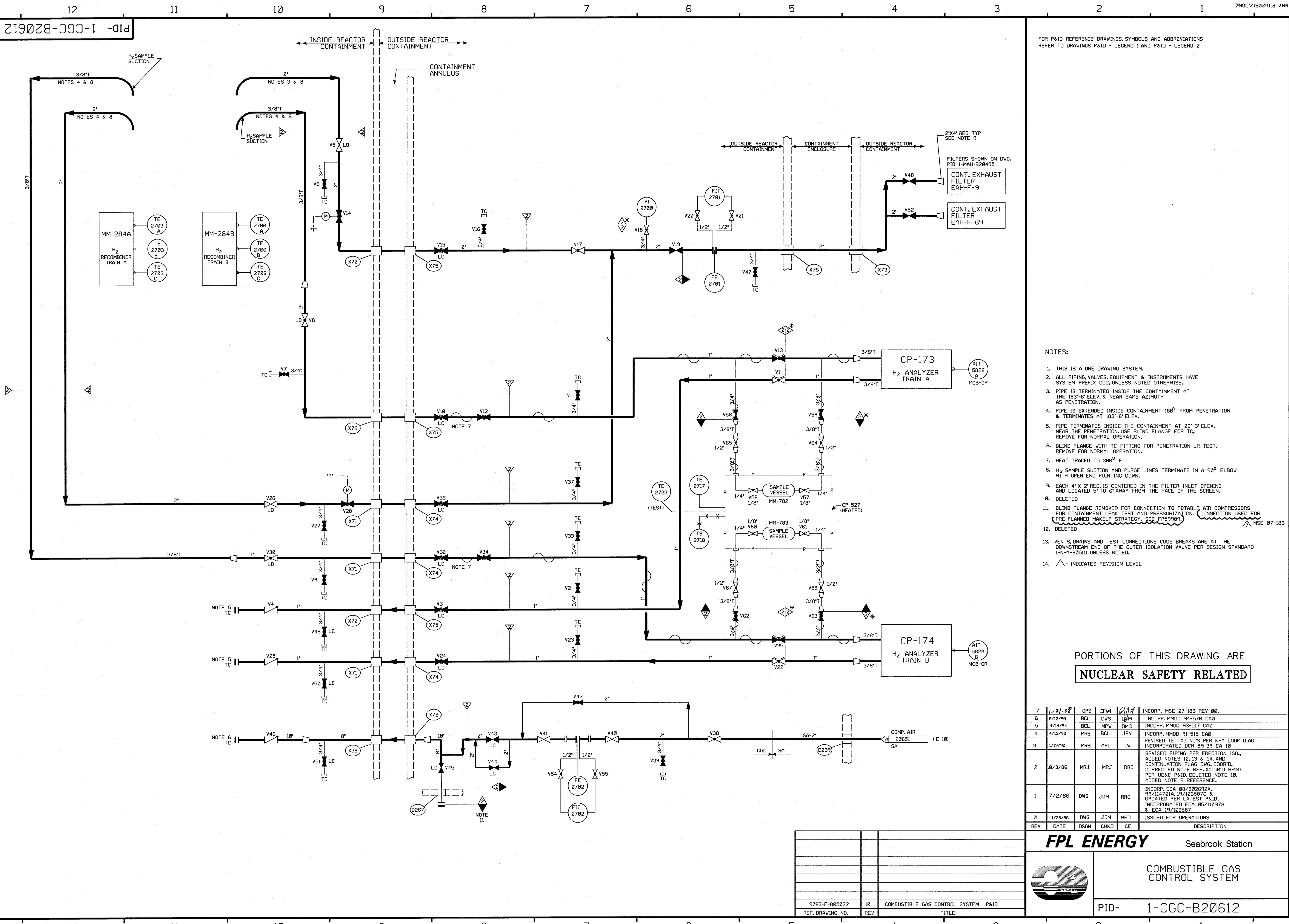


REV	DATE	DRWN	CHKD	ENG	DESCRIPTION
1	4/30/88	JM	BS	JM	INCORP. DCR 06-008 DCN 00
2	12/5/95	MPW	BCS	DMO	INCORP. MMOD 90-598 CA0
3	11/11/89	MRB	RMC	APL	INCORP. DCR 87-311 CA19, 87-422 CA13
4	9/6/89	MRB	JM	BCL	INCORP. DCR'S 87-311 CA07, 87-422 CA08
5	9/15/88	MRB	RMC	GPM	COMPLETE REDRAW, SUPERCEDES UE&C DRAWING 9763-F-804979
6					
7					

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)



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

- NOTES:
- THIS IS A ONE DRAWING SYSTEM.
 - ALL PIPING, VALVES, EQUIPMENT & INSTRUMENTS HAVE SYSTEM PREFIX CGC, UNLESS NOTED OTHERWISE.
 - PIPE IS TERMINATED INSIDE THE CONTAINMENT AT THE 183'-6" ELEV. & NEAR SAME AZIMUTH AS PENETRATION.
 - PIPE IS EXTENDED INSIDE CONTAINMENT 180" FROM PENETRATION & TERMINATES AT 183'-6" ELEV.
 - PIPE TERMINATES INSIDE THE CONTAINMENT AT 26'-3" ELEV. NEAR THE PENETRATION. USE BLIND FLANGE FOR TC. REMOVE FOR NORMAL OPERATION.
 - BLIND FLANGE WITH TC FITTING FOR PENETRATION LR TEST. REMOVE FOR NORMAL OPERATION.
 - HEAT TRACED TO 300° F
 - H₂ SAMPLE SUCTION AND PURGE LINES TERMINATE IN A 90° ELBOW WITH OPEN END POINTING DOWN.
 - EACH 4" X 2" RED. IS CENTERED IN THE FILTER INLET OPENING AND LOCATED 5" TO 6" AWAY FROM THE FACE OF THE SCREEN.
 - DELETED
 - BLIND FLANGE REMOVED FOR CONNECTION TO POTABLE AIR COMPRESSORS FOR CONTAINMENT LEAK TEST AND PRESSURIZATION. CONNECTION USED FOR PRE-PLANNED MAKEUP STRATEGY. SEE FFS9989
 - DELETED
 - VENTS, DRAINS AND TEST CONNECTIONS CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER DESIGN STANDARD I-NHY-805111 UNLESS NOTED.
 - △ - INDICATES REVISION LEVEL

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
7	1/21/88	GPS	JW	AW	INCRP. MSE 07-183 REV 00.
6	6/12/85	BCL	DWS	DJM	INCRP. MMOD 94-570 CA0
5	4/14/84	BCL	MPW	DMD	INCRP. MMOD 93-517 CA0
4	4/13/82	MRB	BCL	JEV	INCRP. MMOD 91-515 CA0
3	1/19/80	MRB	APL	IW	REVISED TE TAG NO'S PER NHY LOOP DIAG INCORPORATED DCR 89-39 CA 10
2	10/3/86	MRJ	MRJ	RRC	REVISED PIPING PER ERECTION ISO. ADDED NOTES 12, 13 & 14, AND CONTINUATION FLAG DWG. COORD. CORRECTED NOTE REF. (COORD H-10) PER UE&C P&ID, DELETED NOTE 10, ADDED NOTE 9 REFERENCE.
1	7/2/86	DWS	JDM	RRC	INCRP. ECA 89/802692A, 99/114701A, 15/106587C & UPDATED PER LATEST P&ID. INCORPORATED ECA 05/110978 & ECA 15/106587
0	1/28/86	DWS	JDM	WFD	ISSUED FOR OPERATIONS

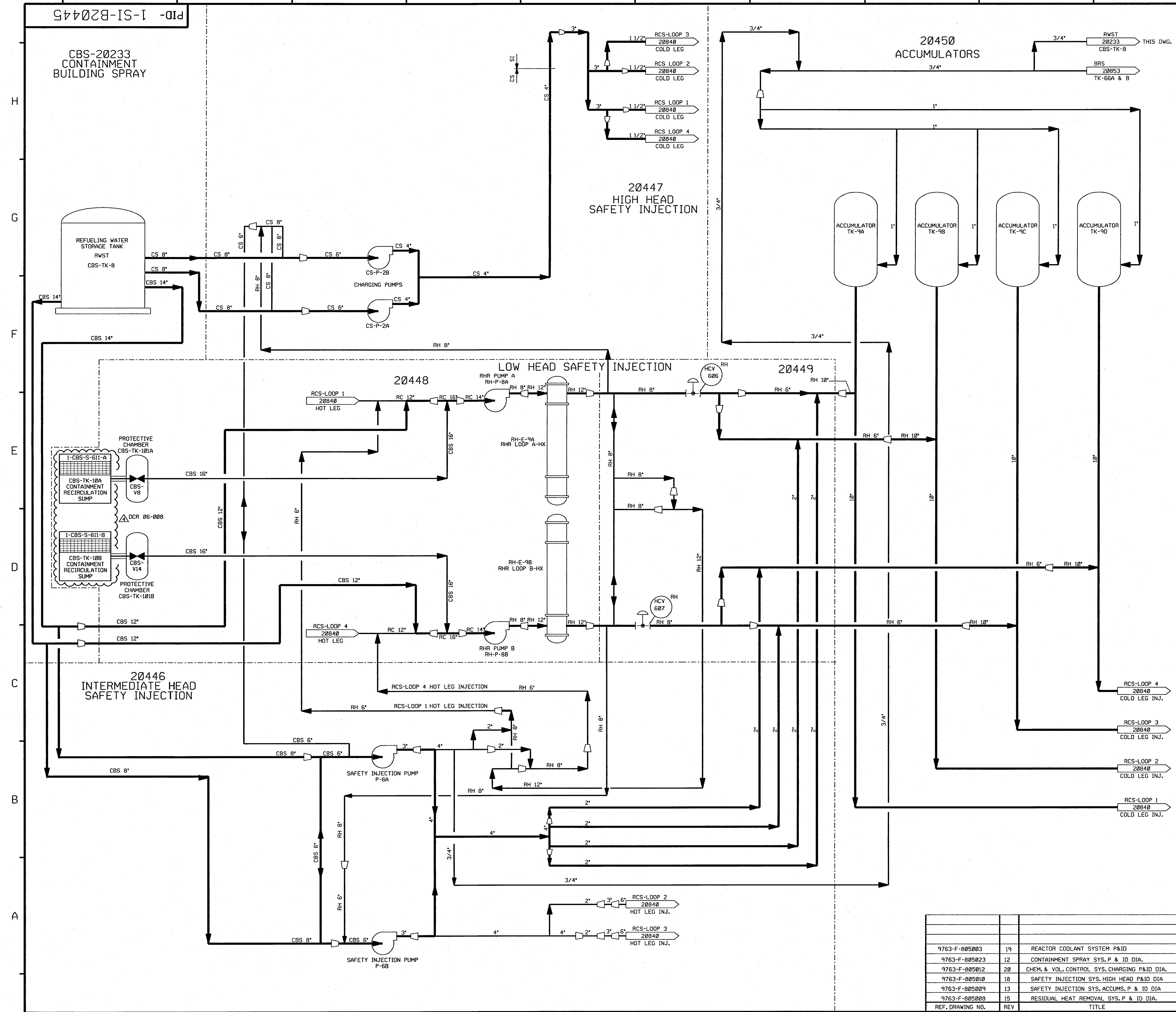
FPL ENERGY Seabrook Station

COMBUSTIBLE GAS CONTROL SYSTEM

PID- 1-CGC-B20612

REF. DRAWING NO.	REV	TITLE
9763-F-805022	10	COMBUSTIBLE GAS CONTROL SYSTEM P&ID

PID-1-SI-B20445



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-20863, 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.

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
4	4/30/08	JM	Bcs	Thl	INCRP 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
1	3/10/86	OPD	TAK	WFD	ISSUED FOR OPERATIONS
0	3/5/85	GD	TAK	WFD	ISSUED FOR FIELD VERIFICATION

REF. DRAWING NO.	REV	TITLE
9763-F-005003	19	REACTOR COOLANT SYSTEM P&ID
9763-F-005023	12	CONTAINMENT SPRAY SYS. P & ID DIA.
9763-F-005012	20	CHEM. & VOL. CONTROL SYS. CHARGING P&ID DIA.
9763-F-005010	18	SAFETY INJECTION SYS. HIGH HEAD P&ID DIA
9763-F-005009	13	SAFETY INJECTION SYS. ACCUMS. P & ID DIA
9763-F-005008	15	RESIDUAL HEAT REMOVAL SYS. P & ID DIA.

FPL ENERGY Seabrook Station

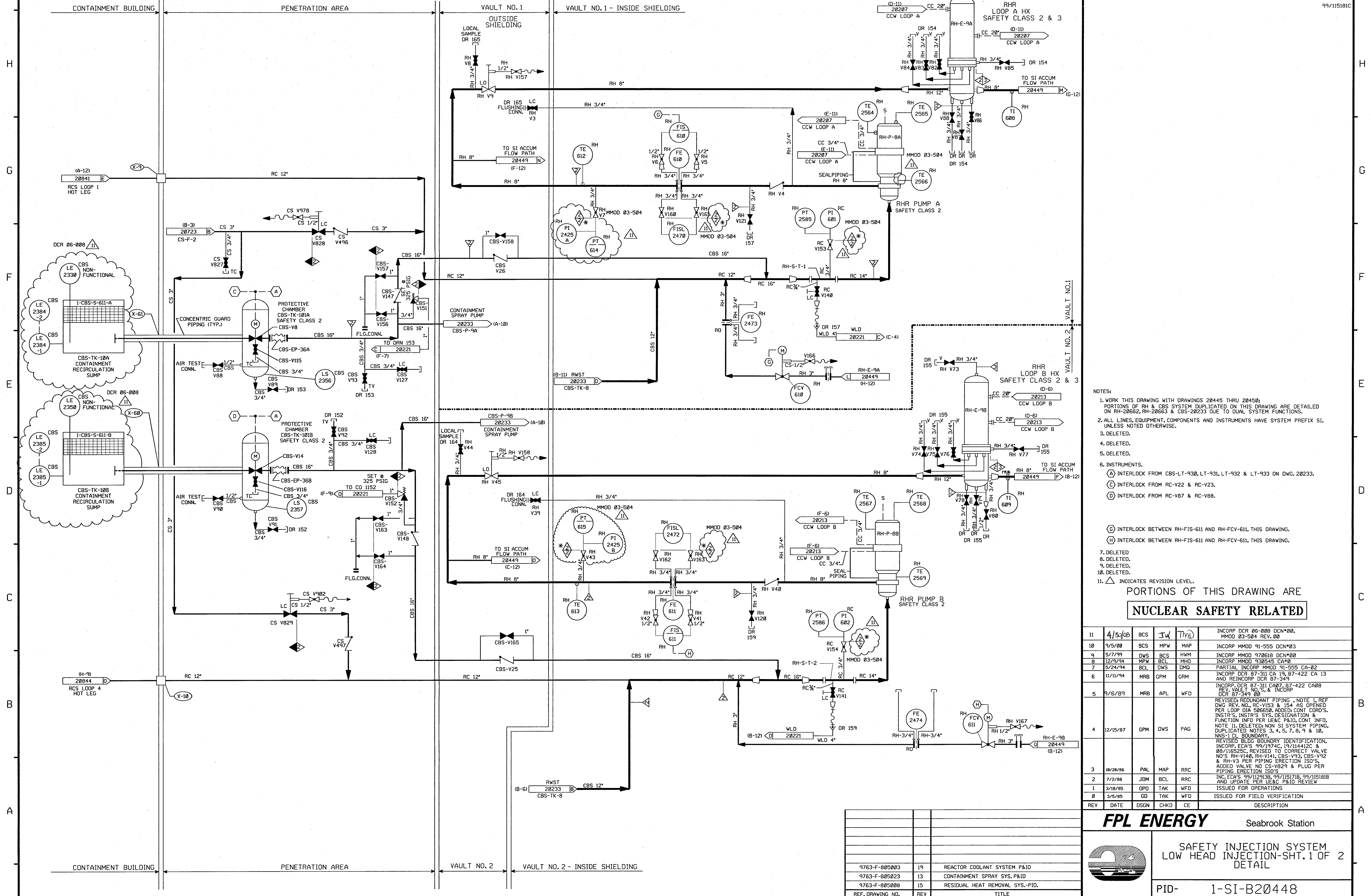
SAFETY INJECTION SYSTEM OVERVIEW

PID- 1-SI-B20445

PID-1-SI-B20448

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

99/115181C

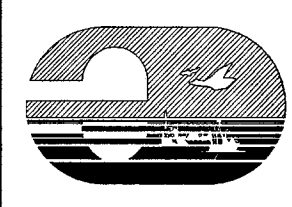


- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 20445 THRU 20450. PORTIONS OF RH & CBS SYSTEM DUPLICATED ON THIS DRAWING ARE DETAILED ON RH-20662, RH-20663 & CBS-20233 DUE TO DUAL SYSTEM FUNCTIONS.
 2. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX SI, UNLESS NOTED OTHERWISE.
 3. DELETED.
 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	MJD	INCRP DCR 06-008 DCN*00, MMOD 03-504 REV. 00
10	9/5/00	BCS	MPW	MAP	INCRP MMOD 91-555 DCN*03
9	5/7/99	DWS	BCS	HWM	INCRP MMOD 970618 DCN*00
8	12/9/94	MPW	BCL	DMO	INCRP MMOD 930545 CA*0
7	5/24/94	BCL	DWS	DMG	PARTIAL INCRP MMOD 91-555 CA-02
6	11/11/94	MRB	GPM	GRM	INCRP DCR 87-311 CA 19, 87-422 CA 13 AND REINCRP DCR 87-349
5	9/6/89	MRB	APL	WFD	INCRP, DCR 87-311 CA07, 87-422 CA08 REV. VALVE NO'S, & INCRP DCR 97-349 00
4	12/15/87	GPM	DWS	PAG	REVISED: REDUNDANT PIPING, NOTE 1, REF DWG REV. NO., RC-V153 & 154 AS OPENED PER LOOP DIA 506650. ADDED CONT. CORROSION 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. NNS-1 CL BOUNDARY. REVISED BLOS BOUNDARY IDENTIFICATION, INCRP, ECA'S 99/1974C, 19/11412C & 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
3	10/28/86	PAL	MAP	RRC	
2	7/2/86	JOM	BCL	RRC	INC. ECA'S 99/11293B, 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

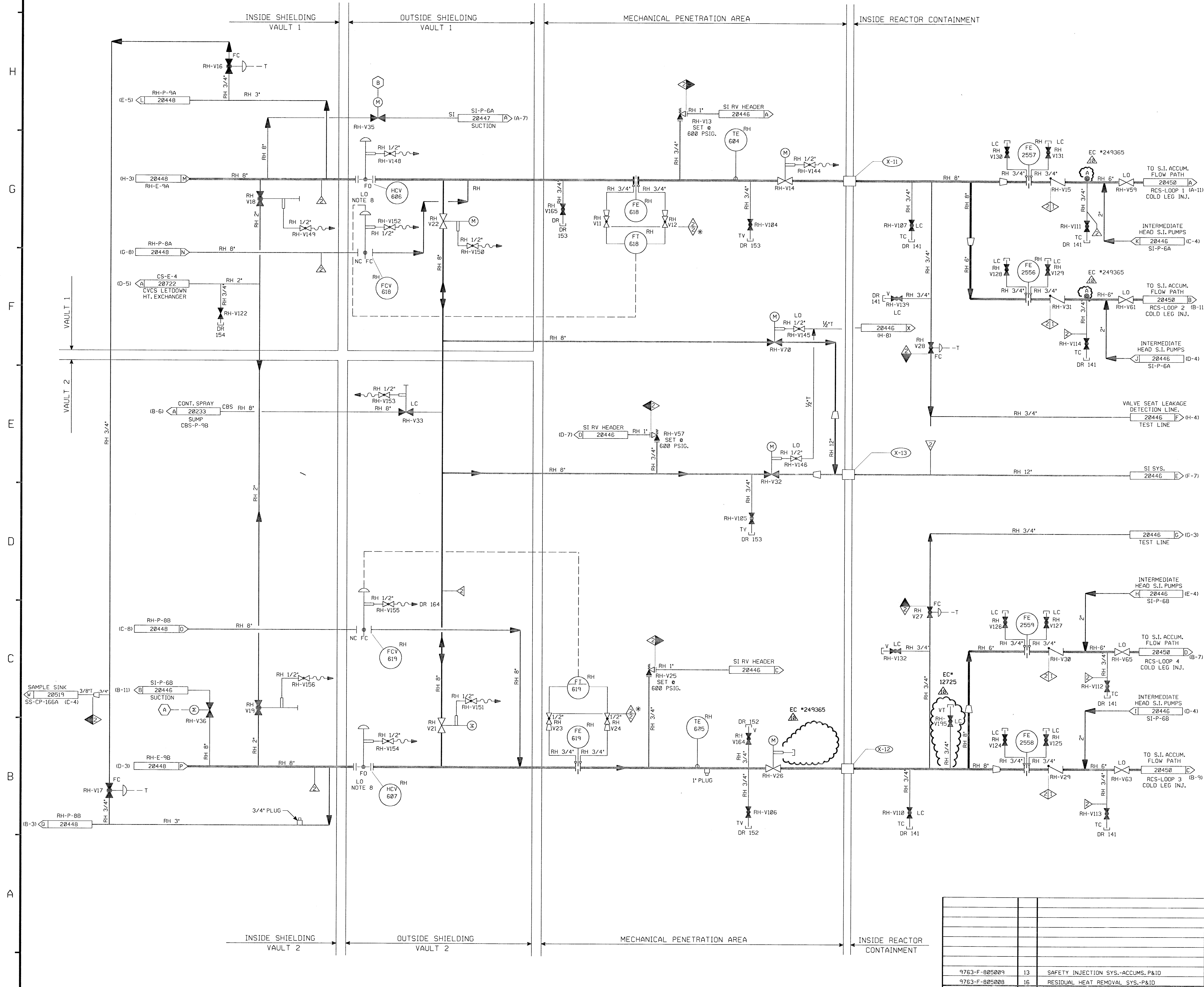


SAFETY INJECTION SYSTEM
LOW HEAD INJECTION-SHT. 1 OF 2
DETAIL

PID- 1-SI-B20448

REF. DRAWING NO.	REV	TITLE
9763-F-805003	19	REACTOR COOLANT SYSTEM P&ID
9763-F-805023	13	CONTAINMENT SPRAY SYS. P&ID
9763-F-805008	15	RESIDUAL HEAT REMOVAL SYS.-PID.

PID-1-SI-B20449



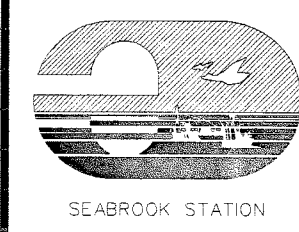
FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS REFER TO DRAWINGS P&ID-LEGEND 1 AND P&ID-LEGEND 2.

- 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 (DWS, 20446) CBS-V14 (DWS, 20448) RC-V87 & RC-V89 (DWS, 20844)
 - (B) INTERLOCKED WITH SI-V89, SI-V90, SI-V93 (DWS, 20446) CBS-V8 (DWS, 20448) RC-V22 & RC-V23 (DWS, 20841)
 4. DELETED
 5. Δ - INDICATES REVISION LEVEL.
 6. DELETED
 7. DELETED
 8. HANDJACK HANDWHEEL LOCKED OPEN EXCEPT DURING MIDLOOP.
 9. \bullet - INDICATES 3/8" FLOW RESTRICTOR INSTALLED, SEE APPLICABLE DETAIL ON DWS RC-20848.

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
10	10/21/06	GPS	JML	BOS	INCORP EC # 249365 & EC # 12725
9	05/24/08	JM	BCS	RRB	INCORP MMOD 03-504 DCN# 00
8	11/27-95	BCS	MPW	DMO	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 REVISED NOTE NO'S NOTES, CONT COORD'S ADDED; CONT DWS'S; DELETED; DUPLICATED PIPING & INFO, NNS-1 CL. BOUNDARY.
5	04/13/92	GPM	DWS	PAG	INCORP DCR 87-0012, ADDED NOTE 7.
4	2/23/87	WDS	MRJ	VWS	REV'D TIE-IN LOC PER ERECTION ISO. REV'D BUILDING BOUNDRIES & RELOCATED PIPING ACCORDINGLY. REVISED CONTINUATION NOTATION, ADDED TUBING SIZE, TAG NO FOR V27, NOTE 5 & DET. A.
3	10/3/86	PAL	MAP	RRC	PENET. WALLS, 3/4" PLUGS, VALVE NOS. RH-V11, V18 & V22 ADDED. RH-V122 CHANGED TO GATE PER UESC P&ID REVIEW & 79-14 WALK DOWN.
2	6/23/86	OPD	VNK	RRC	ISSUED FOR OPERATIONS
1	3/10/86	OPD	TAK	WFD	ISSUED FOR FIELD VERIFICATION
0	3/5/85	GD	TAK	WFD	ISSUED FOR FIELD VERIFICATION

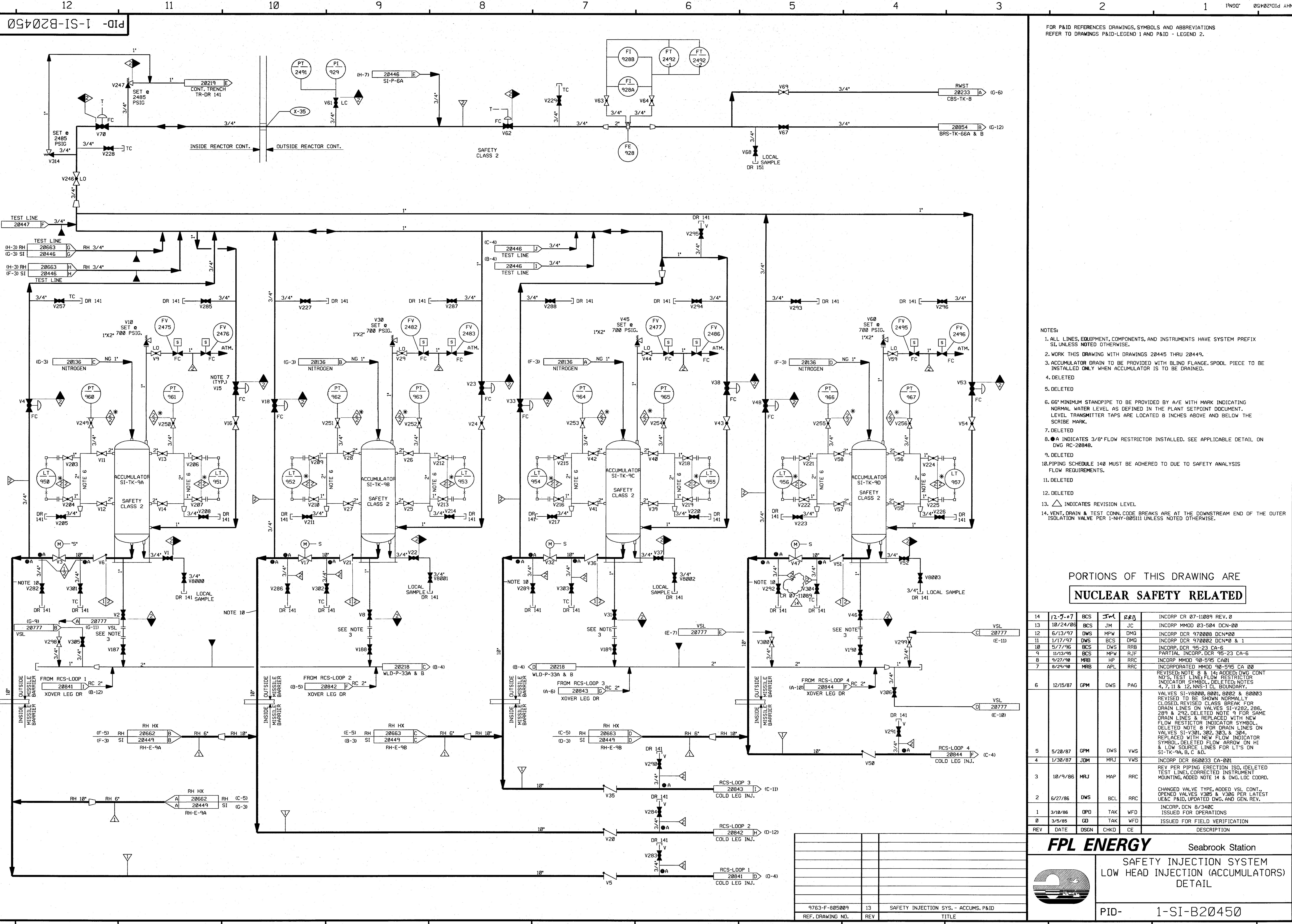
NEXTERA ENERGY
SEABROOK



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

PID- 1-SI-B20449

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



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. \bullet 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. Δ INDICATES REVISION LEVEL
 14. VENT, DRAIN & TEST CONN. CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-80511 UNLESS NOTED OTHERWISE.

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

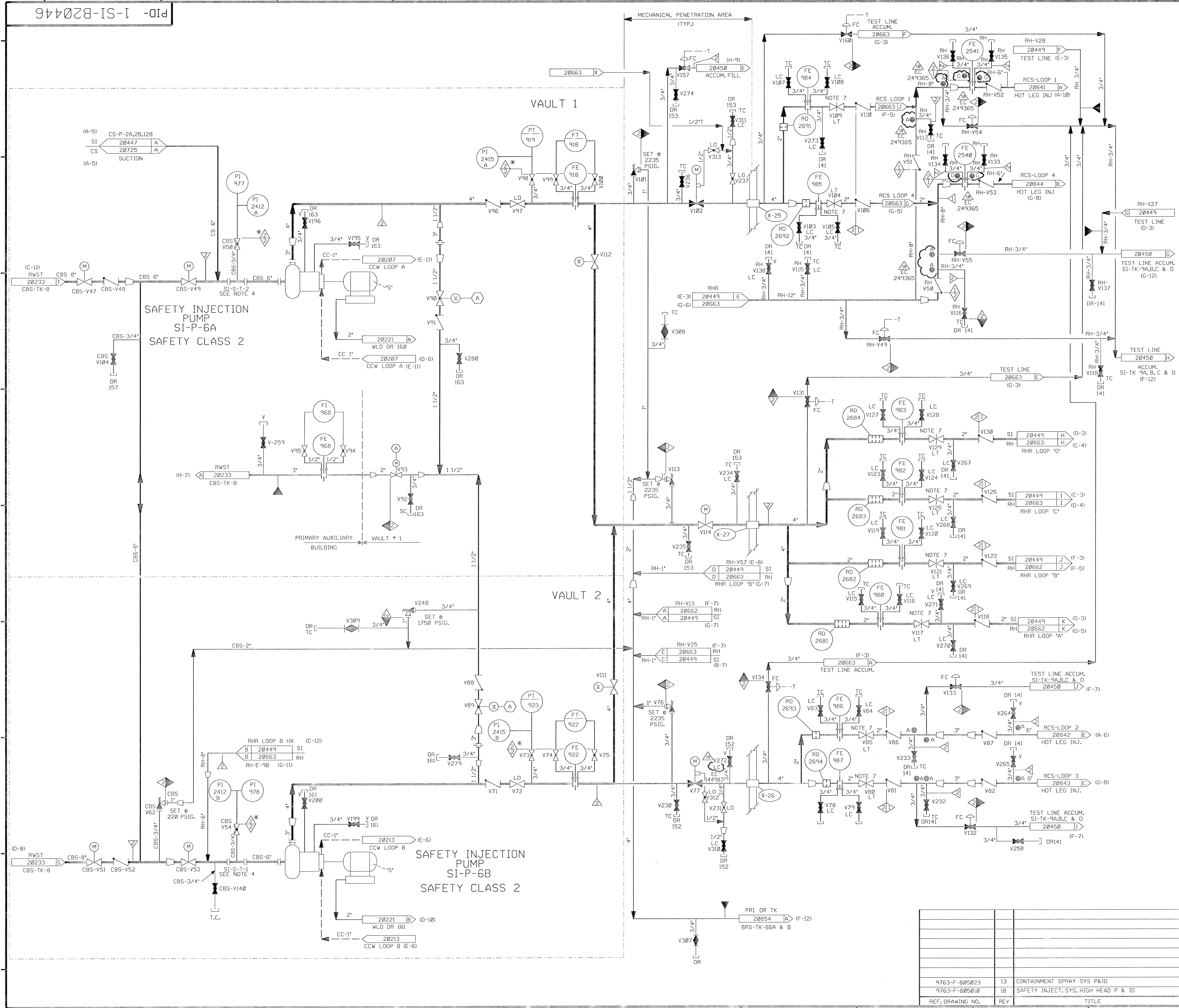
REV	DATE	DSGN	CHKD	CE	DESCRIPTION
14	12-7-07	BCS	JM	RB	INCORP DCR 07-11089 REV. 0
13	10/24/06	BCS	JM	JC	INCORP MMOD 03-504 DCN-00
12	6/13/97	DWS	MPW	DMG	INCORP DCR 970808 DCN#02
11	1/17/97	DWS	BCS	DMG	INCORP DCR 970802 DCN#0 & 1
10	5/7/96	BCS	DWS	RRB	INCORP DCR 95-23 CA-6
9	11/13/95	BCS	MPW	RJF	PARTIAL INCORP. DCR 95-23 CA-6
8	9/27/90	MRB	HP	RRC	INCORP MMOD 90-595 CA01
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. NWS-11 CL. BOUNDARY.
5	5/28/87	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 86033 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 V306 & V306 PER LATEST US&C P&ID, UPDATED DWG. AND GEN. REV.
1	3/18/86	OPD	TAK	WFD	INCORP. DCN 8/340C ISSUED FOR OPERATIONS
0	3/5/85	GD	TAK	WFD	ISSUED FOR FIELD VERIFICATION

FPL ENERGY Seabrook Station
SAFETY INJECTION SYSTEM
LOW HEAD INJECTION (ACCUMULATORS)
DETAIL
PID- 1-SI-B20450

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

PID-1-SI-B20446

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, 20447 THRU 20250. PORTIONS OF RH SYSTEM DUPLICATED ON THIS DRAWING ARE DETAILED ON RH-20663 DUE TO DUAL SYSTEM FUNCTIONS.
 2. ALL PIPES, VALVES, 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 FLANT START UP CONNECTION USED FOR PRE-PLANNED MAKEUP STRATEGY. SEE FP59989.
 5. VENT, DRAIN, TEST CONNS 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. Δ - INDICATES REVISION LEVEL
 10. ● - INDICATES 3/8" FLOW RESTRICTOR INSTALLED. SEE APPLICABLE DETAIL ON DWG RC-20848.

PORTIONS OF THIS DRAWING ARE NUCLEAR SAFETY RELATED

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
18	10/21/06	GPS	JM	RJS	INCORP EC* 249365 & EC* 144983
17	01/31/08	GPS	JM	BFS	INCORP MSE 07-183 REV* 00
16	08/31/06	JM	BCS	RRB	INCORP MMOD 03-304 DCM 00 ADDED COMMON CONTINUATION FLOW ARROW
15	5/8/02	JM	MPW	TAS	INCORP DCR 91-0216 DCM*00
14	10/19/00	BCS	MPW	MKC	INCORP DCR 99-0036 DCM*00
13	9-14-00	BCS	MPW	DWS	PARTIAL INCORP DCR 99-0036 DCM*00
12	5-7-99	DWS	BMS	HMM	INCORP MMOD 07/0618 DCM*00
11	5-26-97	MPW	DWS	TRB	INCORP DCR 96-21 DCM 00
10	12/27/95	BCS	MPW	RJF	REINCORP DCR 95-23 CA-0
9	11/27/95	BCL	MPW	RRB	INCORP DCR 95-23 CA-0
8	6/7/94	BCL	MPW	RRB	INCORP MMOD 94-511 CA-0
7	4/4/94	BCL	MPW	DMP	INCORP MMOD 93-517 CA-0
6	4/20/92	MRB	DWS	JEV	INCORP MMOD'S 91-511 CA0, 91-515 CA0 & 91-622 CA0 REVISED PIPING TO CLARIFY REDUNDANT SYS DUPLICATION, NOTES 1, 5 & 10; ADDED PIPING TO CLARIFY REDUNDANT SYS DUPLICATION, DWG CONT COORDS, REVISED DWS'S FLOW RESTRICTOR DETAIL ALPHA DESIGNATION DELETED; NWS-1 CLASS BOUNDARY, PIPING CODE BREAKS PER NOTE 5 & 6.
5	12/15/87	GPM	DWS	BAS	ADDED P&ID LEGEND NOTE, ADDED CONT DWG REF COORDINATES, INCORP DCR 87-0022.
4	2/23/87	WDS	MRJ	VWS	ADDED NOTE 18, ADDED & REVISED CONTINUATION REFERENCES, REVISED BUILDING BOUNDARY, REVISED LOCATION OF VALVE V249 TO SHOW INSIDE VAULT #2.
3	9/12/86	MRJ	MAP	RRC	ADDED P&ID LEGEND NOTE, ADDED CONTINUATION REFERENCES, REVISED BUILDING BOUNDARY, REVISED LOCATION OF VALVE V249 TO SHOW INSIDE VAULT #2.
2	4/4/86	DWS	TAK	WFO	ADD NOTE 7 TO V104 & V109
1	3/10/86	OPD	TAK	WFO	ISSUED FOR OPERATIONS
0	3/5/85	GD	TAK	WFO	ISSUED FOR FIELD VERIFICATION

NEXTERA ENERGY
SEABROOK

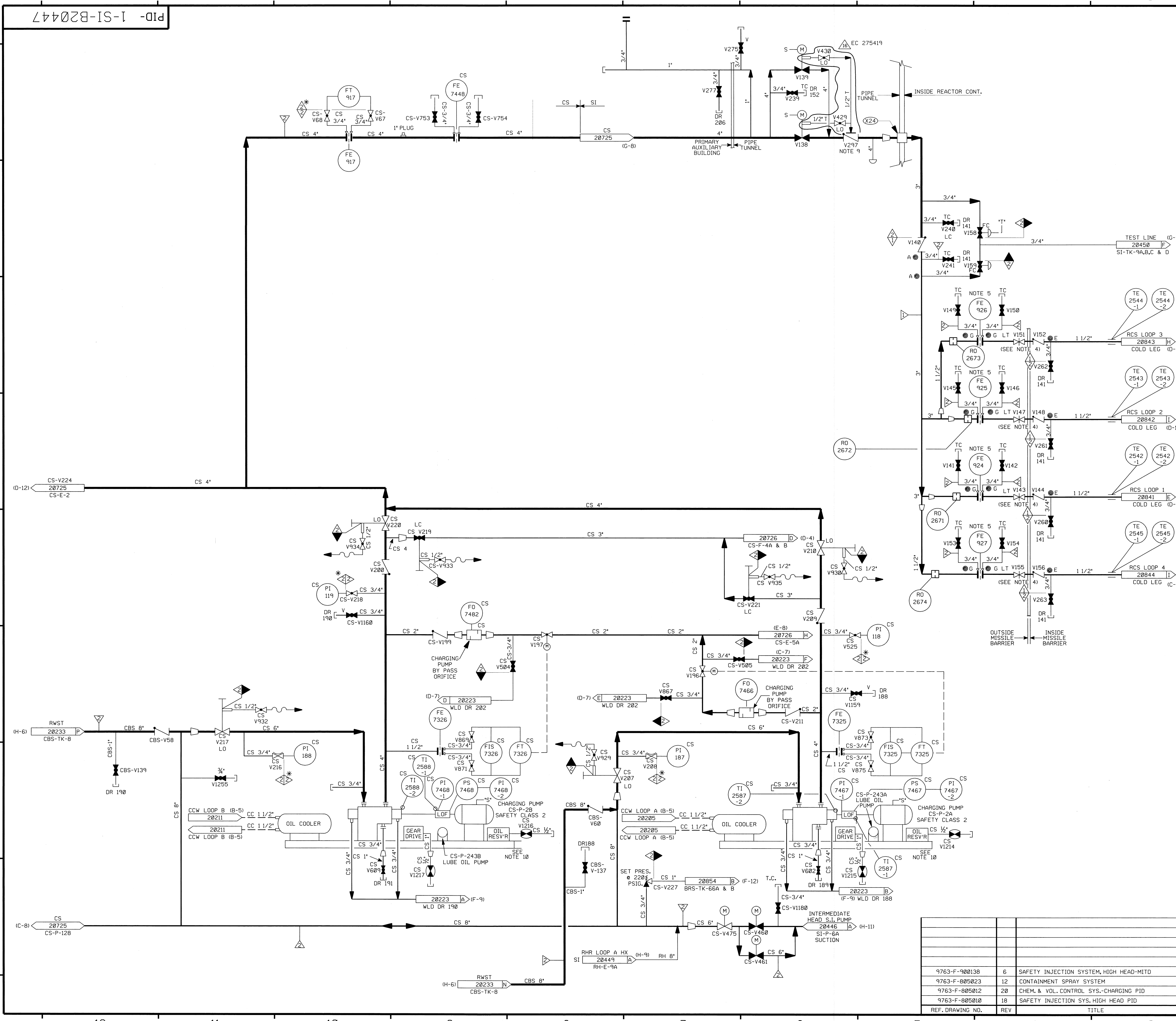
SAFETY INJECTION SYSTEM INTERMEDIATE HEAD INJECTION SYSTEM DETAIL

PID- 1-SI-B20446

9763-F-005023	13	CONTAINMENT SPRAY SYS P&ID
9763-F-005010	18	SAFETY INJECT. SYS. HIGH HEAD P & ID
REF. DRAWING NO.	REV	TITLE

PID-1-SI-B20447

FOR PAID 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 DRIFICE TO VERIFY FLOW DURING PREOPERATIONAL TEST.
 6. VENT AND DRAIN CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER I-NHY-805111 UNLESS NOTED OTHERWISE.
 7. Δ INDICATES REVISION LEVEL
 8. \triangle INDICATES 3/8" FLOW RESTRICTOR INSTALLED, SEE APPLICABLE DETAIL ON DRAWING RC-20848.
 9. INTERNALS REMOVED FROM CHECK VALVE SI-V297
 10. LUBE OIL SYSTEM IS \triangle *

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
16	10/2/12	JM	EF	CJC	INCORP. EC 275419
15	10/9/08	BCS	JM	TAS	INCORP. MMOD 03-504 DCN-00
14	4/22/99	RWS	DWS	GRM	INCORP. DCR 980045 DCN 00 & 04
13	5/28/97	MPW	DWS	RRB	INCORP. DCR 96-21 DCN 0
12	11/12/95	BCL	MPW	RSG	INCORP. MMOD 90-598 CA0
11	4/14/94	BCL	MPW	DMP	INCORP. MMOD 93-517 CA0
10	10/8/92	BCL	DMP	DMP	INCORP. DCR 89-73 CA0
9	4/20/92	MRB	DWS	JEV	INCORP. MMOD 91-515, CA0
8	12/5/89	MRB	PAL	WFO	INCORP. DCR 89-12 CA02
7	8/18/89	MRB	DWS	CM	INCORP. MMOD 89-530 REV 00
6	6/30/88	GPM	APL	PAS	ADDED: "S" SIGNAL FOR V138 PER NHY DWG 589048
5	11/23/87	GPM	DWS	RRR	INCORPORATED; DCR 87-159, REV'D; NOTES 1 & 6 ADDED; NOTES 8, CONT, DWG, NO'S & COORD'S, FLOW RESTRICTOR INDICATOR SYM., CONTINUATION COORD, DELETED; NOTE 3, NON SI FLOW PATH PIPING, REDUNDANT DWG, CONT., NNS-1 CL, BRK, DUPLICATED TECH. INFO.
4	2/6/87	MRJ	PAL	VWS	REVISED FLOW INSTR. SYS. PREFIX PER DWG. M-506291
3	10/10/86	WDS	BCL	RRR	REMOVED SAFETY CLASS BRKS PER NOTE 6. ADDED DWG COOR FOR CONT.
2	6/23/86	PFV	YNK	RRR	INCORPORATED NCR 82/417A, ECA 08/22468 & UPDATED PER LATEST P & I'D
1	3/10/85	OPD	TAK	WFD	ISSUED FOR OPERATIONS
0	3/5/85	GD	TAK	WFD	ISSUED FOR FIELD VERIFICATION

NEXTERA ENERGY
SEABROOK

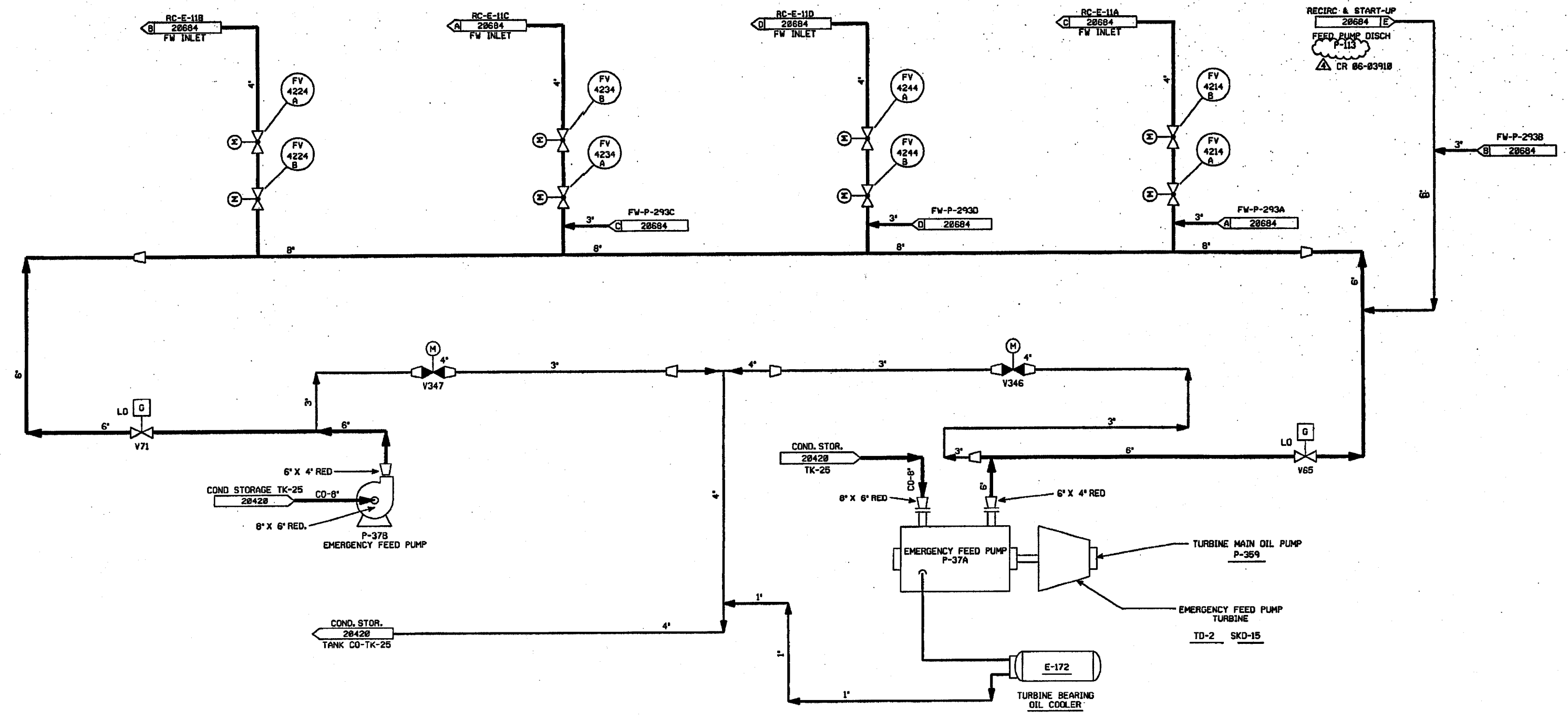
**SAFETY INJECTION SYSTEM
HIGH HEAD INJECTION SYSTEM
DETAIL**

PID- 1-SI-B20447

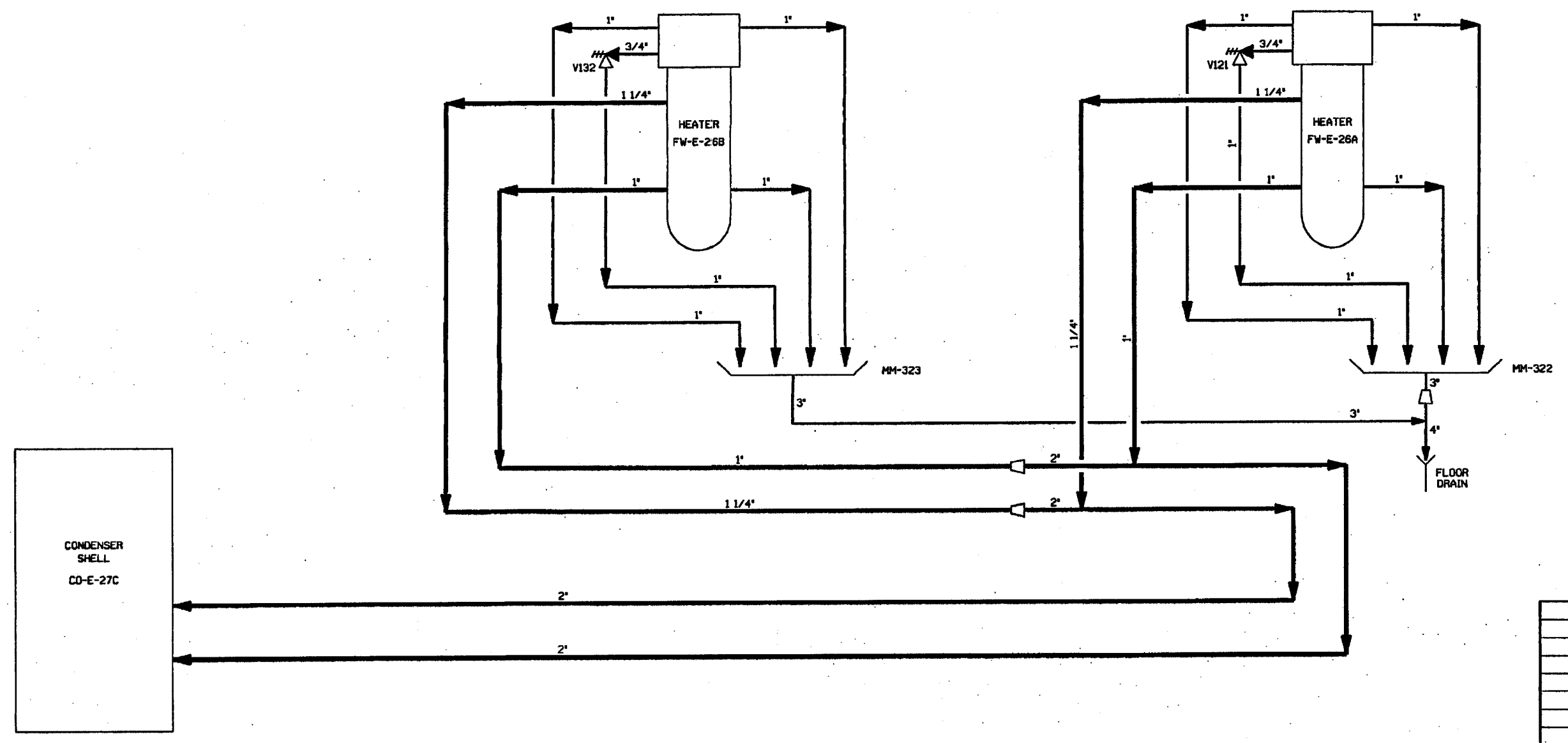
REF. DRAWING NO.	REV	TITLE
9763-F-900138	6	SAFETY INJECTION SYSTEM, HIGH HEAD-MITD
9763-F-805023	12	CONTAINMENT SPRAY SYSTEM
9763-F-805012	20	CHEM. & VOL. CONTROL SYS.-CHARGING PID
9763-F-805010	18	SAFETY INJECTION SYS, HIGH HEAD PID

PID-1-FW-B20685

20688
TURBINE BLDG.



20689
TURBINE BLDG.



NOTES:
 1. PIPING, VALVES, EQUIPMENT & INSTRUMENT TAG NOS. ARE PREFIXED BY DESIGNATION "1-FW" UNLESS OTHERWISE NOTED.
 2. WORK THIS DRAWING WITH 20684, 20686 THRU 20689.
 3. Δ INDICATES REVISION LEVEL.

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
4	11-20-06	BCS	JW	RRB	INCORP. CR 06-03918 REV. 0
3	6/7/05	BCS	JM	RRB	INCORP. CR 05-05274 REV. 0
2	1/29/07	MPW	BCL	JCH	INCORPORATED DCR 06-0420 CA 0
1	1/29/07	MPW	WRD	VMS	ADDED NOTE 3, AND REVISED PER LATEST SYSTEM DRAWINGS.
0	2/25/06	WAL	DWS	WFD	ISSUED FOR OPERATIONS, INC ECA 06/082575A

FPL ENERGY Seabrook Station

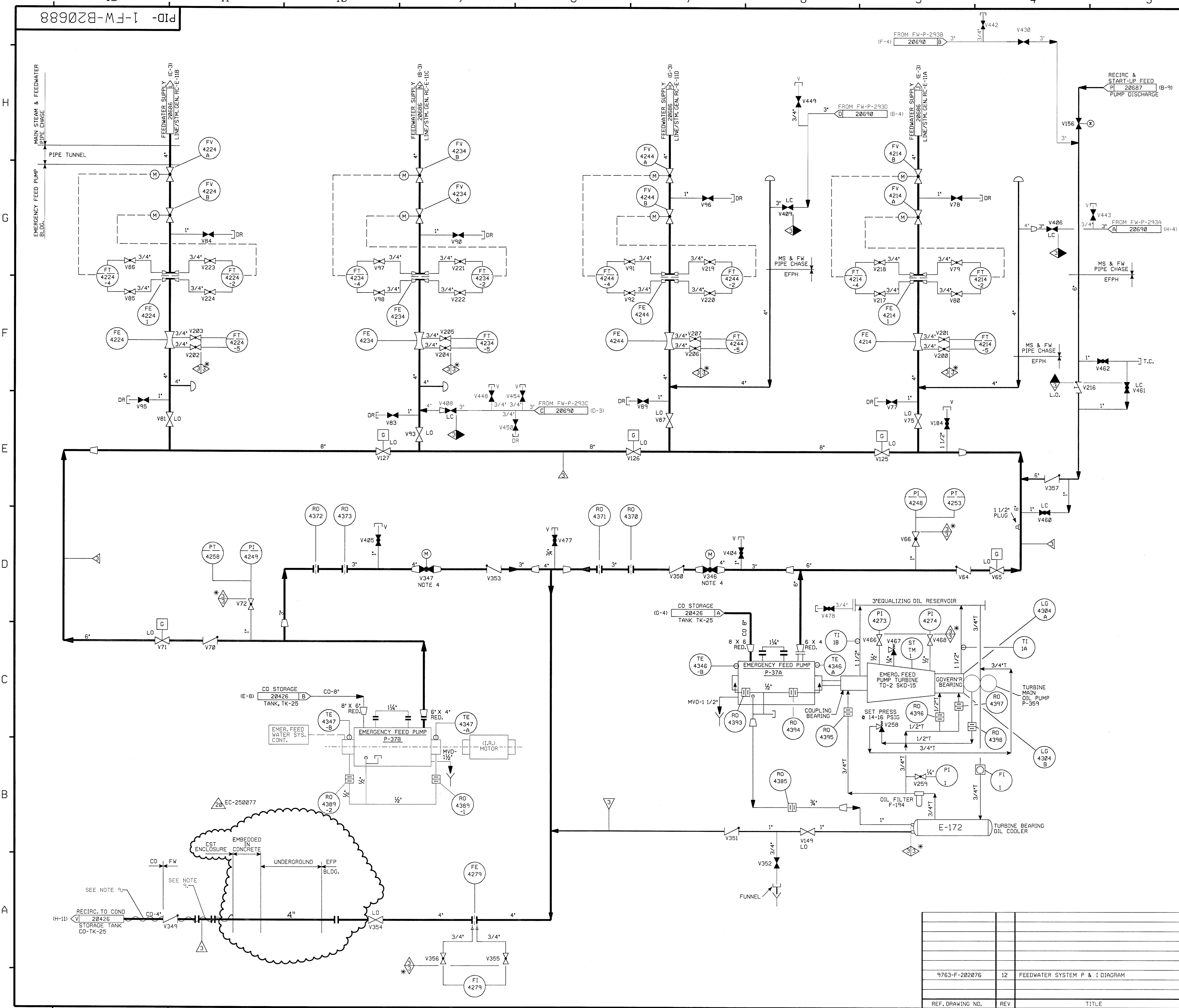
EMERGENCY FEEDWATER SYSTEM OVERVIEW

PID- 1-FW-B20685

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

PID-1-FW-B20688

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



- NOTES:
1. PIPING, VALVES, EQUIPMENT & INSTRUMENT TAG NUMBERS ARE PREFIXED BY DESIGNATION 'FW' UNLESS NOTED OTHERWISE.
 2. WORK THIS DWG WITH 20684 THRU 20687, & 20689.
 3. VENTS & DRAINS CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE, PER 1-NHY-805111 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.
 7. ALL PIPING AND COMPONENTS ASSOCIATED WITH TO-2 ARE ANS-3.
 8. DELETED
 9. THIS HEAT TRACING IS NONFUNCTIONAL

PORTIONS OF THIS DRAWING ARE
NUCLEAR SAFETY RELATED

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
20	11/08/10	GPS	BCS	JMT	INCORP EC-250077
19	5/04/08	JM	BCS	RRB	INCORP MMOD 03-504 DCN 00
18	5/19/03	BCS	JM	MPW	INCORP CR-02-02414
17	11/08/00	BCS	MPW	RRB	INCORP DCR 98-31 DCN-00
16	4/27/99	DWS	RWS	HWM	INCORP MMOD 970618 DCN*00 & DCR 96-0028 DCN 00
15	7/3/98	DWS	MPW	JWB	INCORP MMOD 960505 DCN*00
14	10/23/95	BCL	MPW	GRM	INCORP DCR 94-027 CA-0
13	6/12/95	BCL	DWS	DJM	INCORP MMOD 94-570 CA-0
12	5/23/94	DWS	BCL	JCM	INCORP MMOD 930533 CA*0
11	4/14/94	MPW	BCL	DMQ	INCORP DCR 860420 CA 0, 21 & MMOD 93-517 CA-0
10	11/4/92	DWS	MRB	JCM	(PARTIAL) INCORP DCR 860420 CA*0, 21
9	10/17/92	MRB	BCL	JEV	INCORP MMOD 92-545 CA*0
8	5/8/92	MRB	MPW	BCL	INCORP MMOD 91-511 CA2
0	2/24/86	WAL	DWS	WFO	ISSUED FOR OPERATIONS

NEXTERA ENERGY
SEABROOK

EMERGENCY FEEDWATER SYSTEM
DETAILS

SEABROOK STATION

PID- 1-FW-B20688

9763-F-202876	12	FEEDWATER SYSTEM P & I DIAGRAM
REF. DRAWING NO.	REV	TITLE