

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 20636 THRU 20643, 20645, 20646 & 20647.
  - 2. ALL LINES, VALVES, EQUIPMENT & INSTRUMENTS HAVE SYSTEM PREFIX IA, UNLESS NOTED OTHERWISE.
  - 3. DENOTES DUAL AIR FILTER.
  - 4. ALL PIPES, VALVES, EQUIPMENT, COMPONENTS AND INSTRUMENTS ARE SAFETY CLASS "MS", UNLESS NOTED OTHERWISE.
  - 5. UNIT 2 EQUIPMENT SHOWN IN PHANTOM HAS NOT BEEN INSTALLED. ASSOCIATED ROOT VALVES ARE CAPPED AND WILL BE USED FOR THIS FUTURE INSTALLATION.
  - 6. INDICATES REVISION LEVEL.
  - 7. DELETED
  - 8. DELETED
  - 9. DELETED
  - 10. DELETED
  - 11. DENOTES AMS SAFETY CLASS 3, NOT ASME CODE CLASS 3.
  - 12. INSTRUMENTATION ON THIS DRAWING DOWNSTREAM OF PIPING ROOT VALVE CONNECTIONS HAS NOT BEEN VERIFIED.
  - 13. AIR SUPPLY MAINTAINED TO DAMPERS TO SUPPORT THE SEABROOK STATION COMPENSATORY VENTILATION PLAN C-S-1-01805.
  - 14. VALVE SYMBOLS MAY NOT BE REPRESENTATIVE OF INSTALLED COMPONENT TYPE, REFER TO VALVE LIST.

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

17	12/8/05	BCS	JM	JEV	INCORP. MMD 04-529 DCM-00
16	8/12/03	JM	BCS	MPW	INCORP. DCM 66-0035A AND CR 82-15128 REV.00
15	10/28/00	BCS	MPW	RWH	INCORP. MSE 88-263 REV. 00
14	6/9/99	DWS	BCS	DJM	REINCORP. DCR 90-023 CA-01
13	6/29/96	DWS	RSG	DJM	INCORP. MMD 970518 DCM-00
12	1/31/95	BCS	MPW	RSG	INCORP. DCR 91-26 CA-10
11	12/9/94	BCL	MPW	MHO	INCORP. MMD 95-570 CA-0
10	3/28/94	DWS	MPW	JCM	INCORP. MMD 94-501 CA-0 AND MMD 930545 CA-0
9	2/3/94	BCL	MPW	GRM	INCORP. DCR 920012 CA-0
8	10/9/91	GPM	FCB	RWH	ADDED TAG NUMBERS PER FIELD VALUATION AND SPEC 46-1
7	9/4/91	MRB	JH	DJM	INCORP. DCR 90-32 CA-15
6	3/28/90	MRB	APL	JEV	INCORP. DCR 89-41 CA-15 AND MADE MINOR DRAFTING ENHANCEMENTS
5	3/24/90	MRB	APL	JEV	INCORP. DCR 88-183 CA-09 & INCORPORATED DCR 88-185 CA-0
4	4/25/89	MRB	PAL	GPH	REVISED NOTES 1, 2 AND 4 DELETED NOTE 5
3	11/23/87	DWS	BCL	RRC	DETAILS REMOVED FROM AUX AIR SUPPLY. DETAILS WILL BE SHOWN ON CONTROL LOOP DIA AS SPECIFIED BY ECA 85/113130P.
2	11/6/86	CSB	WRD	RRC	ADDED 500378 AS REF. DWS. DUAL FILTERS IN EPMPH TO CORRECT DRAFTING ERROR. 8000 VALVE NO'S TO UNTAGGED VALVES. DRAIN VALVE V524 SHOWN CLOSED. CONT. FLAG COORD. NOTES 5, 6 & 7, P&ID REF. DWS. NOTE INSTR. IN CHLORINATION BLDG. TO AGREE WITH DESIGN DWS. REMOVED PIPING LINE NO. UPDATE REF. DWS. REV. LEVEL REMOVED OR DESIGNATION ON ALL UNUSED INSTR. AIR ROOT VALVES. PIPING LINE NUMBER.
1	6/24/86	DWS	YES	RRC	INCORPORATED ECA 05/113130P.
0	4/25/86	DBF	JDM	WFD	ISSUED FOR OPERATIONS. INCORP. ECA 05/113130P. 05/113440L 05/112660L
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY**

Seabrook Station

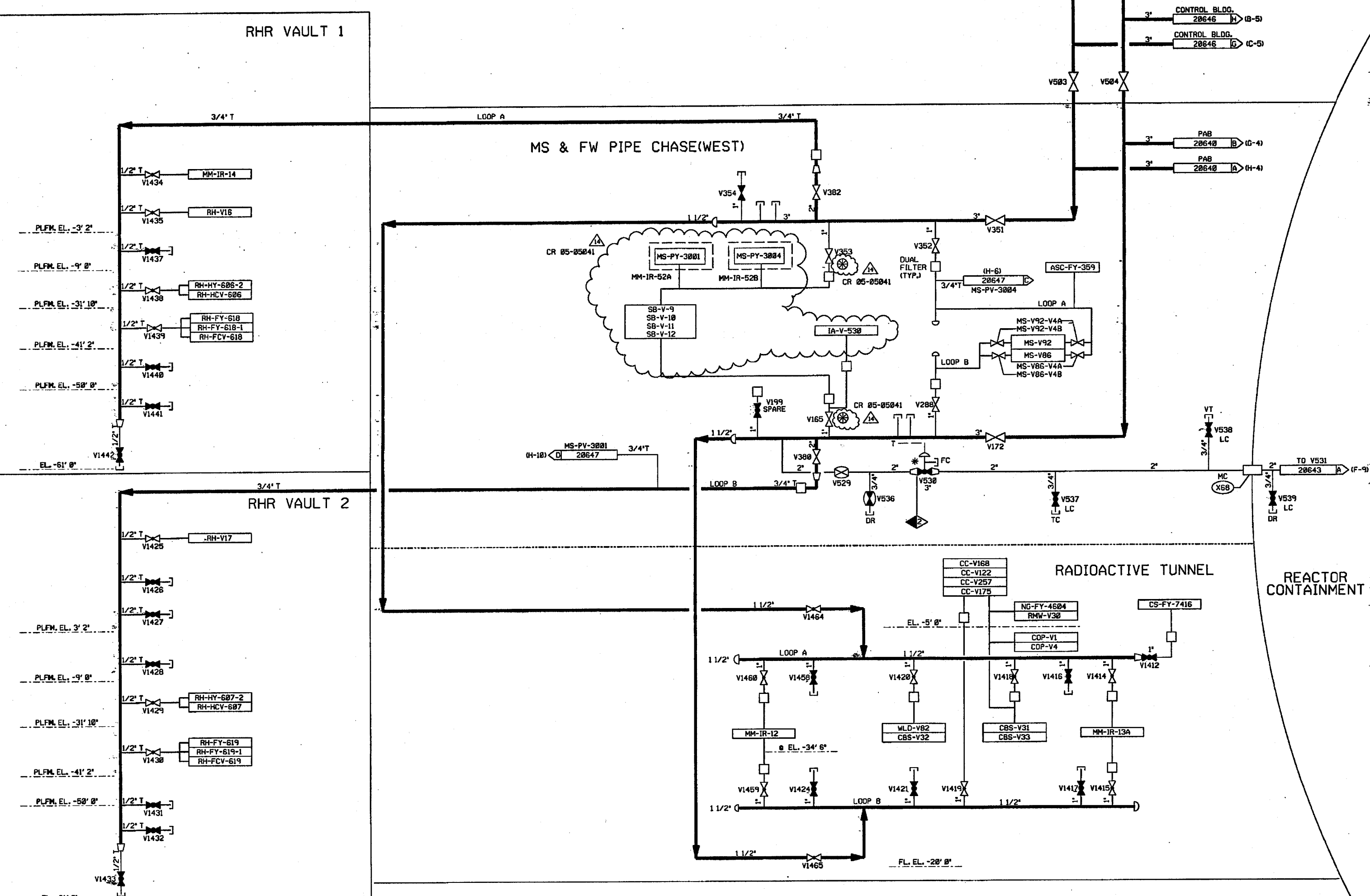
**INSTRUMENT AIR  
MISCELLANEOUS BUILDING  
DETAIL**

PID- 1-IA-B20644

9763-F-500370	2	CHLORINATION BLDG. - INSTR. PIPING
9763-F-500329	7	MS & FW PIPE ENCL. IA DISTR. P & ID.
9763-F-202185	11	COMP. AIR SYS. KEY PLAN P & ID.
9763-F-202108	15	MISC. BLDG. COMP. AIR HOR. P & ID.
REF. DRAWING NO.	REV	TITLE

P101-1-IA-B20645


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 20636 THRU 20644, 20646 & 20647.
  2. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX IA, UNLESS NOTED OTHERWISE.
  3. DENOTES DUAL AIR FILTER.
  4. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS ARE SAFETY CLASS NNS, UNLESS NOTED OTHERWISE.
  5. INSTRUMENTATION ON THIS DRAWING DOWNSTREAM OF PIPING ROOT VALVE CONNECTIONS HAS NOT BEEN VERIFIED UNLESS NOTED BY . REFER TO DWD 1-NHY-550013 FOR VERIFIED INSTRUMENT DETAILS.
  6. INDICATES REVISION LEVEL.
  7. \* INDICATES VALVES SUPPLIED BY WESTINGHOUSE. CR 05-05041
  8. VENTS, DRAINS AND TEST CONNECTION CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-885111, UNLESS NOTED OTHERWISE.
  9. DELETED
  10. DELETED
  11. VALVE SYMBOL MAY NOT BE REPRESENTATIVE OF INSTALLED COMPONENT TYPE. REFER TO VALVE LIST.

14	1/25/06	BCS	JM	TJM	REINCORP CR 05-05041 REV.0
13	6/7/05	BCS	JM	RRB	INCORP CR 05-05041 REV.0
12	1/31/05	BCS	MPW	RSG	INCORP MM00 95-570 CA0
11	5/12/05	BCL	DWS	DJM	INCORP MM00 94-570 CA0
10	12/4/04	BCL	MPW	MMD	REINCORP DCR 900004 CA*0 AND INCORP MM00 930545 CA*0
9	7/18/04	MPW	BCL	JCM	INCORP DCR 85-420 CA 0 AND REINCORP. DCR 90-004 CA 0
8	2/2/04	BCL	MRS	GRM	ADDED TAG NUMBERS PER FIELD WALKDOWN AND SPEC 46-1
7	4/5/03	MRB	BCL	JM	INCORP MM00 92-553 CA0
6	10/21/01	MRB	BCL	IW	INCORP DCR 90-004 CA0
5	10/9/01	MRB	FCB	RWM	INCORP DCR 90-32 CA0
4	8/18/98	MRB	GPM	GRM	REVISED NOTE 4 PER ENG DSGN STD. 31788 SEC. 3.8.
3	11/23/87	DWS	BCL	RRC	DETAILS REMOVED FROM AUX AIR SUPPLY, DETAILS WILL BE SHOWN ON CONTROL LOOP DIAG AS SPECIFIED BY ECA 05-113130F.
2	11/14/86	MRJ	PAL	RRC	ADDED NOTE 6 & CHANGED NOTE 5. ADDED CONT FLAG COORDS, V8834 THRU V8841, NIPPLES & CAPS, ABANDONED CONN'S, ADDITIONAL DUAL FILTERS AND AIR USERS, REVISED LOC OF TAKE-OFFS & TUBING SIZES PER AS-INSTALLED CONDITIONS. INCORP ECA 05/113130F & 74/107155A. CORRECTED DRAFTING ERRORS.
1	6/23/86	DBF	VNK	RRC	INCORPORATED ECA 05/113130F
0	4/25/86	DBF	JDM	WFO	ISSUED FOR OPERATIONS. INCORP ECA 05/113130F & 74/107155A
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

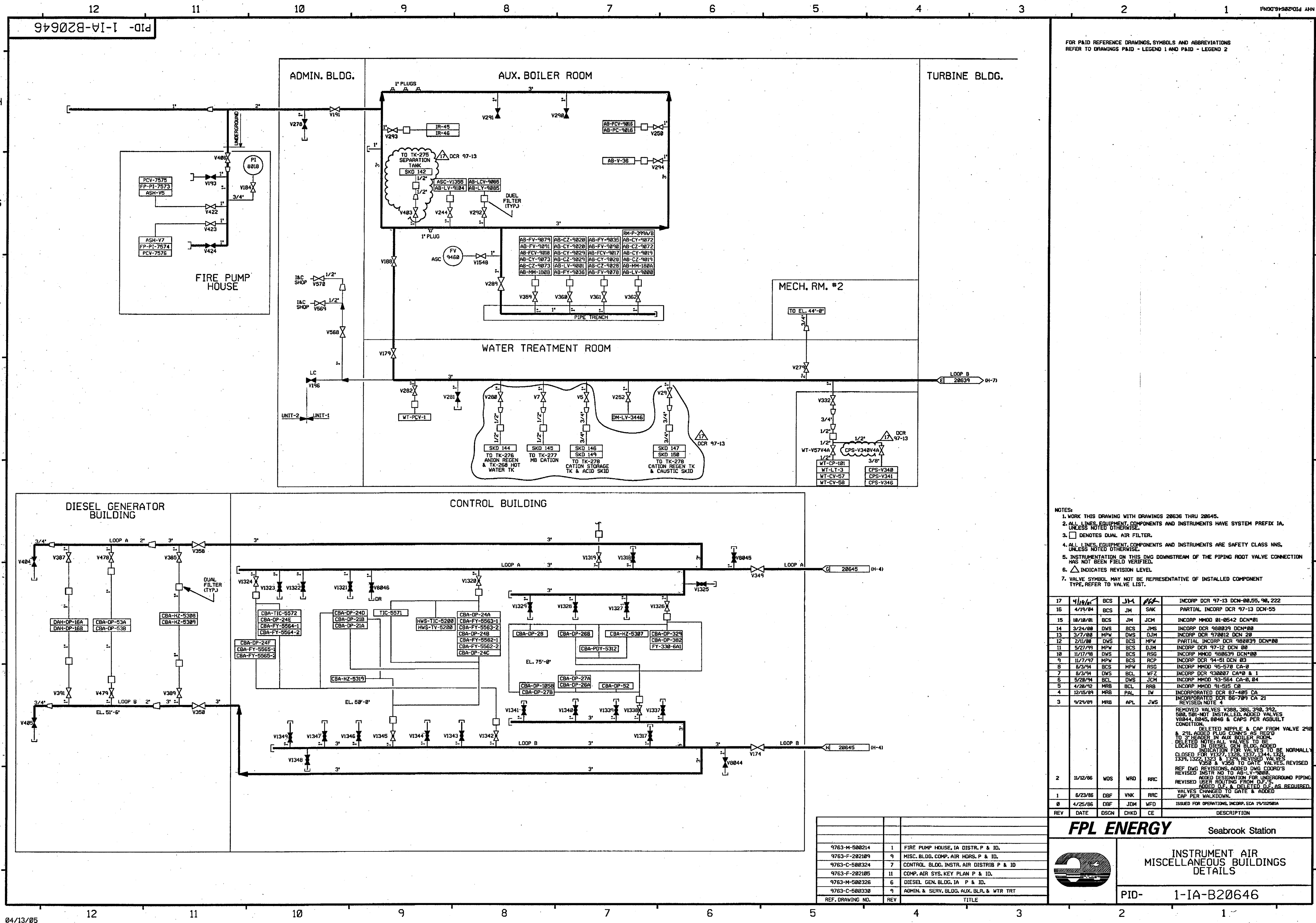
9763-F-202105	11	COMP AIR SYS KEY PLAN P & ID
9763-F-500335	4	RHR VAULTS 1A DISTRIB P & ID
9763-F-500379	4	RADIOACTIVE TUNNEL 1A DISTRIB P & ID
9763-F-500329	7	MS & FW PIPE CHASE 1A DISTRIB P & ID
9763-F-202100	15	MISC BLDGS COMP AIR HEADERS P & ID
REF. DRAWING NO.	REV	TITLE

**FPL ENERGY**

Seabrook Station

INSTRUMENT AIR  
MISCELLANEOUS BUILDING  
DETAILS

P101-1-IA-B20645



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 20636 THRU 20645.
  2. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX IA, UNLESS NOTED OTHERWISE.
  3. DENOTES DUAL AIR FILTER.
  4. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS ARE SAFETY CLASS NNS, UNLESS NOTED OTHERWISE.
  5. INSTRUMENTATION ON THIS DWG DOWNSTREAM OF THE PIPING ROOT VALVE CONNECTION HAS NOT BEEN FIELD VERIFIED.
  6. INDICATES REVISION LEVEL.
  7. VALVE SYMBOL MAY NOT BE REPRESENTATIVE OF INSTALLED COMPONENT TYPE, REFER TO VALVE LIST.

17	4/18/84	BCS	JM	SAK	INCORP DCR 97-13 DCM-88-55, 98, 222
16	4/19/84	BCS	JM	SAK	PARTIAL INCORP DCR 97-13 DCM-55
15	10/18/01	BCS	JM	JCM	INCORP MMOD 01-05-42 DCM-01
14	3/24/00	DWS	BCS	JMS	INCORP DCR 980839 DCM-08
13	3/7/00	MPW	DWS	DJM	INCORP DCR 970012 DCM 28
12	2/10/00	DWS	BCS	MPW	PARTIAL INCORP DCR 980839 DCM-08
11	5/27/99	MPW	BCS	DJM	INCORP DCR 97-12 DCM 08
10	11/17/98	DWS	BCS	RSG	INCORP MMOD 980639 DCM-08
9	11/7/97	MPW	BCS	RCF	INCORP DCR 94-51 DCM 03
8	8/3/94	BCS	MPW	RSG	INCORP MMOD 95-570 CA-0
7	8/3/94	DWS	BCL	WFZ	INCORP DCR 930807 CA-0 & 1
6	5/28/94	BCL	DWS	JCM	INCORP MMOD 93-564 CA-0, 84
5	4/28/92	MRB	BCL	RBS	INCORP MMOD 91-515 CA
4	12/15/89	MRB	PAL	IW	INCORPORATED DCR 87-485 CA
3	9/21/89	HRB	APL	JWS	INCORPORATED DCR 86-789 CA 21 REVISED NOTE 4
2	11/12/86	WDS	WRD	RRC	REMOVED VALVES V388, 386, 390, 392, 580, 581 NOT INSTALLED. ADDED VALVES V844, 845, 846 & CAPS PER ASDULTY CONDITION. DELETED NIPPLE & CAP FROM VALVE 290 TO 3" HEADER IN AUX BOILER ROOM. DELETED NOTE: ALL VALVES TO BE INDICATED FOR VALVES TO BE NORMALLY CLOSED FOR V1327, 1328, 1337, 1344, 1334, 1322, 1323 & 1324. REVISED VALVES V350 & V358 TO GATE VALVES. REVISED REF DWG REVISIONS, ADDED DWG COORD'S REVISED INSTR NO TO AS-LV-98088. ADDED DESIGNATION FOR UNDERGROUND PIPING USER ROUTING FROM D.F.'S. ADDED D.F. DELETED D.E. AS REQUIRED. VALVES CHANGED TO GATE & ADDED CAP PER MAINTENANCE.
1	6/23/86	DBF	VNK	RRC	ISSUED FOR OPERATIONS, INCORP. ECA 19/12/86A
0	4/25/86	DBF	JDM	WFO	
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY** Seabrook Station

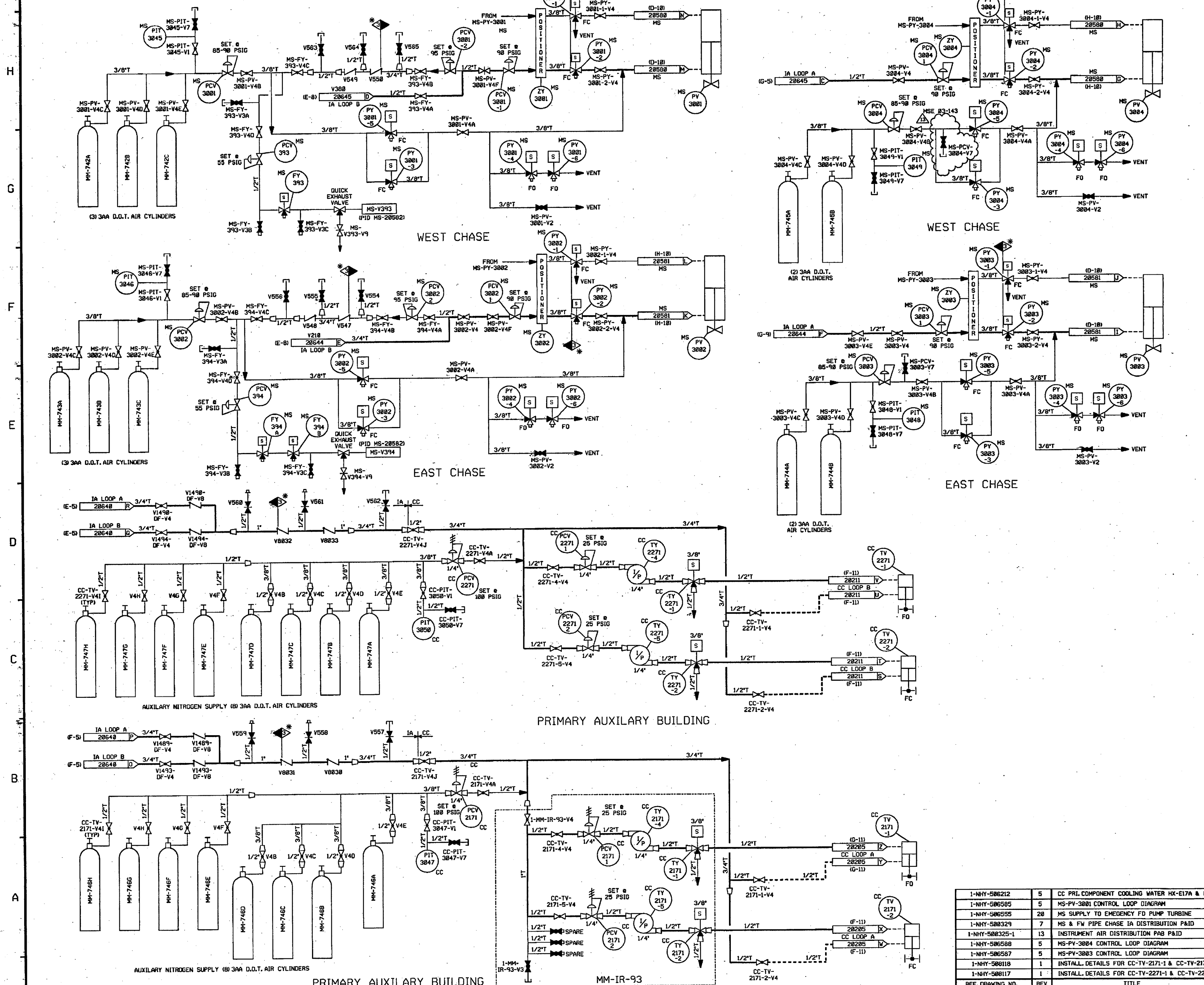
INSTRUMENT AIR MISCELLANEOUS BUILDINGS DETAILS

PID-1-IA-B20646

REF. DRAWING NO.	REV	TITLE
9763-M-500214	1	FIRE PUMP HOUSE, IA DISTR. P & ID.
9763-F-202109	9	MISC. BLDG. COMP. AIR HORS. P & ID.
9763-C-500324	7	CONTROL BLDG. INSTR. AIR DISTRIB P & ID
9763-F-202105	11	COMP. AIR SYS. KEY PLAN P & ID.
9763-M-500326	6	DIESEL GEN. BLDG. IA P & ID.
9763-C-500338	9	ADMIN. & SERV. BLDG. AUX. BLR. & WTR TRT

PID-1-1A-B20647

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



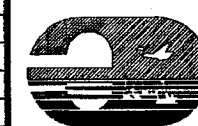
- NOTES:
1. ALL LINES, VALVES, EQUIPMENT & INSTRUMENTS HAVE SYSTEM PREFIX IA, UNLESS NOTED OTHERWISE.
  2. ALL PIPES, VALVES, EQUIPMENT, COMPONENTS AND INSTRUMENTS ARE SAFETY CLASS "NS", UNLESS NOTED OTHERWISE.
  3. WORK THIS DRAWING WITH DRAWINGS 20636 THRU 20646.
  4. \* DENOTES ANS SAFETY CLASS 3, NOT ASME CODE CLASS 3.
  5. Δ INDICATES REVISION LEVEL.

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

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
13	2-21-93	BCS	JMA	FEB	INCORP. MSE 03-143 REV 00
12	12/21/95	JM	BCS	JC	INCORP. CR 05-13408 REV 00
11	9/16/94	BCS	JM	MRJ	PARTIAL INCORP. MSE 03-143 REV 00
10	10/11/93	MPW	MAP	RRB	INCORP. MSE 02-286 REV 00
9	11/15/92	JM	BCS	RRB	INCORP. CR 01-10700 REV 00 & CR 02-08438 REV 00
8	6/27/92	BCS	MPW	PEB	INCORP. DCR 01-017 DCR 07
7	5/25/92	MPW	BCS	RRB	INCORP. DCR 01-017 DCR 06
6	5/14/92	MPW	JM	MAP	INCORP. DCR 01-017 DCR 00
5	5/15/91	BCS	MPW	RPV	INCORP. MMOD 99-510 DCR 00 & 01
4	6/02/90	DRL	BCS	JWS	INCORP. MMOD 99-550 CA 01 & 02
3	6/20/97	MPW	DWS	BAW	INCORP. MMOD 96-550 CA 01 & DCR 97-004 DCR 00
2	10/30/96	MPW	BCS	VWS	INCORP. MMOD 96-550 CA 0
1	11/13/95	BCL	MPW	RMW	INCORP. DCR 94-029 CA 6
0	11/29/94	MPW	MHD	MHD	ISSUED FOR OPERATIONS, MMOD 93-545 CA 0

**FPL ENERGY**

Seabrook Station

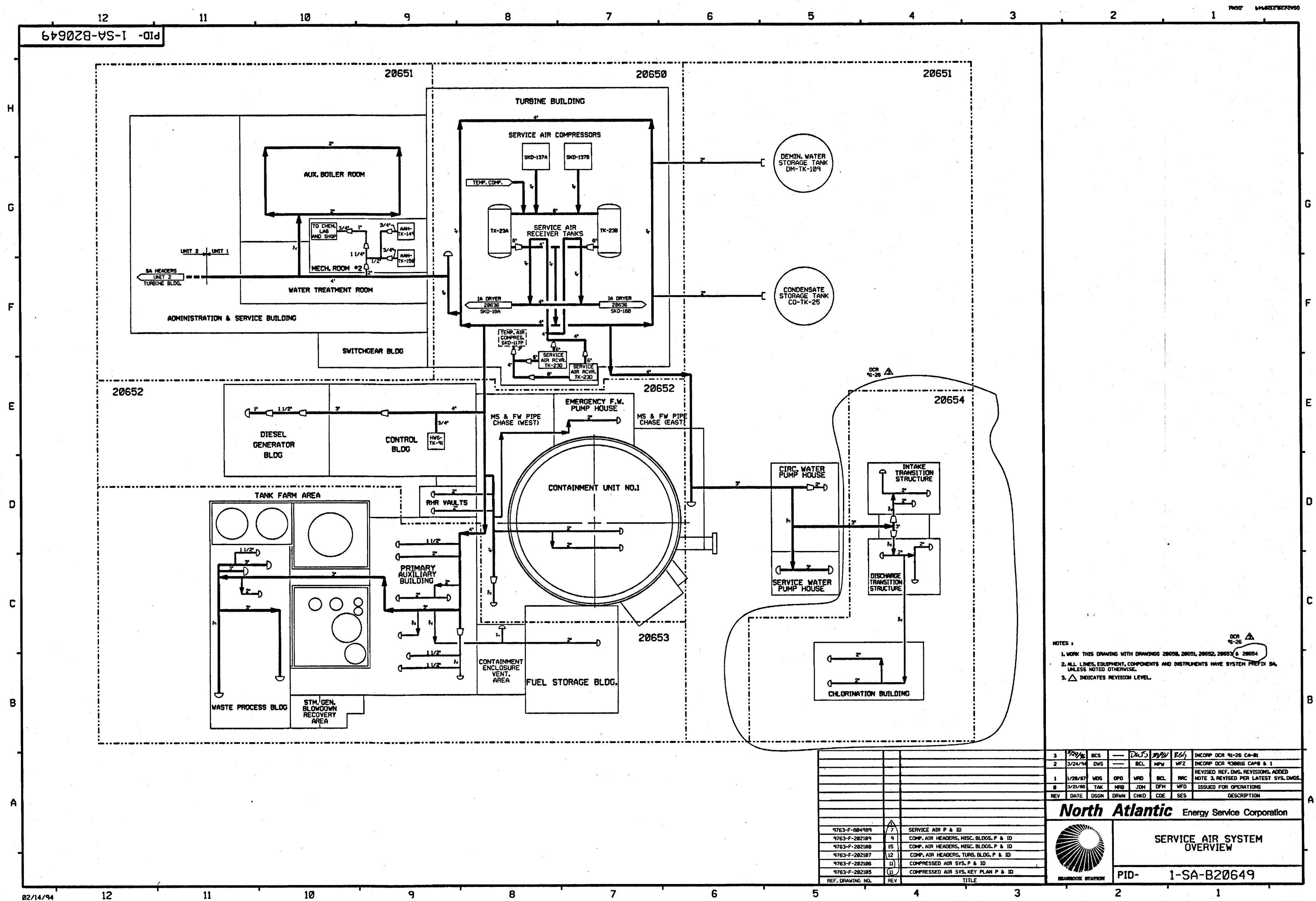


INSTRUMENT AIR  
BOTTLE SUPPLY

PID- 1-1A-B20647

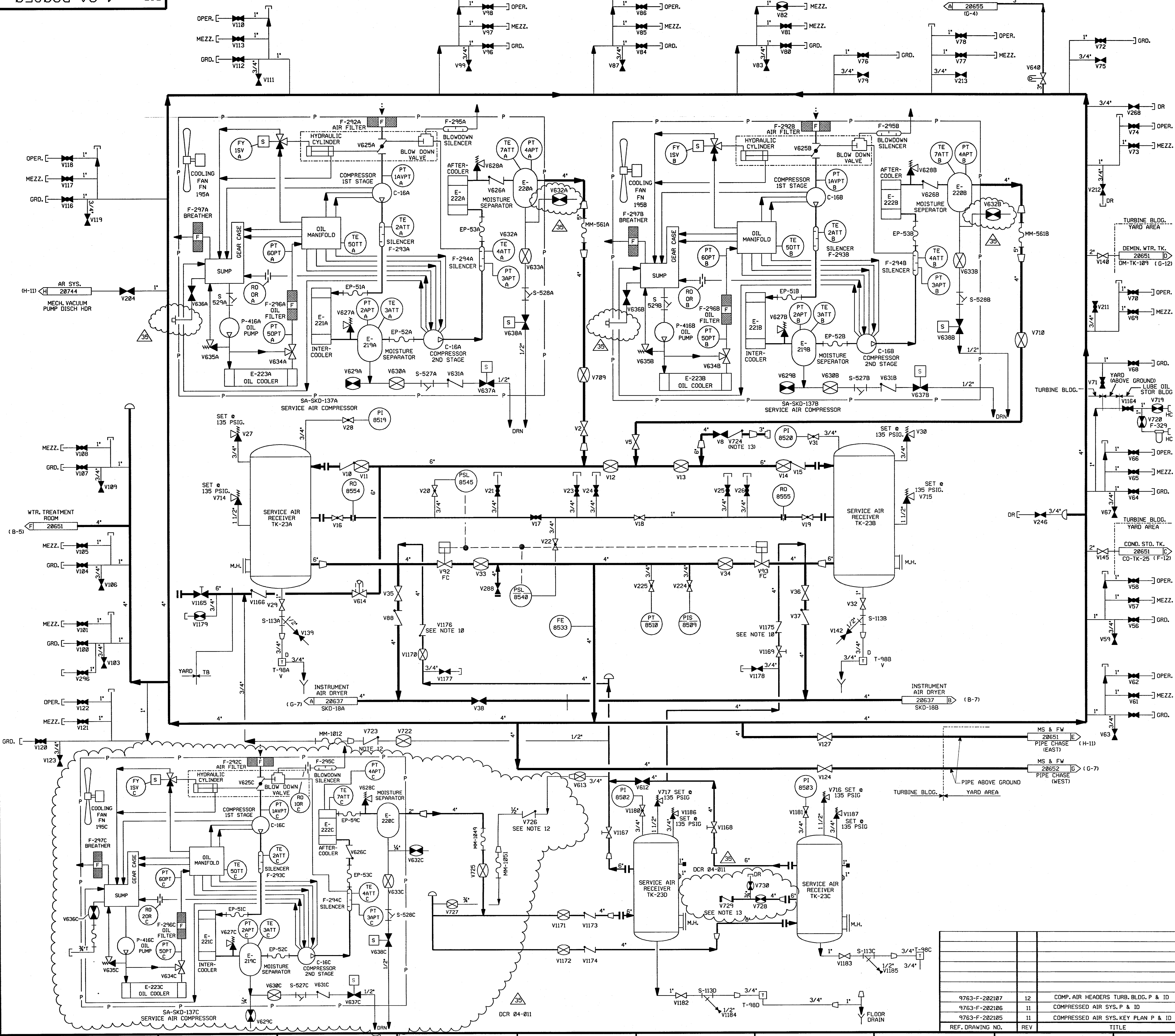
REV	DATE	DSGN	CHKD	CE	DESCRIPTION
1-NHY-506212	5	CC PRL COMPONENT COOLING WATER HX-E17A & B			
1-NHY-506585	5	MS-PV-3001 CONTROL LOOP DIAGRAM			
1-NHY-506595	20	MS SUPPLY TO EMERGENCY FD PUMP TURBINE			
1-NHY-500329	7	MS & FW PIPE CHASE IA DISTRIBUTION P&ID			
1-NHY-500325-1	13	INSTRUMENT AIR DISTRIBUTION P&ID			
1-NHY-506588	5	MS-PV-3004 CONTROL LOOP DIAGRAM			
1-NHY-506587	5	MS-PV-3003 CONTROL LOOP DIAGRAM			
1-NHY-500118	1	INSTALL. DETAILS FOR CC-TV-2171-1 & CC-TV-2171-2			
1-NHY-500117	1	INSTALL. DETAILS FOR CC-TV-2171-1 & CC-TV-2171-2			





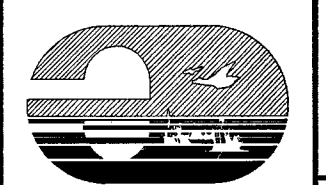
PID-1-SA-B20650

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 20649, 20651, 20652 & 20653.
  2. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX SA, UNLESS NOTED OTHERWISE.
  3. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS ARE SAFETY CLASS NNS UNLESS NOTED OTHERWISE.
  4. INSTRUMENT REFERENCES:
    - (A) TO SCC-V126, FV-7060 (DWG. SCC-20078)
    - (B) TO SCC-V129, FV-7061 (DWG. SCC-20078)
    - (C) TO SCC-V132, FV-7062 (DWG. SCC-20078)
  5. ALL PIPING RUNNING BETWEEN BUILDINGS OR TO OUTSIDE EQUIPMENT IS BELOW GROUND EXCEPT AS NOTED.
  6.  $\Delta$  INDICATES REVISION LEVEL.
  7. DELETED
  8. PIPE CAPS OR QUICK DISCONNECTS MAY BE INSTALLED ON SERVICE AIR STATIONS AS DEEMED NECESSARY BY STATION STAFF.
  9. DELETED
  10. INTERNALS OF CHECK VALVES, SA-V1175 & 1176 HAVE BEEN REMOVED.
  11. VALVE SYMBOL MAY NOT BE REPRESENTATIVE OF INSTALLED COMPONENT TYPE, REFER TO VALVE LIST.
  12. EXCESS FLOW CHECK VALVES 1-SA-V-723 & V-726 SEATS IF FLOW EXCEEDS 120 SCFM @ 100 PSIG INLET PRESSURE.
  13. CHECK VALVE HAS 0.285" HOLE IN DISC TO SUPPORT AUTO START OF PORTABLE COMPRESSOR.

35	10/16/07	BCS	JM	DEA	INCORP. DCR 04-011 DCM-00, 04, 13 & ASBUILT INFO
34	8/7/07	BCS	JM	MAP	PARTIAL INCORP. MSE 04-147 REV. 02
33	6/21/07	BCS	JM	RWM	INCORP. CR 07-03416 REV. 0
32	10/6/06	BCS	JM	RRB	PARTIAL INCORP. MMOD 04-147 DCM 00
31	7/27/06	BCS	JM	DEA	INCORP. MSE 06-046 DCM-00
30	12/15/05	JM	BCS	DEA	INCORP. MMOD 05-520 DCM 00
29	11/17/05	BCS	JM	DEA	PARTIAL INCORP. MSE 04-147 REV 03
28	10/05/05	BCS	JM	RRB	INCORP. MSE 05-135 REV.00 & REMOVED INCOMPLETE ITEM #1 PER SA OP. PROCED. (DN042.01 & 03)
27	4/19/05	BCS	JM	RRB	INCORP. DCR-97-13 DCM-00, 54; MMOD 95-570 DCM-00; PARTIAL INCORP. MSE 04-147 REV 00
26	2/27/04	JM	BCS	SAK	INCORP. INCORP. MSE 04-147 REV 00, PARTIAL INCORP. DCR 97-13, DCM-00
25	11/3/03	JM	BCS	MR	INCORP. MSE 03-0205 REV 00
24	8/18/03	MPW	JM	JGC	INCORP. MMOD 01-537 DCM 00
23	7/14/03	BCS	JM	JGC	PARTIAL INCORP. MMOD 01-537 DCM 00
22	6/17/03	MPW	JM	JC	PARTIAL INCORP. MMOD 01-537 DCM 00
21	12/19/02	BCS	JM	DEA	INCORP. MSE 02-0216 REV.0
20	5/29/02	BCS	MPW	RRB	INCORP. MSE 00-0247 REV.0, CR 01-09349
19	9/15/00	BCS	MPW	JCM	INCORP. MMOD 99-626 DCM-00
18	8/22/00	BCS	DWS	JCM	PARTIAL INCORP. MMOD 99-626 DCM-00
17	1/20/97	BCS	DWS	RWM	INCORP. MMOD 96-669 CA-0
16	1/31/96	BCS	MPW	RRB	INCORP. MMOD 95-570 CA-0
15	9/14/95	BCL	MPW	JCM	INCORP. MMOD 95-552 CA-0
14	1/17/95	BCL	DWS	WFZ	INCORP. DCR 93-16 CA-21
13	3/24/93	MRB	BCL	WFZ	INCORP. DCR 93-16 CA0.01
12	3/24/93	BCL	MRB	JCM	REINCORP. DCR-91-31, CA-0
11	2/12/93	BCL	MRB	JCM	INCORP. DCR-91-31, CA-0
10	1/25/93	BCL	MRB	JCM	PARTIAL INCORP. DCR-91-31, CA-0
9	5/11/92	MRB	BCL	GPM	INCORP. MMOD 90-582 CA00
8	7/18/91	MRB	JM	GRM	INCORP. MMOD 90-582 CA00
7	11/7/88	GPM	MRB	RRC	INCORP. ECA 74/1131738
6	8/26/87	MPW	BCL	RRR	REVISED NOTE 3 ADDED FILTERS 8000, 8001 & 8002 PER # 20441, V204 PER UE & C 12 & 10 200293, NOTE 3 & INCOMPLETE ITEM 1 CHANGED VALVES V1180 & V1181 FROM GATE TO GLOBE VALVES PER ECA 95/117267E, CHANGED VALVES V253, V254 & V251 FROM GATE TO GLOBE VALVES AND CORRECTED VALVE TAG NO. PER ECA 95/10802C.
5	6/1/87	MPW	DWS	VMS	INCORP. ECA 19/118567B
4	3/21/86	TAK	JDM	WFD	ISSUED FOR OPERATIONS & INCORP. ECA 74/1131738

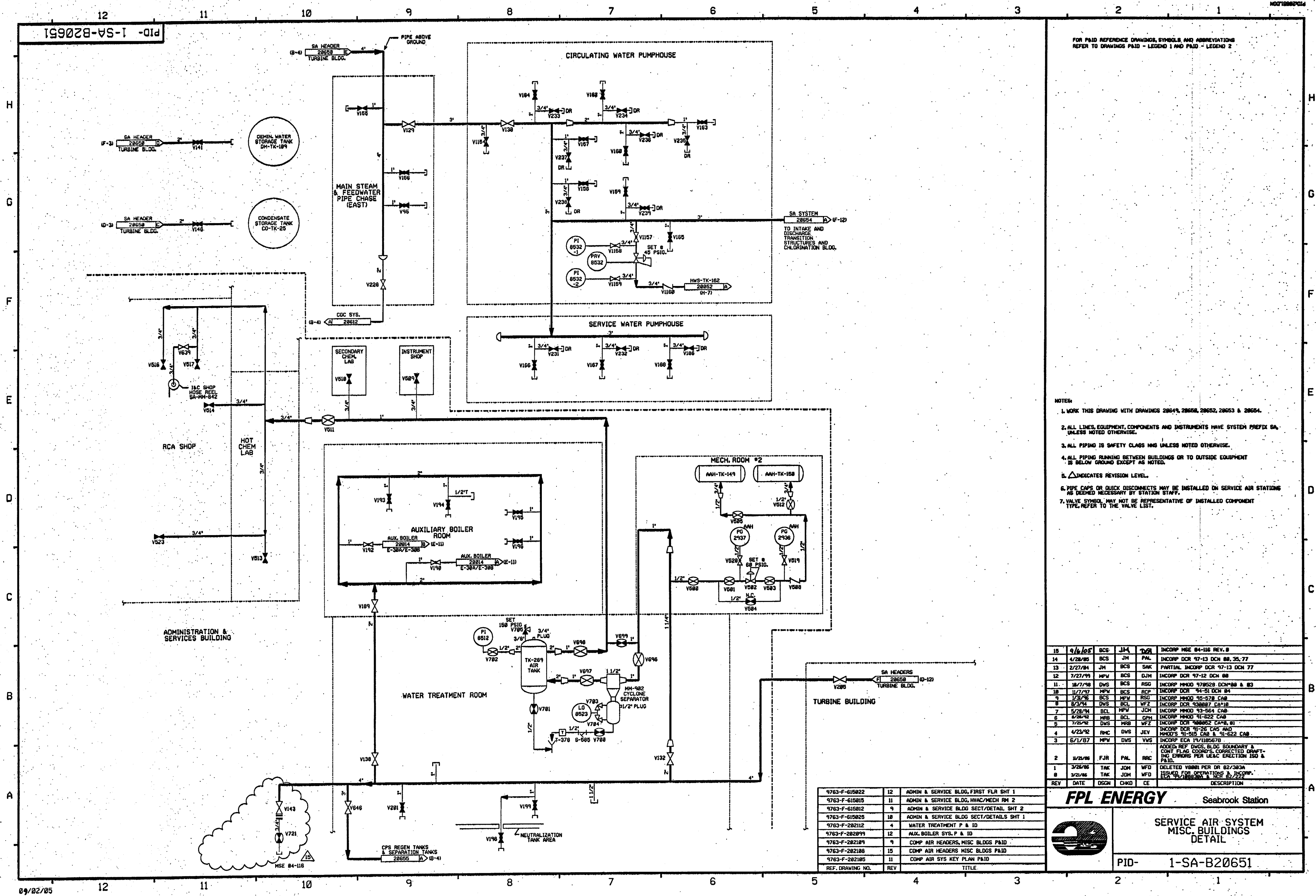
**FPL ENERGY**

Seabrook Station

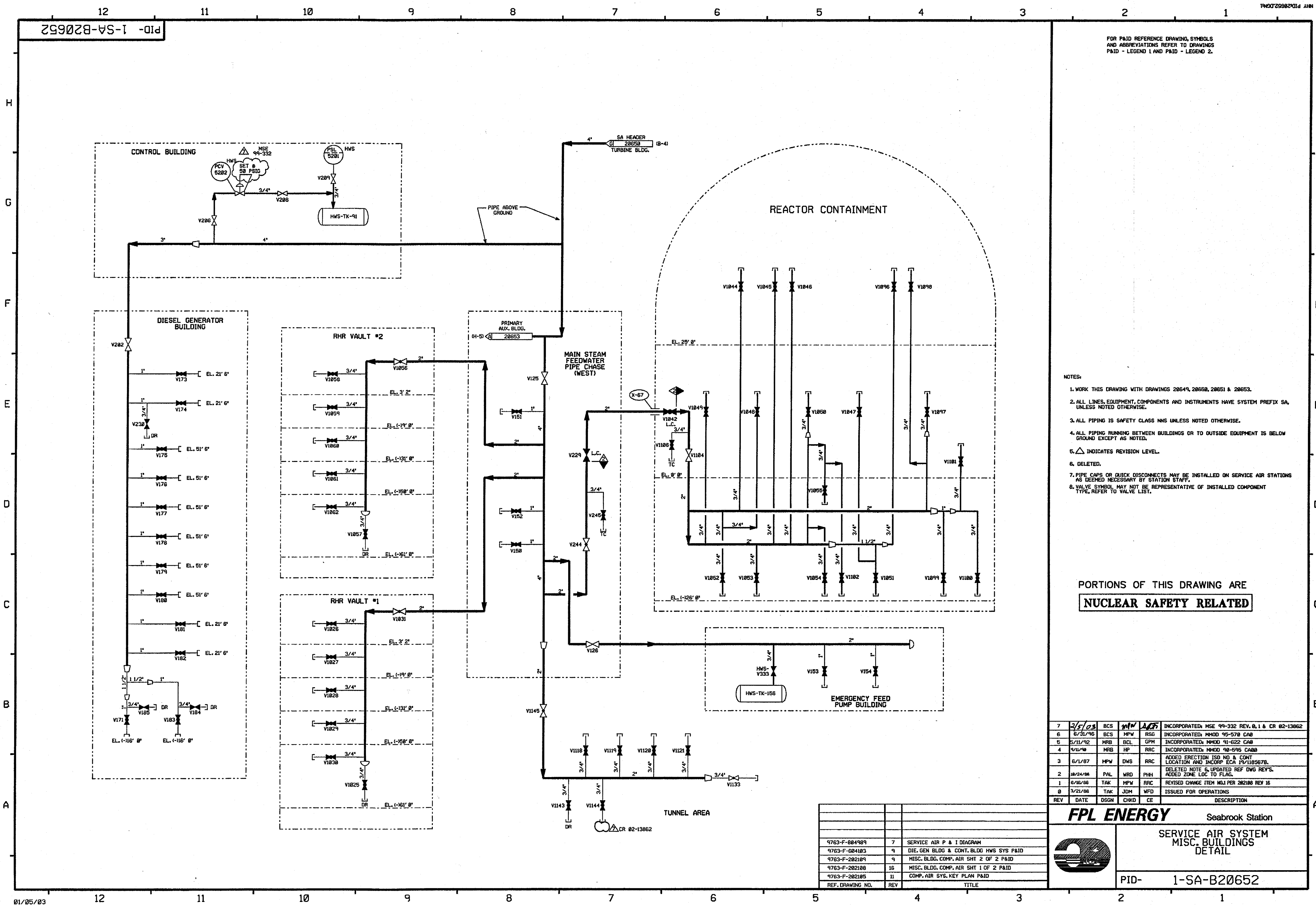
SERVICE AIR SYSTEM  
TURBINE BUILDING  
DETAIL

PID-1-SA-B20650

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
9763-F-202107	12				COMP. AIR HEADERS TURB. BLDG. P & ID
9763-F-202106	11				COMPRESSED AIR SYS. P & ID
9763-F-202105	11				COMPRESSED AIR SYS. KEY PLAN P & ID
REF. DRAWING NO.	REV	TITLE			





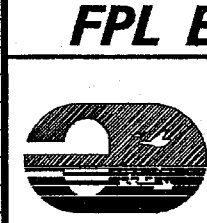


FOR P&ID REFERENCE DRAWING, SYMBOLS  
AND ABBREVIATIONS REFER TO DRAWINGS  
P&ID - LEGEND 1 AND P&ID - LEGEND 2.

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 20649, 20650, 20651 & 20653.
  2. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX SA, UNLESS NOTED OTHERWISE.
  3. ALL PIPING IS SAFETY CLASS NNS UNLESS NOTED OTHERWISE.
  4. ALL PIPING RUNNING BETWEEN BUILDINGS OR TO OUTSIDE EQUIPMENT IS BELOW GROUND EXCEPT AS NOTED.
  5.  $\Delta$  INDICATES REVISION LEVEL.
  6. DELETED.
  7. PIPE CAPS OR QUICK DISCONNECTS MAY BE INSTALLED ON SERVICE AIR STATIONS AS DEEMED NECESSARY BY STATION STAFF.
  8. VALVE SYMBOL MAY NOT BE REPRESENTATIVE OF INSTALLED COMPONENT TYPE, REFER TO VALVE LIST.

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

7	2/5/03	BCS	MPW	AS	INCORPORATED: MSE 99-332 REV. 0, 1 & CR 02-13862
6	6/31/96	BCS	MPW	RSG	INCORPORATED: MM00 95-570 CA0
5	5/11/92	MRB	BCL	GPM	INCORPORATED: MM00 91-622 CA0
4	9/11/90	MRB	HP	RRC	INCORPORATED: MM00 90-595 CA00
3	6/1/87	MPW	DWS	RRC	ADDED ERECTION ISD NO. & CONT LOCATION AND INCOMP. ECR 19/1185678.
2	10/24/86	PAL	WRD	PHH	DELETED NOTE 6, UPDATED REF DWG REV'S.
1	6/16/86	TAK	MPW	RRC	REVISED CHANGE ITEM MLI PER 202108 REV 16
0	3/21/86	TAK	JOM	WFD	ISSUED FOR OPERATIONS
REV	DATE	DSGN	CHKD	CE	DESCRIPTION



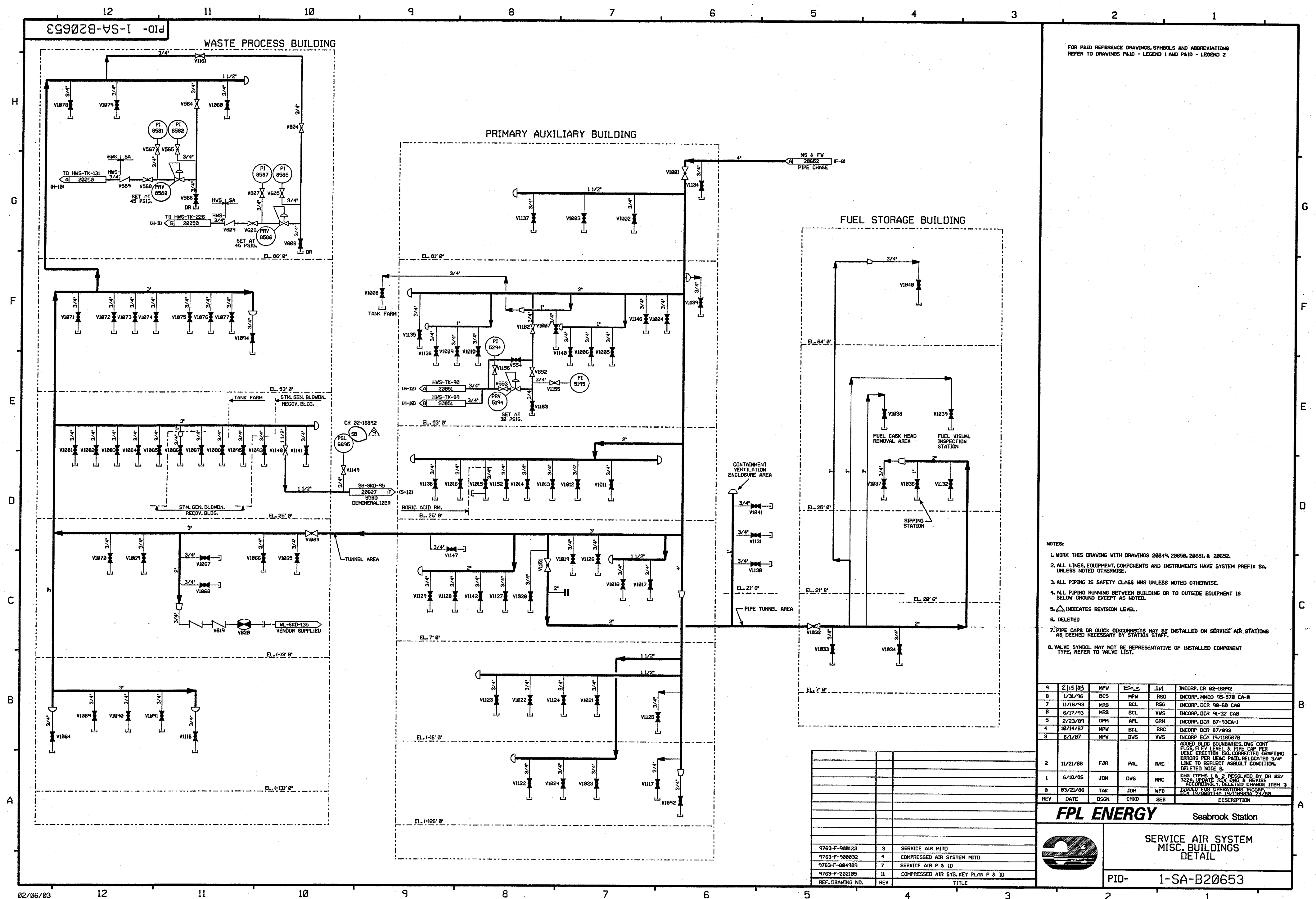
**FPL ENERGY** Seabrook Station

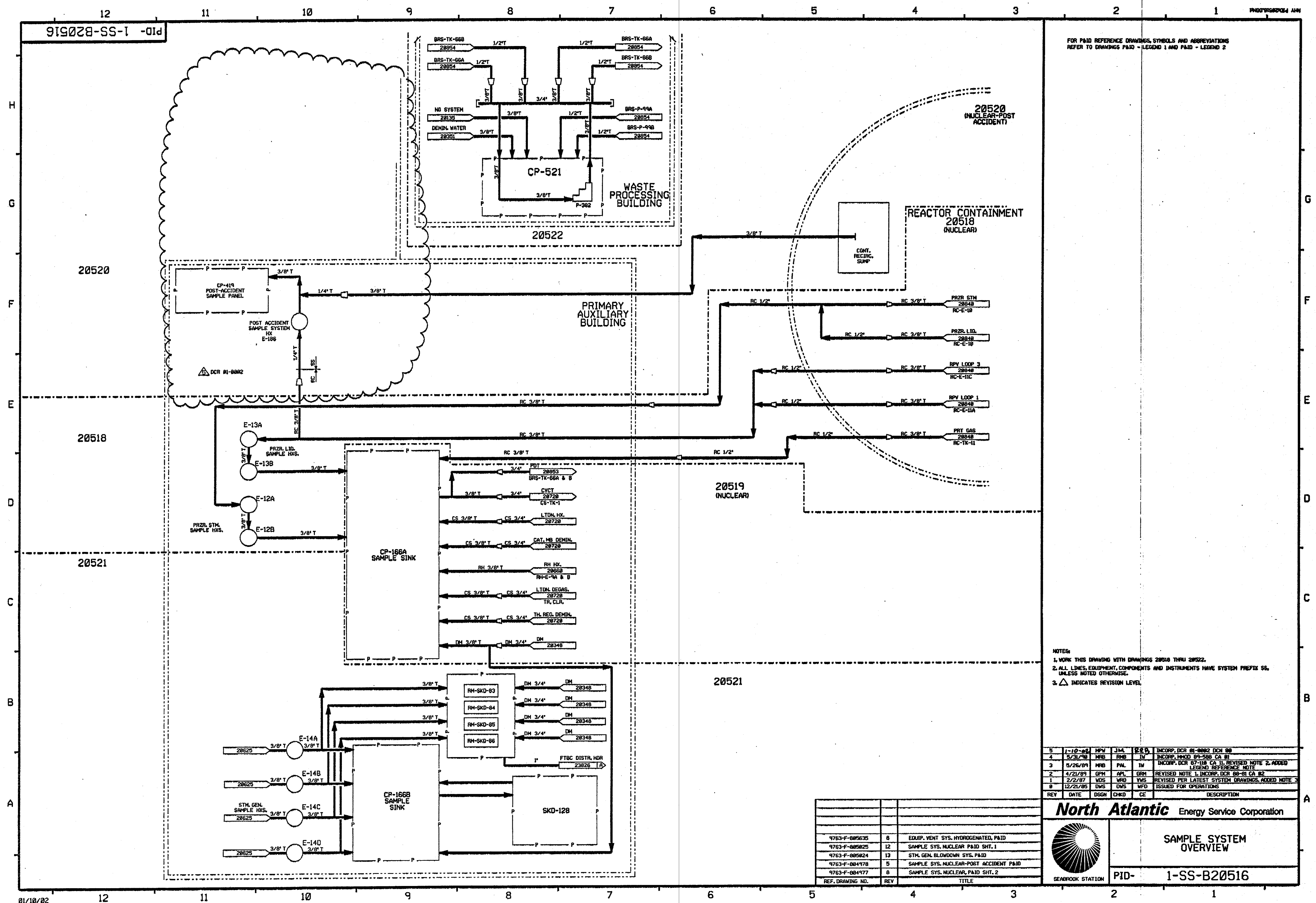
SERVICE AIR SYSTEM  
MISC. BUILDINGS  
DETAIL

PID- 1-SA-B20652

REF. DRAWING NO.	REV	TITLE
9763-F-884989	7	SERVICE AIR P & I DIAGRAM
9763-F-884103	9	DIE. GEN BLDG & CONT. BLDG HWS SYS P&ID
9763-F-202104	9	MISC. BLDG. COMP. AIR SHT 2 OF 2 P&ID
9763-F-202108	16	MISC. BLDG. COMP. AIR SHT 1 OF 2 P&ID
9763-F-202105	11	COMP. AIR SYS. KEY PLAN P&ID







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 28538 THRU 28522.
2. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX SS, UNLESS NOTED OTHERWISE.
3.  $\Delta$  INDICATES REVISION LEVEL.

5	1-10-62	HPV	JML	2-2-62	INCORP. DCR 81-0802 DCM 80
6	5/31/70	HRS	RHB	IV	INCORP. HMOJ 59-585 CA 80
7	5/26/69	HRS	PAH	IV	INCORP. DCR 81-11 CA 1 REVISED NOTE 2, ADDED REFERENCE NOTE
8	1/21/81	GPM	APL	GRM	REVISED NOTE 1, INCORP. DCR 80-81 CA 82
9	2/2/87	WDS	WFO	WDS	REVISED PER LATEST SYSTEM DRAWINGS, ADDED NOTE 3
10	12/21/85	DWS	DWS	WFO	ISSUED FOR OPERATIONS
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

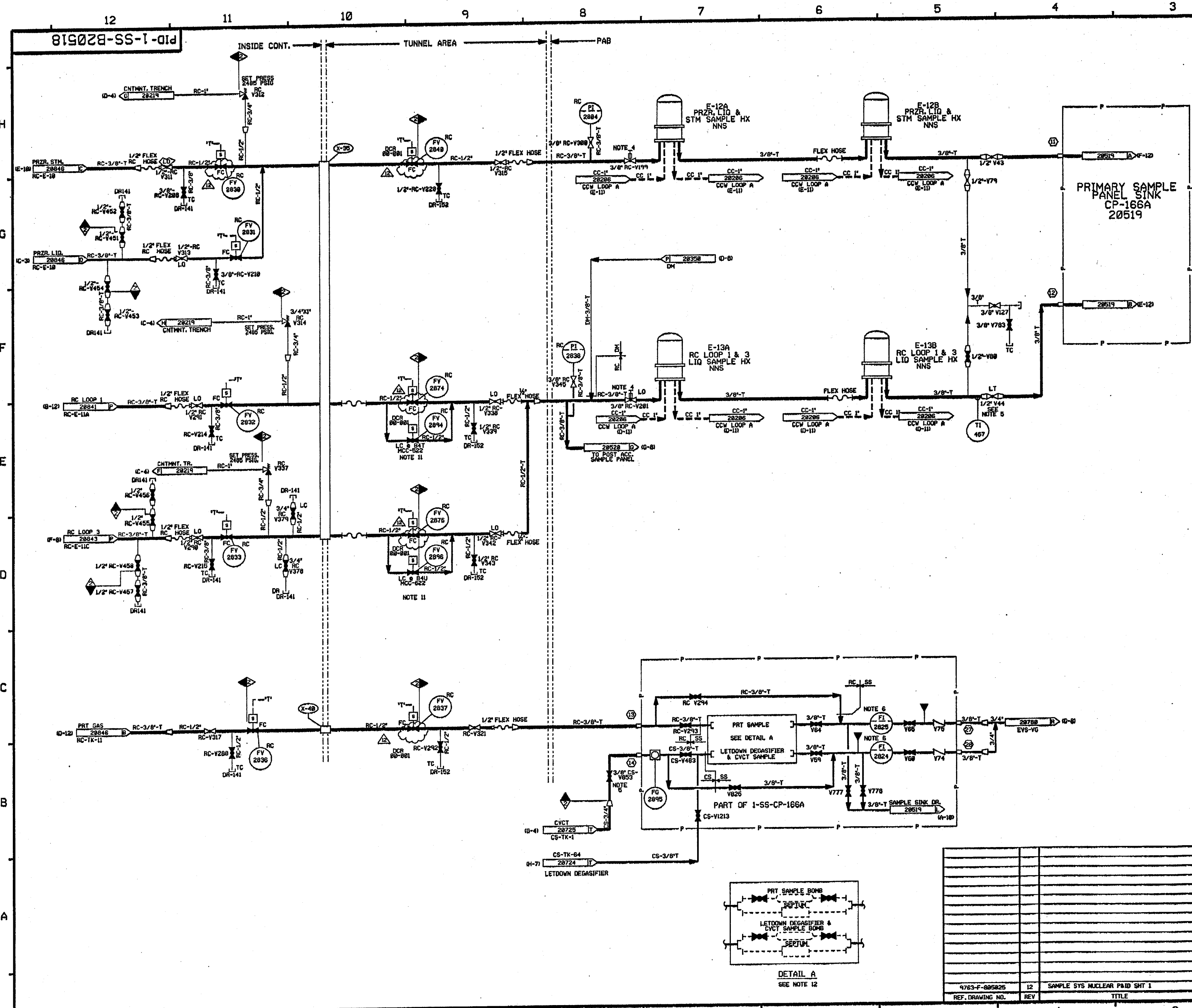
**North Atlantic** Energy Service Corporation



## SAMPLE SYSTEM OVERVIEW

PID-	1-SS-B20516
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[illegible]



- FOR PAID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS REFER TO DRAWINGS PABD - LEGEND 1 AND PABD - LEGEND 2
- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 20516, 20519 THRU 20522.
  2. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX SS, UNLESS NOTED OTHERWISE.
  3. ALL SAMPLE INSTRUMENTATION INDICATION SHALL BE LOCATED ON A PANEL AT THE SAMPLE SINK.
  4. REACH ROD OPERATED FROM THE SAMPLE ROOM SIDE OF THE SAMPLE ROOM-SAMPLE WALL.
  5. THIS VALVE SHALL BE ADJUSTED AND SET TO GIVE A 0.5 GPM SAMPLE FLOW FROM RPV LOOP 1 OR 2.
  6. ALL FLOW INDICATORS ON SS-CP-166A & B HAVE INTEGRAL NEEDLE VALVES WHICH ARE NOT SHOWN ON THE PABD.
  7. ○ TYPICAL CONNECTION IDENTIFICATION FOR SS-CP-166A & B
  8. DELETED
  9. △ INDICATES REVISION LEVEL
  10. VENTS, DRAINS AND TEST CONNECTION CODEBREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE FOR 1-WAY-040111 UNLESS OTHERWISE NOTED.
  11. VALVE DISABLED IN THE LOCKED CLOSED POSITION BY LOCKING BREAKERS B41 & B41 OPEN.
  12. SAMPLE BOMBS AND SEPTUMS ARE INSTALLED DURING SAMPLING FUNCTIONS. EITHER THE SAMPLE BOMB OR THE SAMPLE SEPTUM MAY BE USED, SEE DETAIL A (W-18).

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

REV	DATE	DSGN	DRWN	CHKD	CODE	SES	DESCRIPTION
12	8/12/82	BCL	—	—	—	—	INCORP DCR 88-081 DCMH
11	6/13/81	DMS	—	—	—	—	INCORP DCR 87-088 DCMH
10	12/2/80	DMS	—	—	—	—	INCORP DCR 87-088 DCMH
9	1/21/80	HRB	—	—	—	—	INCORP DCR 87-088 DCMH
8	8/23/79	HRB	—	—	—	—	INCORP DCR 87-088 DCMH
7	10/25/78	HRB	—	—	—	—	INCORP DCR 87-088 DCMH
6	6/21/78	HRB	—	—	—	—	INCORP DCR 87-088 DCMH
5	12/28/77	HRB	—	—	—	—	INCORP DCR 87-088 DCMH
4	2/1/78	GPH	—	—	—	—	INCORP DCR 87-088 DCMH
3	3/22/78	GPH	—	—	—	—	INCORP DCR 87-088 DCMH
2	8/1/77	JHM	—	—	—	—	INCORP DCR 87-088 DCMH
1	5/22/77	DMS	—	—	—	—	INCORP DCR 87-088 DCMH
8	1/3/76	DMS	—	—	—	—	INCORP DCR 87-088 DCMH

**North Atlantic** Energy Service Corporation

**SEABROOK STATION**

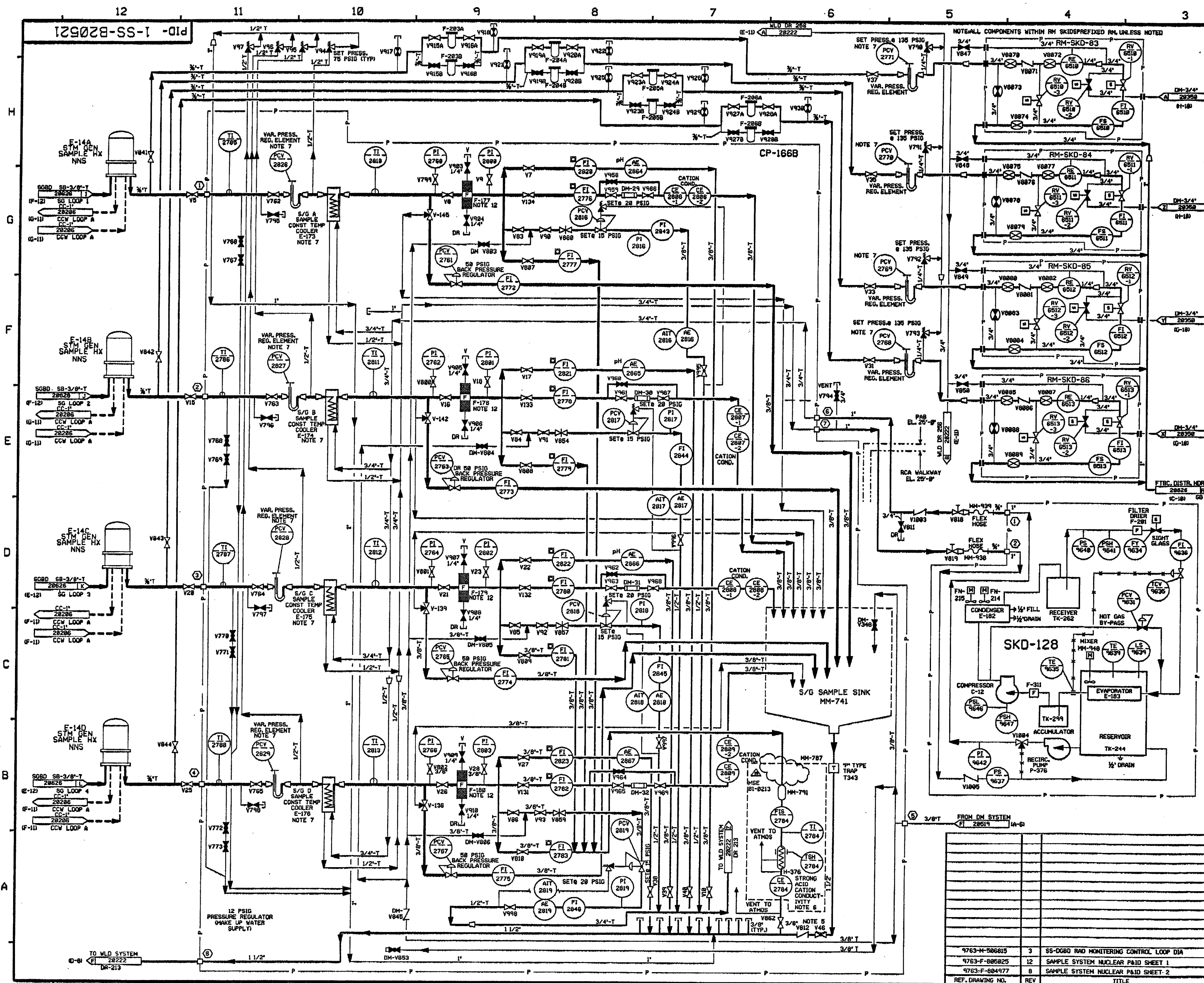
**SAMPLE SYSTEM (NUCLEAR-NORMAL OPERATION) DETAIL**

**PID- 1-SS-B20518**

9763-F-005025 12 SAMPLE SYS NUCLEAR PABD SHT 1







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 28516, 28518, 28519, 28520 & 28522.
  2. ALL LINES, EQUIPMENT COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX SS, UNLESS NOTED OTHERWISE.
  3. ALL TUBING 3/8\" T AND MATL CLASS 2500 UNLESS NOTED OTHERWISE.
  4. SEE DMS 28518 FOR ADDITIONAL NOTES.
  5. LOW CRACKING PRESSURE VALVE.
  6. ONLY ONE S/G AT A TIME IS LINED UP TO THE SACC ANALYZER.
  7. THIS EQUIPMENT HAS 1/4\" TUBING CONNECTIONS.
  8. DISPOSE OF COOLANT IN A PROPER CONTAINER FOR OFF SITE DISPOSAL DO NOT DIRECT TO FLOOR DRAINS.
  9. DRAINS ARE SLOPED TO OUTLET CONNECTION 0\".
  10. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS ARE SAFETY CLASS NNS UNLESS NOTED OTHERWISE.
  11.  $\Delta$  INDICATES REVISION LEVEL.
  12. FILTER ELEMENTS OF THE FOLLOWING FILTERS MAY BE OPTIONALLY INSTALLED PER THE DIRECTION OF CHEMISTRY: 1-SS-F-177, 178, 179, 180

15	12/6/81	BCS	mhu	SEA	INCORP. MSE 81-8231 REV. 00
14	6/22/81	BCL	BCS	SS	INCORP. DCR 80-8828, DCR-882, 88
13	11-2-76	BCL	NPV	RCP	INCORP. DCR 82-12 CDR-4, 5
12	6/25/73	MRS	BCL	JWB	INCORP. DCR 78-39 CDRB
REV	DATE	DSGN	CHKD	SES	DESCRIPTION

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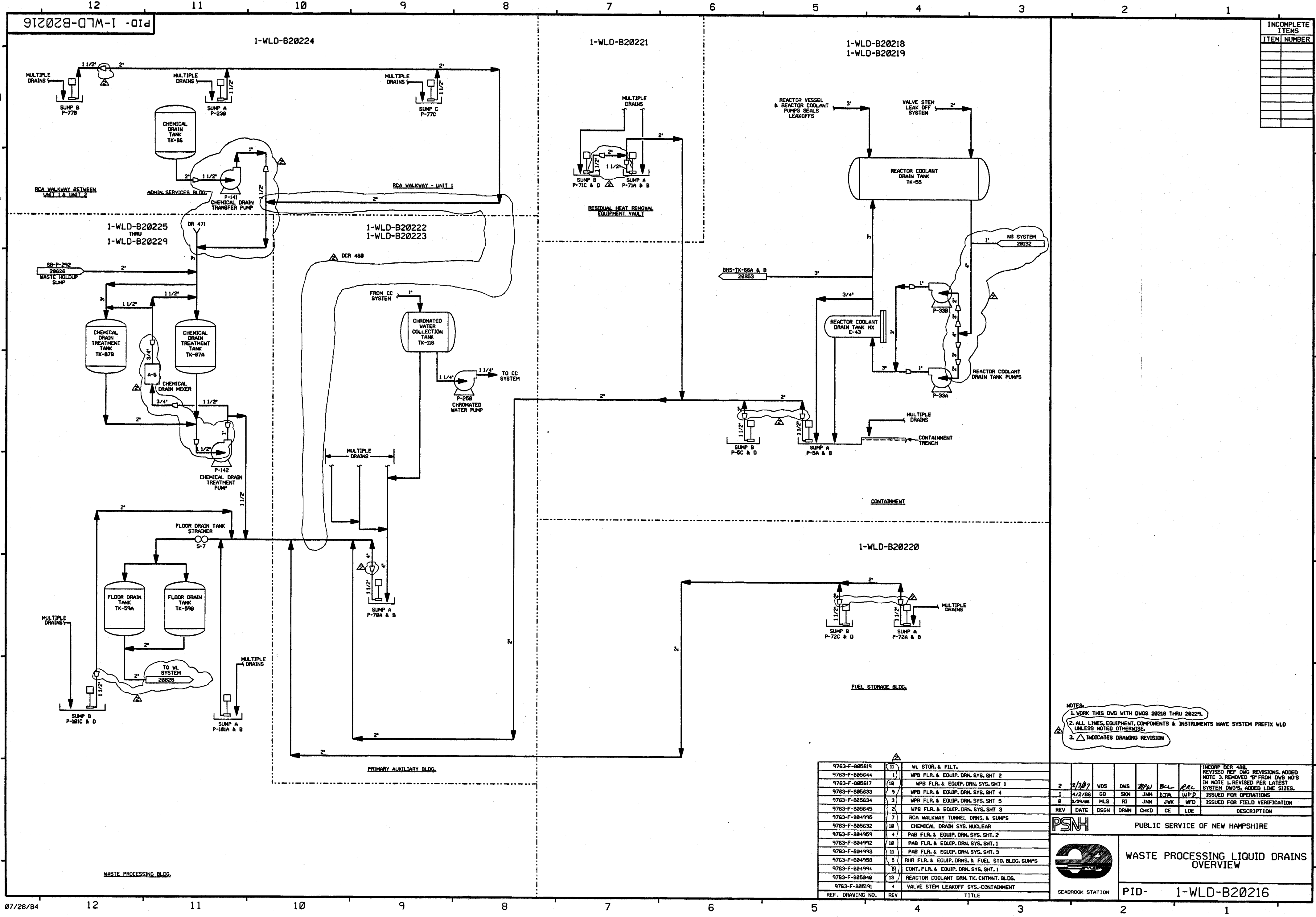
**SEABROOK STATION**

**SAMPLE SYSTEM  
STEAM GENERATOR  
SAMPLE PANEL 166B P&ID**

**PID- 1-SS-B20521**

9763-N-506815	3	SS-0880 RAD MONITORING CONTROL LOOP DIA
9763-F-805825	12	SAMPLE SYSTEM NUCLEAR P&ID SHEET 1
9763-F-804977	8	SAMPLE SYSTEM NUCLEAR P&ID SHEET 2
REF. DRAWING NO.	REV	TITLE





INCOMPLETE ITEMS	
ITEM	NUMBER

NOTES:  
1. WORK THIS DWG WITH DWGS 20218 THRU 20224.  
2. ALL LINES, EQUIPMENT, COMPONENTS & INSTRUMENTS HAVE SYSTEM PREFIX WLD UNLESS NOTED OTHERWISE.  
3. Δ INDICATES DRAWING REVISION

9763-F-805619	1	WL STOR. & FILT.
9763-F-805644	1	WPB FLR. & EQUIP. DRN. SYS. SHT. 2
9763-F-805617	10	WPB FLR. & EQUIP. DRN. SYS. SHT. 1
9763-F-805633	9	WPB FLR. & EQUIP. DRN. SYS. SHT. 4
9763-F-805634	3	WPB FLR. & EQUIP. DRN. SYS. SHT. 5
9763-F-805645	2	WPB FLR. & EQUIP. DRN. SYS. SHT. 3
9763-F-804995	7	RCA WALKWAY TUNNEL DRNS. & SUMPS
9763-F-805632	10	CHEMICAL DRAIN SYS. NUCLEAR
9763-F-804959	4	PAB FLR. & EQUIP. DRN. SYS. SHT. 2
9763-F-804992	10	PAB FLR. & EQUIP. DRN. SYS. SHT. 1
9763-F-804993	11	PAB FLR. & EQUIP. DRN. SYS. SHT. 3
9763-F-804958	5	RVR FLR. & EQUIP. DRNS. & FUEL STO. BLDG. SUMPS
9763-F-804994	8	CONT. FLR. & EQUIP. DRN. SYS. SHT. 1
9763-F-805040	13	REACTOR COOLANT DRN. TK. CONTNMT. BLDG.
9763-F-805191	4	VALVE STEM LEAKOFF SYS.-CONTAINMENT
REF. DRAWING NO.	REV	TITLE

22/3/07

WDS

DWS

JMM

B-L

WFD

REV

DATE

DSGN

DRWN

CHKD

CE

LDE

INCORP DCR 488, REVISED REF DWG REVISIONS, ADDED NOTE 3, REMOVED "S" FROM DWG NO'S IN NOTE 1, REVISED PER LATEST SYSTEM DWG'S, ADDED LINE SIZES.

ISSUED FOR OPERATIONS

ISSUED FOR FIELD VERIFICATION

DESCRIPTION

PSNH

PUBLIC SERVICE OF NEW HAMPSHIRE

SEABROOK STATION

WASTE PROCESSING LIQUID DRAINS OVERVIEW

PID- 1-WLD-B20216

PID-1-WLD-B20218

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 20216, & 20219 THRU 20229.
  2. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS HAVE SYSTEM PREFIX WLD UNLESS NOTED OTHERWISE.
  3. VALVES V69 THRU V73 ARE REACH ROD OPERATED.
  4. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS ARE SAFETY CLASS NNS, UNLESS NOTED OTHERWISE.
  5.  $\Delta$  INDICATES REVISION LEVEL
  6. REFER TO DRAWING VSL-20774 FOR VALVE LEAKOFFS.

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

14	11/10/08	JM	BCL	RRR	INCORP MMOD 07-523 DCN 00
13	8/13/07	DWS	MPW	DDO	INCORP DCR 970008 DCN*00
12	1/31/97	DWS	BCS	AM	INCORP DCR 970005 CA*0
11	11/27/95	MPW	BCS	DDO	INCORP DCR 95-23 CA-6
10	11/13/95	BCS	MPW	RJF	PARTIAL INCORP DCR 95-23 CA-6
9	6-3-94	MPW	DWS	JLD	INCORP DCR 91-13 CAB & DCR 93-23 CA 3
8	4-3-92	DWS	BCL	ES	INCORP DCR'S 90-3 CA0
7	9-24-91	MRB	RMC	JEV	INCORP MMOD 91-610 CAB
6	4/28/88	MPW	BCL	RRR	REVISED: DRAIN LINES TO SUMP CONTINUATION LETTER REF. COORD AND DUPLICATED PIPING SHOWN IN PHANTOM.
5	7/2/87	GPM	PAL	VMS	REVISED: PIPING TO REFLECT AS INSTALLED CONFIG. ADDED NOTE 6
4	2/27/87	DWS	PAL	VMS	INCORP. WR 87-W000155
3	1/19/87	MAP	PAL	VMS	ADDED VSL CONT FLAGS & REF COORD'S & WR TO ILI RELOCATED PIPING FROM V112 & V58 REMOVED CAPILLARY FROM PER AS-BUILT CONDITION. PLUGGED TE-304 SHOWN PER USE&C ISOMETRIC. ADDED REF COORD TO REF FLAG. UPDATED REF BLOCK & ADDED NOTE 5.
2	6/17/86	TAK	BCL	RRR	ADDED REF. RWG. 804994
1	4/2/86	GD	JOM	WFD	ISSUED FOR OPERATIONS
0	3/29/85	MLS	JNM	WFD	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY**

Seabrook Station



WASTE PROCESSING LIQUID DRAINS  
REACTOR COOLANT SYSTEM

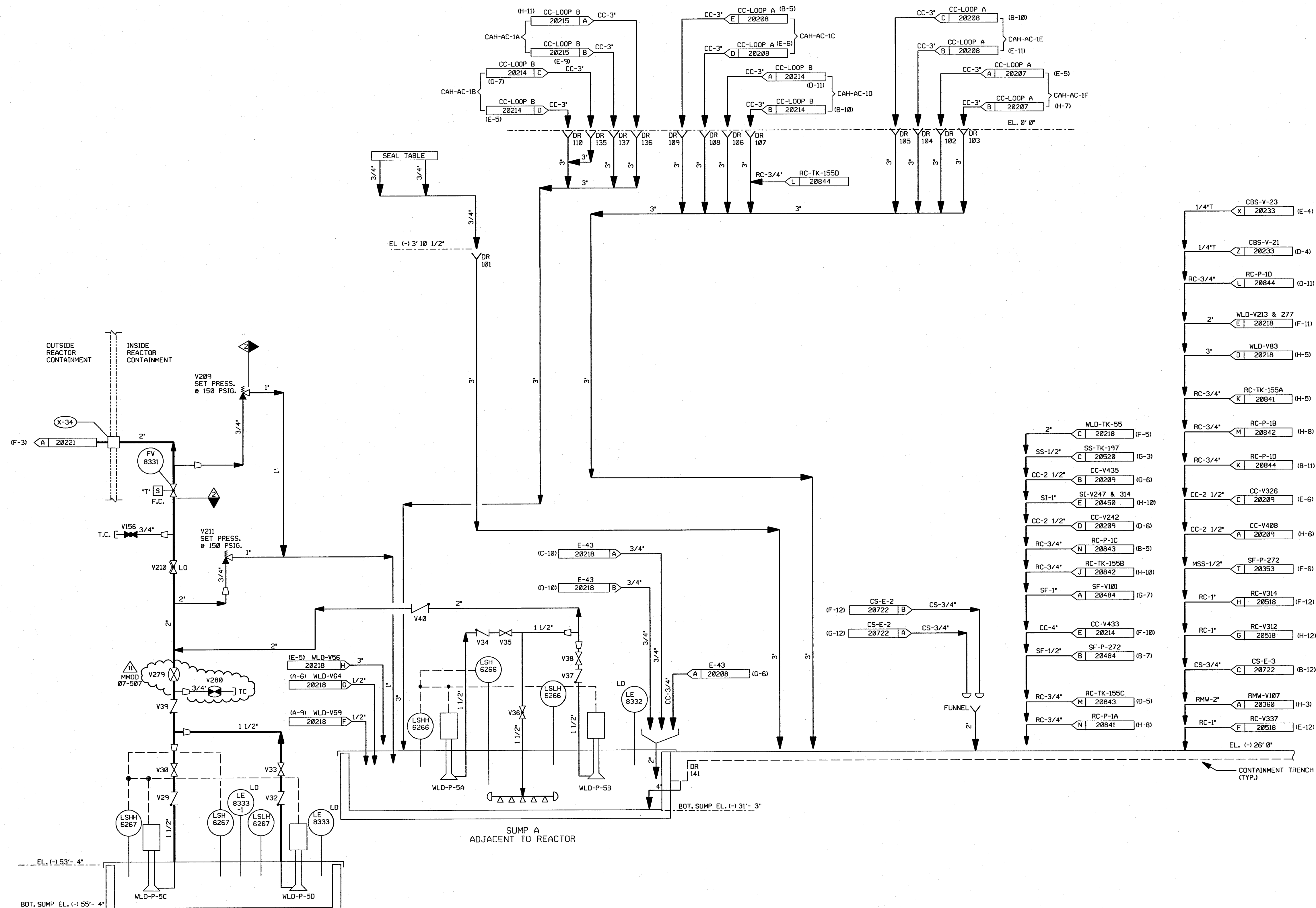
PID- 1-WLD-B20218

REF. DRAWING NO.	REV	TITLE
9763-F-805040	13	REACTOR COOLANT DRAIN TK. CNTMNT. BLDG. P & ID



PID-1-WLD-B20219

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



DRAINS SHOWN ON THIS DRAWING

101	106	135
102	107	136
103	108	137
104	109	141
105	110	

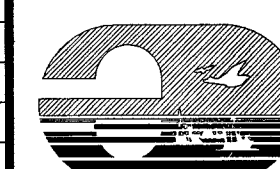
- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 20216, 20218 & 20220 THRU 20229.
  2. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS HAVE SYSTEM PREFIX WLD UNLESS NOTED OTHERWISE.
  3. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS ARE SAFETY CLASS UNLESS NOTED OTHERWISE.
  4.  $\Delta$  INDICATES REVISION LEVEL.
  5. DELETED

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

11	4/14/88	JM	Bos	JME	INCORP MMD 07-507 DCN 00.01
10	4/6/85	JM	MPW	RRB	INCORP MSE 04-196 REV 01.00
9	8/18/97	MPW	BCS	VWS	INCORP MMD 96-550 DCN 01
8	6/13/97	DWS	MPW	DMQ	INCORP DCR 970008 DCN*00
7	1/17/97	DWS	MPW	DMQ	INCORP DCR 970002 CA*0 & 1
6	10/14/88	MRB	GPM	RRR	INCORP NCR 96-508 REV 1 DELETED NOTE 5
5	4/28/88	MPW	BCL	RRR	ADDED: LINE SIZES; REVISED: DRAIN LINES TO SUMP A AND NOTE 3. DELETED REF. DOC. REVISED DRAFTING ERRORS; DRAIN LOC. FOR HX-E-43; ADDED DRAIN FOR RC-P-1D, NOTE 5 & DESIGNATION AND NCR 88/600 AS INCOMP. ITEM, INCORP NCR 88/111 REV.0 & NCR 88/112 REV.0
4	12/22/86	WDS	WRD	RRR	DELETED VG DRAIN LINE, ADDED CONT. REF. LOCATIONS AND NOTE 4. INCORP'D ECA 19/10341A, 19/110443A
3	10/10/86	JDM	MPW	RRR	REMOVED CHANGE ITEM #1 PER ECA 19/108566A, INCORP. ECA 19/116102A & 74/102536B & C
2	6/16/86	TAK	DWS	RRR	INCORP. ECA 19/108566A ISSUED FOR OPERATIONS
1	4/2/86	GD	JDM		INCORP. ECA 19/108566A ISSUED FOR OPERATIONS
0	3/29/85	MLS	JNM	WFD	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY**

Seabrook Station



WASTE PROCESSING LIQUID DRAINS  
CONTAINMENT BUILDING SUMPS

PID- 1-WLD-B20219

9763-F-004994	8	CONTNMT. FLR. & EQUIP. DR. SYS. SHT. 1 P & ID
REF. DRAWING NO.	REV	TITLE

REF. DRAWING NO.	REV	TITLE
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FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2

DRAINS ON THIS DRAWING

151	156	161
152	157	162
153	158	163
154	159	164
155	160	165

CLEANOUT ON THIS DRAWING

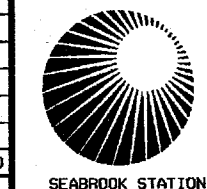
1152

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 28216, 28218 THRU 28228, & 28222 THRU 28224.
  2. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS HAVE SYSTEM PREFIX WLD UNLESS NOTED OTHERWISE.
  3. DELETED.
  4. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS ARE SAFETY CLASS NNS UNLESS NOTED OTHERWISE.
  5.  $\Delta$  INDICATES REVISION LEVEL.
  6. V263 IS A SPRING LOADED, SELF-CLOSING VALVE, PROVIDING MELB PROTECTION FROM CROSS-TRAIN FLOODING OF VAULTS.

PORTIONS OF THIS DRAWING ARE  
NUCLEAR SAFETY RELATED

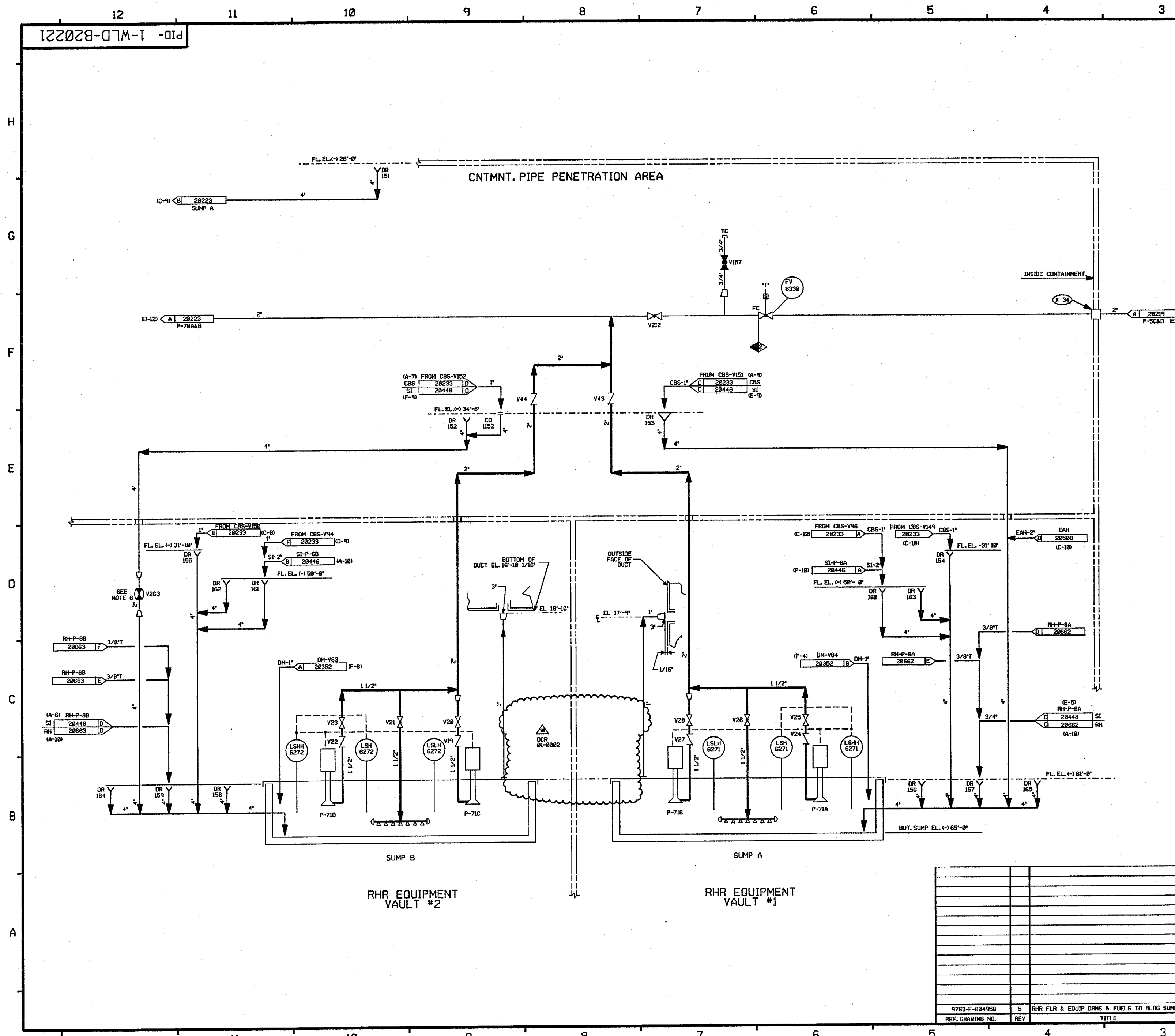
18	1-10-80	MPW	---	BS	---	RS	INCORP. DCR 81-8882 DCN 88
9	3/25/91	BCL	---	MRB	DWS	GPM	INCORP. MM00 92-552 CAG
8	8/25/90	MRB	FCB	JM	APL	BCL	INCORP. MM00 90-681 CAG
7	11/1/89	MRB	FCB	APL	WCL	GRM	COMPLETE INCORP. DCR 87-311 CAG
6	9/6/89	MRB	RMC	APL	BCL	WFD	PARTIAL INCORP. OF DCR 87-311 CA 87
5	4/21/89	MPW	RMC	APL	MRB	GPM	ADDED LINES FROM DWG 22652 SHOWN ON THIS DWG. PER CHEMISTRY REQUEST REVISED. CONT. REF. COORD. EAM CONT. & NOTE 4 DELETED PIPE SPECS.
4	7/18/87	MPW	RIW	PAL	BCL	VNS	INCORP. DCR 86-482.
3	11/4/86	MAP	OPD	VRD	BCL	RRR	REVISED REF. DWG REV. ADDED P&ID LEGEND NOTE, DWG COORDS. REMOVED ALFA FROM DWG REF. NOTE L.
2	9/2/86	MAP	WES	JDM	BCL	RRR	DELETED NOTE 3 & INCORP. ECA 74/1165678
1	4/2/86	GD	GJS	JDM	DLM	WFD	ISSUED FOR OPERATIONS
9	3/24/85	MLS	MRB	JNM	JWK	WFD	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	DRWN	CHKD	CDE	SES	DESCRIPTION

North Atlantic Energy Service Corporation

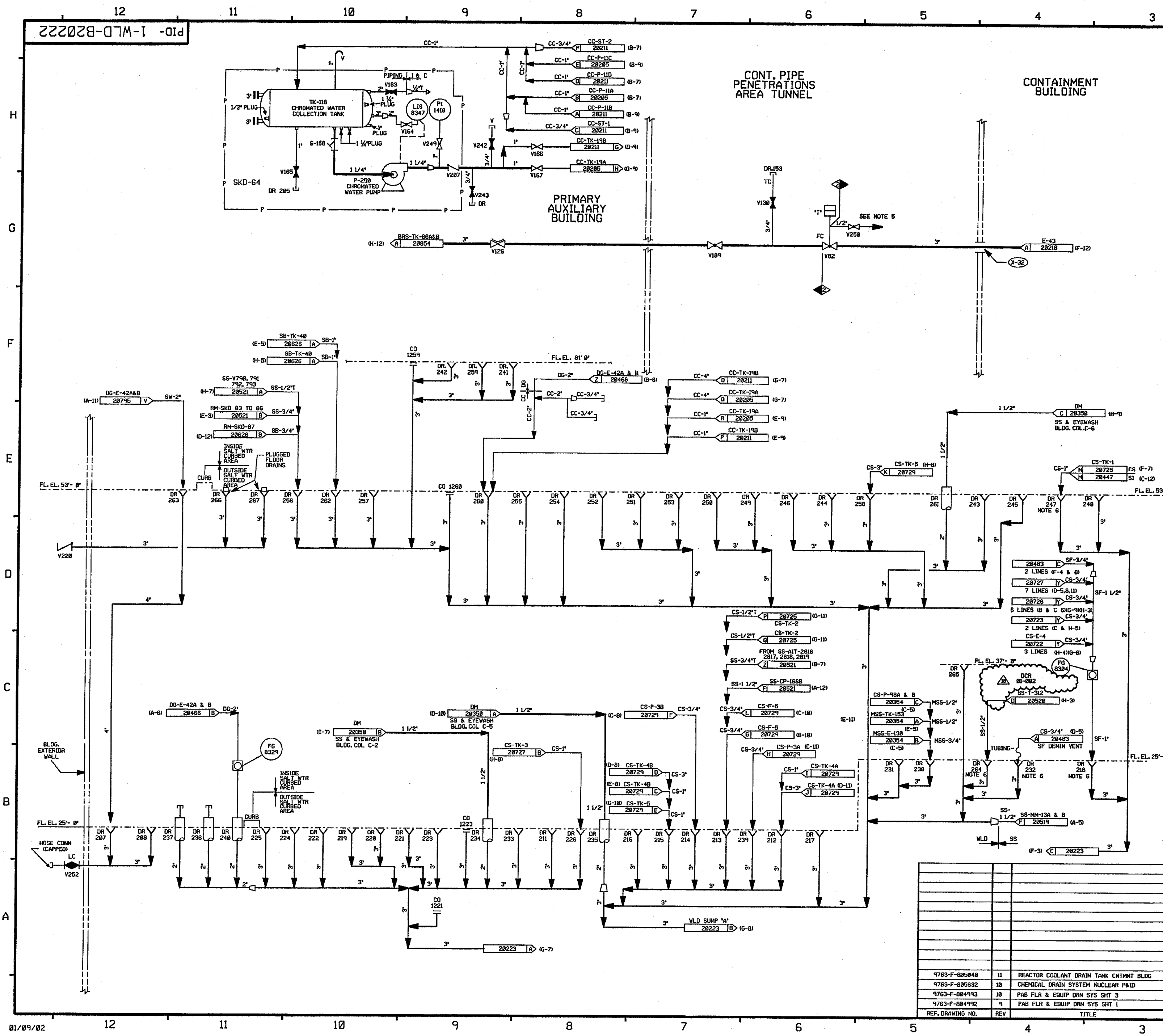


WASTE PROCESSING LIQUID DRAINS  
RHR  
EQUIPMENT VAULTS #1 & #2

PID- 1-WLD-B20221



01/10/02



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

**DRAINS ON THIS DRAWING**

207	219	233	243	253	263
208	220	234	244	254	264
211	221	235	245	255	265
212	222	236	246	256	266
213	223	237	247	257	267
214	224	238	248	258	268
215	225	239	249	259	269
216	226	240	250	260	270
217	231	241	251	261	271
218	232	242	252	262	272

**CLEANOUTS ON THIS DRAWING**

1221
1223
1259
1260

- NOTES:
- WORK THIS DRAWING WITH DRAWINGS 20216, 20218 THRU 20221, & 20223 THRU 20224.
  - ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTATION HAVE SYSTEM PREFIX UNLESS NOTED OTHERWISE.
  - ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTATION ARE SAFETY CLASS UNLESS NOTED OTHERWISE.
  - INDICATES REVISION LEVEL.
  - REFER TO DRAWING VSL-20774 FOR VALVE LEAKOFF.
  - THIS DRAIN HAS A GAS CONTAINMENT DEVICE ADDED PER MM00 96-055.

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

REV	DATE	DSGN	DRWN	CHKD	SES	DESCRIPTION
18	1/1/88	MPW	---	---	---	INCORP DCR 01-002 DCH 00
17	10/3/88	BCS	---	---	---	INCORP MM00 94-507 DCH 00
16	3/4/88	BCS	---	---	---	INCORP MM00 96-055 DCH 03
15	8/10/87	DWS	---	---	---	INCORP OF DCR 960016 CA#0
14	5/28/87	DWS	---	---	---	PARTIAL INCORP OF DCR 960016 CA#0
13	5/18/87	MPW	---	---	---	INCORP MM00 96-055 CA#0
12	1/18/87	MPW	---	---	---	INCORP DCR 87-055 CA#0
11	11/2/86	BCL	---	---	---	INCORP DCR 92-42 CA#0
10	7/26/86	BCL	---	---	---	INCORP MM00 94-547 CA#0
9	8/3/85	MRB	---	---	---	INCORP MM00 91-516 CA#0
8	4/16/85	BCL	---	---	---	INCORP MM00 91-507 CA#0
7	4/21/82	MRB	---	---	---	INCORP MM00 91-515 CA#0
6	8/18/81	MRB	---	---	---	INCORP MM00 89-530 REV 0
5	4/21/80	GPM	---	---	---	INCORP DCR 86-401CA1 REVISED NOTE 3, PIPING PER AS INSTALLED CONFIGURATION, CONT DNG NO'S, & COORD'S, SALT WATER BOUNDARY, ADDED CONT COORD'S & MATCH UP LETTERS, NOTE 5, TK-118 CONNECTIONS DELETED BUILDING DESIGNATION.
4	12/3/86	MAP	---	---	---	REVISED PER U&C ERECTION ISO., ADDED ISO. REF. DWGS., DWG. LOC. COORD'S & NOTE 4.
3	9/2/86	MAP	---	---	---	INCORP ECA 99/105494A
2	6/16/86	JDM	---	---	---	ADD LETTER DESIG. TO CONTINUATIONS INCORP ECA 17/186629A
1	4/2/86	GD	---	---	---	INCORP ECA 88/114678B ISSUED FOR OPERATIONS
0	3/29/85	MMS	---	---	---	ISSUED FOR FIELD VERIFICATION

**North Atlantic** Energy Service Corporation

**WASTE PROCESSING LIQUID DRAINS  
PRIMARY AUXILIARY BLDG.  
SHT. 1 OF 2**

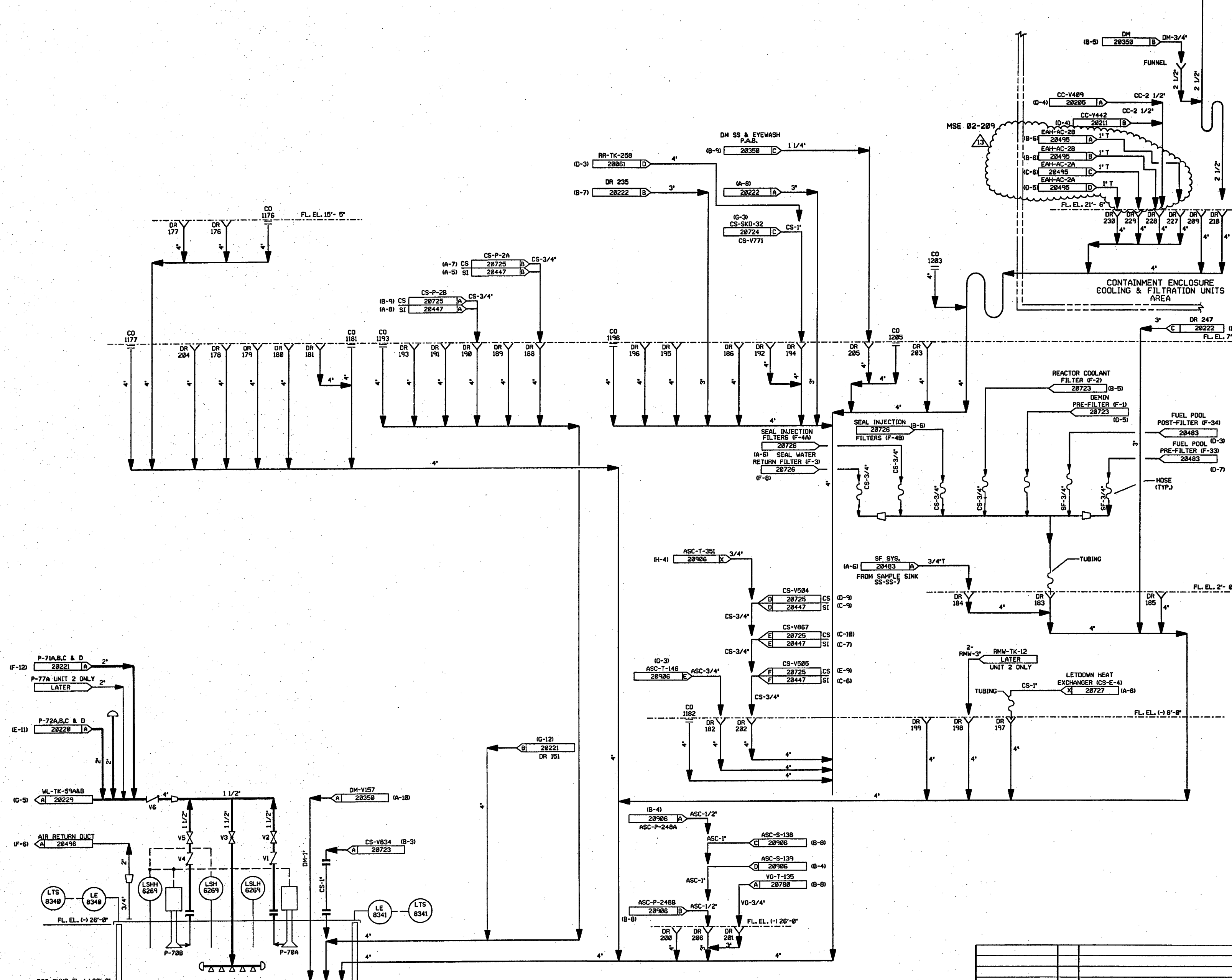
PID- 1-WLD-B20222

**1 CATEGORY 1**



PID-1-WLD-B20223

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



DRAINS ON THIS DRAWING

176	183	191	198	205	238
177	184	192	199	206	
178	185	193	208	209	
179	186	194	201	210	
180	188	195	202	227	
181	189	196	203	228	
182	190	197	204	229	

CLEANOUTS ON THIS DRAWING

1176	1193	1446 (UNIT #2)
1177	1196	
1181	1203	
1182	1205	

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 28216, 28218 THRU 28222, & 28224 THRU 28229.
  2. ALL LINES, EQUIPMENT, COMPONENTS, & INSTRUMENTS HAVE SYSTEM PREFIX WLD UNLESS NOTED OTHERWISE.
  3. ALL LINES, EQUIPMENT, COMPONENTS, & INSTRUMENTS ARE SAFETY CLASS NNS, UNLESS NOTED OTHERWISE.
  4. Δ INDICATES REVISION LEVEL.

REV	DATE	DSGN	CHKD	CE	DESCRIPTION
13	10-21-88	BCS	JMA	MSB	INCCORP. MSE 02-209 REV. 00
12	1/18/82	MPW	BCS	RRB	INCCORP. DCR 01-0086 CEN 00
11	8/18/97	BCL	BCS	VWS	INCCORP. MM00-91-507 CA-0
10	11/2/92	BCL	DWS	DJM	INCCORP. DCR 08-179 CA0
9	4/23/92	MRB	BCL	JEV	INCCORP. MM00-91-515 CA0
8	7/25/91	MRB	JH	JEV	INCCORP. DCR 06-244 CA0
7	3-16-90	MRB	APL	RSG	INCCORP. DCR 07-33 CA7 REVISED NOTE 3 ADDED: CONTINUATION TAG DESCRIPTIONS
6	3/22/88	MPW	BCL	RRR	LINE FROM DWG 28528 SHOWN GOING TO SUMP PER CHEMISTRY REQUEST.
5	2/3/87	JDM	MPW	RRR	INCCORP. DCR 480
4	12/1/86	VDS	MRJ	RRR	REVISED REF. DWG. REVISIONS, ADDED FLANGES AT SUMP A
3	10/18/86	MAP	JDM	RRR	ADDED DWG. LOCATION COORD. & NOTE 4. RE-INCCORPATED ECA 99/114510A INC. ECA'S 99/086183C, 99/100049A
2	6/13/86	TAK	DWS	RRR	INC ECA'S 99/114510A & 99/086183A
1	4/2/86	GD	JDM	WFO	ISSUED FOR OPERATIONS
0	3/24/85	MLS	RSL	WFO	ISSUED FOR FIELD VERIFICATION

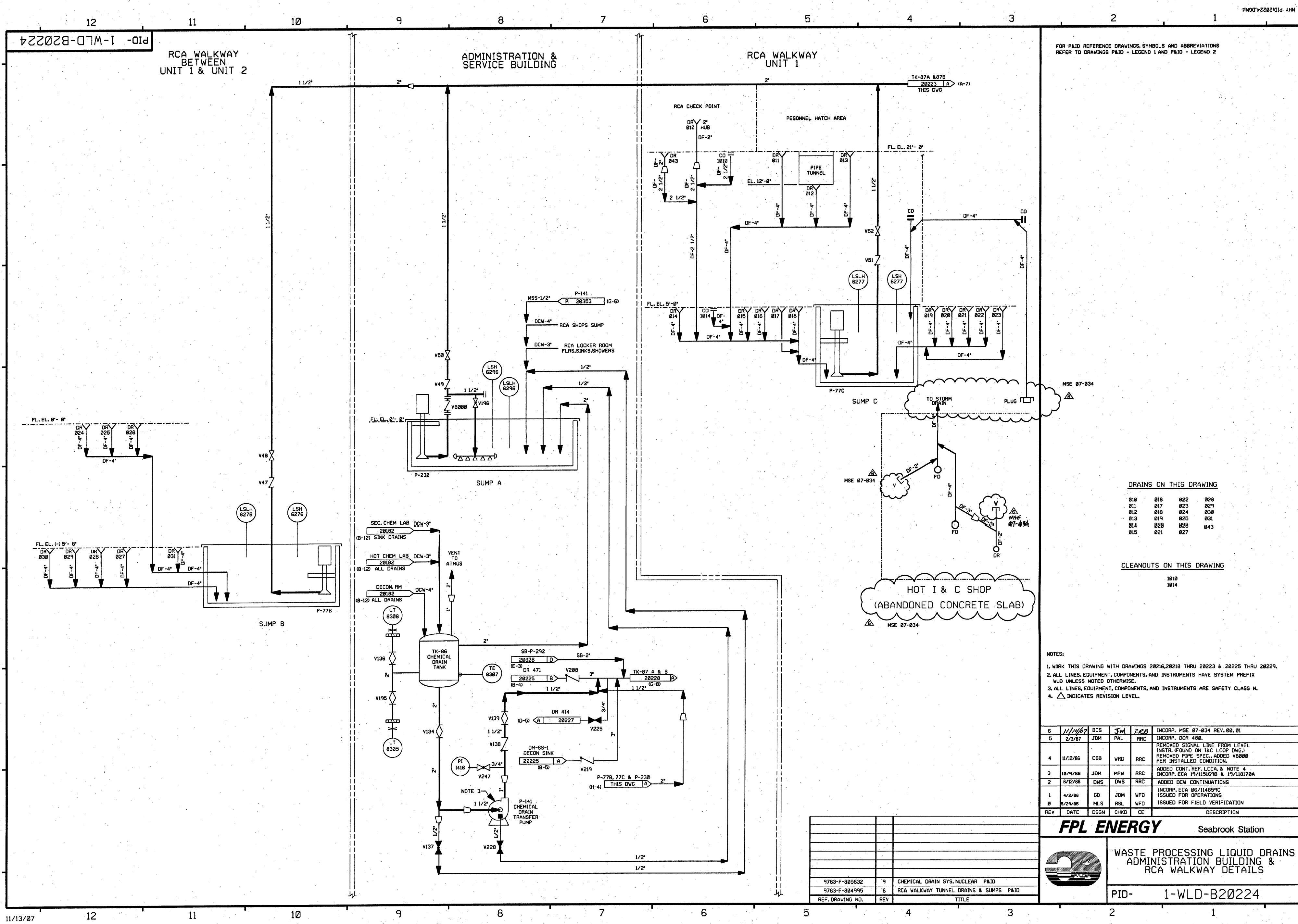
**FPL ENERGY**

Seabrook Station

WASTE LIQUID DRAINS  
PRIMARY AUXILIARY BLDG.  
SHT. 2 OF 2

PID- 1-WLD-B20223

REF. DRAWING NO.	REV	TITLE
9763-F-084993	10	PAB FLR & EQUIP DRN SYS SHT 3 PAID
9763-F-084994	4	PAB FLR & EQUIP DRN SYS SHT 2 PAID
9763-F-084992	10	PAB FLR & EQUIP DRN SYS SHT 1 PAID



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

DRAINS ON THIS DRAWING

010	015	022	028
011	017	023	029
012	018	024	030
013	019	025	031
014	020	026	032
015	021	027	033

CLEANOUTS ON THIS DRAWING

1010
1014

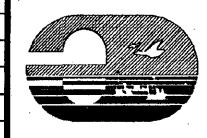
NOTES:

1. WORK THIS DRAWING WITH DRAWINGS 20216, 20218 THRU 20223 & 20225 THRU 20229.
2. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS HAVE SYSTEM PREFIX UNLESS NOTED OTHERWISE.
3. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS ARE SAFETY CLASS N.
4. Δ INDICATES REVISION LEVEL.

6	11/14/07	BCS	JW	200	INCRP. MSE 07-034 REV. 00, 01
5	2/3/07	JDM	PAL	RRC	INCRP. DCR 408.
4	11/12/06	CSB	WRD	RRC	REMOVED SIGNAL LINE FROM LEVEL INSTR. (FOUND ON I&C LOOP DWG.) REMOVED PIPE SPEC. ADDED V8000 PER INSTALLED CONDITION.
3	10/9/06	JDM	MPW	RRC	ADDED CONT. REF. LOCA. & NOTE 4 INCRP. ECA 19/11516/98 & 19/11817/0A
2	6/12/06	DWS	DWS	RRC	ADDED DCW CONTINUATIONS
1	4/2/06	GD	JDM	WFO	INCRP. ECA 06/11485/9C
0	2/24/06	MLS	RSL	WFO	ISSUED FOR OPERATIONS
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

FPL ENERGY

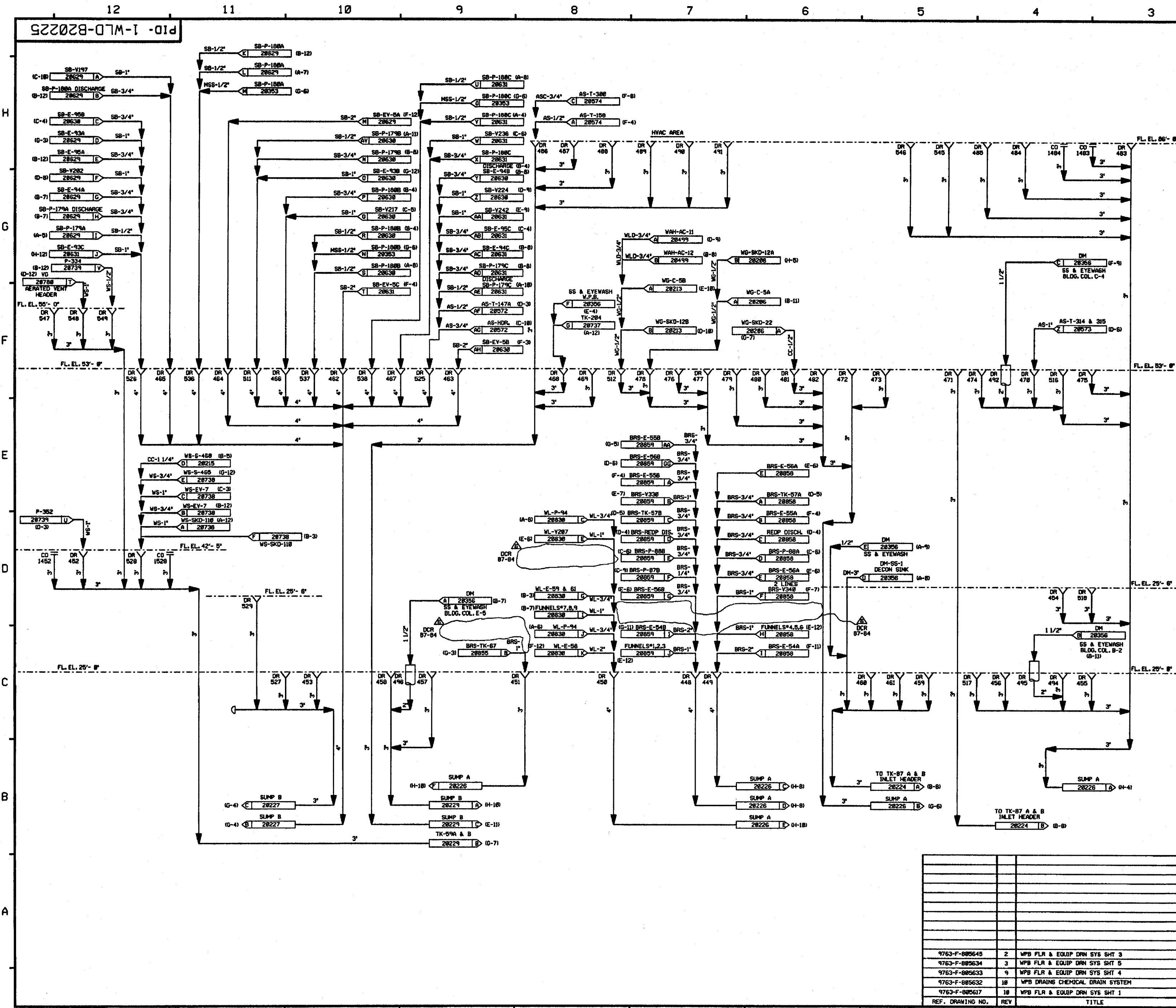
Seabrook Station



WASTE PROCESSING LIQUID DRAINS  
ADMINISTRATION BUILDING &  
RCA WALKWAY DETAILS

PID- 1-WLD-B20224

9763-F-080632	9	CHEMICAL DRAIN SYS. NUCLEAR P&ID
9763-F-084995	6	RCA WALKWAY TUNNEL DRAINS & SUMPS 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

DRAINS ON THIS DRAWING

448	458	468	478	488	517	548
449	459	469	479	489	518	549
450	460	470	480	490	525	547
451	461	471	481	492	526	548
452	462	472	482	493	527	549
453	463	473	483	494	528	
454	464	474	484	495	529	
455	465	475	485	496	536	
456	466	476	486	497	537	
457	467	477	487	512	538	
				488	516	

CLEANOUTS ON THIS DRAWING

1452
1483
1484
1526

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 28216, 28218 THRU 28224, & 28226 THRU 28229.
  2. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTATION HAVE SYSTEM PREFIX WLD UNLESS NOTED OTHERWISE.
  3. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTATION ARE SAFETY CLASS NNS, UNLESS NOTED OTHERWISE.
  4.  $\Delta$  INDICATES REVISION LEVEL.

6	4/18/82	MRS	FCB	KAC	WLD	INCORP. DCR 87-84 C&B	
5	3/15/88	MRS	RMC	APL	WLD	INCORPORATED DCR 87-33 C&B7 REVISED DECON SINK CONT. TO CLARIFY DUPLICATION OF SYSTEM INTERFACE, CONT. TAGS & COORD. PER SYSTEM, ADDED CONT. DESCRIPTIONS	
4	11/7/88	MRS	RMC	GRM	APL	INCORP. ECA 19/082229A REVISED NOTE 3 ADDED CONTINUATION COORDS DELETED REDUNDANT CONTINUATION TAGS	
3	12/17/88	MRS	OPD	MRJ	BCL	REVISED PIPING TIE-IN CONNECTION PER UEAC PIPING DIAG. ADDED DME LOC. COORDS & REVISED REVISION NOS. ADDED NOTE 4.	
2	6/12/88	TAK	TAK	DVS	JMS	INCORP. OR 94/3278, AND ADDED REF. DWS.	
1	4/2/88	GO	DJS	JDM	DJM	INCORP. ECA 99/114853A INCORP. ECA 19/113859A ISSUED FOR OPERATIONS	
0	3/29/88	MRS	JHM	JWK	WFD	ISSUED FOR FIELD VERIFICATION	
REV	DATE	DSGN	DRWN	CHKD	CE	LDE	DESCRIPTION

PSNH  
PUBLIC SERVICE OF NEW HAMPSHIRE

WASTE PROCESSING LIQUID DRAINS  
WASTE PROCESSING BUILDING  
DRAINS  
SHT 1 OF 3

SEABROOK STATION  
PID- 1-WLD-B20225

9763-F-885645	2	WPS FLR & EQUIP DRN SYS SHT 3
9763-F-885634	3	WPS FLR & EQUIP DRN SYS SHT 6
9763-F-885633	9	WPS FLR & EQUIP DRN SYS SHT 4
9763-F-885632	10	WPS DRAINS CHEMICAL DRAIN SYSTEM
9763-F-885617	10	WPS FLR & EQUIP DRN SYS SHT 1
REF. DRAWING NO.	REV	TITLE

2220228-B20225

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

DRAINS ON THIS DRAWING

416	431	440	500	508
417	432	441	501	509
420	433	442	502	519
421	434	443	503	530
422	435	444	504	531
423	436	445	505	533
429	437	446	506	532
430	439	447	507	

CLEANOUTS ON THIS DRAWING

1421
1430
1442
1509

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 20216, 20218 THRU 20225, 20227 THRU 20229.
  2. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTATION HAVE SYSTEM PREFIX WLD, UNLESS NOTED OTHERWISE.
  3. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS ARE SAFETY CLASS NNS, UNLESS NOTED OTHERWISE.
  4. Δ INDICATES REVISION LEVEL.

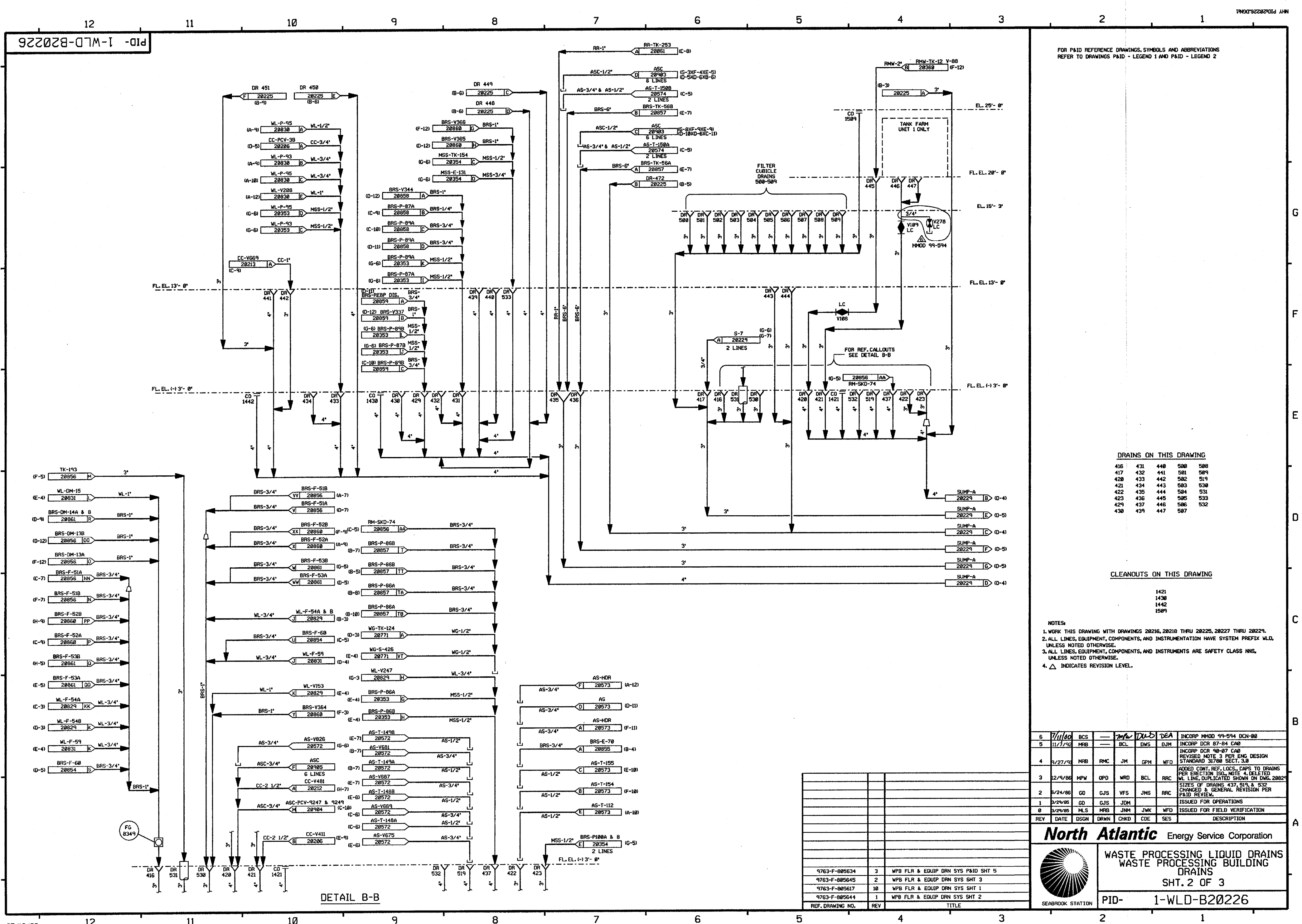
REV	DATE	DSGN	DRWN	CHKD	SES	DESCRIPTION
6	7/1/00	BCS				INCORP 99-594 DCN-00
5	11/1/99	MRB				INCORP DCR 87-84 C&D
4	3/27/99	MRB	RMC	JM	GPM	WFO
3	12/4/98	MPW	OPO	WRD	BCL	RRC
2	5/24/98	GD	GJS	VFS	JMS	RRC
1	3/24/95	GD	GJS	JDM		
0	3/24/95	MLS	MRB	JNM	JWK	WFO

**North Atlantic** Energy Service Corporation

WASTE PROCESSING LIQUID DRAINS  
WASTE PROCESSING BUILDING  
DRAINS  
SHT. 2 OF 3

PID- 1-WLD-B20225

REF. DRAWING NO.	REV	TITLE
9763-F-805634	3	WPB FLR & EQUIP DRN SYS SHT 5
9763-F-805645	2	WPB FLR & EQUIP DRN SYS SHT 3
9763-F-805617	10	WPB FLR & EQUIP DRN SYS SHT 1
9763-F-805644	1	WPB FLR & EQUIP DRN SYS SHT 2





PID-1-WLD-B20227

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

DRAINS ON THIS DRAWING

414	425	497	522	540	553	558
415	426	510	523	541	554	559
418	427	514	534	542	555	
419	428	520	535	543	556	
424	438	521	539	544	557	

CLEANOUTS ON THIS DRAWING

1520

NOTES

1. WORK THIS DRAWING WITH DRAWINGS 20216, 20218 THRU 20226, 20228 & 20229.
2. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS HAVE SYSTEM PREFIX UNLESS NOTED OTHERWISE.
3. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS ARE SAFETY CLASS NNS, UNLESS NOTED OTHERWISE.
4.  $\Delta$  INDICATES REVISION LEVEL.
5. DELETED

14	11-2-07	BCS	JM	222	INCORP MSE 04-152 REV. 0
13	7-24-03	BCS	JM	MKC	INCORP MSE 03-147 REV. 0
12	1-21-94	DWS	MRB	RSG	INCORP DCR 86-174 CA 0
11	7-17-92	MRB	BCL	RSG	INCORP DCR 86-538 CA 0
10	3/23/92	MRB	BCL	RSG	INCORP MMD 91-501 CA 0
9	8/21/91	MRB	JM	PEB	INCORPORATED 90-7 CA 03
8	5/16/90	MRB	APL	RSG	INCORPORATED 87-33 CA 5
7	5/26/89	GPM	PAL	JW	INCORPORATED 87-110 CA 11
6	11/7/88	MRB	GPM	RRC	REVISED NOTE 3 ADDED CONTINUATION TAG AND LOCATION COORDINATE MADE MINOR DRAFTING ENHANCEMENTS FOR CLARITY
5	10/23/87	MPW	BCL	PAG	ADDED DRAIN LINES FROM P-39 A&B CONT. DNG NUMBERS AND LOCATION COORDINATES. DELETED UNIT 2 LINE, AS LINES (SHOWN ON DWG. 20576)
4	4/8/87	WDS	MRJ	VWS	INCORP DCR 87-0013.
3	12/1/86	CSB	WRD	RRC	ADDED PAID REF DWG NOTE, DRAIN LINES TO DR 419 PER ECA 19/111538C, CONT P.D. COORDS, UNIT 2 DRAIN LINE PER LINE BY LINE VERIFICATION.
2	8/19/86	JDM	DWS	JMS	REV PER UESC PAID 805637 REV-7
1	4/2/86	GD	JDM	WFO	ISSUED FOR OPERATIONS
0	3/29/86	MLS	JNM	WFO	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

FPL ENERGY

Seabrook Station

WASTE PROCESSING BUILDING  
DRAINS  
SHT. 3 OF 3

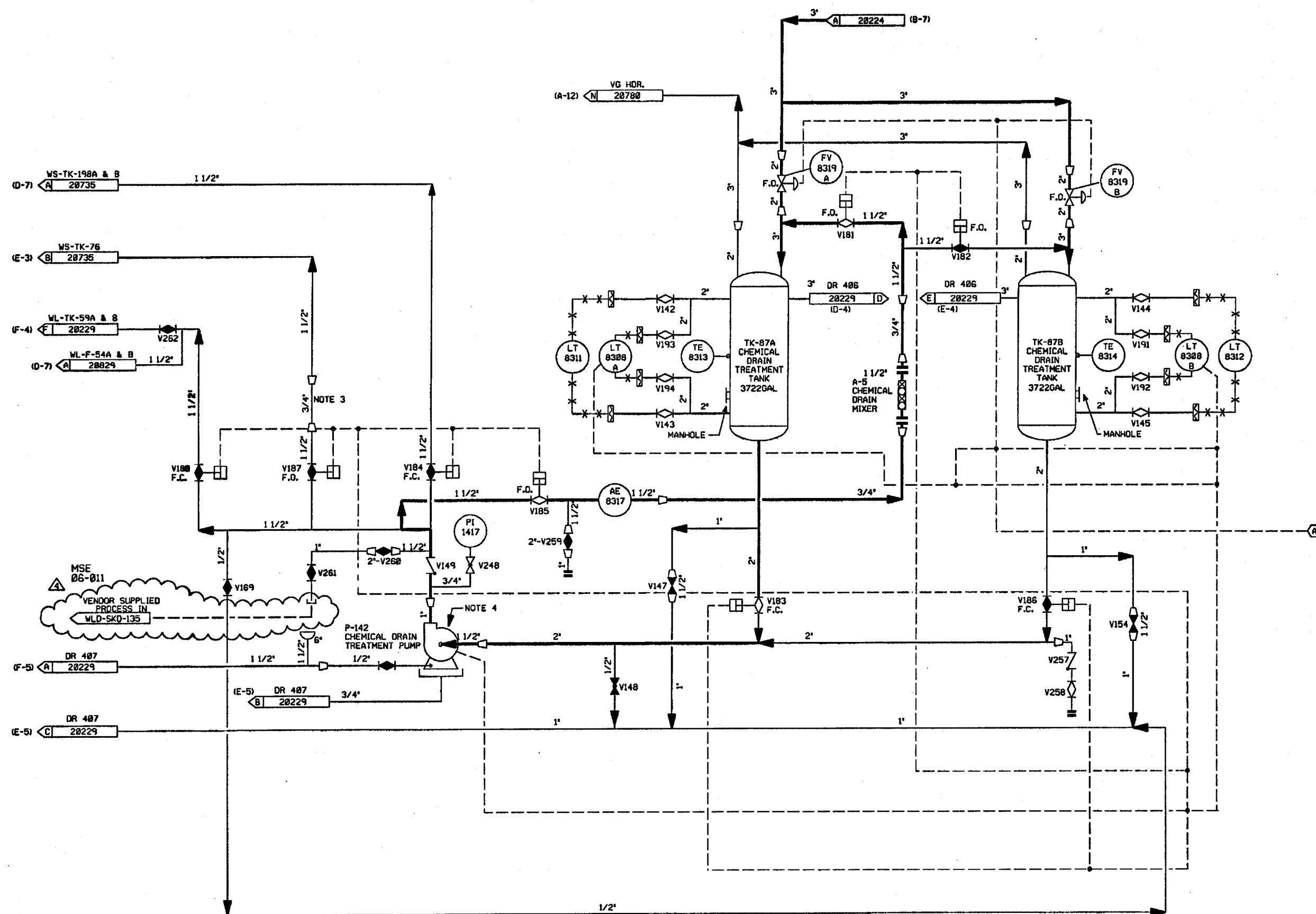
PID- 1-WLD-B20227

REF. DRAWING NO.	REV	TITLE
9763-F-805637	8	STEAM GEN. BLDWN. REC. SHT. 4
9763-F-805633	9	WPB FLR & EQUIP DRAIN SYS SHT 4
9763-F-805634	2	WPB FLR & EQUIP DRAIN SYS SHT 5

10/28/04

PID-1-WLD-B20228

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



INSTRUMENTATION IDENTIFICATION  
A TO WLD-LT-8305 & WLD-P-141 ON DWG. B28224.

- NOTES:
1. WORK THIS DRAWING WITH DRAWINGS 28216, 28218, 28227 & 28229.
  2. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS HAVE SYSTEM PREFIX WLD UNLESS NOTED OTHERWISE.
  3. FLOW RESTRICTION PIPE SECTION.
  4. SEE DWG. DM-20353 FOR DM SUPPLY TO MECHANICAL SEALS.
  5. ALL LINES, EQUIPMENT, COMPONENTS, AND INSTRUMENTS ARE SAFETY CLASS N.
  6.  $\Delta$  INDICATES REVISION LEVEL.

4	4/22/86	BCS	JM	WLD	INCRP MSE 86-811 REV. 00
3	6/30/87	MPW	DWS	RRR	INCRP DCR 86-673 AND DCR 86-266 CAG3.
2	11/18/86	FJR	WRO	RRR	ADDED CONT. FLAG COORD'S. & NOTE 6.
1	4/2/86	GD	JDM	WFD	ISSUED FOR OPERATIONS
0	3/24/85	MLS	JNM	WFD	ISSUED FOR FIELD VERIFICATION
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY**

Seabrook Station

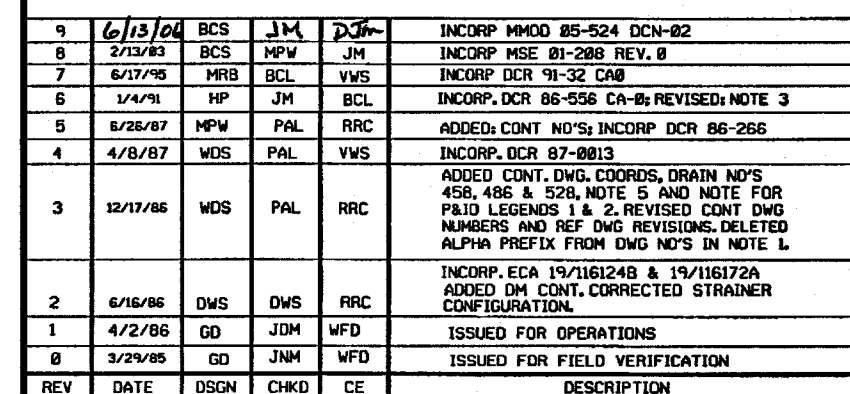


WASTE PROCESSING LIQUID DRAINS  
WASTE PROCESSING BUILDING  
CHEMICAL DRAIN SYSTEM

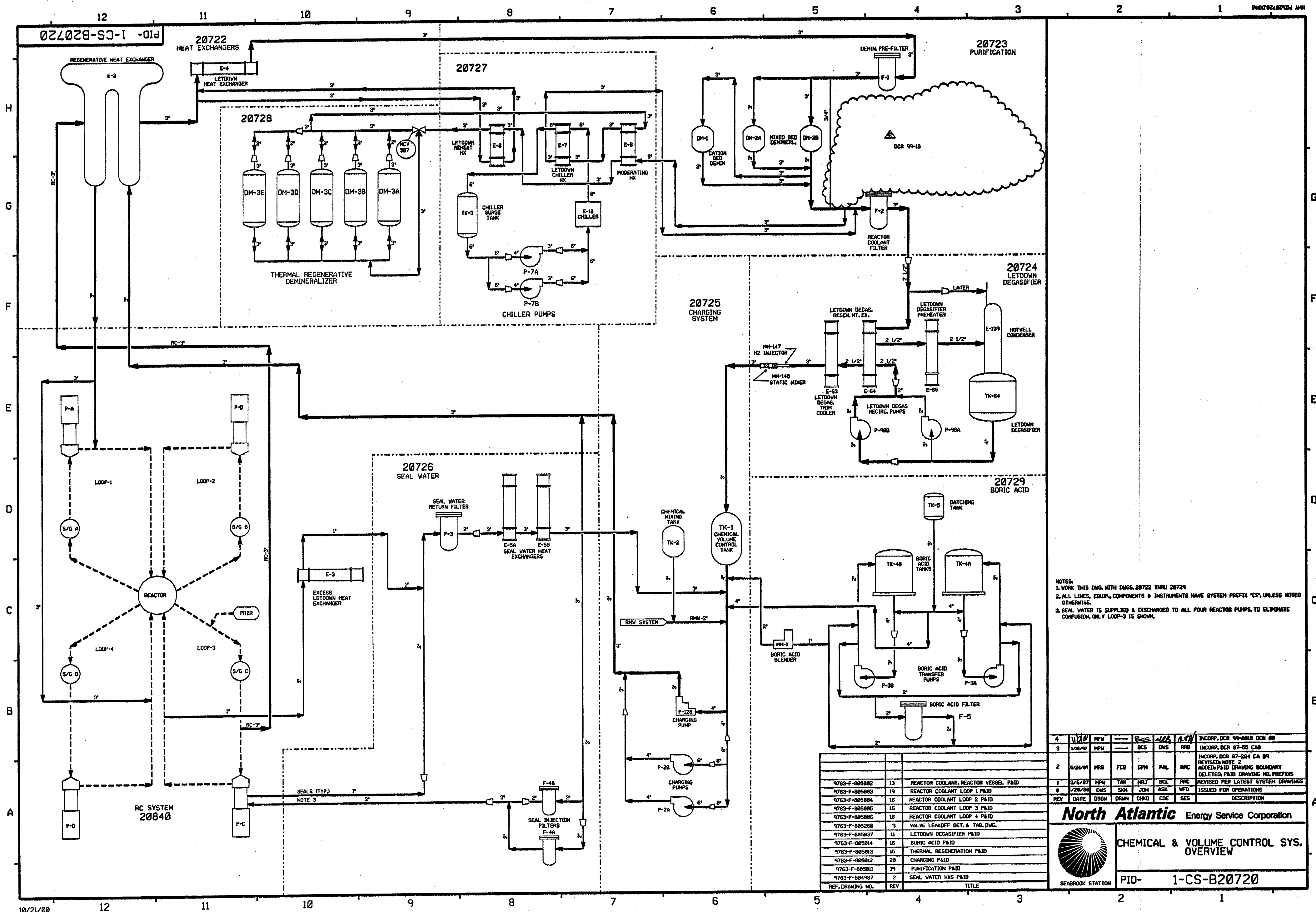
PID- 1-WLD-B20228

9763-F-805632	18	CHEMICAL DRN SYSTEM NUCLEAR
REF. DRAWING NO.	REV	TITLE

PID- 1-WLD-B20229



9763-F-805633	9	WPB FLR. & EQUIP. DRAIN SYS. SHT. 4
9763-F-805619	11	WL STOR. & FILT.
9763-F-805644	1	WPB FLR. & EQUIP. DRAIN SYS. SHT. 2
9763-F-805634	3	WPB FLR. & EQUIP. DRAIN SYS. SHT. 5
REF. DRAWING NO.	REF	TITLE



NOTES:  
1. WORK THIS DNG. WITH DNGS. 20722 THRU 20729  
2. ALL LINES, EQUIP., COMPONENTS & INSTRUMENTS HAVE SYSTEM PREFIX 'CS', UNLESS NOTED OTHERWISE.  
3. SEAL WATER IS SUPPLIED & DISCHARGED TO ALL FOUR REACTOR PUMPS TO ELIMINATE CONFUSION, ONLY LOOP-3 IS SHOWN.

REV	DATE	DSGN	DRWN	CHKD	CDE	SES	DESCRIPTION
1	3/6/87	MPV	YAK	MRJ	SEL	RRC	REVISED PER LATEST SYSTEM DRAWINGS
2	1/28/88	DWS	SKN	JDM	ASK	WFD	ISSUED FOR OPERATIONS

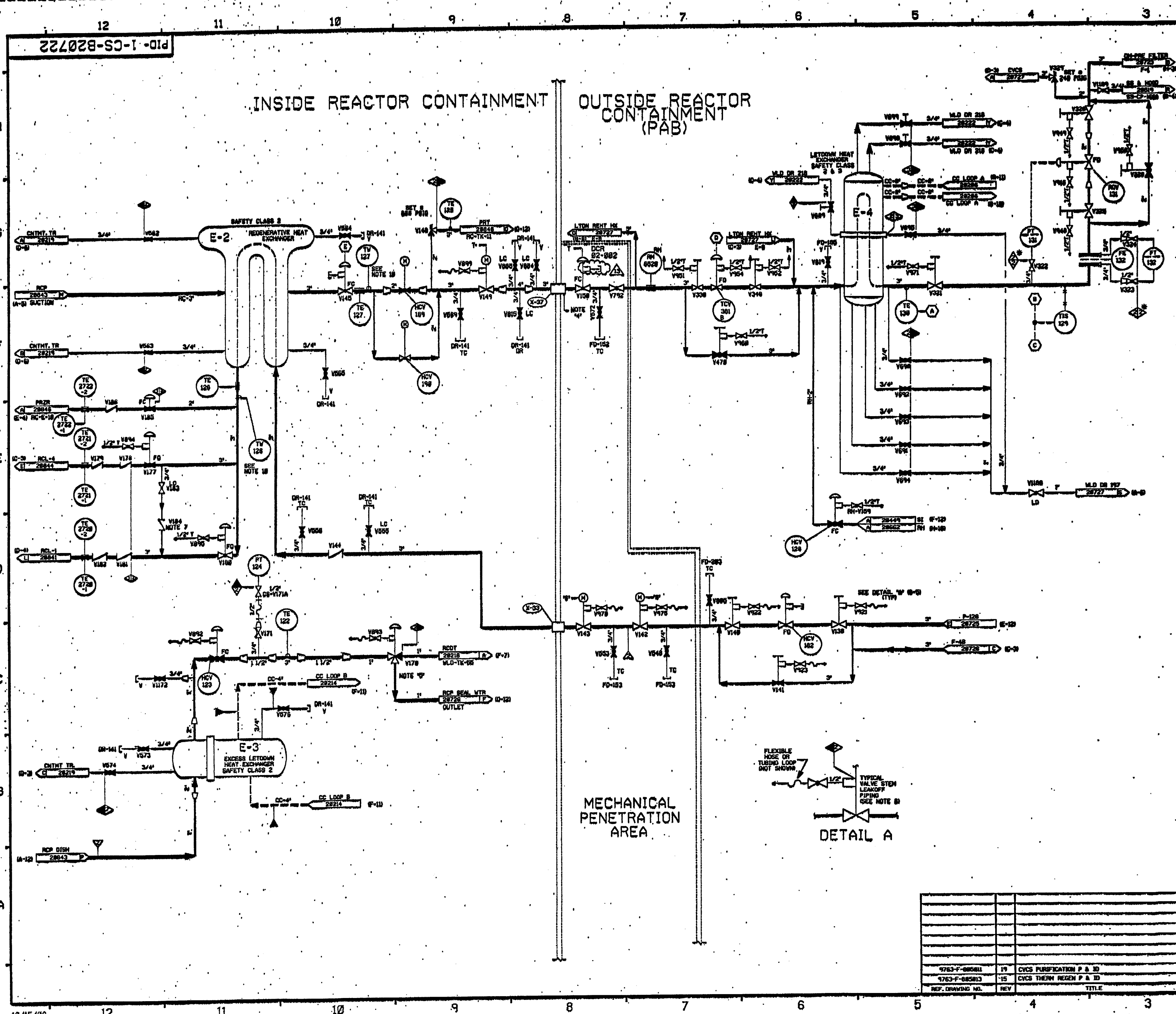
**North Atlantic** Energy Service Corporation

**CHEMICAL & VOLUME CONTROL SYS. OVERVIEW**

PID- 1-CS-B20720

REF. DRAWING NO.	REV	TITLE
9763-F-085002	13	REACTOR COOLANT, REACTOR VESSEL P&ID
9763-F-085003	19	REACTOR COOLANT LOOP 1 P&ID
9763-F-085004	16	REACTOR COOLANT LOOP 2 P&ID
9763-F-085005	15	REACTOR COOLANT LOOP 3 P&ID
9763-F-085006	18	REACTOR COOLANT LOOP 4 P&ID
9763-F-085268	3	VALVE LEAKOFF DET. & TAB. DNG.
9763-F-085037	11	LETDOWN DEGASIFIER P&ID
9763-F-085014	16	BORIC ACID P&ID
9763-F-085013	15	THERMAL REGENERATION P&ID
9763-F-085012	20	CHARGING P&ID
9763-F-085011	19	PURIFICATION P&ID
9763-F-084987	2	SEAL WATER HXS P&ID





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

NOTES:

1. WORK THIS DRAWING WITH DMS 20720 & 20723 THRU 20724.
2. ALL LINE, EQUIP., COMPONENTS & INSTRUMENTS HAVE SYSTEM PREFIX (E, O, L, S, M, N, O, R, T, V, W, X, Y, Z) UNLESS NOTED OTHERWISE.
3. HENT AND DRAIN CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-MIN-ORIGIN UNLESS NOTED OTHERWISE.
4. DELAY TIME BCS TO HENT MUST BE 45 SECONDS MIN.
5. VALVE FAILS WITH FLOW TO SEAL WATER RETURN FILTER.
6. DELETED.
7. SPRING LOADED CHECK VALVE.
8. REFER TO DRAWING V&L-20774 FOR VALVE LEAKOFFS.
9. INSTRUMENT REFERENCE.

(A) TO CONTROL VALVE TV-122 ON DMS 20720.

(B) TO 3-MIN VALVE TV-121 ON DMS 20723.

(C) TO T&S-202 ON DMS 20726.

(D) TO T&S-201A, T&S-201, T&S-202 & T&S-203 ON DMS 20727.

(E) FOR AUTO CLOSE SIGNALS SEE LOGIC 1-MIN-ORIGIN.

IN TV-122 AND TV-127 TO BE ANNOUNCED IN PLACE.

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

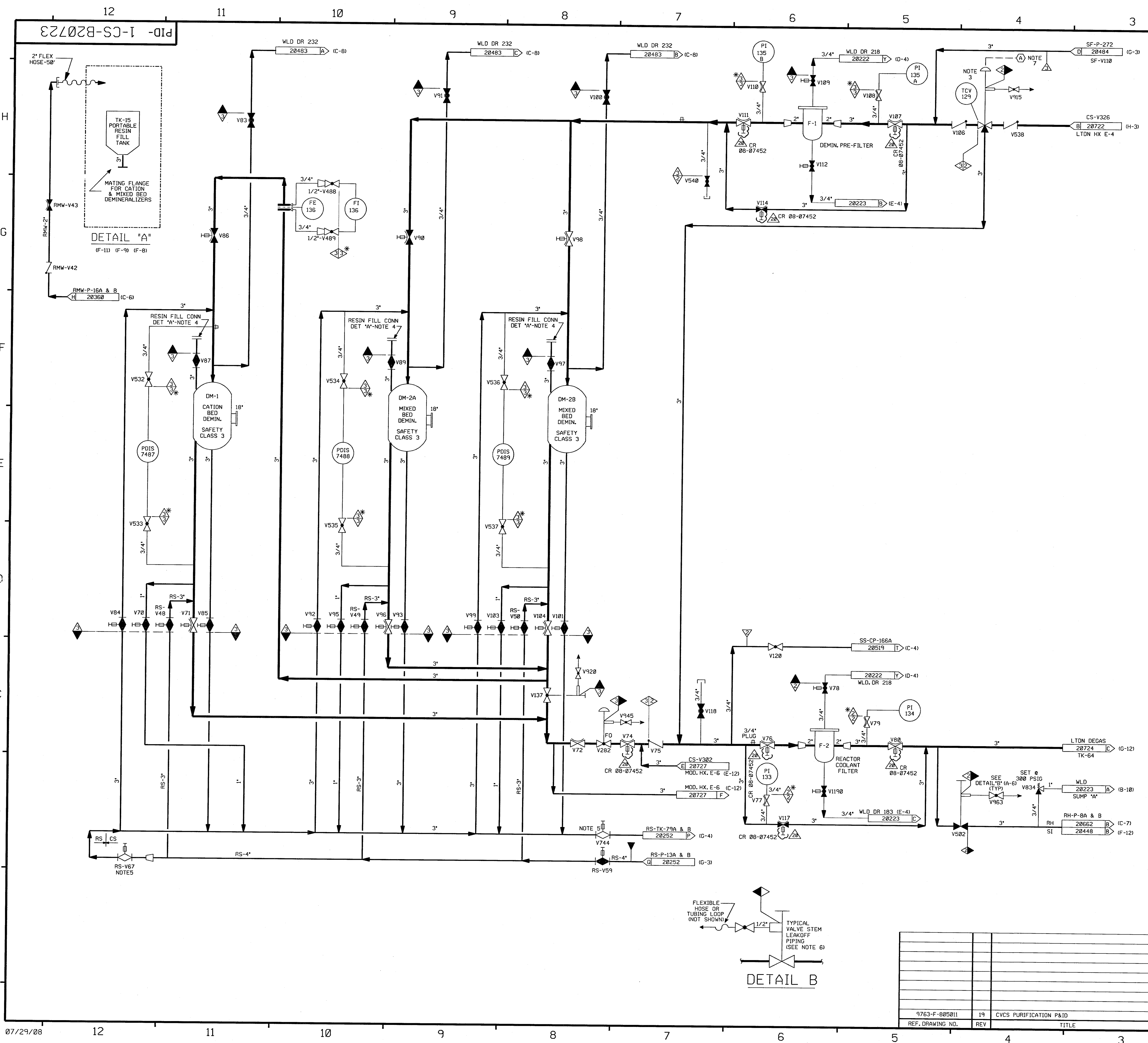
REV	DATE	BY	CHKD	DESCRIPTION
13	4/2/86	SCS	JM	REVISION 13
12	10/14/85	SCS	JM	REVISION 12
11	10/14/85	SCS	JM	REVISION 11
10	1/12/82	SCS	JM	REVISION 10
9	6/11/80	NPV	SCS	REVISION 9
8	5/18/79	DMS	RMS	REVISION 8
7	4/13/72	HRS	SCS	REVISION 7
6	12/5/69	HRS	PAI	REVISION 6
5	5/4/69	HRS	CPH	REVISION 5
4	10/28/67	CPH	DMS	REVISION 4
3	11/26/66	HRS	WRO	REVISION 3
2	1/28/66	DMS	JON	REVISION 2
1				REVISION 1

**FPL ENERGY** Seabrook Station

**CHEMICAL & VOLUME CONTROL SYS  
HEAT EXCHANGERS  
DETAIL**

PID- 1-CS-B20722

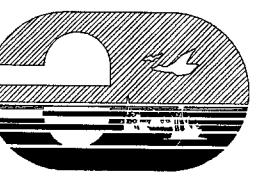
REV	DATE	BY	CHKD	DESCRIPTION
17				CYCLES PURIFICATION P & ID
15				CYCLES THERM REGEN P & ID
				TITLE



- FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2
- NOTES:
1. WORK THIS DWG WITH DWGS. 20720, 20722, & 20724 THRU 20729.
  2. ALL LINES, EQUIPMENT, COMPONENTS & INSTRUMENTS HAVE SYSTEM PREFIX "CS", UNLESS NOTED OTHERWISE.
  3. VALVE FAILS WITH FLOW BY-PASSING THE DEMINERALIZERS & GOING TO CS-F-2
  4. BLIND FLOS. INSTALLED WITHOUT GASKET
  5. THIS VALVE TO BE CLOSED PRIOR TO ANY RESIN SLUICING OPERATIONS.
  6. REFER TO DRAWING VSL-20774 FOR VALVE LEAKOFFS.
  7. INSTRUMENT REFERENCE  
A LETDOWN EXCHANGER CS-E-4 & CS-E-8 OUTLET TEMP. TIS-129 & TIS-382 ON DWG. 20722
  8. VENTS, DRAINS AND TEST CONNECTION CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-805111, UNLESS NOTED OTHERWISE.
  9. Δ INDICATES REVISION LEVEL.
  10. DELETED
  11. DELETED

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

20	7/3/08	JM	BCS	INCORP. CR 08-07452 REV 00	
19	11/16/06	JM	BCS	INCORP MMOD 03-504 DCR 00	
18	11/2/00	MPW	BCS	INCORP DCR 99-18 DCN 00	
17	6/12/00	BCS	DWS	PARTIAL INCORP DCR 99-18 DCN 00	
16	1/10/97	MPW	BCS	INCORP DCR 87-55 CA0 AND DCN 01	
15	3/21/96	BCS	DWS	INCORP MMOD 940574 CA#01	
14	2/28/96	DWS	BCS	INCORP MMOD 940574 CA#0	
13	3/4/94	MRB	BCL	INCORP. MMOD 92-553, CA01	
12	4/5/93	BCL	MPW	MMOD 91-507, CA0	
11	4/13/92	MRB	BCL	MMOD 91-515, CA0	
10	10/8/91	MRB	JM	INCORP. MMOD 91-511 CA0 AND MMOD 91-625, CA0	
9	2/26/91	MRB	RMC	INCORP. MMOD 90-648 CA01	
8	9/24/90	MRB	BMC	INCORP MMOD 90-516 CA0	
7	5/24/89	MRB	GPM	INCORPORATED DCR 87-264 CA 09 REVISED NOTE 2	
6	5/25/88	GPM	APL	INCORP. DCR 87-323 REV'D PIPING PER AS INSTALLED CONF.; VALVE POSITION PER DWG. 506272 ADDED DETAIL B, NOTE AT CS-V963 & CLASS DESIGNATION DELETED, REF. DWG. NNS-1 CL. BOUNDARY	
5	3/20/87	MRJ	WDS	ADDED 3" AND FLANGE PER ECA 99/116756A ADDED NOTE AND DWG COORD'S. FOR DETAIL A, ADDED CONT FLAG LETTERS AND NOTE 9, DELETED DETAIL "B".	
4	12/12/86	JDM	PAL	INCORP ECA 99/116756A	
3	10/17/86	MAP	WRD	ADDED DWG LOC COORD, DELETED CLASS BREAKS & CODE BREAKS, ADDED NOTE 8 REVISED TO CLARIFY DUPLICATION OF ASSOCIATED SYSTEMS.	
2	8/22/86	MPW	GRD	REINCORP. ECA 99/114510A, INCORP. NCR 82/11787, DCN 88/177A, ADDED VALVES RM-V8026 THRU V8030, ADDED VALVE V8069 PER 17-11272, CORRECTED CONTINUATIONS & REV'D PER AS-BUILT CONFIG.	
1	6/23/86	WES	DWS	INCORPORATED ECA 99/114510A, 99/100849A, INCORP. 805011-REV 19	
0	1/22/86	DWS	JDM	ISSUED FOR OPERATIONS	
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY**

Seabrook Station

CHEMICAL & VOLUME CONTROL SYS.  
PURIFICATION  
DETAIL

PID- 1-CS-B20723

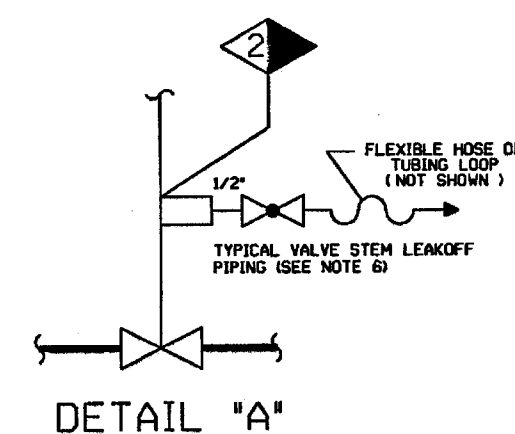



NOTES

1. WORK THIS DWO WITH DWOs 28726, 28722 THRU 28725 & 28727 THRU 28729.
2. ALL PIPING, VALVES, EQUIP. & INSTRUMENTS HAVE SYSTEM PREFIX 159; UNLESS NOTED OTHERWISE.
3. 2" NEEDLE VALVE WITH 1" INTERNALS.
4. ● - INDICATES 3/8" FLOW RESTRICTOR INSTALLED, SEE APPLICABLE DETAIL ON DWO RC-28848.
5. VENTIL. DRAINS & TEST COIN. COW. BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-88511, UNLESS NOTED OTHERWISE.
6. REFER TO DRAWING VSL-28774 FOR VALVE LEAKOFFS.
7. ORIFICE PLATE IS NON-ASME.
8. REACTOR COOLANT PUMPS SHOWN ON DWO'S:  

RCP	P-1-28841
RCP	P-2-28841
RCP	P-3-28841
RCP	P-4-28841
9. ▲ - INDICATES REVISION LEVEL.
10. VALVE STEM LEAK-OFF ISOLATION VALVES V886, V889, V890 & V891 ARE TO BE MAINTAINED CLOSED, VALVE STEM LEAK-OFF TO BE CONSIDERED IMPERABLE.
11. NON-ASME FLOW ELEMENT, MM40 Q3-584

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



<b>FPL ENERGY</b>		Seabrook Station
	CHEMICAL & VOLUME CONTROL SYS. SEAL WATER DETAIL	
	PID-	1-CS-B20726



PID-1-CS-B20725

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

- NOTES:
- WORK THIS DWG WITH 20720 THRU 20724 & 20726 THRU 20729. PORTIONS OF THIS DRAWING ARE DUPLICATED ON DRAWING SI-20447 DUE TO DUAL SYSTEM FUNCTIONS.
  - ALL LINES, EQUIPMENT, COMPONENTS & INSTRUMENTS HAVE SYSTEM PREFIX "CS", UNLESS NOTED OTHERWISE.
  - MIN. OF 5' OF STRAIGHT RUN AFTER MIN. FLOW ORIFICE.
  - PERMANENT SPOOL PIECE INSTALLATION SHOWN TEMP. SPOOL PIECE WITH STRAINER, PRESSURE INSTRUMENTS, VENTS & DRAINS INSTALLED ONLY DURING FLUSHING OPERATIONS & IS REMOVED BEFORE START-UP.
  - VENT AND DRAIN CODE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-NHY-005111 UNLESS NOTED OTHERWISE.
  - REFER TO DRAWING VSL-20774 FOR VALVE LEAKOFFS.
  - ORIFICE PLATE NON-ASME
  - INSTRUMENT REFERENCE  
 (A) TO LCV-112A & LV-112A ON DWG. 20724.  
 (B) TO WG-PIC-8156 ON P&ID WG-20773  
 (C) TO LCV-112E & LCV-112D ON DWG. 20733.
  - INDICATES REVISION LEVEL.
  - CONNECTION USED FOR PRE-PLANNED MAKEUP STRATEGY. SEE FP59989.

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

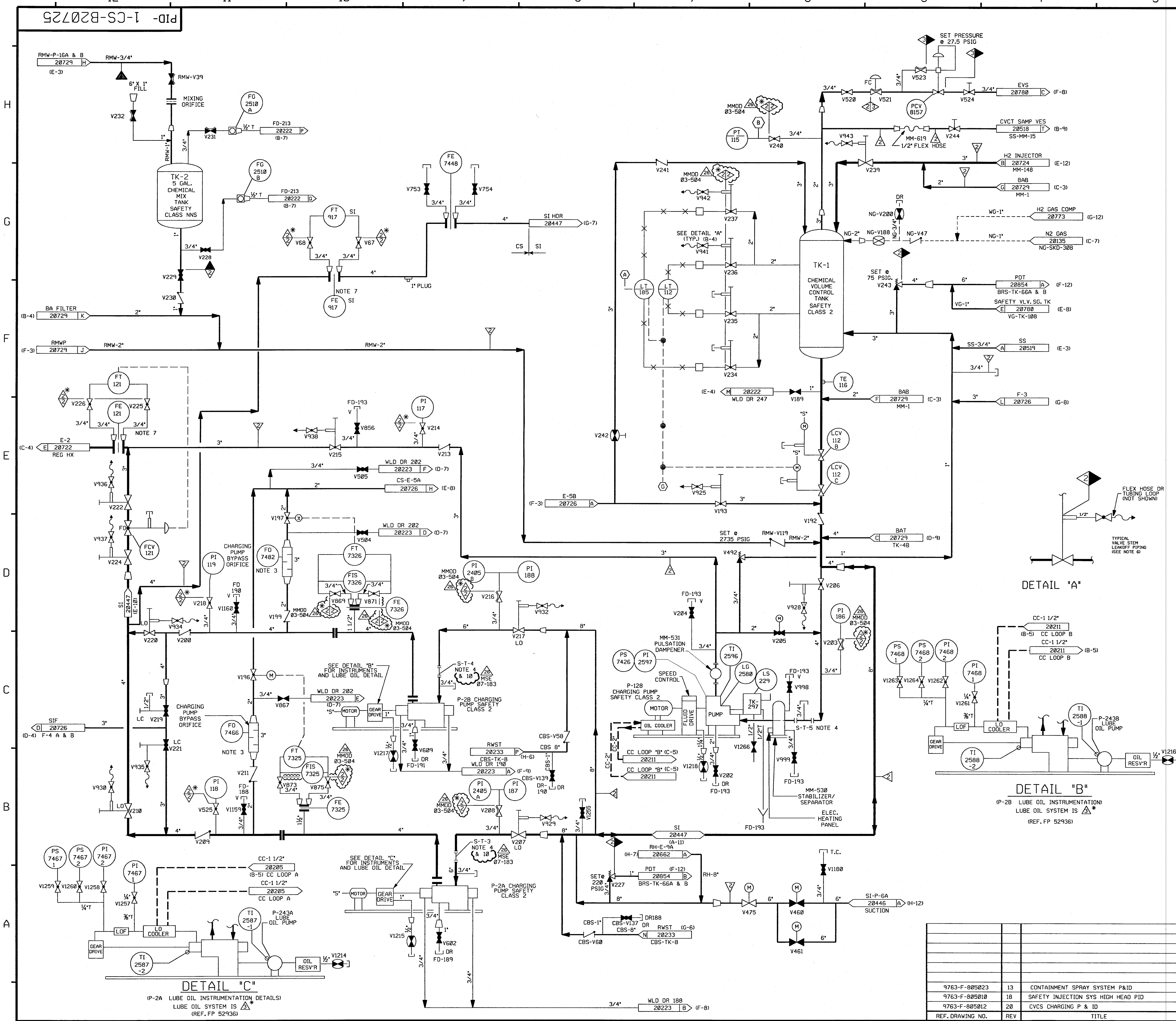
26	1-31-08	JM	GPS	INCORP. MMOD 03-504 DCN 00 & MSE 07-183 REV 00
25	5/19/03	BCS	JM	REINFORC. MSE 02-312 REV. 00
24	3/5/03	BCS	JM	INCORP. MSE 02-312 REV. 00
23	5/12/02	MPW	JM	PARTIAL INCORP. DCR 02-0002 DCN 00
22	8/08/01	JM	BCS	INCORP. DCR 98-0048 DCN 00
21	4/05/01	BCS	MPW	PARTIAL INCORP. DCR 98-0048 DCN 00
20	11/7/00	BCS	MPW	INCORP. DCR 98-0052 DCN 00
19	11/2/00	MPW	BCS	INCORP. DCR 99-0018 DCN 00
18	10/18/00	BCS	MPW	INCORP. DCR 99-0036 DCN 00
17	10/13/00	BCS	MPW	INCORP. MMOD 99-587 DCN-00
REV	DATE	DSGN	CHKD	DESCRIPTION

**FPL ENERGY** Seabrook Station

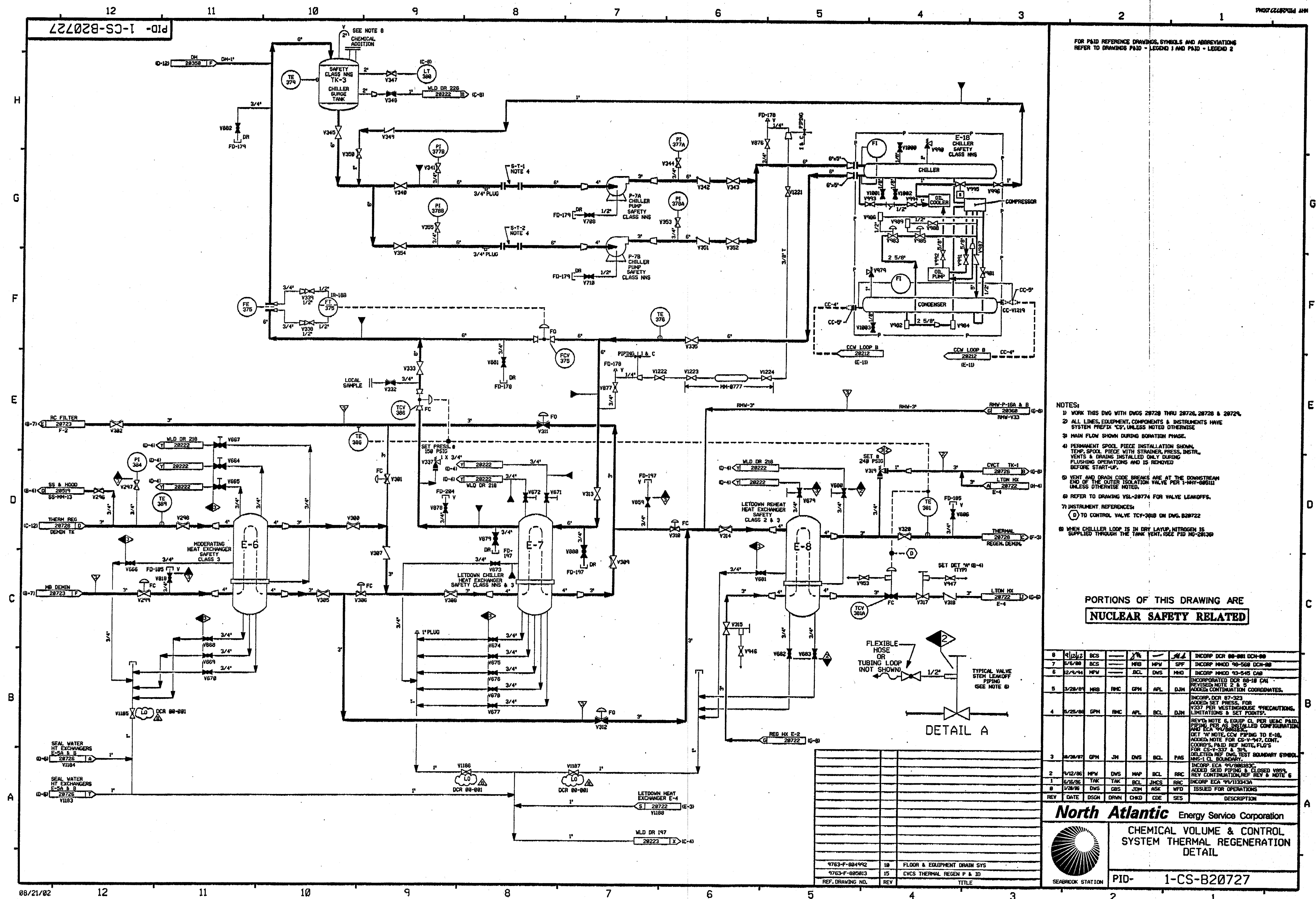
CHEMICAL & VOLUME CONTROL  
CHARGING SYSTEM  
DETAIL

PID- 1-CS-B20725

REF. DRAWING NO.	REV	TITLE
9763-F-805023	13	CONTAINMENT SPRAY SYSTEM P&ID
9763-F-805010	18	SAFETY INJECTION SYS HIGH HEAD PID
9763-F-805012	20	CVCS CHARGING P & ID







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

**NOTES:**

- 1) WORK THIS DWG WITH DWGS 28728 THRU 28736, 28738 & 28739.
- 2) ALL LINES, EQUIPMENT, COMPONENTS & INSTRUMENTS HAVE SYSTEM PREFIX 'CS', UNLESS NOTED OTHERWISE
- 3) MAIN FLOW SHOWN DURING AGITATION PHASE.
- 4) PERMANENT SPOOL PIECE INSTALLATION SHOWN. TEMP. SPOOL PIECE WITH STRAINER, PRESS. INSTR., VENTS & DRAUGS INSTALLED ONLY DURING FLUSHING OPERATIONS AND IS REMOVED BEFORE START-UP.
- 5) WENT AND DRAIN COE BREAKS ARE AT THE DOWNSTREAM END OF THE OUTER ISOLATION VALVE PER 1-MAY-0903M UNLESS OTHERWISE NOTED
- 6) REFER TO DRAWING YSL-28774 FOR VALVE LEAKOFFS.
- 7) INSTRUMENT REFERENCES:
  - (D) TO CONTROL VALVE TCV-3018 ON DWG. D-28722
- 8) WHEN CHILLER LOOP IS IN DRY LAYUP, NITROGEN IS SUPPLIED THROUGH THE TANK VENT. (SEE PID 28013P)

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

8	9/24/72	BCS				INCORP DCR 88-981 DCR-88
6	6/5/68	BCS		MFB	MPV	SPF
6	2/4/74	MPW		BCL	DWS	MHD
						INCORP MHQD 93-545 CAS
5	3/28/64	MFB	RMC	GPM	APL	DJM
						INCORPORATED DCR 88-18 CAI
						REVISED NOTE 2
						ADJCN CONTINUATION COORDINATES.
						INCORP DCR 87-323
						ADDED SET PRESS.
						FOR VOST PER WESTINGHOUSE PRECAUTIONS.
						LIMITATIONS 2 SET POINTS.
4	5/25/68	GPM	RMC	APL	BCL	DJM
						REVISED NOTE 6, EQUIP. CL. PER UEMC PAID.
						PIPING PER AS INSTALLED CONFIGURATION
						AND ECA 94/1863/CS.
						DET 14 NOTE, CCM PIPING TO E-18.
						ADDED NOTE FOR CS-V-147, CONT.
						COORDS. PAID REF. NOTE PLUGS
						FOR CS-V-337 & 314.
						DELETED REF DWS, TEST BOUNDARY SYMBOL
						NN-CL. BOUNDARY.
3	8/28/67	GPM	JHM	DWS	BCL	PAS
						INCORP ECA 94/688/303.
						ADDED 324 PLUG A. REVISED WBSR.
						REF CONTINUATION/REF 147 & NOTE 6
						INCORP ECA 94/11334/34
						ISSUED FOR OPERATIONS
REV	DATE	DSGN	DRWN	CHKD	CDE	SFS
						DESCRIPTION

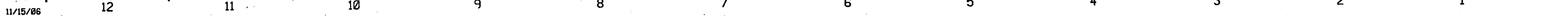
**North Atlantic** Energy Service Corporation

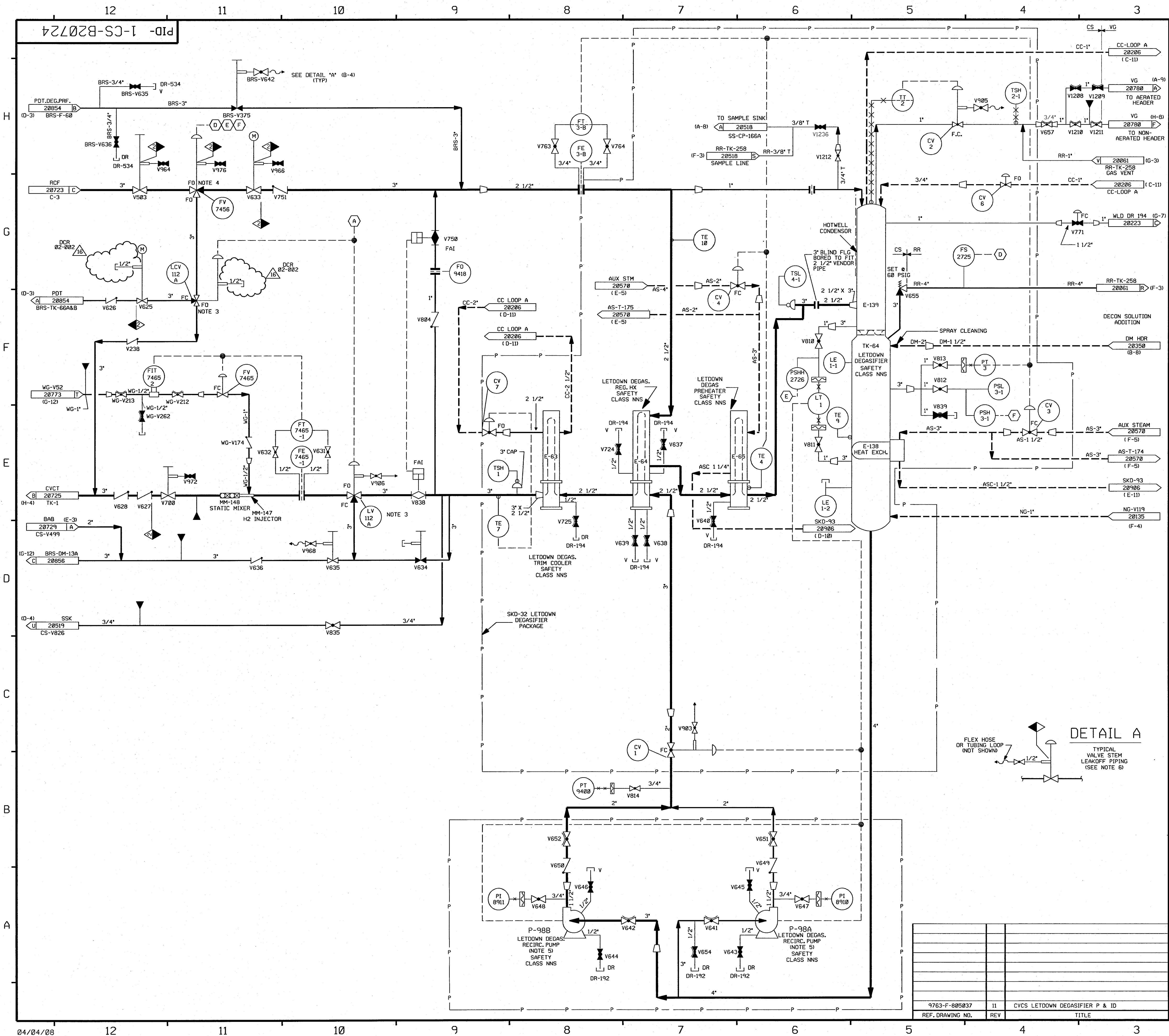
CHEMICAL VOLUME & CONTROL  
SYSTEM THERMAL REGENERATION  
DETAIL



PID- 1-CS-B20727







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

NOTES:

1. WORK THIS DWG WITH DWGS 20720, 20722, 20723, & 20725 THRU 20729.
2. ALL PIPING, VALVES, EQUIP & INSTRUMENTS HAVE SYSTEM PREFIX 'CS', UNLESS NOTED OTHERWISE.
3. VALVE FAILS WITH FLOW TO CVCT
4. VALVE FAILS WITH FLOW TO LCV-112A
5. SEE DWG 20354 FOR WATER SUPPLY TO PUMP DOUBLE MECHANICAL SEALS.
6. REFER TO DWG VSL-20774 FOR VALVE LEAKOFFS.
7. INSTRUMENTATION REFERENCES  
A TO 1-CS-CV-3, 1-CS-CV-4 (AS-20570), 1-DM-V285 (DM-20350) AND 1-CS-FV-7456 (CS-20724).
8. INDICATES REVISION LEVEL

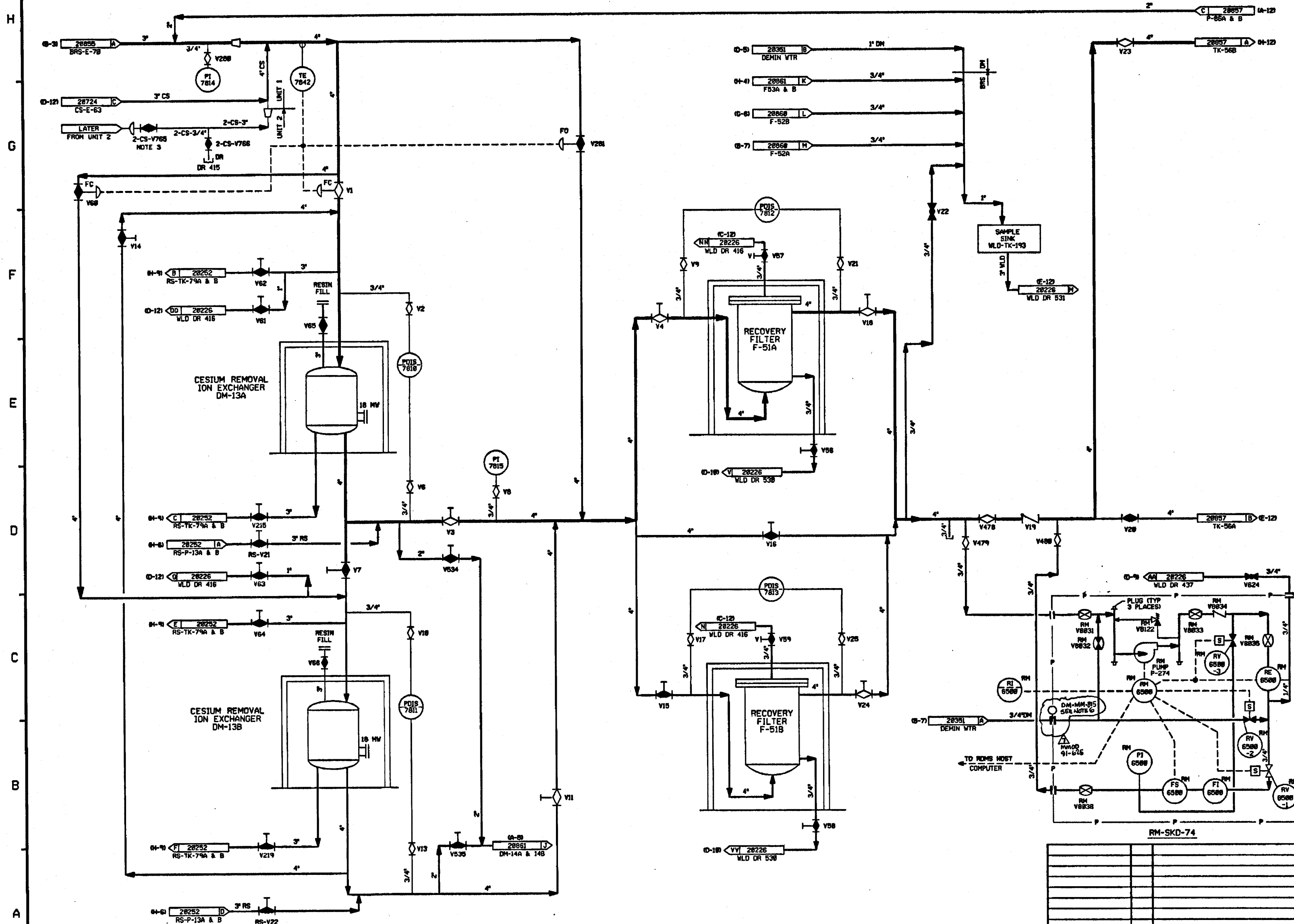
PORTIONS OF THIS DRAWING ARE NUCLEAR SAFETY RELATED					
	4/16/08	JM	BS	JM	INCORP DCR 02-002 DCN-12, 15
	9/28/06	JM	SPF	RRB	INCORP MMOD 03-504 DCN 00
	3/21/06	BCS	JM	RRB	INCORP MSE 05-160, REV. 00
	2/27/01	BCS	MRB	RCP	INCORP MMOD 98-641 DCN-00
	4/23/99	DWS	BCS	GRM	INCORP DCR 980045 DCN-04
	3/3/93	BCL	MRB	DJM	INCORP DCR 880179 CA#16
	11/02/92	DWS	MRB	DJM	INCORP DCR 880179 CA#0
	10/26/92	DWS	BCL	WFZ	INCORP DCR 880091 CA#0, CHANGE SYS PREFIX ON CS-V52 TO WG-V52 PER W-20773.
	4/13/92	MRB	BCL	JEV	INCORP MMOD 91-515 CA0
	12/28/89	MRB	PAL	ES	INCORP DCR 86-113 CA 1
					REVISED: VALVE SYMBOLS V640, 638, 639, 725, 637, 724, 654, 641, 642, 651 & 652 PER FP 53072, ADDED LINE SIZE & RESTRICTING ORIFICE AND FLANGES TO INLET HOTWELL CONDENSER PER 53758, FLANGES TO CLARIFY LINE SIZE BOUNDARY FOR INLET TO E-139 FROM E-65, FAI DESIGNATION FOR V750 AND V838 PER NHY DWG 506234 DELETED: FAI DESIGNATION FOR V625 AND V633 PER NHY DWG 506274 AND 506274, IC DESIGNATION FOR V635 PER UE&C DWG 885037.
6/30/88		GPM	APL	PAS	REVISED: EQUIP. CL PER UE&C P&ID, REMOVED DUPLICATED PIPING, REV'D NOTE 6, DELETED FLEX HOSE & DESIGNATED VALVES AS CLOSED FOR CS-V507, 964, 965, 966, 976 & 972 PER NCR 86/145A, ADDED NOTE FOR CS-V507 & CAPILLARY SYMBOL.
12/15/87		GPM	DWS	PAS	INCORP DCR 618, REVISED VALVE TYPE PER FP.
1/23/87		JDM	WRD	RRB	INCORP NCR 95/116A & 99/113027A & ECA 19/105527C ADDED CON REFS NOTE 8, REMOVED DUPLICATED PIPING SHOWN ON NCR 95/116A, ADDED PREFIX TO CV-4, CV-5, CORRECTED VALVE TYPES PER UE&C P&ID.
18/16/86		JDM	WRD	RRB	REVISED CONTINUATIONS
8/22/86		MPW	WRD	PHH	DESIGN CHG1 RESOLVED PER F-805037-R1 & 2 RESOLVED PER ECA 19/104469A, REMOVED CS-SKD-93, DM-V285, DM-V234 & DM DRN (V382) FROM DWG, ADDED BRS, AS, SSC CONT. INCORP ECA 05/1061028 & ECA 19/106028C.
6/16/86		DWS	DWS	RRB	ISSUED FOR OPERATION, ECA 19/104469A
1/22/86		DWS	JDM	WFD	
DATE	DSGN	CHKD	CE	DESCRIPTION	
FPL ENERGY Seabrook Station					
CHEMICAL & VOLUME CONTROL SYS. LETDOWN DEGASIFIER DETAIL					
PID- 1-CS-B20724					





PID-1-BRS-B20856

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



- NOTES:
1. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX "BRS" UNLESS NOTED OTHERWISE.
  2. WORK THIS DWG WITH DWGS 28053, 28054, 28055, 28057, 28058, 28059, 28060 & 28061.
  3. VALVE IS CLOSED DURING UNIT 2 CONSTRUCTION.
  4.  $\Delta$  INDICATES REVISION LEVEL.
  5. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS ARE SAFETY CLASS UNLESS NOTED OTHERWISE.
  6. SPECTACLE FLANGE SHOWN IN NORMAL POSITION.  $\Delta$  REVERSED ONLY DURING PURGING OPERATIONS.

7	10/1/91	MRB	FCB	JJA	APL	ES	INCORP. HMOD 91-625 CMB
6	9/18/91	GPH	FCB	JH	MRB	MAC	INCORP. DCR 98-14 CMB
5	2/28/91	MRB	FCB	RMC	APL	BCL	INCORP. HMOD 98-648 CMB
4	10/29/90	MRB	FCB	JH	APL	BCL	INCORP. HMOD 98-581 CMB ADDED NOTE 5 FOR INFORMATION
3	12/12/89	HPW	DWS	PHL	BCL	RRC	ADDED CONT. REF. LOC'S VALVE RM V822 PER FP-71282 AND NOTE 4.
2	9/26/88	HAP	DWS	JDM	BCL	RRC	ADDED VALVING & INSTRUMENT INFO FOR RM-SKD-74 PER FP-71282. REVISED DWG CONTINUATION DELETED REF. DWGS 10/1/91.
1	6/23/88	GD	SKN	DWS	JMS	RRC	INCORP. ECA 19/0828A & 19/0828B ITEM #1 RESOLVED PER ECA 19/082819A
0	1/13/88	GD	SKN	JDM	ASF	WFD	ISSUED FOR OPERATIONS
REV	DATE	DSGN	DRWN	CHKD	CE	LDE	DESCRIPTION

PSNH

PUBLIC SERVICE OF NEW HAMPSHIRE

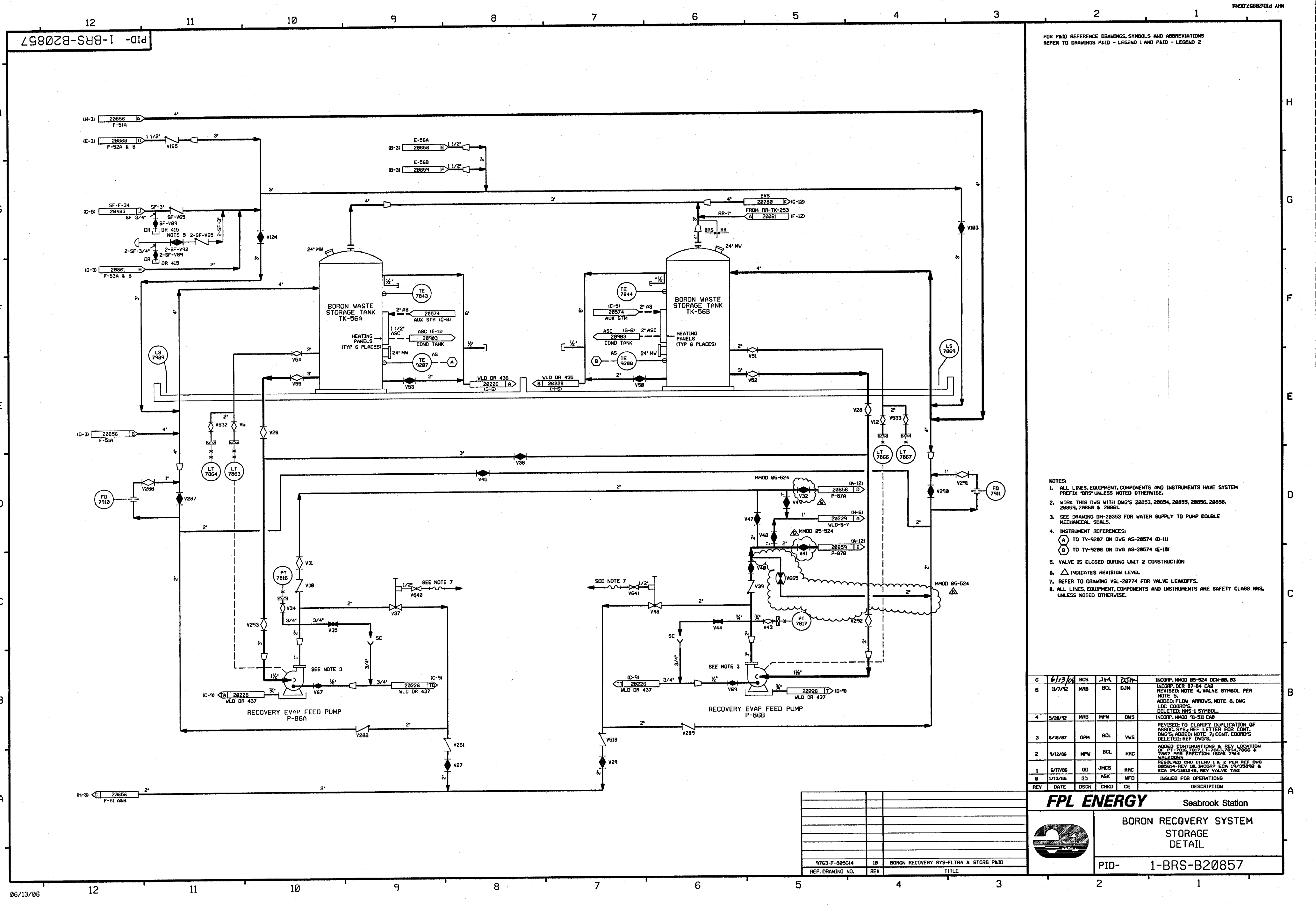


BORON RECOVERY SYSTEM  
FILTRATION  
DETAIL

SEABROOK STATION

PID-1-BRS-B20856

783-F-805614	18	BORON RECOVERY SYS FILTR & STOR P&ID
REF. DRAWING NO.	REV	TITLE

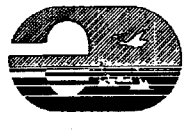


FOR P&ID REFERENCE DRAWINGS, SYMBOLS AND ABBREVIATIONS  
REFER TO DRAWINGS P&ID - LEGEND 1 AND P&ID - LEGEND 2

- NOTES:
1. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS HAVE SYSTEM PREFIX "BRS" UNLESS NOTED OTHERWISE.
  2. WORK THIS DWG WITH DWG'S 20853, 20854, 20855, 20856, 20858, 20859, 20860 & 20861.
  3. SEE DRAWING DM-20353 FOR WATER SUPPLY TO PUMP DOUBLE MECHANICAL SEALS.
  4. INSTRUMENT REFERENCES:  
(A) TO TV-9287 ON DWG AS-20574 (D-11)  
(B) TO TV-9288 ON DWG AS-20574 (E-10)
  5. VALVE IS CLOSED DURING UNIT 2 CONSTRUCTION
  6.  $\Delta$  INDICATES REVISION LEVEL
  7. REFER TO DRAWING VSL-20774 FOR VALVE LEAKOFFS.
  8. ALL LINES, EQUIPMENT, COMPONENTS AND INSTRUMENTS ARE SAFETY CLASS NMS, UNLESS NOTED OTHERWISE.

6	6/13/04	BCS	JLA	DJM	INCORP. MMOD 05-524 DCH-08, 03
5	11/7/02	MRB	BCL	DJM	INCORP. DCR 87-84 CAB REVISED NOTE 4, VALVE SYMBOL PER NOTE 5. ADDED: FLOW ARROWS, NOTE 6, DWG LDC COORDS. DELETED: NMS-1 SYMBOL.
4	5/28/02	MRB	MPW	DMS	INCORP. MMOD '91-511 CAB
3	6/18/87	GPH	BCL	VWS	REVISED TO CLARIFY DUPLICATION OF ASSOC. SYS. REF. LETTER FOR CONT. DWG'S ADDED NOTE 7, CONT. COORDS DELETED: REF. DWG'S.
2	4/12/86	MPW	BCL	RAC	ADDED CONTINUATIONS & REV. LOCATION OF PT-7815, 7817, 7853, 7854, 7866 & 7867 PER ERECTION 100'S 7814 VALVE DOWN
1	6/17/86	GO	JMCS	RAC	REDESIGNED DWG ITEMS 1 & 2 PER REF. DWG 885614-REV. 10, INCORP. ECA 19/35890 & ECA 19/1161248, REV. VALVE TAG
0	1/13/86	GO	ASK	WFO	ISSUED FOR OPERATIONS
REV	DATE	DSGN	CHKD	CE	DESCRIPTION

**FPL ENERGY** Seabrook Station



BORON RECOVERY SYSTEM  
STORAGE  
DETAIL

PID- 1-BRS-B20857

9763-F-885614	10	BORON RECOVERY SYS-FLTRA & STORG P&ID
REF. DRAWING NO.	REV	TITLE