

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

#### NOTES

1. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTATION HAVE SYSTEM PREFIX CBS, UNLESS NOTED OTHERWISE.
2. THE CBS IS A ONE (1) DRAWING SYSTEM, AN OVERVIEW IS NOT REQUIRED. PORTIONS OF THIS DRAWING ARE DUPLICATED ON DWG. SI-28448 DUE TO DUAL SYSTEM FUNCTIONS.
3. INSTRUMENTATION SYMBOLS.  
(A) THIS DRAWING  
(B) CONTAINMENT SPRAY SIGNAL P  
(C) INTERLOCK FROM RC-V22, RC-V23 ON DWG. RC-28841  
(D) INTERLOCK FROM RC-V87, RC-V88 ON DWG. RC-28844  
(E) INTERLOCK FROM RH-V35, ON DWG. RH-28662 AND V8 THIS DRAWING  
(F) INTERLOCK FROM RH-V36, ON DWG. RH-28663 AND V14 THIS DRAWING  
(G) CS-TK-1 LEVEL LT-185, LT-112 ON DWG. CS-28725  
(H) STEAM SUPPLY VLV. AS TV-9232 ON DWG. AS-28571  
(I) STEAM SUPPLY VLV. AS TV-9231 ON DWG. AS-28571
4. VENT AND DRAIN CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-MY-885111 UNLESS NOTED OTHERWISE.
5. DELETED
6. Δ INDICATES REVISION LEVEL
7. \* DENOTES UPGRADE OF PIPING FROM 301 TO 601 MATERIAL SPEC.

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

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
29	10-17-00	JM	WAK	288	INCORP. DCR 02-009 DCM 00 & MMOD 03-584 DCM 00
28	6/23/05	BCS	MW	WAK	INCORP. MSE 04-285 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 DCM*000 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 DCM-00
23	8/23/00	BCS	MPW	AB	PARTIAL INCORP. DCR 99-036 DCM-00
22	6/13/99	MPW	DWS	GRM	INCORP. DCR 97-31 DCM-05, 06
21	6/11/98	BCS	DWS	GRM	INCORP. DCR 97-31 DCM-00, 04
20	11/30/95	BCS	MPW	DMO	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	1W	INCORP. DCR 88-239 CA0
15	5/1/90	MRB	JM	RPN	INCORP. MMOD 89-0552 CA 0
14	11/1/89	MRB	GPM	GRM	INCORP. DCR 87-311 CA0 TRAIN B REVISIONS.
13	9/6/89	MRB	APL	WFD	PARTIAL INCORP. DCR 87-311 CA07 TRAIN A REVISIONS.

**FPL ENERGY**

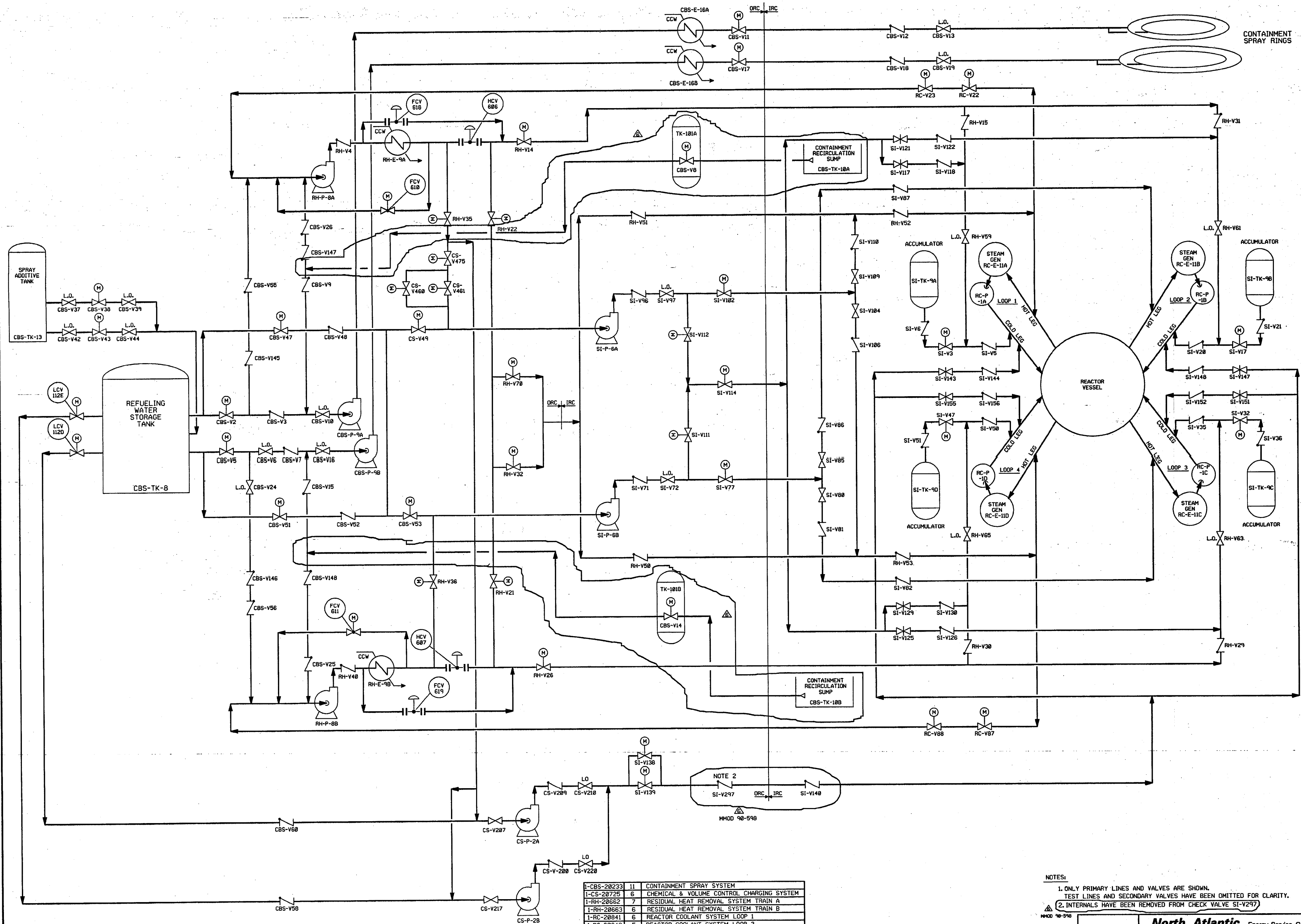
Seabrook Station



CONTAINMENT SPRAY SYSTEM

PID- 1-CBS-B20233

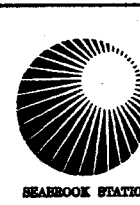
REF. DRAWING NO.	REV	TITLE
9763-F-005008	17	RESIDUAL HEAT REMOVAL SYSTEM P&ID
9763-F-005023	13	CONTAINMENT SPRAY SYSTEM P&ID



1-CBS-20233	11	CONTAINMENT SPRAY SYSTEM
1-CS-20725	6	CHEMICAL & VOLUME CONTROL CHARGING SYSTEM
1-RH-20662	7	RESIDUAL HEAT REMOVAL SYSTEM TRAIN A
1-RH-20663	6	RESIDUAL HEAT REMOVAL SYSTEM TRAIN B
1-RC-20841	6	REACTOR COOLANT SYSTEM LOOP 1
1-RC-20842	5	REACTOR COOLANT SYSTEM LOOP 2
1-RC-20843	6	REACTOR COOLANT SYSTEM LOOP 3
1-RC-20844	6	REACTOR COOLANT SYSTEM LOOP 4
1-SI-20446	5	SAFETY INJECTION SYSTEM INTERMEDIATE HEAD INJECTION
1-SI-20447	6	SAFETY INJECTION SYS. HIGH HEAD INJECTION
1-SI-20450	6	SAFETY INJECTION SYS. LOW HEAD INJECTION (ACCUMULATORS)
DRAWING	REV	DESCRIPTION

6	12-5-95	MPW	BS	DS	INCORP. MMOD 90-598 CA0	
5	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	
REV	DATE	DRWN	CHKD	CDE	SES	DESCRIPTION

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

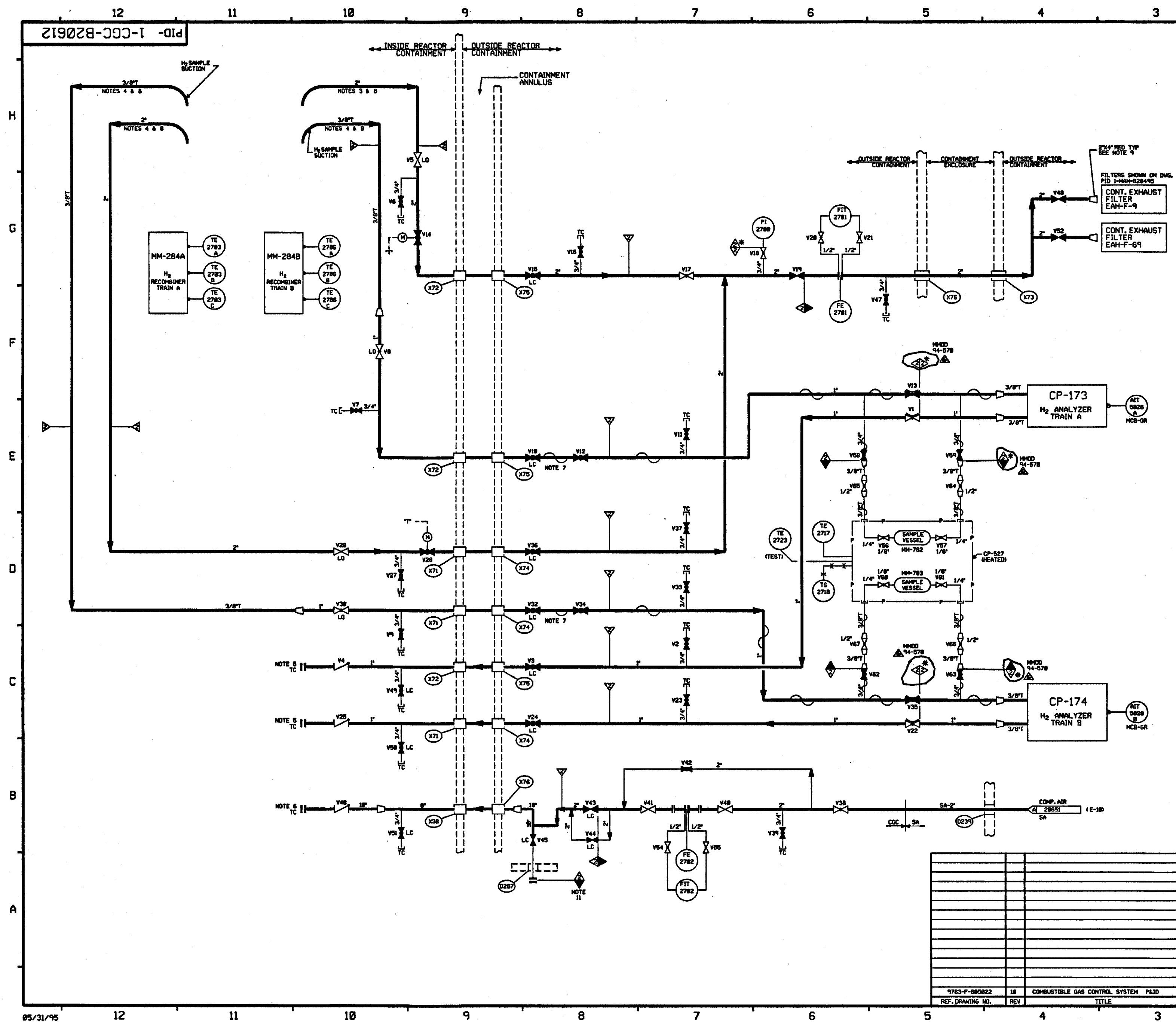


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 ENGINEERED SAFETY  
 FEATURES FLOW DIAGRAM  
 1-NHY-804979







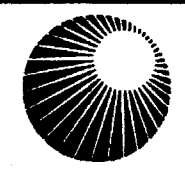


FOR P&ID REFERENCE DRAWING SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2

- NOTES:
1. THIS IS A ONE DRAWING SYSTEM.
  2. ALL PIPING, VALVES, EQUIPMENT & INSTRUMENTS HAVE SYSTEM PREFIX CCG, UNLESS NOTED OTHERWISE.
  3. PIPE IS TERMINATED INSIDE THE CONTAINMENT AT THE 103'-0" ELEV. & NEAR SAME AZIMUTH AS PENETRATION.
  4. PIPE IS EXTENDED INSIDE CONTAINMENT 180" FROM PENETRATION & TERMINATES AT 103'-0" ELEV.
  5. PIPE TERMINATES INSIDE THE CONTAINMENT AT 25'-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 280° F.
  8. H<sub>2</sub> SAMPLE SECTION 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.
  12. DELETED
  13. VENTS, DRAINS AND TEST CONNECTIONS CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER DESIGN STANDARD 1-HY-085111 UNLESS NOTED.
  14. Δ INDICATES REVISION LEVEL.

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

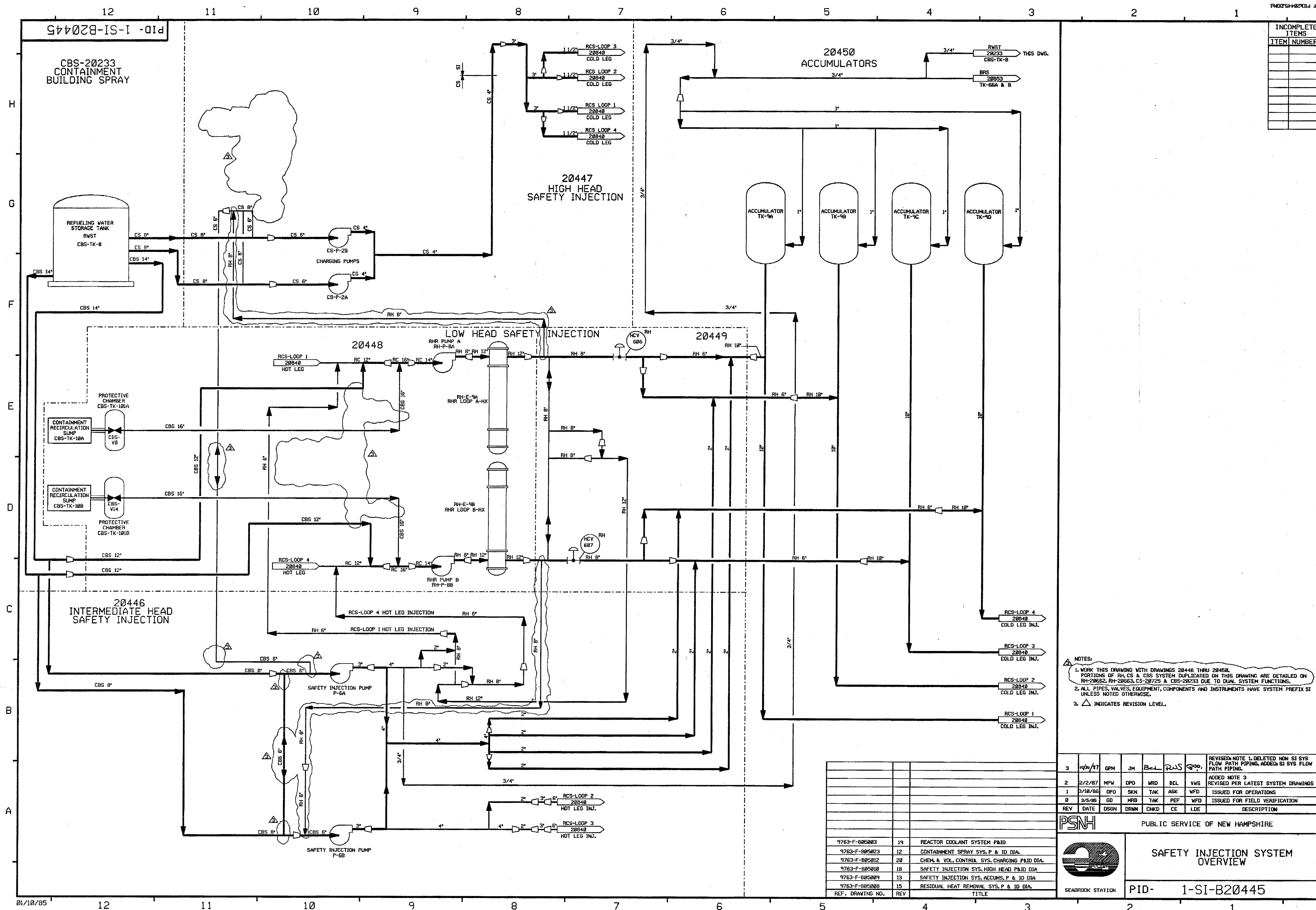
REV	DATE	DSGN	DRWN	CHKD	CDE	SES	DESCRIPTION
6	6/11/95	BCL	---	---	---	---	INCORP. MMD 94-578 C&B
5	4/14/94	BCL	---	---	---	---	INCORP. MMD 93-517 C&B
4	4/13/92	HRB	---	---	---	---	INCORP. MMD 91-515 C&B
3	1/19/90	HRB	RMC	NFL	CLM	IV	REVISED TE TAG M'S PER HWY LOOP DIAG INCORPORATED ECA 85-31 CA 10
2	12/3/86	HRJ	TAK	HRJ	WVK	RNC	REVISED PIPING PER ERECTION ISO. ADDED NOTES 12, 13 & 14, AND CONTRIBUTION FLAG DNG. CORP. CORRECTED NOTE REF. CORDO 11-101 PER UEMC PAID. DELETED NOTE 10, ADDED NOTE 9 REFERENCE.
1	7/2/86	DWS	BCL	JDM	JMS	RNC	INCORP. ECA 88/982842A, 93/114784A, 14/105587C & 14/105587D. INCORPORATED ECA 85/110478 & ECA 14/105587
0	1/28/86	DWS	CJS	JDM	JAC	WFD	ISSUED FOR OPERATIONS

**North Atlantic** Energy Service Corporation

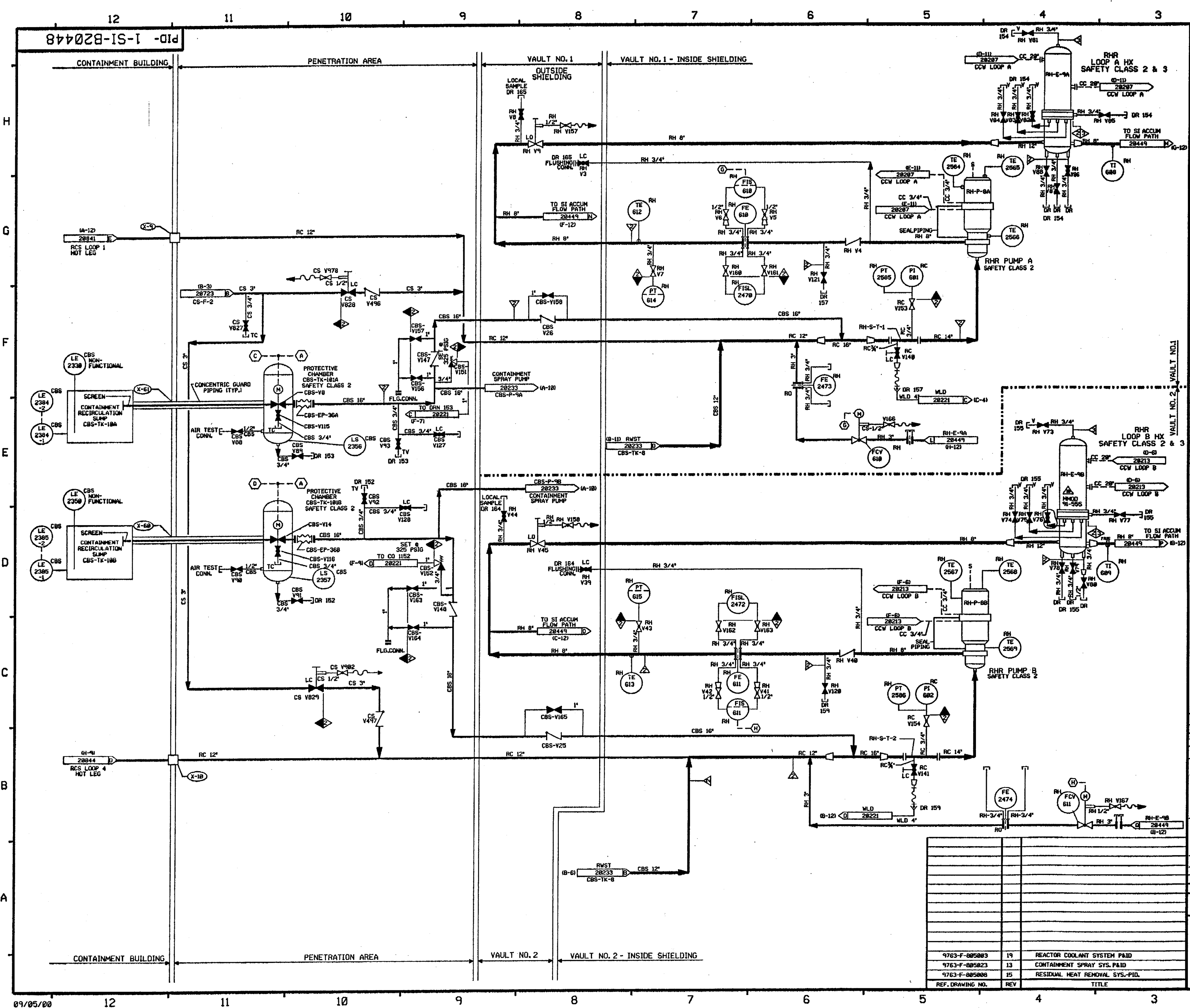
COMBUSTIBLE GAS CONTROL SYSTEM

PID- 1-CGC-B20612

REF. DRAWING NO.	REV	TITLE
9763-F-085822	10	COMBUSTIBLE GAS CONTROL SYSTEM PAID







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

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 20445 THRU 20450.
  2. PORTIONS OF THIS DRAWING ARE DETAILED ON RHR-20451, RHR-20452 & CBS-20453 DUE TO DUAL SYSTEM FUNCTIONS.
  3. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX SL UNLESS NOTED OTHERWISE.
  4. DELETED.
  5. DELETED.
  6. INSTRUMENTS.
  7. DELETED.
  8. DELETED.
  9. DELETED.
  10. DELETED.
  11. INDICATES REVISION LEVEL.

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

REV	DATE	BY	CHKD	APP	DESCRIPTION
1	5/7/99	DWS	—	—	INCORP M400 978618 DCM#89
2	12/2/94	MPV	—	—	INCORP M400 930545 CAME
3	5/24/94	BCL	—	—	PARTIAL INCORP M400 91-556 CA-82
4	11/1/94	HRS	FCB	APL	INCORP DCR 87-311 CA 15, 87-422 CA 13 AND INCORP DCR 87-349
5	9/6/85	HRS	JM	APL	INCORP DCR 87-311 CA 15, 87-422 CA 13 AND INCORP DCR 87-349
6	12/15/87	GPH	RMC	DMS	REVISED EQUIPMENT PIPING, NOTE 1, REF DMS REV. NO. 99-1974C, 13/11/442C & 88/10522C, REVISED TO CORRECT VALVE NO'S RH-V148, RH-V141, CBS-V153, CBS-V152 & RH-V153 PER PIPING ERECTION ISOS. ADDED VALVE NO CS-V829 & PLUG PER PIPING ERECTION ISOS.
7	10/28/88	PHL	TAK	MAP	INC. EPCS PIPING, REVISING, REVISING AND UPDATE PER FIELD VERIFICATION
8	7/2/86	JDM	SKN	BCL	ISSUED FOR OPERATIONS
9	3/16/85	QPO	SKN	TAK	ISSUED FOR OPERATIONS
10	3/5/85	GO	HRS	TAK	ISSUED FOR OPERATIONS
11	3/5/85	GO	HRS	TAK	ISSUED FOR OPERATIONS

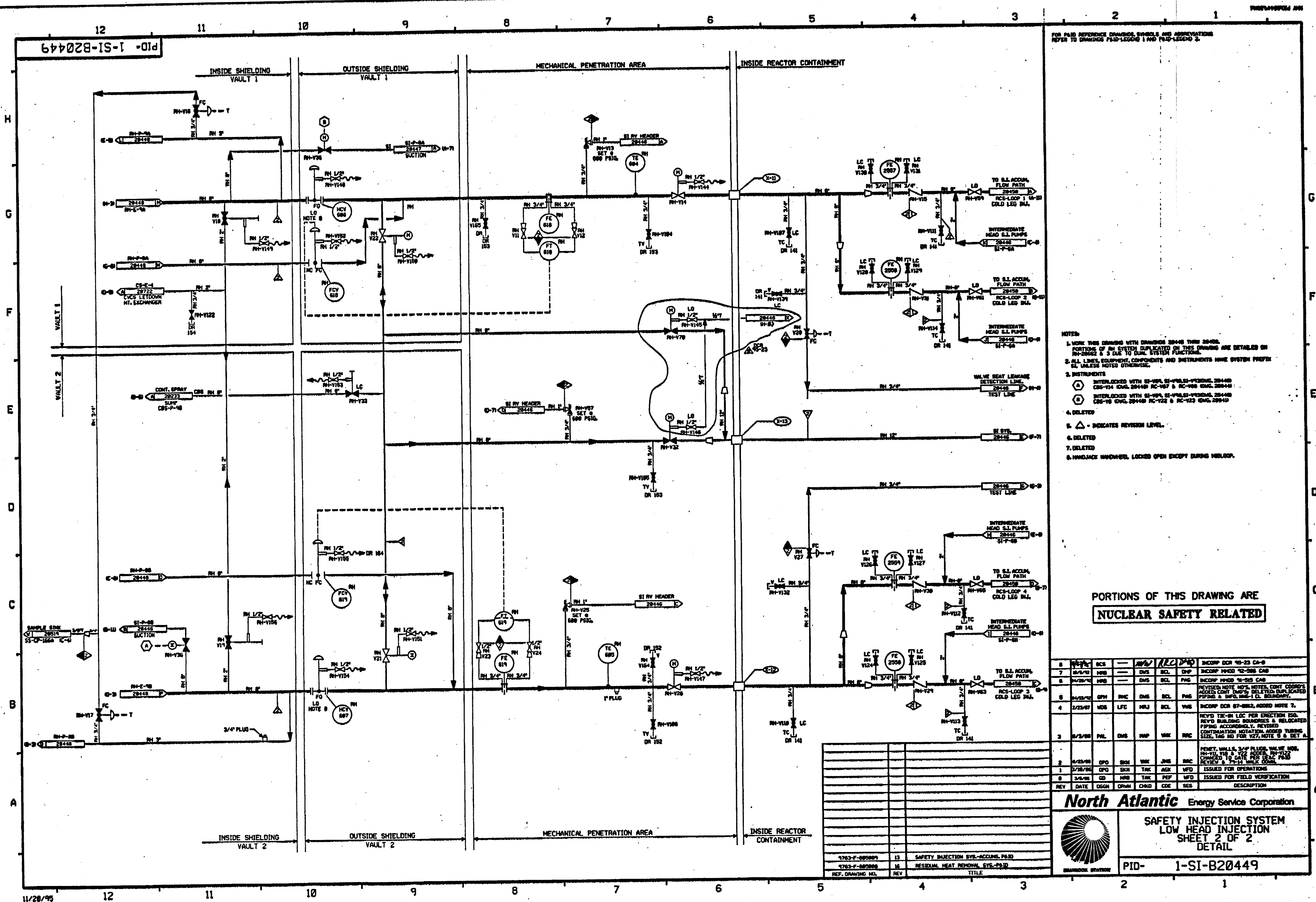
**North Atlantic Energy Service Corporation**

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

PID- 1-SI-B20448

REV	DATE	BY	CHKD	APP	DESCRIPTION
1	5/7/99	DWS	—	—	INCORP M400 978618 DCM#89
2	12/2/94	MPV	—	—	INCORP M400 930545 CAME
3	5/24/94	BCL	—	—	PARTIAL INCORP M400 91-556 CA-82
4	11/1/94	HRS	FCB	APL	INCORP DCR 87-311 CA 15, 87-422 CA 13 AND INCORP DCR 87-349
5	9/6/85	HRS	JM	APL	INCORP DCR 87-311 CA 15, 87-422 CA 13 AND INCORP DCR 87-349
6	12/15/87	GPH	RMC	DMS	REVISED EQUIPMENT PIPING, NOTE 1, REF DMS REV. NO. 99-1974C, 13/11/442C & 88/10522C, REVISED TO CORRECT VALVE NO'S RH-V148, RH-V141, CBS-V153, CBS-V152 & RH-V153 PER PIPING ERECTION ISOS. ADDED VALVE NO CS-V829 & PLUG PER PIPING ERECTION ISOS.
7	10/28/88	PHL	TAK	MAP	INC. EPCS PIPING, REVISING, REVISING AND UPDATE PER FIELD VERIFICATION
8	7/2/86	JDM	SKN	BCL	ISSUED FOR OPERATIONS
9	3/16/85	QPO	SKN	TAK	ISSUED FOR OPERATIONS
10	3/5/85	GO	HRS	TAK	ISSUED FOR OPERATIONS
11	3/5/85	GO	HRS	TAK	ISSUED FOR OPERATIONS





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

NOTES:

1. WORK THE DRAWING WITH DRAWINGS 20-440 THRU 20-460.  
PORTIONS OF AN SYSTEM DUPLICATED ON THIS DRAWING ARE DETAILED ON  
20-2862 & 3 DUE TO LATE SYSTEM FUNCTION.
2. ALL EQUIPMENT COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX  
SL UNLESS NOTED OTHERWISE.
3. INSTRUMENTS
  - A INTERLOCKED WITH SI-104, SI-104S1-104S2-104S3, 20-440  
CIS-174 CWS, 20-440 RC-107 & RC-108 CWS, 20-440
  - B INTERLOCKED WITH SI-104, SI-104S1-104S2-104S3, 20-440  
CIS-10 CWS, 20-440 RC-122 & RC-123 CWS, 20-440
4. DELETED
  - A - DECATES REVISION LEVEL.
  - B. DELETED
  - C. DELETED
  - D. HANDLECK HANDLED, LOCKED OPEN EXCEPT DURING MAINT.

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

6	1/24/72	BCS	---	HW	RLO	DPG	INCOMP DCR 10-23 CA-9
7	5/15/72	HNB	---	DWS	BCL	DTP	INCOMP HMOB 12-286 CAG
8	9/18/72	HNB	---	DWS	BCL	PAG	INCOMP HMOB 11-285 CAG
9	9/25/72	GFN	RMC	DWS	BCL	PAG	REVISED NOTE NO'S, NOTES, CONT COORDS ADDED CONT DUMPED AND RELOCATED PIPING & INFO IN C1. SUBMIT.
4	2/23/73	MOE	LFC	HBJ	BCL	VMS	INCOMP DCR 87-0862, ADDED NOTE 7.
5	3/2/73	PHL	DWS	HMP	VMS	RRC	REV'D TR-IN LOC FOR ENSTATION ISO. REV'D BUILDING NUMBER & RELOCATED PIPING ACCORDINGLY. REVISED CONTINUATION NOTATION, ADDED TURNING SIZE, TAG NO FOR V27, NOTE 8 & DET A.
3	8/3/73	PHL	DWS	HMP	VMS	RRC	
2	6/23/73	OPD	SKM	WAK	JMS	RRC	PIKET, WALLS, 3/4" PLUGS, WIRE NOS. PH-111, 116 & 117 ADDED. NO. 1122 CHANGED TO GAVE PER (LOCAL) P&W ISSUED & 7-14 WALL CORRS.
1	3/28/76	OPD	SKM	TAK	ASK	WFO	REVIEW FOR OPERATIONS
9	3/4/78	GD	HNB	TAK	PEF	WFO	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	DRWN	CHKD	CD	SES	DESCRIPTION

**North Atlantic** Energy Service Corporation

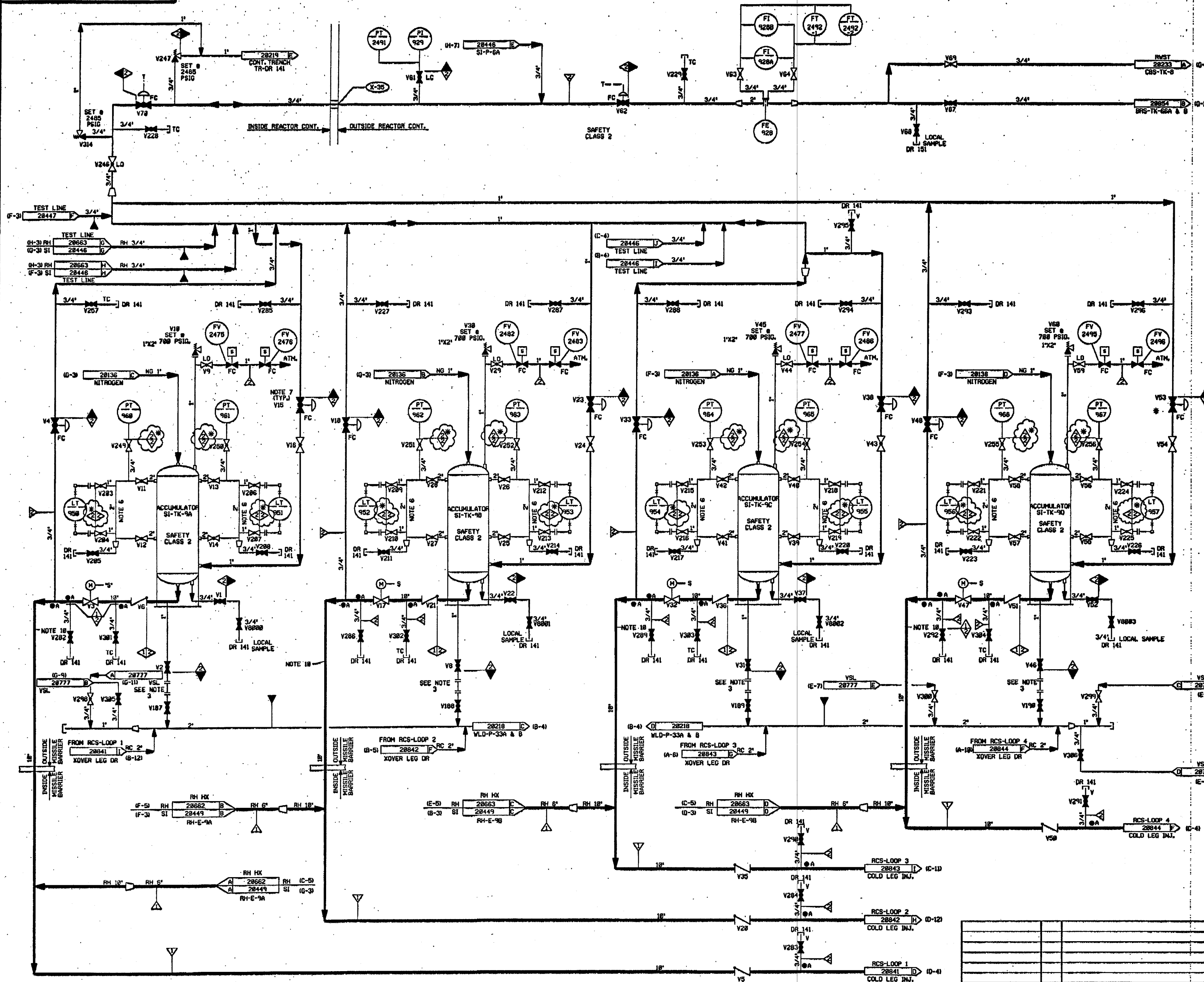


**SAFETY INJECTION SYSTEM  
LOW HEAD INJECTION  
SHEET 2 OF 2  
DETAIL**

PID- 1-SI-B20449

PID-1-SI-B20450

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 UNLESS NOTED OTHERWISE.
  2. WORK THIS DRAWING WITH DRAWINGS 28445 THRU 28449.
  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. 65" 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. 0.9A INDICATES 3/8" FLOW RESTRICTOR INSTALLED. SEE APPLICABLE DETAIL ON DWG RC-28842.
  9. DELETED
  10. PIPING SCHEDULE 148 MUST BE ADHERED TO DUE TO SAFETY ANALYSIS FLOW REQUIREMENTS.
  11. DELETED
  12. DELETED
  13. Δ INDICATES REVISION LEVEL.
  14. VENT, DRAIN & TEST COIL CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-MTH-88511 UNLESS NOTED OTHERWISE.

CHARGE PER  
MMD 83-584

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

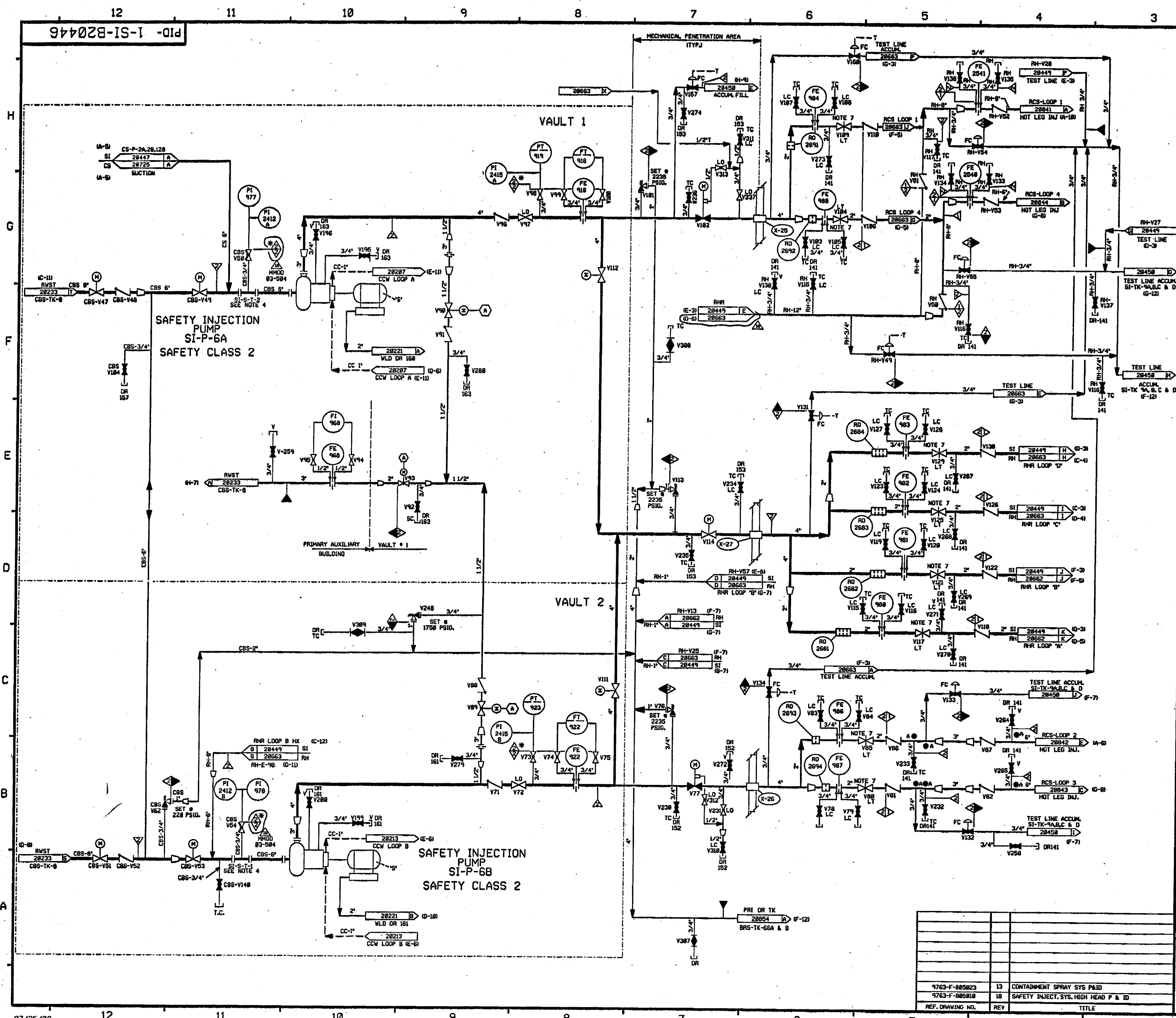
NO.	DATE	BY	CHKD	APP'D	DESCRIPTION
13	10/24/06	BKS	JWL	JLC	INCORP MMD 83-584 DCM-88
12	5/13/97	DWS	MPW	DMD	INCORP DCR 978888 DCM-88
11	1/17/97	DWS	BKS	DMD	INCORP DCR 978882 DCM-88 & 1
10	5/7/96	BKS	DWS	RRB	INCORP DCR 95-23 CA-6
9	1/13/96	BKS	MPW	JLF	PARTIAL INCORP DCR 95-23 CA-6
8	1/27/96	MRS	APL	RRR	INCORP MMD 95-595 CA-6
7	8/2/95	MRS	APL	RRR	INCORPORATED MMD 95-595 CA-6
6	12/5/91	GPM	DWS	PAG	REVISED NOTE 8 & 14 ADDED DNG CONT. NOS. TEST LINE FLOW RESTRICTOR INDICATOR SYMBOL. DELETED NOTES 3, 7, 11 & 12. MRS-1 CL. BOUNDARY.
5	5/28/87	GPM	DWS	VMS	VALVES SI-TK-9B, 9C, 9D & 9A-93 REVISED TO BE SHOWN NORMALLY CLOSED. REVISED CLASS BREAK FOR DRAIN LINES ON VALVES SI-TK-9B, 9C, 9D & 9A-93. DELETED NOTE 9 FOR SAME DRAIN LINES & REPLACED WITH NEW FLOW RESTRICTOR INDICATOR SYMBOL. DELETED NOTE 8 FOR DRAIN LINES ON VALVES SI-TK-9B, 9C, 9D & 9A-93. REPLACED WITH NEW FLOW INDICATOR SYMBOL. DELETED FLOW ARROW ON H1 & LOW SOURCE LINES FOR LT'S ON SI-TK-9A, B, C & D.
4	1/30/87	JDM	MRJ	VMS	INCORP DCR 86833 CA-881
3	10/9/86	MRJ	MPW	RRR	REV PER PIPING ERECTION ISO. DELETED TEST LINE, CORRECTED INSTRUMENT MOUNTING. ADDED NOTE 14 & DNG LOC COORD.
2	5/27/86	DWS	BCL	RRR	CHANGED VALVE TYPE. ADDED VSL CONT. OPENED VALVES V386 & V386 PER LATEST LEAD PAID. UPDATED DWS AND GEN. REV.
1	3/18/86	OPD	TAK	WFD	INCORP DCM 8/34RC
REV	3/15/86	GO	TAK	WFD	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY**

**Safety Injection System**  
**LOW HEAD INJECTION (ACCUMULATORS)**  
**DETAIL**

**PID-1-SI-B20450**

REF. DRAWING NO.	REV	TITLE
9763-F-885889	13	SAFETY INJECTION SYS. - ACCUMS. PAID



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

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 28445, 28447 THRU 28458. PORTIONS OF RH SYSTEM DUPLICATED ON THIS DRAWING ARE DETAILED ON RH-28563 DUE TO DUAL SYSTEM FUNCTIONS.
  2. ALL PIPES, VALVES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS HAVE SYSTEM PREFIX 61 UNLESS NOTED OTHERWISE.
  3. (A) = VALVE INTERLOCK FROM RH-V35, RH-V36 (DNG. 28449).
  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.
  5. VENT, DRAIN, TEST CONNS AND ORIFICE TAP PIPING CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-WY-08511 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 DNG RC-28848.

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

NO	DATE	BY	CHKD	APPD	DESCRIPTION
18	8-24-86	JM	MPW	ESB	INCORP. MMOD 83-584 DCH 88 ADDED COMMON CONTINUATION FLOW ARROW
15	5/8/82	JM	MPW	TAS	INCORP. DCR 81-8816 DCM*88
14	10/19/80	BCS	MPW	MCC	INCORP. DCR 79-8836 DCM*88
13	9-14-80	BCS	MPW	DWS	PARTIAL INCORP. DCR 79-8836 DCM*88
12	5-7-79	DWS	BCS	HMM	INCORP. MMOD 978618 DCM*88
11	5-26-77	MPW	DWS	RHB	INCORP. DCR 95-21 DCM*88
10	12/2/75	BCS	MPW	RJE	REINCORP. DCR 95-23 CA-8
9	11/27/75	BCL	MPW	RHB	INCORP. DCR 95-23 CA-8
8	6/7/74	BCL	MPW	RHB	INCORP. MMOD 94-511 CA-8
7	4/4/74	BCL	MPW	DMP	INCORP. MMOD 93-517 CA-8
6	4/28/72	MHB	DWS	JEV	INCORP. MMOD'S 91-SU CAS, 91-S15 CAS & 91-S22 CAS
5	12/15/67	GPH	DWS	BAS	REVISED PIPING TO CLARIFY REDUNDANT SYS DUPLICATION. NOTES 1, 5 & 10. ADDED PIPING TO CLARIFY REDUNDANT SYS DUPLICATION. DNG CONT. COORDS. REF. DNG'S. FLOW RESTRICTOR DETAIL ALPHA DESIGNATION DELETED. NRS-1 CLASS BOUNDARY, PIPING CODE BREAKS PER NOTE 5 & 6.
4	2/23/67	MOS	MRI	VMS	ADDED PAID. LEGEND NOTE ADDED. CONT. DNG. REF. COORDINATES. INCORP. DCR 87-8812.
3	9/12/66	MRI	MWP	RAC	ADDED NOTE 10. ADDED & REVISED CONTINUATION REFERENCES. REVISED BUILDING BOUNDARY. REVISED LOCATION OF VALVE V256 TO SHOW INSIDE. VALVE V256.
2	4/4/66	DWS	TAK	WFD	ADD NOTE 7 TO V184 & V189
1	3/18/66	OPD	TAK	WFD	ISSUED FOR OPERATIONS
0	3/5/66	GD	TAK	WFD	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY** Seabrook Station

**SAFETY INJECTION SYSTEM  
INTERMEDIATE HEAD INJECTION  
SYSTEM DETAIL**

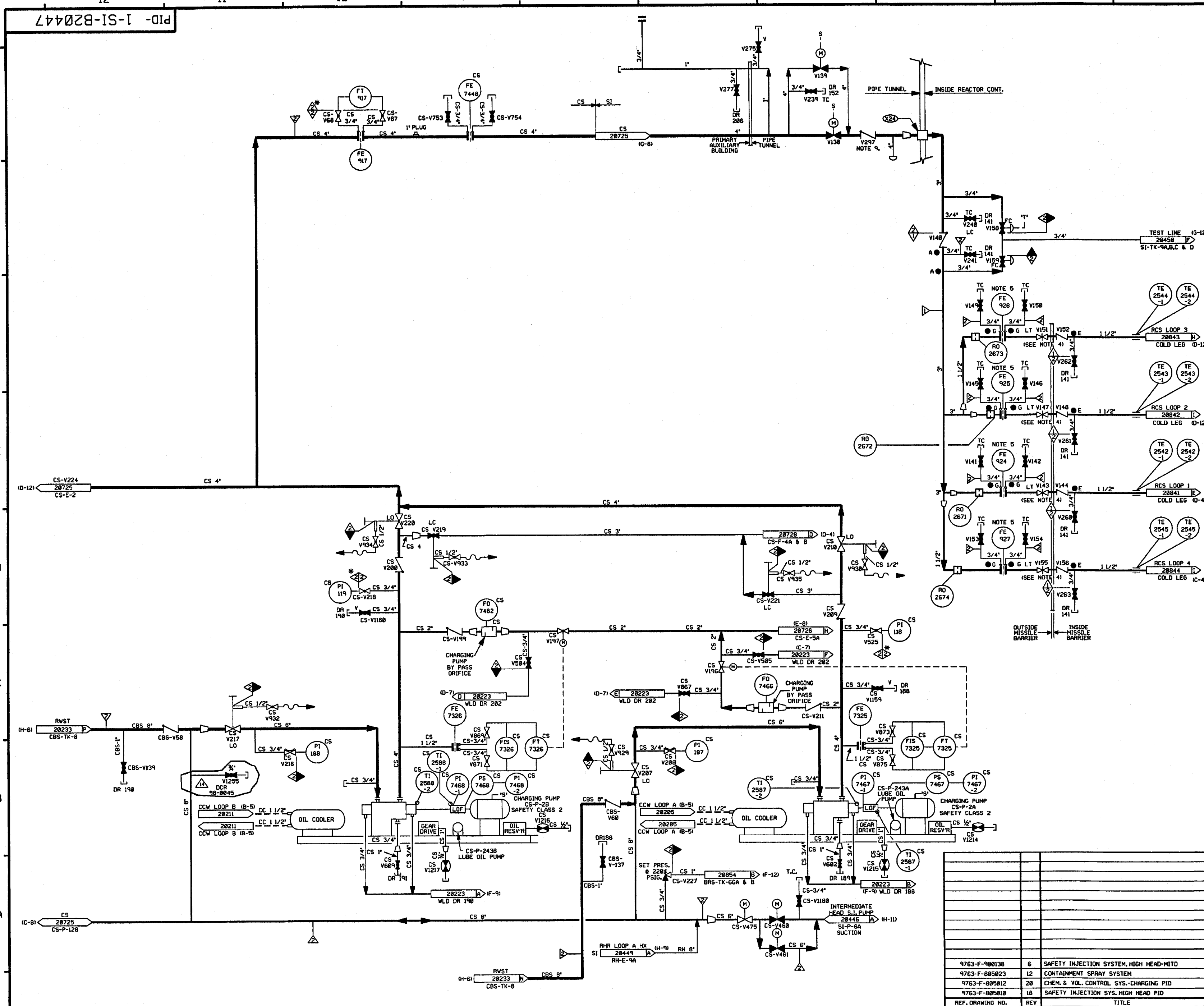
PID- 1-SI-B20446

REF. DRAWING NO.	REV	TITLE
9763-F-085023	13	CONTAINMENT SPRAY SYS PAID
9763-F-085010	18	SAFETY INJECT. SYS. HIGH HEAD P & ID



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.  $\Delta$  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.

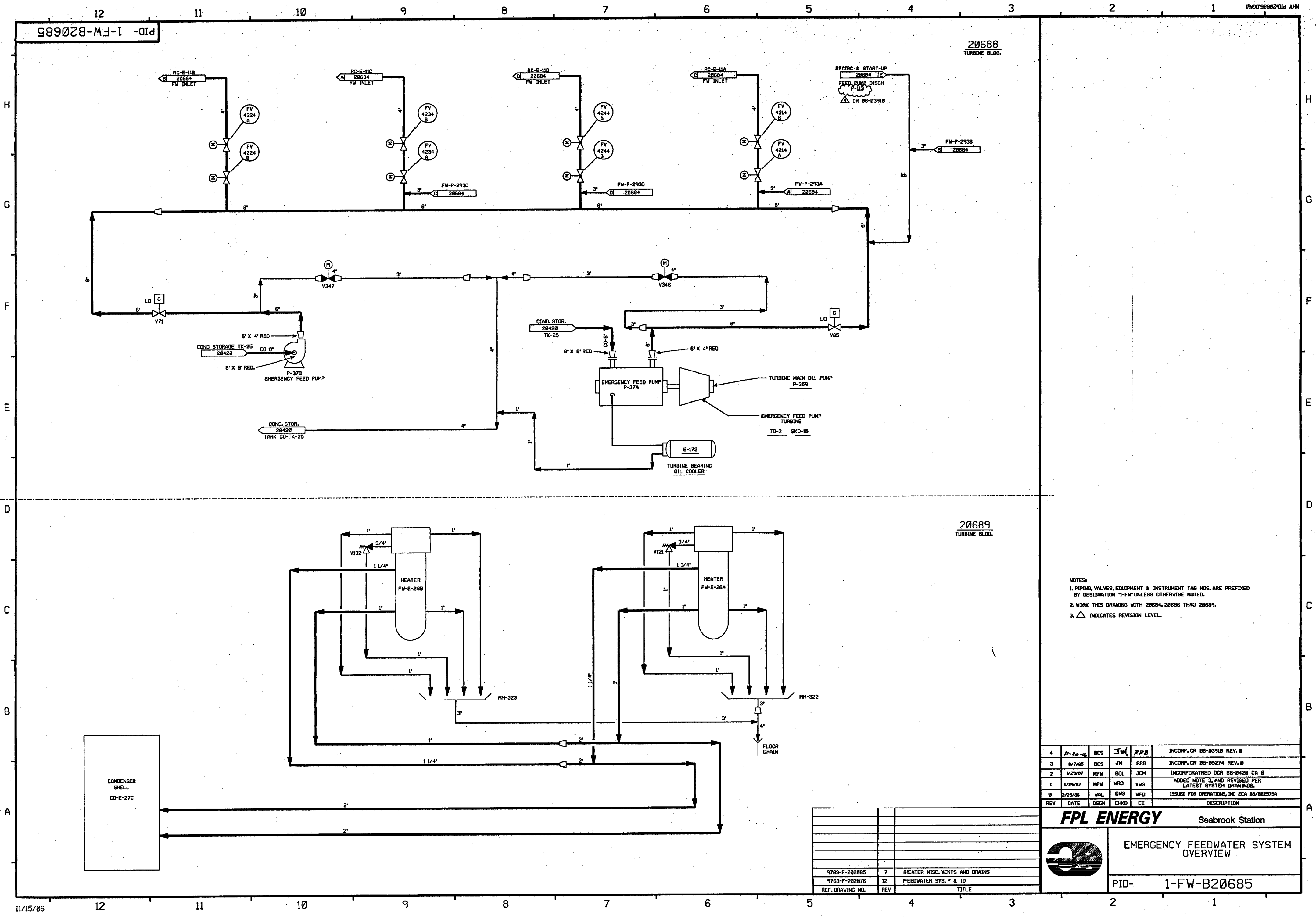
PORTIONS OF THIS DRAWING ARE  
**NUCLEAR SAFETY RELATED**

REV	DATE	DSGN	DRWN	CHKD	CODE	SES	DESCRIPTION
14	4/14/94	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	11/12/90	BCL	MPW	VMS	RSG		INCORP. MMOD 98-598 CAB
11	4/14/94	BCL	MPW	DWS	DMD		INCORP. MMOD 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	WFD	INCORP. DCR 89-530 REV 88
7	2/18/89	MRB	RMC	DWS	APL	CM	INCORP. MMOD 89-530 REV 88
6	3/30/88	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 87-150, 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 8, ADDED DNG. CODE FOR CONT.
2	6/23/86	PFG	HEK	CAOD	VNK	JNCS	INCORPORATED NCR 82/47A, ECA 80/2246B & UPDATED PER LATEST P & I'D
1	3/18/85	OPD	SKN	TAK	ASK	WFD	ISSUED FOR OPERATIONS
0	3/5/85	GD	MRB	TAK	PEF	WFD	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

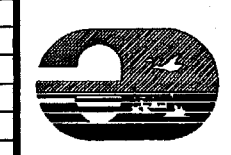


NOTES:  
1. PIPING, VALVES, EQUIPMENT & INSTRUMENT TAG NOS. ARE PREFIXED BY DESIGNATION "1-FW" UNLESS OTHERWISE NOTED.  
2. WORK THIS DRAWING WITH 28684, 28686 THRU 28689.  
3. INDICATES REVISION LEVEL.

4	11-20-85	BCS	JW	RFB	INCORP. CR 86-83918 REV. 0
3	8/7/85	BCS	JM	RRB	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



- PORTIONS OF THIS DRAWING ARE
- |                               |
|-------------------------------|
| <b>NUCLEAR SAFETY RELATED</b> |
|-------------------------------|

**FPL ENERGY** Seabrook Station

PID- 1-FW-B20688