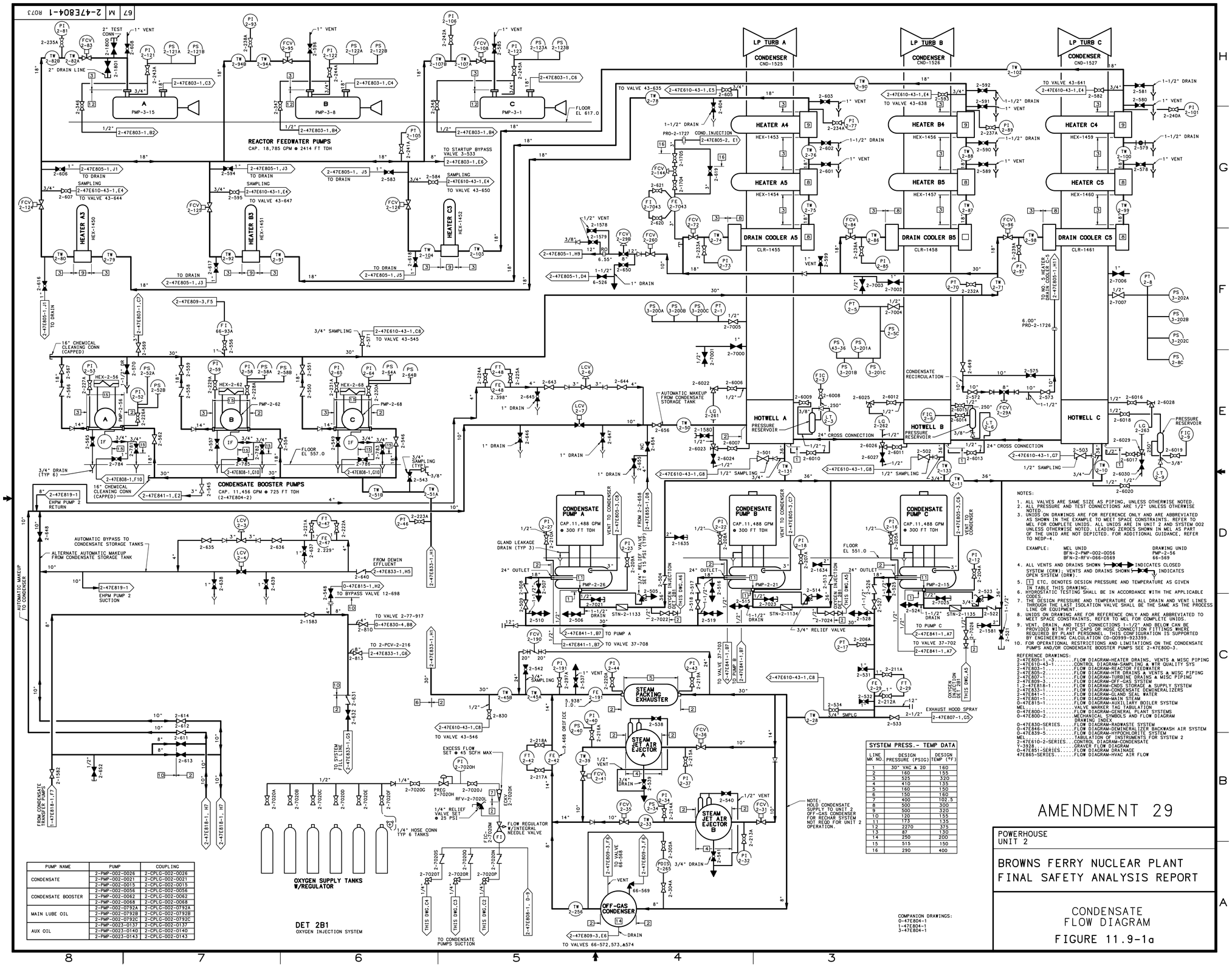
67 M 2-47E804-1 R073



PUMP NAME	PUMP	COUPLING
CONDENSATE	2-PMP-002-0026	2-CPLG-002-0026
	2-PMP-002-0021	2-CPLG-002-0021
	2-PMP-002-0015	2-CPLG-002-0015
CONDENSATE BOOSTER	2-PMP-002-0056	2-CPLG-002-0056
	2-PMP-002-0062	2-CPLG-002-0062
	2-PMP-002-0068	2-CPLG-002-0068
MAIN LUBE OIL	2-PMP-002-0792A	2-CPLG-002-0792A
	2-PMP-002-0792B	2-CPLG-002-0792B
	2-PMP-002-0792C	2-CPLG-002-0792C
AUX OIL	2-PMP-0023-0137	2-CPLG-002-0137
	2-PMP-0023-0140	2-CPLG-002-0140
	2-PMP-0023-0143	2-CPLG-002-0143

SYSTEM PRESS.- TEMP DATA		
LINE MK NO.	DESIGN PRESSURE (PSIG)	DESIGN TEMP (°F)
1	30" VAC & 20	160
2	160	155
3	525	320
4	410	135
5	160	150
6	150	160
7	400	102.5
8	500	300
9	500	320
10	120	155
11	173	135
12	2270	375
13	87	130
14	250	200
15	515	150
16	290	400

AMENDMENT 29

POWERHOUSE
UNIT 2

BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

CONDENSATE
FLOW DIAGRAM

FIGURE 11.9-1a

67 | M | 1-47E818-1 R038

TURBINE BLDG UNIT 1

1-47E804-1, A8 | 1-47E804-1, A7 | 1-47E804-1, A7

CONDENSATE TRANSFER PUMP DISCHARGE

AUTOMATIC MAKEUP TO CONDENSER HOTWELL

AUTOMATIC BYPASS TO CONDENSATE STORAGE TANKS

SAMPLING

0-2-1636

0-2-1572

0-2-706

0-2-707

0-47E830-2, B8

CONDENSATE TRANSFER PUMP DISCHARGE TO RADWASTE

0-47E830-4, F3

HPCI PUMP TEST 1-47E812-1, G6

ALT SUPPLY TO CRD 0-47E820-1, H8

2" DRAIN

2-1/2" NOTE 9

702

150 LB BLIND FLANGE

CRD PUMPS 1A, 1B & 2A 0-47E820-1, H8

2-47E804-1, A8

EXP JT

1-47E804-1, A6

704

2-1/2" NOTE 9

705

1-47E812-1, H3

1-47E812-1, H3

1574

1-47E812-1, H4

1-47E812-1, H4

CORE SPRAY 1-47E814-1, A7 PUMPS 1B & 1D

CORE SPRAY 1-47E814-1, A7 PUMPS 1A & 1C

RCIC PUMP 1-47E813-1, H4

RHR PUMPS 1-47E811-1, B4 1B & 1D

RHR PUMPS 1-47E811-1, B5 1A & 1C

HPCI PUMP 1-47E812-1, H6

0-2-745

0-2-757

VACUUM RELIEF VALVE

0-2-708

2" DRAIN

0-2-709

LOOP SEAL

CONDENSATE TRANSFER PUMP DISCHARGE TO REACTOR BLDG UNIT 1

CONDENSATE SUPPLY-SAFETY SYSTEMS

CONDENSATE STORAGE TANK

6" OVERFLOW TOP EL 608'-0"

VENT

PUMP TEST SAFETY DISCHARGE EL 609'-4"

MKUP FROM DMNRLZ 0-47E856-1, G1

WATER PUMP

TANK NO.1 TNK-2-1462 CAP.375,000 GAL.

EL 588.0

DETAIL 1A1 (G1)

EL 577.0

LT 2-169

310A

FCV 2-171 (SEE NOTE 10)

0-2-699

FCV 2-170 (SEE NOTE 10)

1F

3-47E818-1,F4

0-2-749

0-2-750

0-2-751

0-2-752

2-47E818-1,F4

2-47E818-1,F3

3-47E818-1,F4

3-47E818-1,F4

3-47E818-1,F4

1F 776 1" 773

1F 777 1" 774

1-47E804-1,B7

CONDENSATE TRANSFER PUMP SUCTION

3-47E818-1,F6 FROM VALVE 3-2-748

3-47E818-1,F6 FROM VALVE 3-2-747

747

748

2-47E818-1,F5 FROM VALVE 2-2-747

2-47E818-1,F5 FROM VALVE 2-2-748

EXP JT

STEEL HDR

UNIT 1

ALUMINUM HDR

EXP JT

EXP JT

DETAIL 1A1 THIS DWG. H4

306A

LS 2-169A EL 607'-6"

307A

308A

EL 604'-6" LS 2-169B

309A

DETAIL 1B1 THIS DWG, E2 & E4

TANK LS-2-267A,4 LS-2-271A,5

TANK 0-2-321A,4 0-2-326A,5

LS-2-267B,4 LS-2-271B,5

EL 615'-7"

TANK 0-2-323A,4 0-2-328A,5

TANK 0-2-322A,4 0-2-327A,5

0-2-331A,4 0-2-333A,5 3/8"(TYP)

EL 606'-7"

TANK 0-2-324A,4 0-2-329A,5

EL 583'-1"

0-2-332A,4 0-2-334A,5

TANK LS-2-274,4 LS-2-275,5

CONDENSATE HEAD TANK CAP.10,000 GAL. O-TNK-1482

VENT

OVERFLOW INSIDE OF TANK (SEE NOTE 7)

℄ TANK EL 723'-1"

EL 717.0

LC (SEE NOTE 11)

0-2-753

DRAIN

0-2-738

0-2-754

VACUUM RELIEF VALVE

TNK-2-738

DRV-2-738

LOOP SEAL

2" DRAIN

0-2-737

LCV 2-177

0-2-736

1" TYGON TUBING DRAIN

1/4" TYGON TUBING CONN FOR LEVEL MONITORING

0-2-101

0-2-755

0-2-746

0-2-761

0-2-763

DETAIL 1B1 (F1)

LT 2-267

0-2-325A

TANK NO.4 CAP.500,000 GAL. O-TNK-1672

OVERFLOW

16" SPARE

EL 577'-1"

0-2-771

TANK NO.5 CAP.500,000 GAL. O-TNK-1673

DETAIL 1B1 (F1)

0-LT-2-271

0-2-330A

6" OVERFLOW

16" SPARE

0-2-772

LT 2-172

2-VALVE MANIFOLD

0-RTV-2-172

0-ISIV-2-172

0-DRIV-2-172

1/4"

2-47E818-1,D3

3-47E818-1,D3

STEEL ALUMINUM

766

0-2-769

2" TELL-TALE DR (TYP 2)

FCV 2-269

0-2-767

FCV 2-273

0-2-768

0-2-770

2-47E818-1,D8

3-47E818-1,D6

2" FLEXIBLE METAL HOSE

0-2-101

0-2-102

0-FQ 2-1

0-47E830-1,C3

REACTOR WELL,DRYER AND SEPARATOR STORAGE WALL WETTING AND CLEANING

TO FUEL POOL CLEANING AND WASHDOWN

TO FUEL POOL CLEANING AND WASHDOWN

716 717 718 719 720 721 722 723 726 734 732 731 729

EL 664.0

3" 715

FUEL CASK WASHDOWN

FUEL POOL COOLING MAKEUP 1-47E855-1, F2 727

3" 726

GLAND SEAL SUPPLY AND FILL 1-47E841-1, H5

EL 639.0

6" 714

RHR FLUSH 1-47E811-1, H2

4" 713

EL 621.25

1 6

RHR FLUSH 1-47E811-1, H7

4" 712

1 9 CORE SPRAY FLUSH AND FILL

4" 724

1-47E814-1, G4

2" DRAIN

725

EL 593.0

2-1/2" NOTE 9

1 7

TO RHR DRAIN PUMP MECH SEAL

1" 742

1-47E811-1, B6

RHR FLUSH 1-47E811-1, F3

6" 710

1 6

1 RD

FROM CILRT PENETRATION 0-47E845-2, C7

4" DRAIN 796 L.O. 797

711

EL 565.0

2-1/2" NOTE 9

1/2" 741

1/4" CHEM CLEANING SAMPLING CONN

0-2-756

REACTOR BUILDING CONDENSATE SERVICE

NOTES:

1. ALL VALVES ARE SAME SIZE AS PIPING, UNLESS OTHERWISE NOTED.
2. ALL PRESSURE AND TEST CONNECTIONS ARE 1/2", UNLESS OTHERWISE NOTED.
3. UNIDS ON DRAWINGS ARE FOR REFERENCE ONLY AND ARE ABBREVIATED AS SHOWN IN THE EXAMPLE TO MEET SPACE CONSTRAINTS. REFER TO MEL FOR COMPLETE UNIDS. ALL UNIDS ARE IN UNIT 1 AND SYSTEM 002 UNLESS OTHERWISE NOTED. LEADING ZEROES SHOWN IN MEL AS PART OF THE UNID ARE NOT DEPICTED. FOR ADDITIONAL GUIDANCE, REFER TO NEDP-4.

EXAMPLE:

MEL UNID	DRAWING UNID
BFN-0-TNK-002-1673	0-TNK-1673
BFN-0-LT-002-0271	0-LT-2-271
BFN-1-SCV-002-0720	720

4. [1] ETC. DENOTES DESIGN PRESSURE AND TEMPERATURE AS GIVEN IN TABLE THIS DRAWING.
5. HYDROSTATIC TESTING SHALL BE IN ACCORDANCE WITH APPLICABLE CODES.
6. THE DESIGN PRESSURE AND TEMPERATURE OF ALL DRAIN AND VENT LINES THROUGH THE LAST ISOLATION VALVE SHALL BE THE SAME AS THE PROCESS LINE.
7. THE CONDENSATE HEAD TANK MAYBE USED TO SERVE RHR AND CORE SPRAY DISCHARGE PIPING INSTEAD OF UNIT 1, 2, OR 3 PRESSURE SUPPRESSION CHAMBER (PSC) HEAD TANK. WHEN UTILIZED FOR THIS PURPOSE, THE CONDENSATE HEAD TANK SHALL NOT BE REMOVED FROM SERVICE TO CALIBRATE LEVEL SWITCHES O-LS-2-172 A,B,C, AND D. (REFER TO 1-47E818-1, D4)
8. VENT, DRAIN, AND TEST CONNECTIONS 1-1/2" AND BELOW CAN BE PROVIDED WITH PIPE CAPS OR HOSE CONNECTION FITTINGS WHERE REQUIRED BY PLANT PERSONNEL. THIS CONFIGURATION IS SUPPORTED BY ENGINEERING CALCULATION CDQ0999200700039.
9. 2" DRAIN VALVES 702, 704, 711 AND 725 ARE EQUIPPED WITH NST FIRE HOSE CONNECTIONS TO SUPPORT MITIGATION STRATEGY REQUIREMENTS OF PROVIDING WATER VIA THE FIRE PROTECTION SYSTEM RING HEADER FOR HOTWELL MAKEUP AND DRYWELL INJECTION. REF: CIVIL CALCULATION CDQ0999200700039.
10. VALVE SHALL REMAIN OPEN FOR NFPA 805 REQUIREMENTS EXCEPT WHEN REQUIRED FOR TESTING OR OPERATION.
11. DRAIN VALVE O-2-753 LOCKED CLOSED.

REFERENCE DRAWINGS:

MEL	TABULATION OF VALVE MARKER TAGS
O-47E800-1	FLOW DIAGRAM-GENERAL PLANT SYSTEMS
O-47E800-2	MECHANICAL SYMBOLS AND FLOW DIAGRAM DRAWING INDEX
1-47E804-1	FLOW DIAGRAM-CONDENSATE
1-47E811-1	FLOW DIAGRAM-RHR SYSTEM
1-47E812-1	FLOW DIAGRAM-HPCI SYSTEM
1-47E813-1	FLOW DIAGRAM-RCIC SYSTEM
1-47E814-1	FLOW DIAGRAM-CORE SPRAY SYSTEM
O-47E820-1	FLOW DIAGRAM-CRD HYDRAULIC SYSTEM
O-47E830-1, -2 & -6	FLOW DIAGRAM-RADWASTE
1-47E841-1	FLOW DIAGRAM-CLAND SEAL WATER
1-47E855-1	FLOW DIAGRAM-FUEL POOL CLEANING SYSTEM
O-47E856-1	FLOW DIAGRAM-DEMINERALIZED WATER

LEGEND

PHYSICAL BARRIER OR BOUNDARY BETWEEN UNITS

COMPANION DRAWINGS:
2-47E818-1
3-47E818-1

SYSTEM PRESS.-TEMP DATA

LINE MK NO.	DESIGN PRESSURE (PSIG)	DESIGN TEMP (°F)
1	120	135
2	100	135
3	16	135
4	250	150
5	150	200
6	150	350
7	150	130
8	50	150
9	150	103
10	100	150

AMENDMENT 28

REACTOR BUILDING & YARD UNITS 1 & O

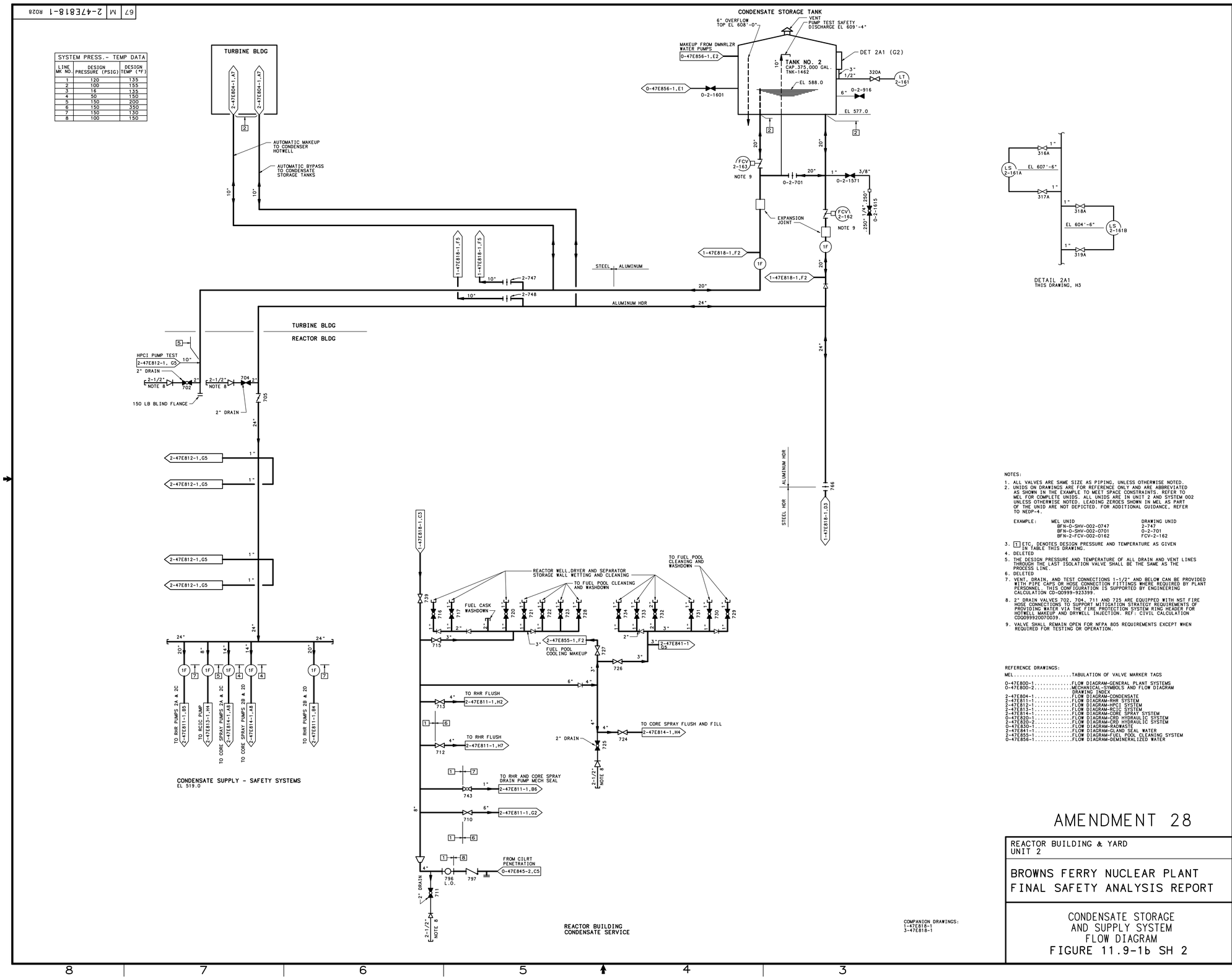
BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

CONDENSATE STORAGE AND SUPPLY SYSTEM FLOW DIAGRAM
FIGURE 11.9-1b SH 1

8 7 6 5 4 3

H G F E D C B A

SYSTEM PRESS.- TEMP DATA		
LINE MK NO.	DESIGN PRESSURE (PSIG)	DESIGN TEMP (°F)
1	120	135
2	100	155
3	16	135
4	50	150
5	150	200
6	150	350
7	150	130
8	100	150



NOTES:

1. ALL VALVES ARE SAME SIZE AS PIPING, UNLESS OTHERWISE NOTED.
2. UNIDS ON DRAWINGS ARE FOR REFFERENCE ONLY AND ARE ABBREVIATED AS SHOWN IN THE EXAMPLE TO MEET SPACE CONSTRAINTS. REFER TO MEL FOR COMPLETE UNIDS. ALL UNIDS ARE IN UNIT 2 AND SYSTEM 002 UNLESS OTHERWISE NOTED. LEADING ZEROES SHOWN IN MEL AS PART OF THE UNID ARE NOT DEPICTED. FOR ADDITIONAL GUIDANCE, REFER TO NEDP-4.

EXAMPLE:	MEL UNID	DRAWING UNID
	BFN-0-SHV-002-0747	2-747
	BFN-0-SHV-002-0701	0-2-701
	BFN-2-FCV-002-0162	FCV-2-162

3. [1] ETC. DENOTES DESIGN PRESSURE AND TEMPERATURE AS GIVEN IN TABLE THIS DRAWING.
4. DELETED
5. THE DESIGN PRESSURE AND TEMPERATURE OF ALL DRAIN AND VENT LINES THROUGH THE LAST ISOLATION VALVE SHALL BE THE SAME AS THE PROCESS LINE.
6. DELETED
7. VENT, DRAIN, AND TEST CONNECTIONS 1-1/2" AND BELOW CAN BE PROVIDED WITH PIPE CAPS OR HOSE CONNECTION FITTINGS WHERE REQUIRED BY PLANT PERSONNEL. THIS CONFIGURATION IS SUPPORTED BY ENGINEERING CALCULATION CD-00999-923399.
8. 2" DRAIN VALVES 702, 704, 711 AND 725 ARE EQUIPPED WITH NST FIRE HOSE CONNECTIONS TO SUPPORT MITIGATION STRATEGY REQUIREMENTS OF PROVIDING WATER VIA THE FIRE PROTECTION SYSTEM RING HEADER FOR HOTWELL MAKEUP AND DRYWELL INJECTION. REF: CIVIL CALCULATION CDQ0999920070039.
9. VALVE SHALL REMAIN OPEN FOR NFPA 805 REQUIREMENTS EXCEPT WHEN REQUIRED FOR TESTING OR OPERATION.

REFERENCE DRAWINGS:

MEL	TABULATION OF VALVE MARKER TAGS
0-47E800-1	FLOW DIAGRAM-GENERAL PLANT SYSTEMS
0-47E800-2	MECHANICAL-SYMBOLS AND FLOW DIAGRAM DRAWING INDEX
2-47E804-1	FLOW DIAGRAM-CONDENSATE
2-47E811-1	FLOW DIAGRAM-RHR SYSTEM
2-47E812-1	FLOW DIAGRAM-HPCI SYSTEM
2-47E813-1	FLOW DIAGRAM-RCIC SYSTEM
2-47E814-1	FLOW DIAGRAM-CORE SPRAY SYSTEM
0-47E820-1	FLOW DIAGRAM-CRD HYDRAULIC SYSTEM
0-47E820-2	FLOW DIAGRAM-CRD HYDRAULIC SYSTEM
0-47E830-1	FLOW DIAGRAM-RADWASTE
2-47E841-1	FLOW DIAGRAM-GLAND SEAL WATER
2-47E855-1	FLOW DIAGRAM-FUEL POOL CLEANING SYSTEM
0-47E856-1	FLOW DIAGRAM-DEMINERALIZED WATER

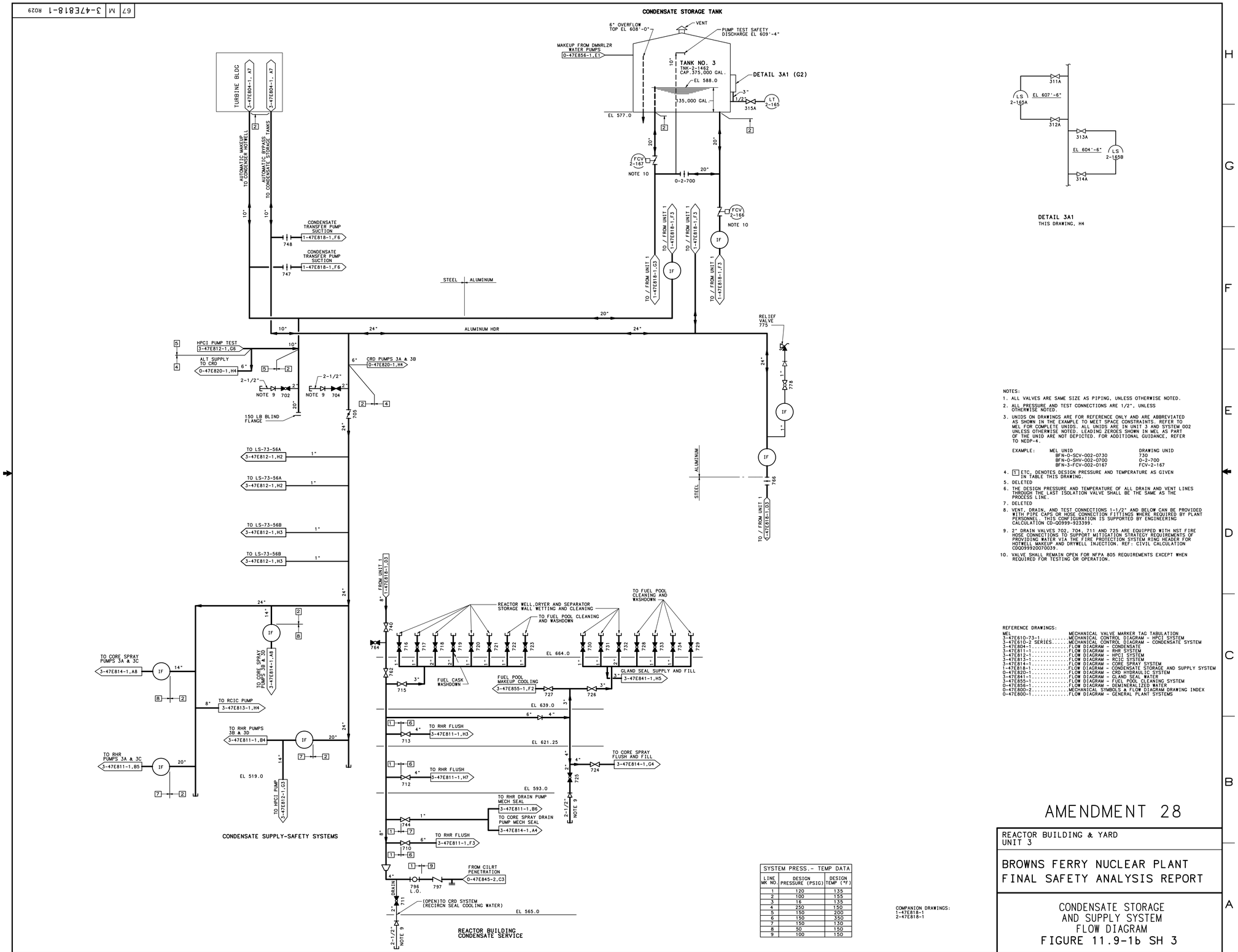
COMPANION DRAWINGS:
1-47E818-1
3-47E818-1

AMENDMENT 28

REACTOR BUILDING & YARD
UNIT 2

BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

CONDENSATE STORAGE AND SUPPLY SYSTEM
FLOW DIAGRAM
FIGURE 11.9-1b SH 2



NOTES:

1. ALL VALVES ARE SAME SIZE AS PIPING, UNLESS OTHERWISE NOTED.
2. ALL PRESSURE AND TEST CONNECTIONS ARE 1/2", UNLESS OTHERWISE NOTED.
3. UNIDS ON DRAWINGS ARE FOR REFERENCE ONLY AND ARE ABBREVIATED AS SHOWN IN THE EXAMPLE TO MEET SPACE CONSTRAINTS. REFER TO WEL FOR COMPLETE UNIDS. ALL UNIDS ARE IN UNIT 3 AND SYSTEM 002 UNLESS OTHERWISE NOTED. LEADING ZEROES SHOWN IN WEL AS PART OF THE UNID ARE NOT DEPICTED. FOR ADDITIONAL GUIDANCE, REFER TO NEDP-4.

EXAMPLE:	WEL UNID	DRAWING UNID
	BFN-0-SCV-002-0730	730
	BFN-0-SHV-002-0700	0-2-700
	BFN-3-FCV-002-0167	FCV-2-167

4. [1] ETC, DENOTES DESIGN PRESSURE AND TEMPERATURE AS GIVEN IN TABLE THIS DRAWING.
5. DELETED
6. THE DESIGN PRESSURE AND TEMPERATURE OF ALL DRAIN AND VENT LINES THROUGH THE LAST ISOLATION VALVE SHALL BE THE SAME AS THE PROCESS LINE.
7. DELETED
8. VENT, DRAIN, AND TEST CONNECTIONS 1-1/2" AND BELOW CAN BE PROVIDED WITH PIPE CAPS OR HOSE CONNECTION FITTINGS WHERE REQUIRED BY PLANT PERSONNEL. THIS CONFIGURATION IS SUPPORTED BY ENGINEERING CALCULATION CD-Q0999-923389.
9. 2" DRAIN VALVES 702, 704, 711 AND 725 ARE EQUIPPED WITH NST FIRE HOSE CONNECTIONS TO SUPPORT MITIGATION STRATEGY REQUIREMENTS OF PROVIDING WATER VIA THE FIRE PROTECTION SYSTEM RING HEADER FOR HOTWELL MAKEUP AND DRYWELL INJECTION. REF: CIVIL CALCULATION CDQ0999920070039.
10. VALVE SHALL REMAIN OPEN FOR NFPA 805 REQUIREMENTS EXCEPT WHEN REQUIRED FOR TESTING OR OPERATION.

REFERENCE DRAWINGS:

WEL	
3-47E610-73-1	MECHANICAL VALVE MARKER TAG TABULATION
3-47E610-2 SERIES	MECHANICAL CONTROL DIAGRAM - HPCI SYSTEM
3-47E804-1	MECHANICAL CONTROL DIAGRAM - CONDENSATE SYSTEM
3-47E811-1	FLOW DIAGRAM - CONDENSATE
3-47E812-1	FLOW DIAGRAM - RHR SYSTEM
3-47E813-1	FLOW DIAGRAM - HPCI SYSTEM
3-47E814-1	FLOW DIAGRAM - RCIC SYSTEM
1-47E818-1	FLOW DIAGRAM - CORE SPRAY SYSTEM
0-47E820-1	FLOW DIAGRAM - CONDENSATE STORAGE AND SUPPLY SYSTEM
3-47E841-1	FLOW DIAGRAM - CRD HYDRAULIC SYSTEM
3-47E855-1	FLOW DIAGRAM - GLAND SEAL WATER
0-47E856-1	FLOW DIAGRAM - FUEL POOL CLEANING SYSTEM
0-47E800-2	FLOW DIAGRAM - DEMINERALIZED WATER
0-47E800-1	MECHANICAL SYMBOLS & FLOW DIAGRAM DRAWING INDEX

FLOW DIAGRAM - GENERAL PLANT SYSTEMS

SYSTEM PRESS.- TEMP DATA		
LINE MK NO.	DESIGN PRESSURE (PSIG)	DESIGN TEMP (°F)
1	120	135
2	100	135
3	15	135
4	250	150
5	150	200
6	150	350
7	150	130
8	50	150
9	100	150

COMPANION DRAWINGS:
1-47E818-1
2-47E818-1

AMENDMENT 28

REACTOR BUILDING & YARD
UNIT 3

BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

CONDENSATE STORAGE AND SUPPLY SYSTEM FLOW DIAGRAM
FIGURE 11.9-1b SH 3

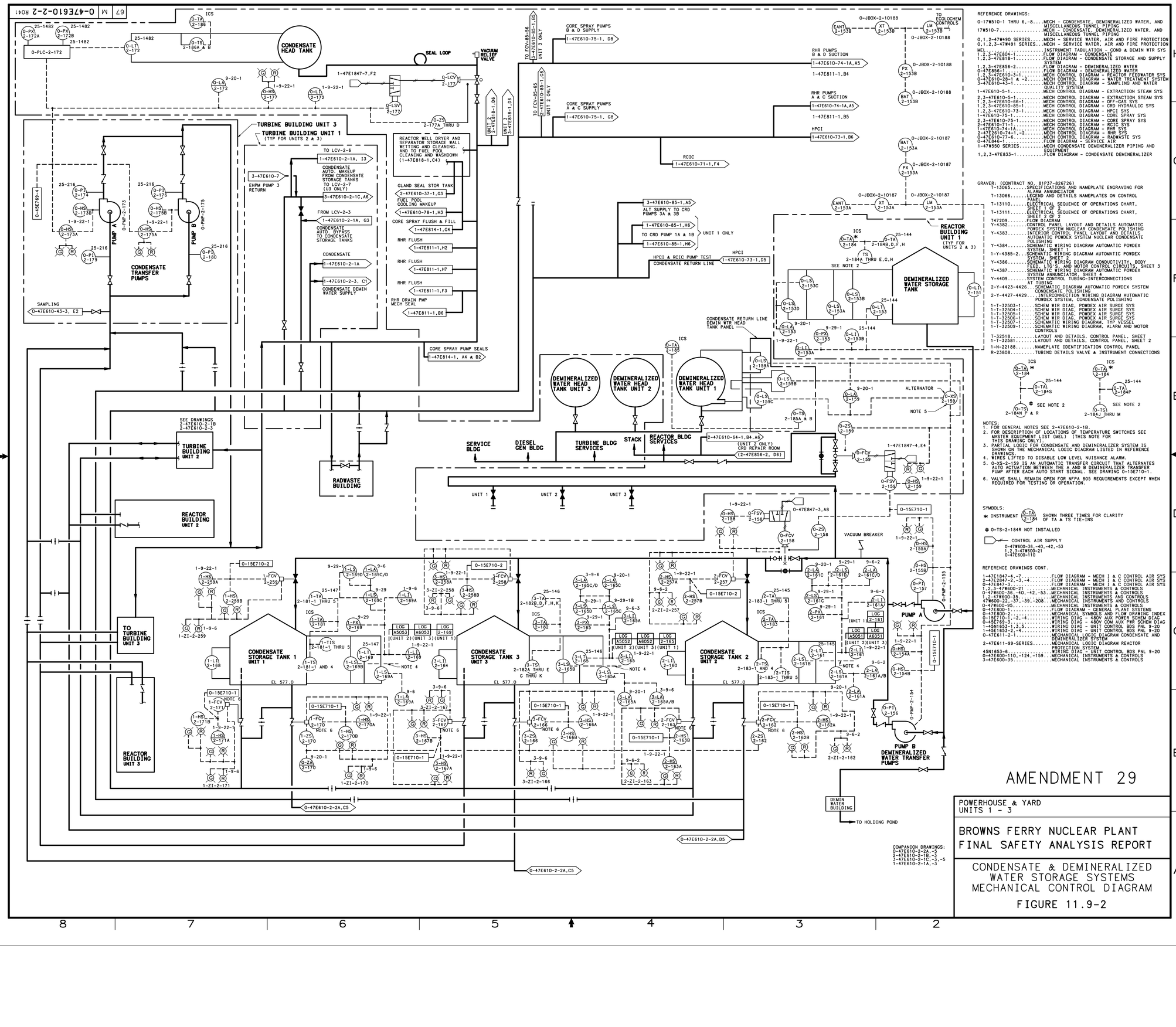
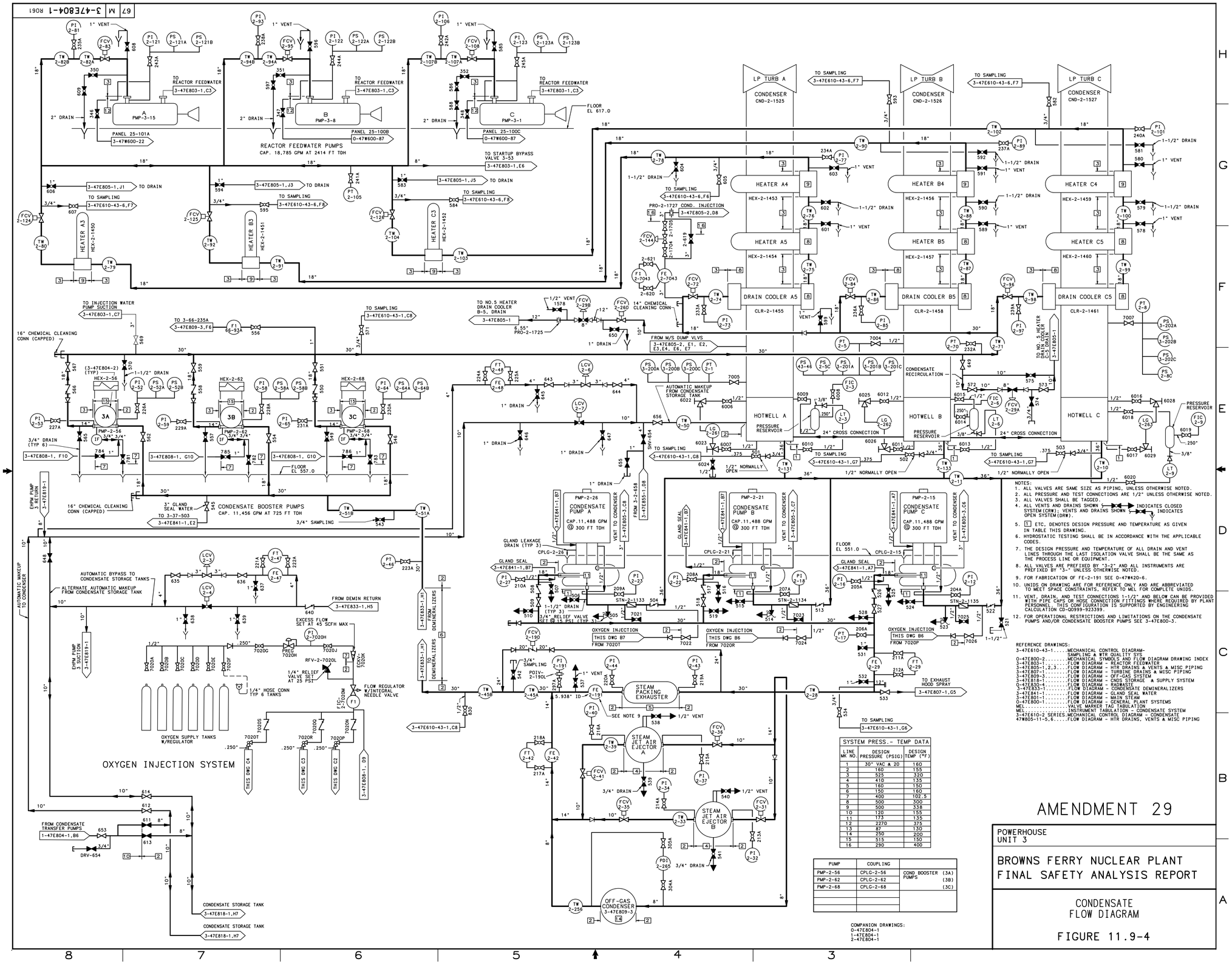

0-47E610-2-2 R041
CONDENSATE HEAD TANK
SEAL LOOP
VACUUM RELIEF VALVE
TURBINE BUILDING UNIT 3
TURBINE BUILDING UNIT 1
(TYP FOR UNITS 2 & 3)
CONDENSATE TRANSFER PUMPS
PUMP A
PUMP B
REACTOR WELL DRYER AND SEPARATOR STORAGE WALL WETTING AND CLEANING AND TO FUEL POOL CLEANING AND WASHDOWN (1-47E818-1,C4)
GLAND SEAL STOR TANK
FUEL POOL COOLING MAKEUP
CORE SPRAY FLUSH & FILL
RHR FLUSH
RHR DRAIN PMP MECH SEAL
CORE SPRAY PUMP SEALS
CONDENSATE AUTO. MAKEUP FROM CONDENSATE STORAGE TANKS TO LCV-2-7 (U3 ONLY)
EHPM PUMP 3 RETURN
CONDENSATE AUTO. BYPASS TO CONDENSATE STORAGE TANKS
CONDENSATE
CONDENSATE DEMIN WATER SUPPLY
SAMPLING
CORE SPRAY PUMPS B & D SUPPLY
CORE SPRAY PUMPS A & C SUPPLY
RHR PUMPS B & D SUCTION
RHR PUMPS A & C SUCTION
HPCI
RCIC
ALT SUPPLY TO CRD PUMPS 3A & 3B
UNIT 1 ONLY
TO CRD PUMP 1A & 1B
HPCI & RCIC PUMP TEST CONDENSATE RETURN LINE
REACTOR BUILDING UNIT 1
(TYP FOR UNITS 2 & 3)
DEMINERALIZED WATER STORAGE TANK
CONDENSATE RETURN LINE DEMIN WTR HEAD TANK PANEL
DEMINERALIZED WATER HEAD TANK UNIT 3
DEMINERALIZED WATER HEAD TANK UNIT 2
DEMINERALIZED WATER HEAD TANK UNIT 1
SERVICE BLDG
DIESEL GEN BLDG
TURBINE BLDG SERVICES
STACK
REACTOR BLDG SERVICES
CRD REPAIR ROOM
(UNIT 2 ONLY)
ALTERNATOR
VACUUM BREAKER
TURBINE BUILDING UNIT 2
RADWASTE BUILDING
REACTOR BUILDING UNIT 2
TO TURBINE BUILDING UNIT 3
REACTOR BUILDING UNIT 3
CONDENSATE STORAGE TANK 1 UNIT 1
CONDENSATE STORAGE TANK 3 UNIT 3
CONDENSATE STORAGE TANK 2 UNIT 2
EL 577.0
PUMP A
PUMP B DEMINERALIZED WATER TRANSFER PUMPS
DEMIN WATER BUILDING
TO HOLDING POND
TO ECOLOCHEM CONTROLS
TO FCV-85-56 (1-47E610-85-1,B5)
TO FCV-85-65 (2-47E610-85-1,D5)
UNIT 2 2-47E818-1,D8
UNIT 3 3-47E818-1,D8
0-47E610-2-2A,C5
0-47E610-2-2A,D5
SEE DRAWINGS 2-47E610-2-1B 2-47E610-2-3
REFERENCE DRAWINGS:
GRAVER: (CONTRACT NO. 81P37-826726)
SYMBOLS:
CONTROL AIR SUPPLY
0-47W600-36,-40,-42,-53
1-2,3-47W600-21
0-47E600-110
REFERENCE DRAWINGS CONT.
COMPANION DRAWINGS:
0-47E610-2-2A,-5
2-47E610-2-1B,-3
3-47E610-2-1C,-3,-5
1-47E610-2-1A,-3
NOTES:
1. FOR GENERAL NOTES SEE 2-47E610-2-1B.
2. FOR DESCRIPTION OF LOCATIONS OF TEMPERATURE SWITCHES SEE MASTER EQUIPMENT LIST (MEL) (THIS NOTE FOR THIS DRAWING ONLY)
3. PARTIAL LOGIC FOR CONDENSATE AND DEMINERALIZER SYSTEM IS SHOWN ON THE MECHANICAL LOGIC DIAGRAM LISTED IN REFERENCE DRAWINGS.
4. WIRES LIFTED TO DISABLE LOW LEVEL NUISANCE ALARM.
5. 0-XS-2-159 IS AN AUTOMATIC TRANSFER CIRCUIT THAT ALTERNATES AUTO ACTUATION BETWEEN THE A AND B DEMINERALIZER TRANSFER PUMP AFTER EACH AUTO START SIGNAL. SEE DRAWING 0-15E710-1.
6. VALVE SHALL REMAIN OPEN FOR NFPA 805 REQUIREMENTS EXCEPT WHEN REQUIRED FOR TESTING OR OPERATION.
AMENDMENT 29
POWERHOUSE & YARD UNITS 1 - 3
BROWNS FERRY NUCLEAR PLANT FINAL SAFETY ANALYSIS REPORT
CONDENSATE & DEMINERALIZED WATER STORAGE SYSTEMS MECHANICAL CONTROL DIAGRAM
FIGURE 11.9-2

Figure 11.9-3
(Deleted by Amendment 22)



AMENDMENT 29

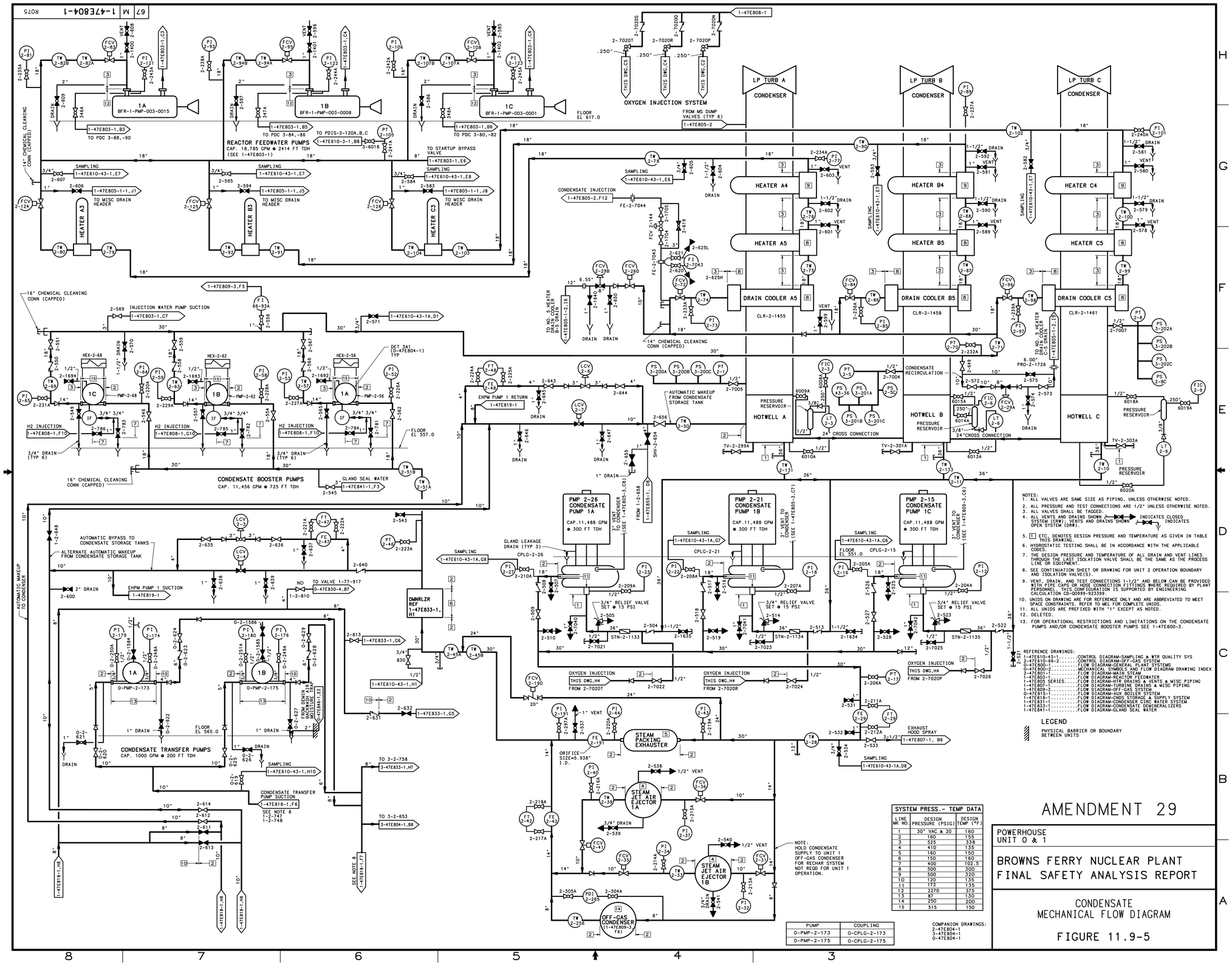
POWERHOUSE UNIT 3

BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

CONDENSATE FLOW DIAGRAM

FIGURE 11.9-4

67 M 1-47E804-1 R075



SYSTEM PRESS.- TEMP DATA		
LINE MK NO.	DESIGN PRESSURE (PSIG)	DESIGN TEMP (°F)
1	30" VAC & 20	160
2	160	155
3	525	338
4	410	135
5	160	150
6	150	160
7	400	102.5
8	500	300
9	500	320
10	120	135
11	173	135
12	2270	375
13	87	130
14	250	200
15	515	150

PUMP	COUPLING
O-PMP-2-173	O-CPLG-2-173
O-PMP-2-175	O-CPLG-2-175

COMPANION DRAWINGS:
2-47E804-1
3-47E804-1
0-47E804-1

NOTES:
1. ALL VALVES ARE SAME SIZE AS PIPING, UNLESS OTHERWISE NOTED.
2. ALL PRESSURE AND TEST CONNECTIONS ARE 1/2" UNLESS OTHERWISE NOTED.
3. ALL VALVES SHALL BE TAGGED.
4. ALL VENTS AND DRAINS SHOWN INDICATES CLOSED SYSTEM (CRW); VENTS AND DRAINS SHOWN INDICATES OPEN SYSTEM (DRW).
5. [1] ETC. DENOTES DESIGN PRESSURE AND TEMPERATURE AS GIVEN IN TABLE THIS DRAWING.
6. HYDROSTATIC TESTING SHALL BE IN ACCORDANCE WITH THE APPLICABLE CODES.
7. THE DESIGN PRESSURE AND TEMPERATURE OF ALL DRAIN AND VENT LINES THROUGH THE LAST ISOLATION VALVE SHALL BE THE SAME AS THE PROCESS LINE OR EQUIPMENT.
8. SEE CONTINUATION SHEET OR DRAWING FOR UNIT 2 OPERATION BOUNDARY AND ISOLATION VALVE(S).
9. VENT, DRAIN, AND TEST CONNECTIONS 1-1/2" AND BELOW CAN BE PROVIDED WITH PIPE CAPS OR HOSE CONNECTION FITTINGS WHERE REQUIRED BY PLANT PERSONNEL. THIS CONFIGURATION IS SUPPORTED BY ENGINEERING CALCULATION CD-00999-923399.
10. UNIDS ON DRAWING ARE FOR REFERENCE ONLY AND ARE ABBREVIATED TO MEET SPACE CONSTRAINTS. REFER TO MEL FOR COMPLETE UNIDS.
11. ALL UNIDS ARE PREFIXED WITH "1" EXCEPT AS NOTED.
12. DELETED.
13. FOR OPERATIONAL RESTRICTIONS AND LIMITATIONS ON THE CONDENSATE PUMPS AND/OR CONDENSATE BOOSTER PUMPS SEE 1-47E800-3.

REFERENCE DRAWINGS:
1-47E610-43-1.....CONTROL DIAGRAM-SAMPLING & WTR QUALITY SYS
2-47E610-66-2.....CONTROL DIAGRAM-OFF-GAS SYSTEM
0-47E800-1.....FLOW DIAGRAM-GENERAL PLANT SYSTEMS
0-47E800-2.....MECHANICAL SYMBOLS AND FLOW DIAGRAM DRAWING INDEX
2-47E801-1.....FLOW DIAGRAM-MAIN STEAM
1-47E803-1.....FLOW DIAGRAM-REACTOR FEEDWATER
1-47E805 SERIES.....FLOW DIAGRAM-HTR DRAINS & VENTS & MISC PIPING
1-47E807-1.....FLOW DIAGRAM-TURBINE DRAINS & MISC PIPING
1-47E809-3.....FLOW DIAGRAM-OFF-GAS SYSTEM
0-47E815-1.....FLOW DIAGRAM-AUX BOILER SYSTEM
1-47E818-1.....FLOW DIAGRAM-CNDS STORAGE & SUPPLY SYSTEM
1-47E831-1.....FLOW DIAGRAM-CONDENSER CIRC WATER SYSTEM
1-47E833-1.....FLOW DIAGRAM-CONDENSATE DEMINERALIZERS
1-47E841-1.....FLOW DIAGRAM-GLAND SEAL WATER

LEGEND
PHYSICAL BARRIER OR BOUNDARY BETWEEN UNITS

AMENDMENT 29

POWERHOUSE
UNIT 0 & 1

BROWNS FERRY NUCLEAR PLANT
FINAL SAFETY ANALYSIS REPORT

CONDENSATE
MECHANICAL FLOW DIAGRAM

FIGURE 11.9-5