





P&ID Color Coding Key for Piping Energy and Physical Separation Designation			
Physical Separation Division	Color	Energy Category	P&ID Designation
X (Non-Divisional)	Black	High PWA High NPWA * Moderate	
I	Yellow	High PWA High NPWA * Moderate	
II	Blue	High PWA High NPWA * Moderate	
III	Green	High PWA High NPWA * Moderate	

NOTES:

The drawings in Figure 3.6-1 should not be used for detailed information and are not updated unless a change affects divisional separation or high-energy lines. Detail information should be taken from P&IDs in the controlled drawing program.

“High PWA” – those lines which are considered to be high energy (refer to subsection 3.6.1.1.1.b) and therefore subject to pipe rupture analysis.

“High NPWA” – those lines which are considered to be moderate energy and not subject to pipe rupture analysis. Those lines fall under the definition in subsection 3.6.2.1.4. These lines operate within the pressure and temperature conditions specified for high energy for short operational periods, or they are high energy but exempted under the size criteria (less than or equal to 1” nominal pipe size).

“Moderate” – those lines which are considered to be moderate energy (refer to subsection 3.6.1.1.1.c).

* There is no differentiation between moderate energy and low energy.

NOTE:

The drawings in Figure 3.6-1 should not be used for detailed information and are not updated unless a change affects divisional separation or high-energy lines. Detail information should be taken from P&IDs in the controlled drawing program.

INDEX OF SYSTEMS

<u>Sheet Number(s)</u>	<u>System</u>
5 to 10	Main Steam
11 to 13	Extraction Steam
14	Reactor Feedwater
15	Condensate
16	Condensate Booster
17 to 21	Feedwater Heater Drains – Turbine Cycle
22 & 23	Feedwater Heater Miscellaneous Vents and Drains
24 to 27	Turbine-Generator Miscellaneous Vents and Drains
28 & 29	Turbine Gland Steam Seal System
30 to 33	Auxiliary Steam
34 to 38	Component Cooling Water
39 to 41	Containment Monitoring System
42 & 43	Diesel Generator Fuel Oil System
44 to 46	Fuel Pool Cooling and Cleanup
47 to 51	Shutdown Service Water
52	Combustible Gas Control System
53	Suppression Pool Makeup
54	MSIV Leakage Control System
55 & 56	Nuclear Boiler
57 to 59	Reactor Recirculation
60	Low Pressure Core Spray
61	High Pressure Core Spray
62 to 65	Residual Heat Removal
66 to 69	Reactor Water Cleanup

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT

Figure 3.6-1
Sheet 2 of 111

DIVISIONAL SEPARATION AND
HIGH ENERGY P&IDs
INDEX OF SYSTEMS

NOTE:

The drawings in Figure 3.6-1 should not be used for detailed information and are not updated unless a change affects divisional separation or high-energy lines. Detail information should be taken from P&IDs in the controlled drawing program.

INDEX OF SYSTEMS

<u>Sheet Number(s)</u>	<u>System</u>
70	Standby Liquid Control
71	Control Rod Drive
72 & 73	Reactor Core Isolation Cooling
74 to 76	Off Gas
77 & 78	Floor Drain Radwaste Process
79 to 81	Chemical Radwaste Reprocessing and Disposal Radwaste Evaporator
82 & 83	Radwaste Sludge Process Concentrate Tank
84 to 90	Control Room HVAC
90A	Laboratory HVAC System
91	Diesel Generator Room Ventilation
92	Fuel Building HVAC
93 & 94	Standby Gas Treatment System
95	Shutdown Service Water System
96 & 97	Drywell Cooling Chilled Water System
98	Drywell Purge
99	Containment Building HVAC
100 to 102	Essential Switchgear Heat Removal
103 & 104	ECCS Equipment Room Cooling
105 & 106	Refrigeration Piping Switchgear Heat Removal
107	Combustible Gas Control System
108 & 109	Radwaste Floor Drain Process
110 & 111	Control Rod Drive System

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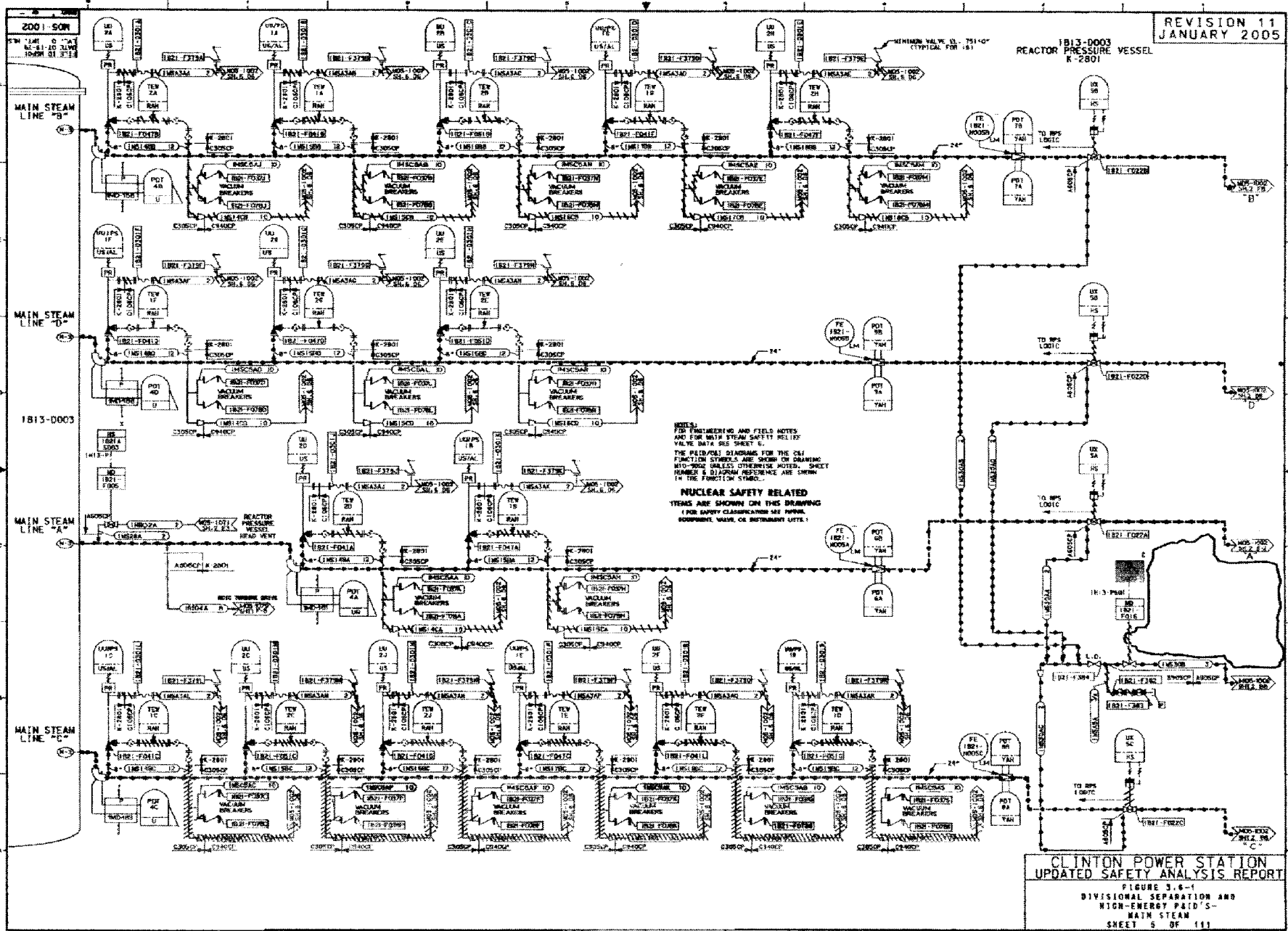
Figure 3.6-1
Sheet 3 of 111

DIVISIONAL SEPARATION AND
HIGH ENERGY P&IDs
INDEX OF SYSTEMS

Figure 3.6-1 Sheet 4 of 111 has been deleted

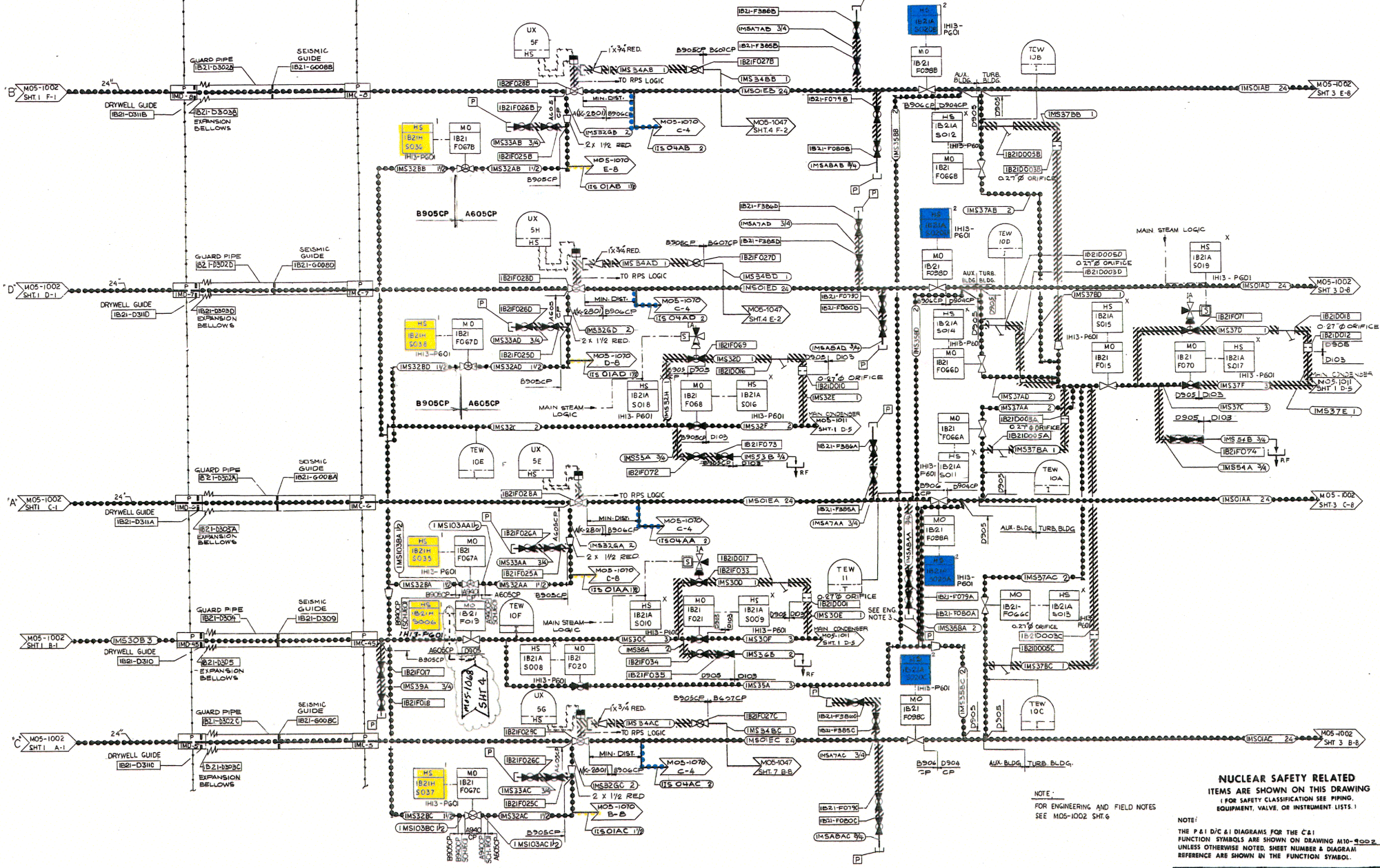
REVISION 11
JANUARY 2005

1B13-0003
REACTOR PRESSURE
VESSEL



NOTES:
FOR ENGINEERING AND FIELD NOTES
AND FOR WITH STEAM SHEET 11 REL 117
VALVE DATA SEE SHEET 6.
THE FIELD/PIPE DIAGRAMS FOR THE DIV
FUNCTION SYMBOLS ARE SHOWN ON DRAWING
1B13-0004 UNLESS OTHERWISE NOTED. SHEET
NUMBERS & DIVISION REFERENCE ARE SHOWN
IN THE FUNCTION SYMBOLS.
NUCLEAR SAFETY RELATED
ITEMS ARE SHOWN ON THIS DRAWING
(FOR SAFETY CLASSIFICATION SEE MANUAL
EQUIPMENT WAIVER OR INSTRUMENT LISTS.)

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY PAIRS
MAIN STEAM
SHEET 5 OF 111



NUCLEAR SAFETY RELATED
 ITEMS ARE SHOWN ON THIS DRAWING
 (FOR SAFETY CLASSIFICATION SEE Piping,
 EQUIPMENT, VALVE, OR INSTRUMENT LISTS.)

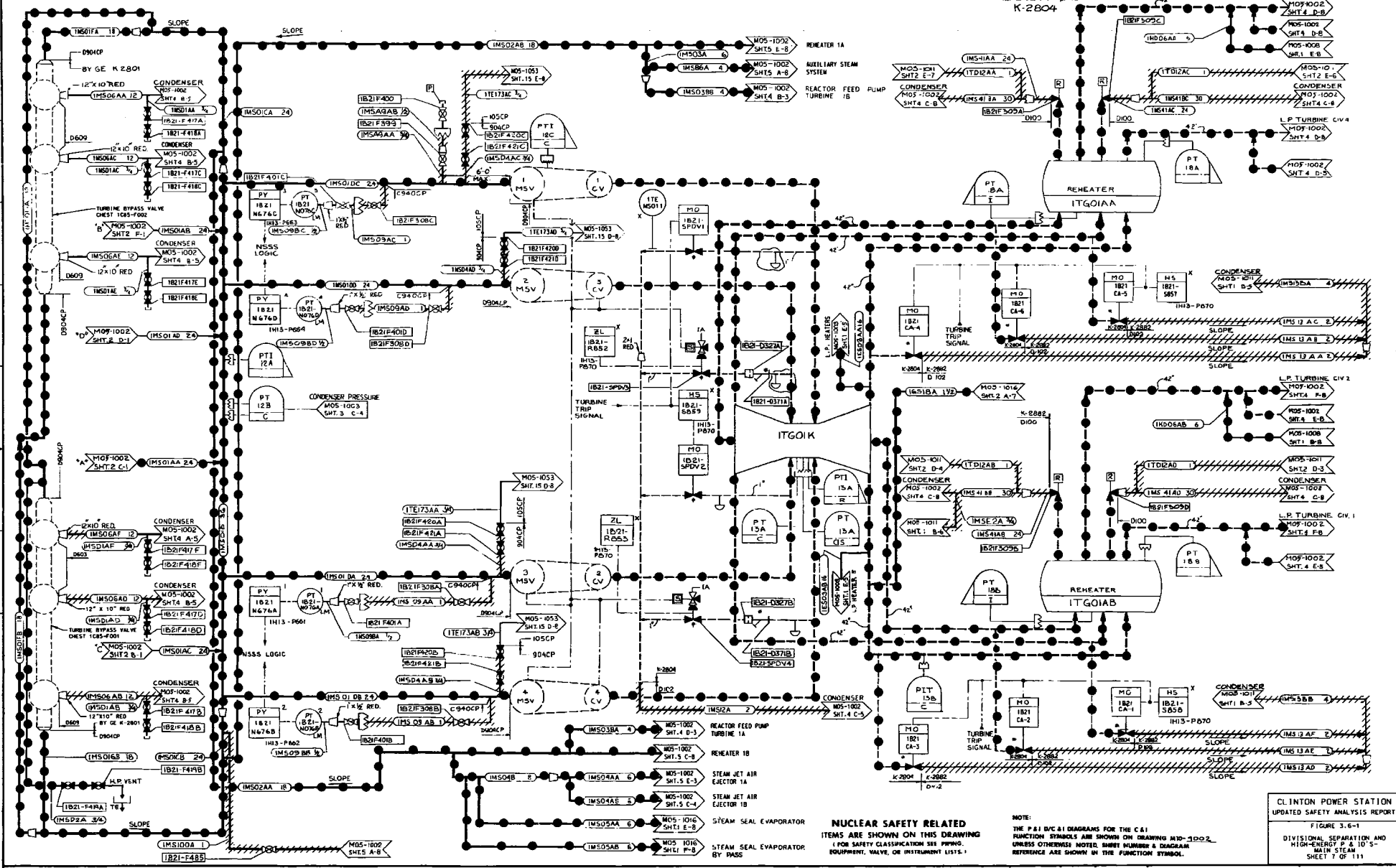
NOTE:
 THE P&ID DIAGRAMS FOR THE C&I
 FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-000-2
 UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM
 REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

CLINTON POWER STATION
 UPDATED SAFETY ANALYSIS REPORT

FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S -
 MAIN STEAM
 SHEET 6 OF 111

ITGOK
H.P. TURBINE IA
K-2804

ITGOIAA & ITGOIAB
MOISTURE SEPARATOR
REHEATER IA & IB
K-2804



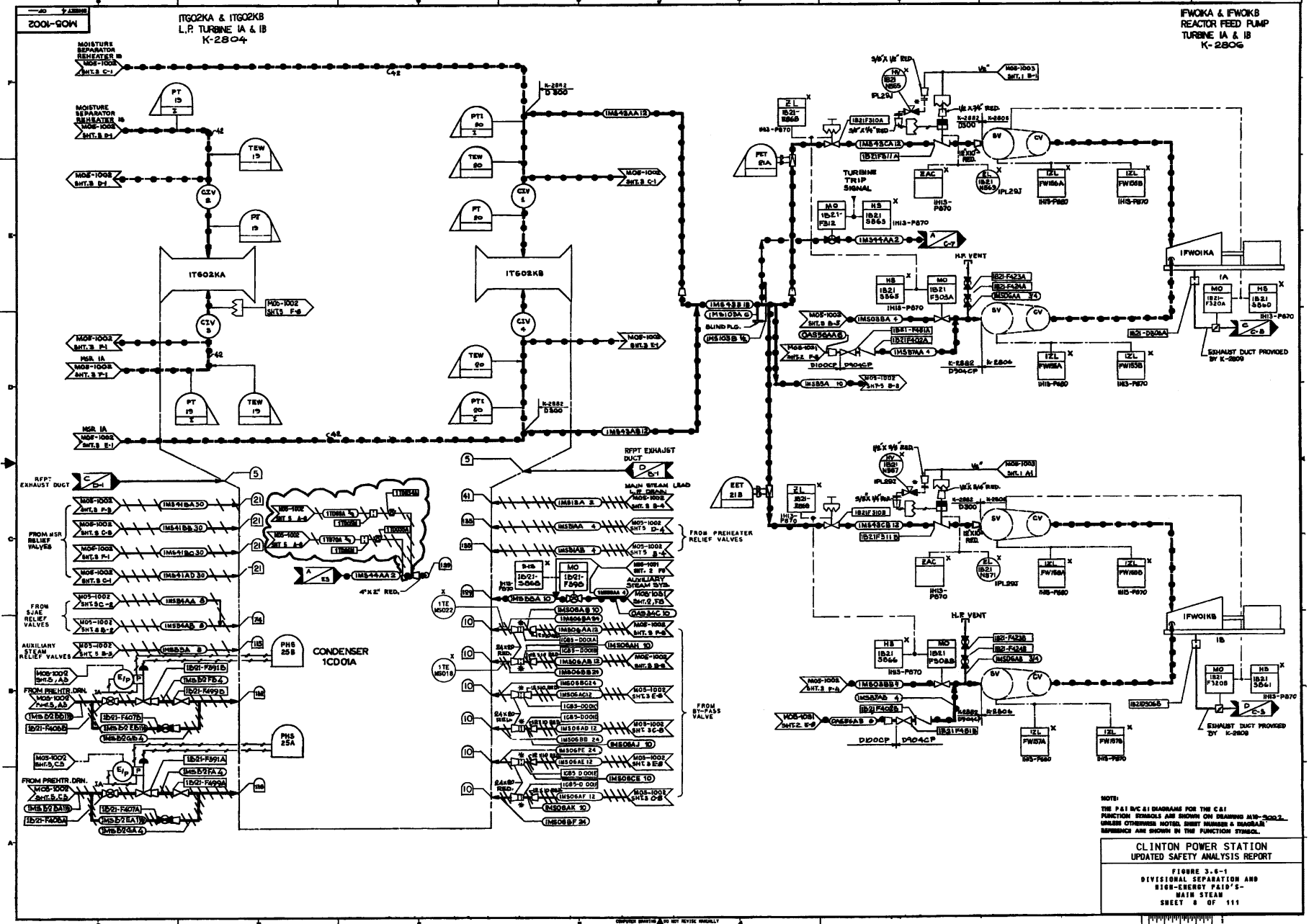
NUCLEAR SAFETY RELATED
ITEMS ARE SHOWN ON THIS DRAWING
FOR SAFETY CLASSIFICATION SEE PIPING
EQUIPMENT, VALVE, OR INSTRUMENT LISTS-1

NOTE:
THE P&ID DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING MDO-1002
UNLESS OTHERWISE NOTED, SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY P & I
SHEET 7 OF 111

30" x 42" 2D at 1"=1"

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JANUARY 2005



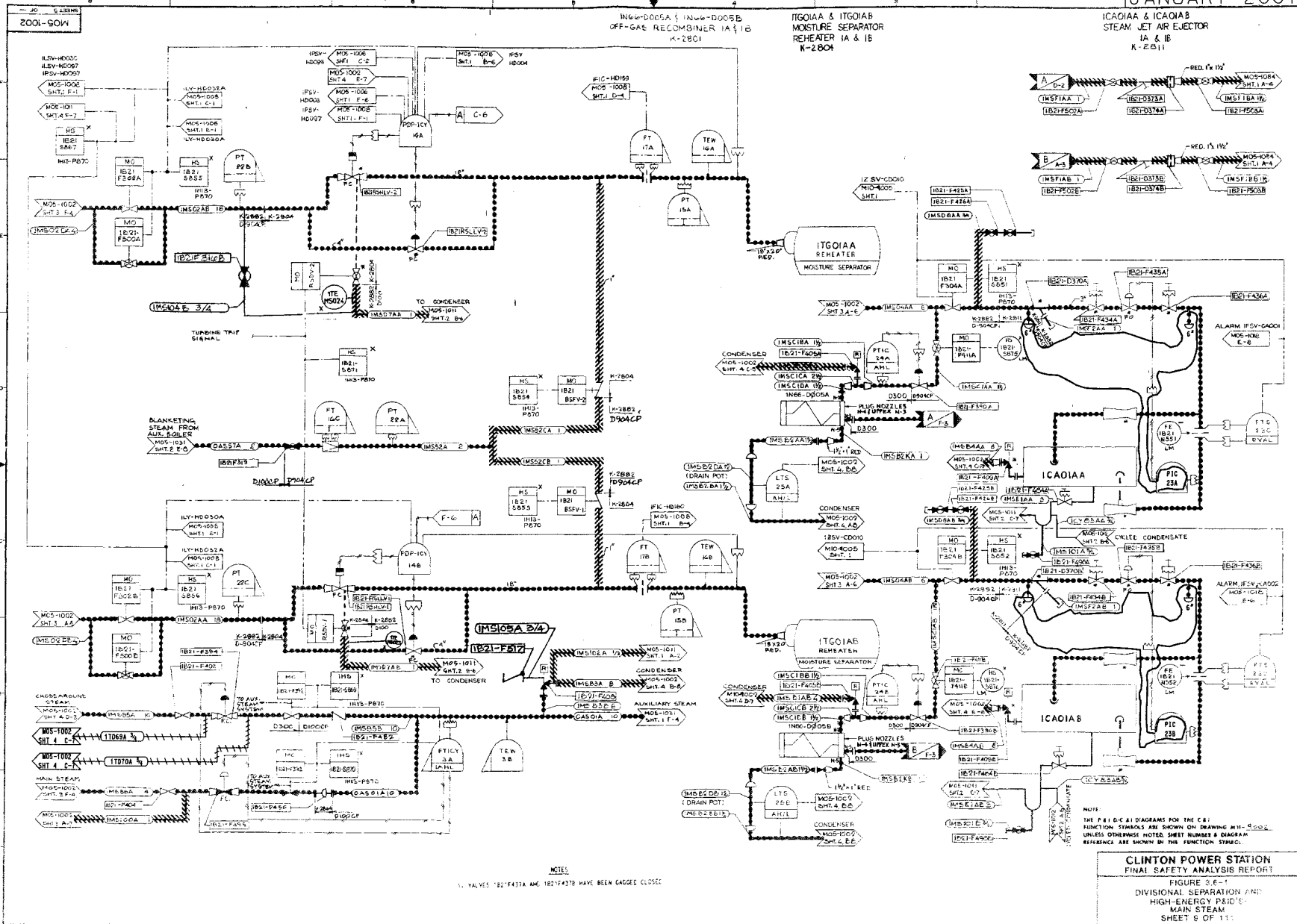
NOTE:
THE P&ID C&I DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS AND SHOWN ON DRAWING MS-2002.
UNLESS OTHERWISE NOTED, SHUT NUMBER & DIAGRAM
REFERENCES ARE SHOWN IN THE FUNCTION SYMBOL.

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FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY PAID'S -
MAIN STEAM

SHEET 8 OF 111

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JANUARY 2007



NOTE:
1. VALVES 1B21-F437A AND 1B21-F437B HAVE BEEN CAGED CLOSED

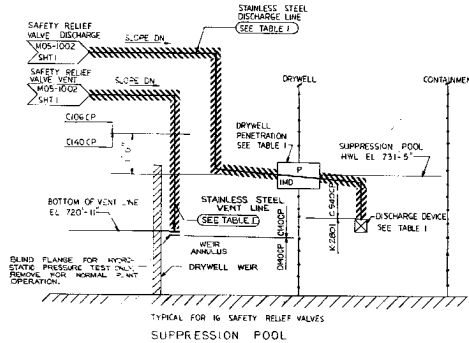
NOTE:
THE P.E.I.C. & DIAGRAMS FOR THE C.B. FUNCTION SYMBOLS ARE SHOWN ON DRAWING MNS-2002 UNLESS OTHERWISE NOTED. SHEET NUMBERS & DIAGRAM REFERENCE ARE SHOWN IN THE FUNCTION SYMBOLS.

CLINTON POWER STATION
FINAL SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY PADS'
MAIN STEAM
SHEET 5 OF 11

2001-GOW

TABLE I (SEE ENGINEERING NOTE 4)

SAFETY RELIEF VALVE NUMBERS	1B21F041A	1B21F041B	1B21F041C	1B21F041D	1B21F041F	1B21F041G	1B21F041H	1B21F041A	1B21F041B	1B21F041C	1B21F041D	1B21F041F	1B21F051B	1B21F051C	1B21F051D	1B21F051G
ADS OR NON-ADS FUNCTION	NON-ADS	ADS	ADS	ADS	ADS	NON-ADS	NON-ADS	ADS	NON-ADS	NON-ADS	NON-ADS	NON-ADS	NON-ADS	NON-ADS	NON-ADS	ADS
VENT LINE NUMBER	1MSA3BJ	1MSA3BB	1MSA3BL	1MSA3BF	1MSA3BD	1MSA3BN	1MSA3BQ	1MSA3BK	1MSA3BA	1MSA3BP	1MSA3BE	1MSA3BC	1MSA3BM	1MSA3BH	1MSA3BR	
DISCHARGE LINE NUMBER	1MS14CA	1MS15CB	1MS14CC	1MS14CD	1MS17CB	1MS16CC	1MS18CC	1MS19CA	1MS14CB	1MS17CC	1MS15CD	1MS18CB	1MS16CB	1MS15CC	1MS19CC	
DISCHARGE DEVICE EQUIPMENT NUMBER SPECIFICATION K-2801	1T236024A	1T236028B	1T236028K	1T236028D	1T236028L	1T236028F	1T236028S	1T236028N	1T236028J	1T236028K	1T236028L	1T236028M	1T236028N	1T236028P	1T236028R	1T236028S
DRYWELL PENETRATION NUMBER	1MD-19	1MD-27	1MD-25	1MD-31	1MD-29	1MD-23	1MD-21	1MD-18	1MD-26	1MD-22	1MD-32	1MD-30	1MD-28	1MD-24	1MD-33	1MD-20
RELIEF VALVE SET (PSIG)	RELIEF 1123	RELIEF 1165	RELIEF 1123	RELIEF 1165	RELIEF 1123	RELIEF 1165	RELIEF 1123	RELIEF 1165	RELIEF 1180	RELIEF 1123	RELIEF 1165	RELIEF 1180	RELIEF 1123	RELIEF 1165	RELIEF 1190	RELIEF 1180



FIELD NOTES:

1. FOR NUCLEAR BOILER SYSTEM (NB) LOGIC SEE G.F. DRAWING B28E151
2. FOR REACTOR PROTECTION SYSTEM (RPS) LOGIC SEE G.E. DRAWING B78E317

ENGINEERING NOTES:

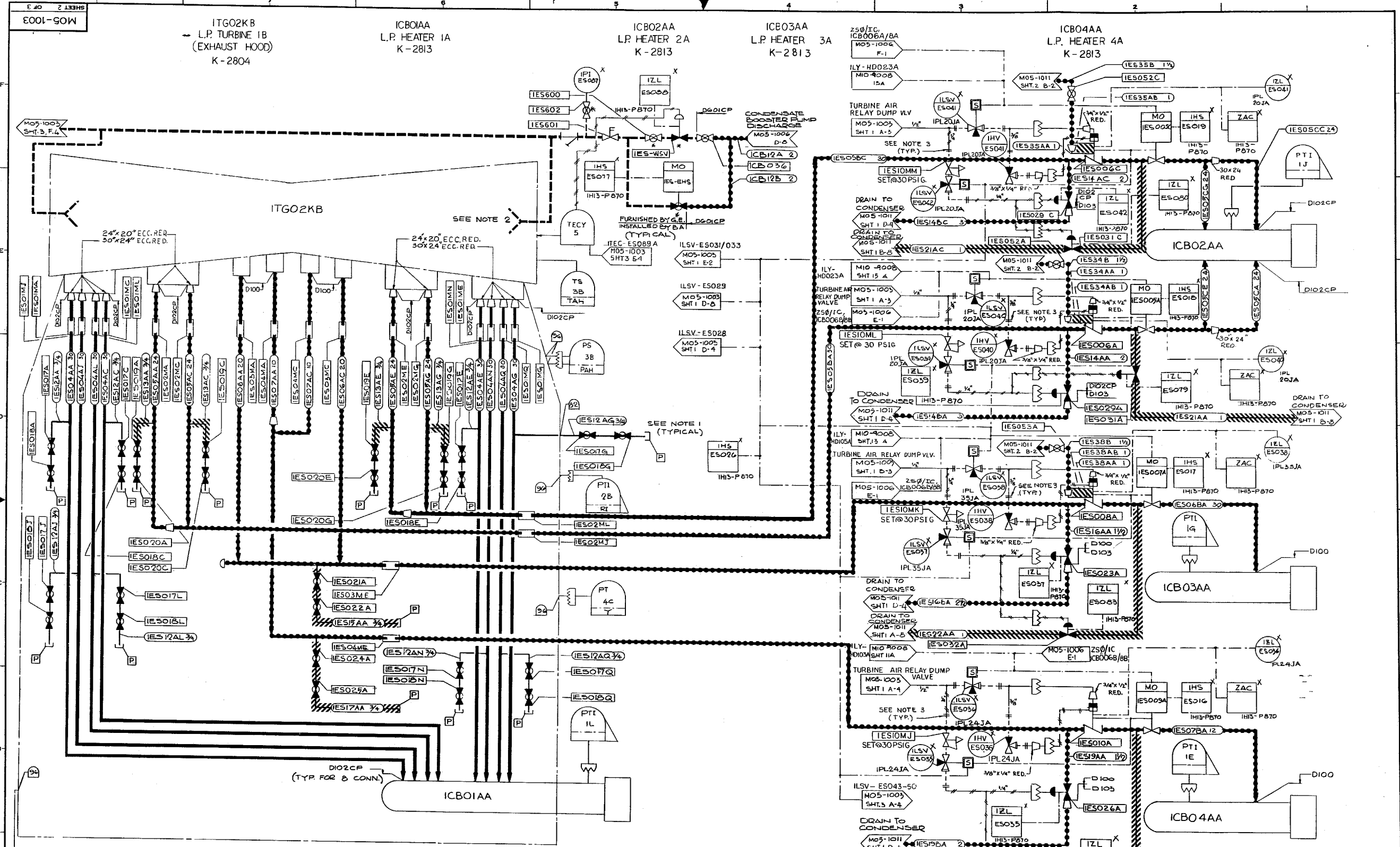
1. ALL MAIN STEAM DRAIN LINES AND SAFETY RELIEF VALVES DISCHARGE AND VENT LINES SHALL SLOPE IN DIRECTION OF FLOW 1/8 INCH PER FT MINIMUM.
2. BY-PASS LINES 1MS358A, 1MS358B, 1MS358C AND 1MS358D SHALL BE CONNECTED TO THE TOPS OF THE MAIN STEAM LINES.
3. VALVES 1B21F027A, 1B21F027B, 1B21F027C AND 1B21F027D SHALL BE LOCATED OUTSIDE OF SHIELDING WALLS AND BE ACCESSIBLE DURING NORMAL PLANT OPERATION.
4. ALL MAIN STEAM SAFETY RELIEF VALVES ARE MANUFACTURED BY "DUNKER" AND FURNISHED UNDER SPECIFICATION K-2801 SIZE 8"X10" WITH RATED DISCHARGE OF 525,000 LBS PER HOUR AT AN INLET PRESSURE OF 103 PERCENT OF 1205 PSIG.

LOCATION	VALVE NUMBER	SIZE (INCHES)	CAPACITY (LB/HR)	SET PRESS (PSIG)	MODEL NUMBER	FURNISHED BY
STEAM JET AIR EJECTOR 1A	1B21-F409A	4 X 6	120,000	3.30	JO-35-A	K-2811
STEAM JET AIR EJECTOR 1B	1B21-F409B	4 X 6	120,000	3.30	JO-35-A	K-2811
PREHEATER STEAM INLET 1A	1B21-F405A	2 1/2 X 4	26,206	3.5 0	21-110-302P	K-2869
PREHEATER STEAM INLET 1B	1B21-F405B	2 1/2 X 4	26,206	3.5 0	21-110-302P	K-2869
MAIN STEAM HEADER	1B21-F408	6 X 8	124,069	125	6-1105-302P	K-2869
MSR 1A	1B21-F309A	20 X 24	2.65x10 ⁶	272	N/A	K-2804
MSR 1B	1B21-F309B	18 X 24	2.09x10 ⁶	265	N/A	K-2804
MSR 1A	1B21-F309C	18 X 24	2.04x10 ⁶	258	N/A	K-2804
MSR 1B	1B21-F309D	20 X 24	2.66x10 ⁶	275	N/A	K-2804

NUCLEAR SAFETY RELATED ITEMS ARE SHOWN ON THIS DRAWING FOR SAFETY CLASSIFICATION SEE PIPING, EQUIPMENT, VALVES OR INSTRUMENT LISTS 1

NOTE: THE P&I D/C B1 DIAGRAMS FOR THE C&I FUNCTION SYMBOLS ARE SHOWN ON DRAWING MID-3002 UNLESS OTHERWISE NOTED, SHEET NUMBER 6 DIAGRAM

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND HIGH-ENERGY P&ID'S-MAIN STEAM
SHEET 10 OF 111

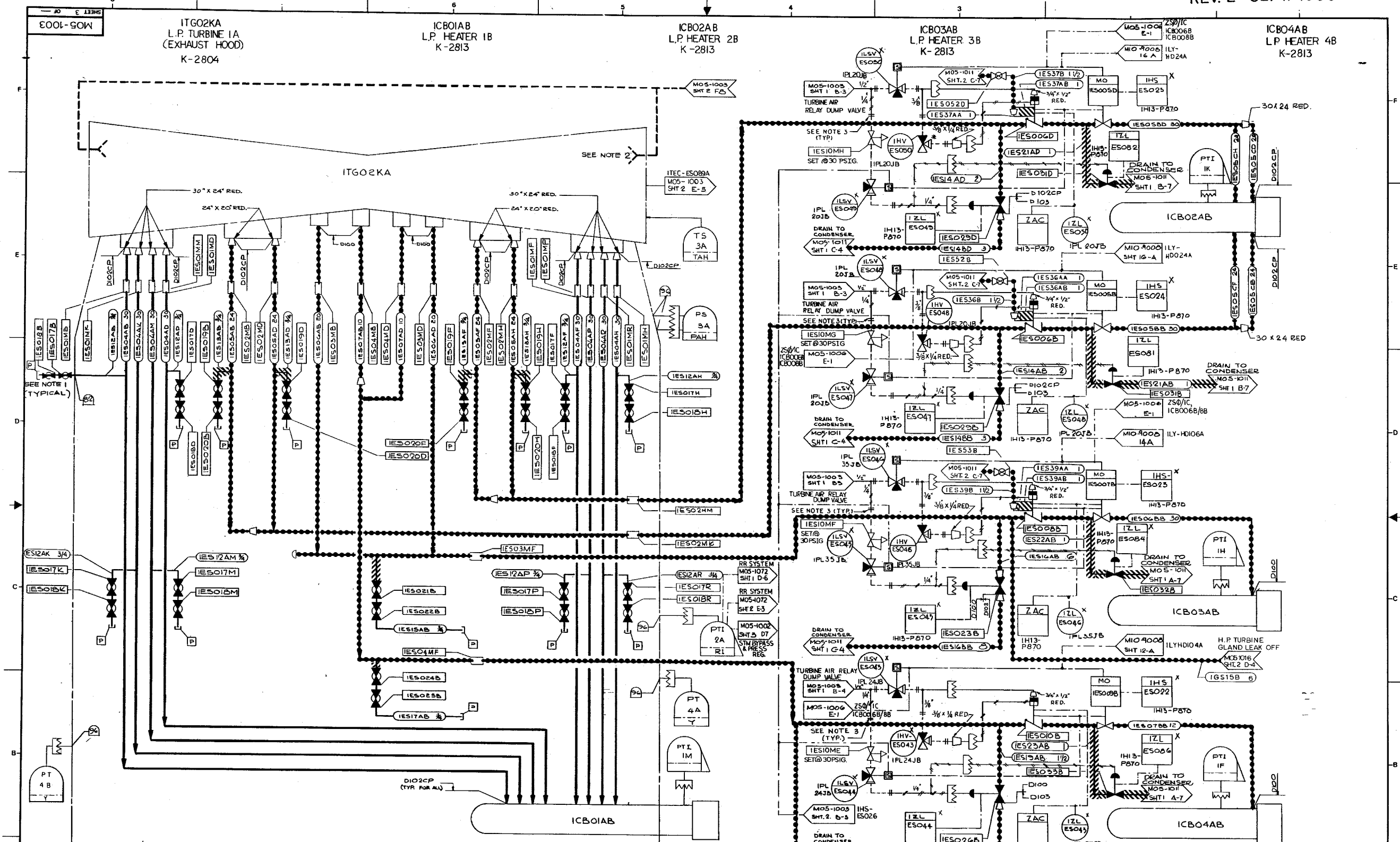


NOTE 1: ALL TEST CONNECTIONS & VALVES PENETRATE CONDENSER SHELL AS SHOWN FOR LIST OF CONDENSER CONNECTIONS DENOTED BY SEE WESTINGHOUSE DWG. 737J012.

2 EXHAUST HOOD WATER SPRAY NOZZLES FOUR NOZZLES AT EACH END OF EACH HOOD.

3. FOR INSTRUMENT AIR LINES SYMBOL DENOTES CONNECTION TO PANEL AND END OF FIELD ROUTED AIR LINES. SPECIFICATION BREAK IS K-2882, K-2915

NOTE: THE P&ID/C&I DIAGRAMS FOR THE C&I FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-9003 UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.



NOTES:

1. ALL TEST CONNECTIONS & VALVES PENETRATE CONDENSER SHELLS AS SHOWN. FOR LIST OF CONDENSER CONNECTIONS NOTED BY \square SEE WESTINGHOUSE DWG. 737J012.

2. EXHAUST HOOD WATER SPRAY NOZZLES, FOUR NOZZLES AT EACH END OF EACH HOOD.

3. FOR INSTRUMENT AIR LINES \dashv DENOTES CONNECTION TO PANEL AND END OF FIELD ROUTED AIR LINES. SPECIFICATION BREAK IS K-2882 K-2915

NOTE
THE P&ID/C&I DIAGRAMS FOR THE C&I FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-9003 UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM

IFWOIPA & IFWOIPB
REACTOR FEED PUMP IA & IB
TURBINE DRIVEN
K-2820

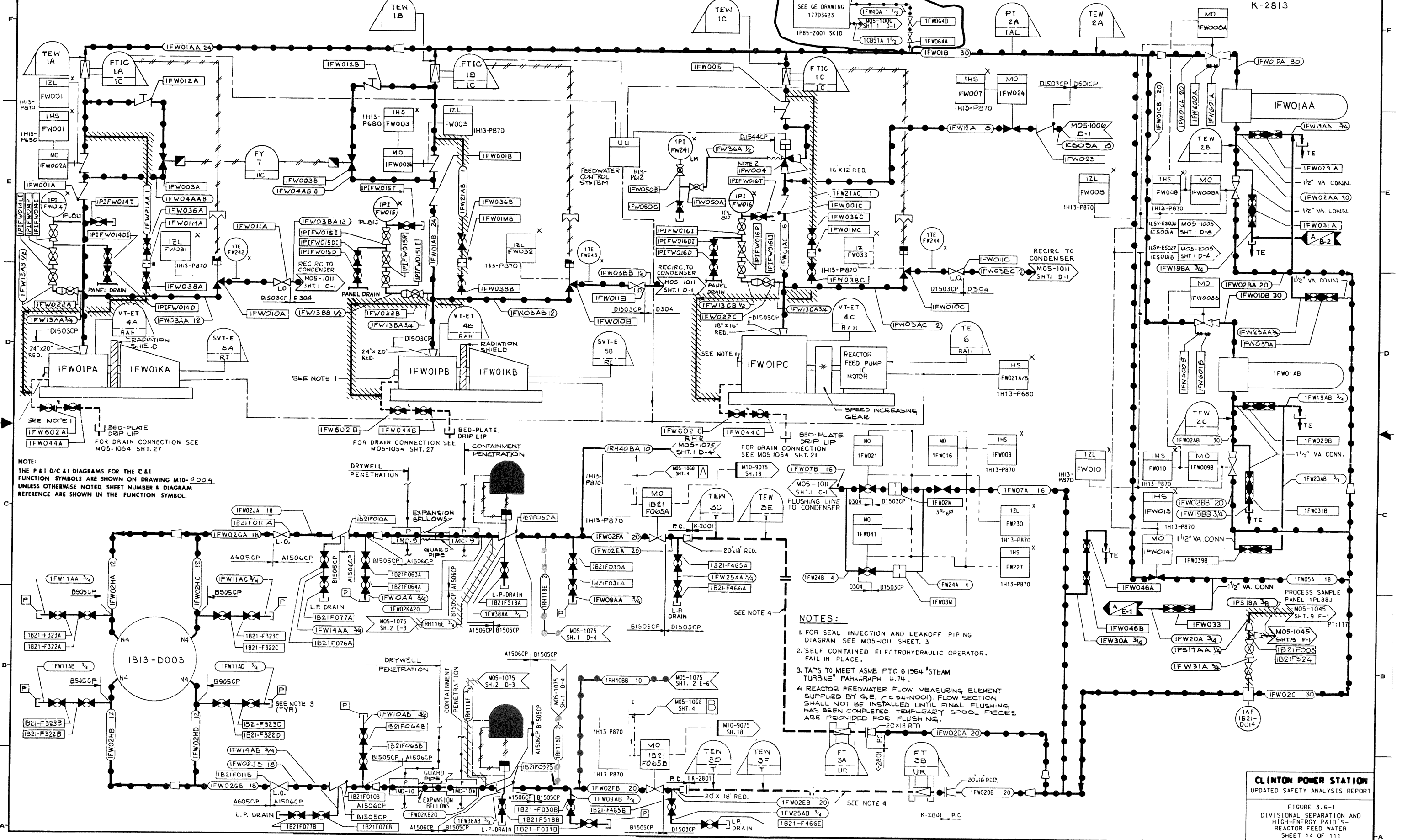
IB13-D003
REACTOR PRESSURE
VESSEL
K-2801

IFWOIKA & KB
REACTOR FEED PUMPS IA & IB
TURBINE DRIVES
K-2806

IFWOIPC
REACTOR FEED PUMP IC
MOTOR DRIVEN
K-2820

REACTOR FEED PUMP IC
MOTOR
K-2970

IFWOIAA & IFWOIAB
HP HEATER 6A & 6B
K-2813

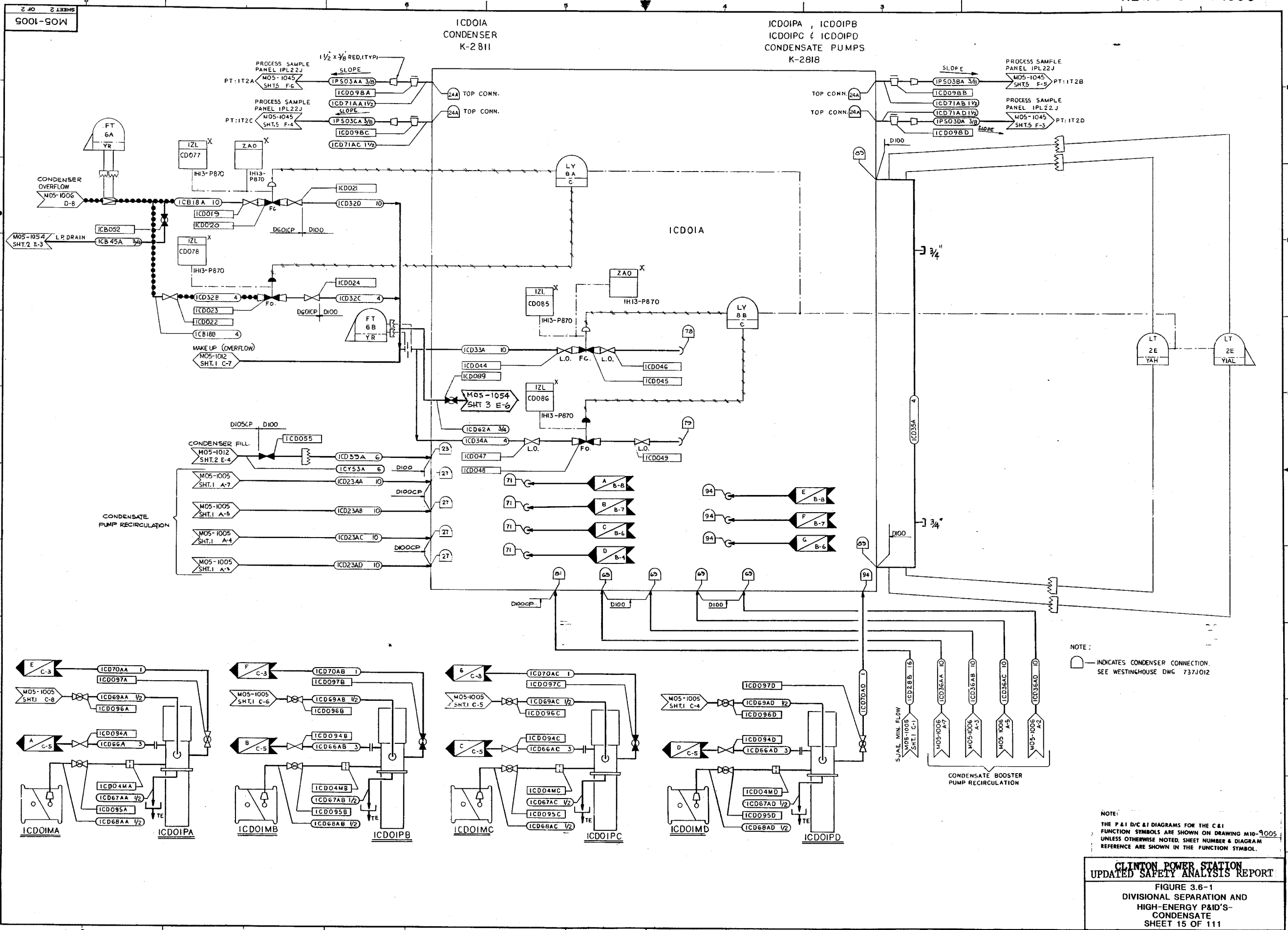


NOTE:
THE P&I D/C&I DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-9004
UNLESS OTHERWISE NOTED, SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

NOTES:
1. FOR SEAL INJECTION AND LEAKOFF PIPING
DIAGRAM SEE MOS-1011 SHEET. 3
2. SELF CONTAINED ELECTROHYDRAULIC OPERATOR.
FAIL IN PLACE.
3. TAPS TO MEET ASME PTC 6 1964 STEAM
TURBINE PARAGRAPH 4.74.
4. REACTOR FEEDWATER FLOW MEASURING ELEMENT
SUPPLIED BY G.E. (C34-NOO). FLOW SECTION
SHALL NOT BE INSTALLED UNTIL FINAL FLUSHING
HAS BEEN COMPLETED. TEMPORARY SPOOL PIECES
ARE PROVIDED FOR FLUSHING.

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UPDATED SAFETY ANALYSIS REPORT

FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY PAID'S-
REACTOR FEED WATER
SHEET 14 OF 111



SHEET 2 OF 2
MOS-1005

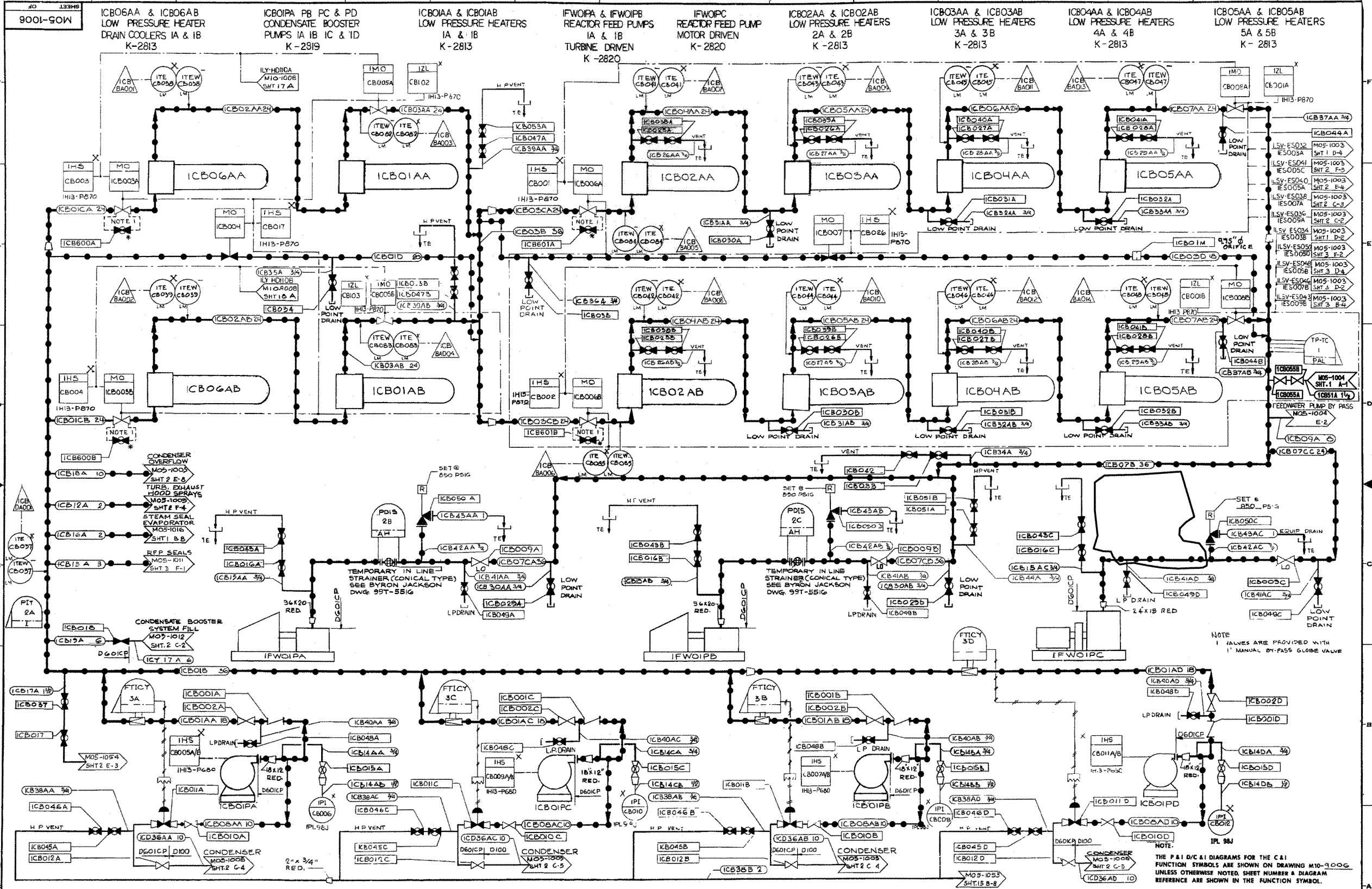
ICDOIA
CONDENSER
K-2811

ICDOIPA, ICDOIPB
ICDOIPC & ICDOIPD
CONDENSATE PUMPS
K-2818

NOTE:
□ INDICATES CONDENSER CONNECTION.
SEE WESTINGHOUSE DWG 737J012

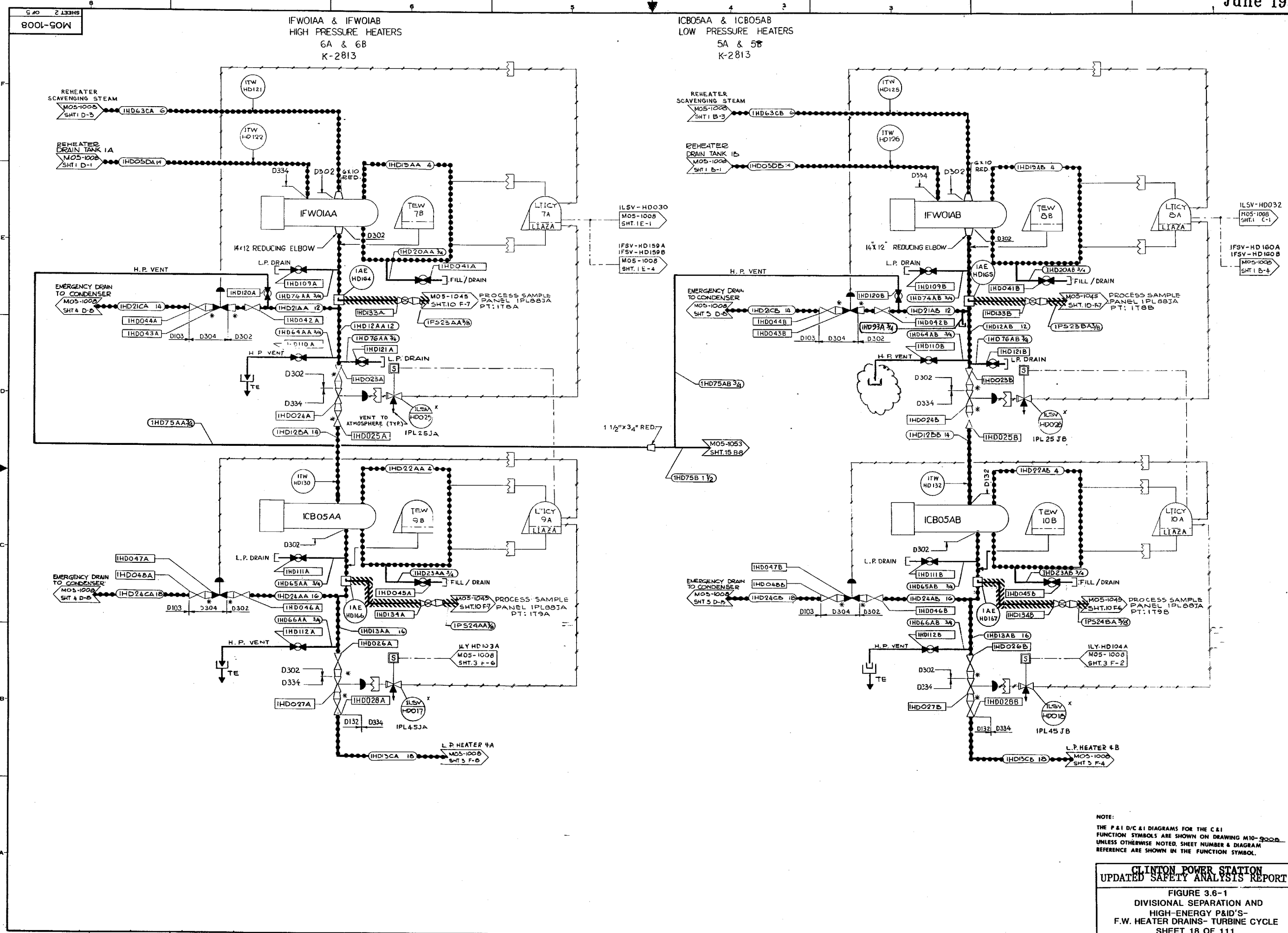
NOTE:
THE P&ID/C&I DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-9005
UNLESS OTHERWISE NOTED, SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

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UPDATED SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY P&ID'S-
CONDENSATE
SHEET 15 OF 111



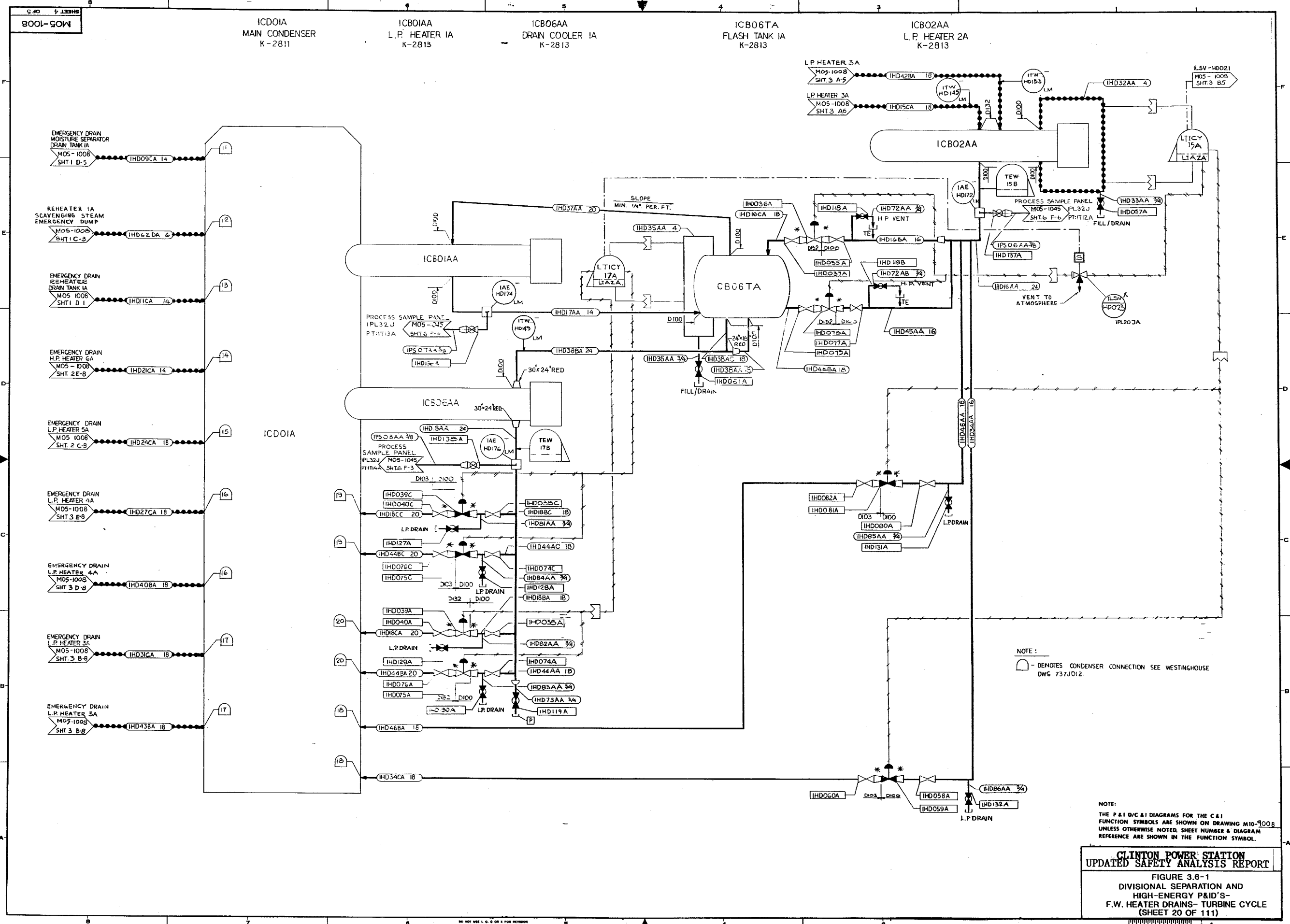
NOTE
1 VALVES ARE PROVIDED WITH
1" MANUAL BY-PASS GLOBE VALVE

NOTE:
THE P&ID/C&I DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-10006
UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.



NOTE:
THE P&ID/C&I DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-2000
UNLESS OTHERWISE NOTED, SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

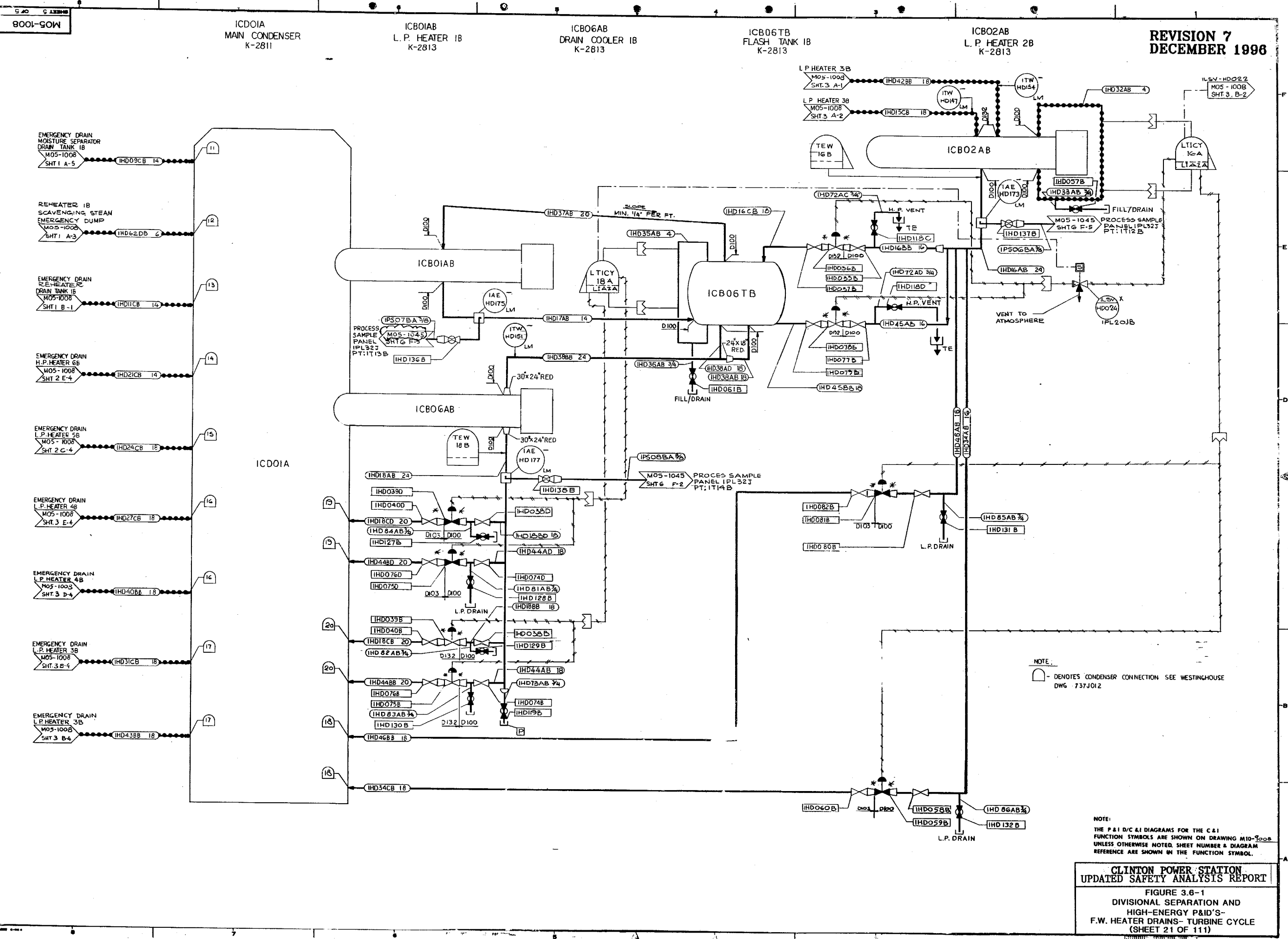
CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY P&ID'S-
F.W. HEATER DRAINS- TURBINE CYCLE
SHEET 18 OF 111



NOTE:
 - DENOTES CONDENSER CONNECTION SEE WESTINGHOUSE DWG 737J012.

NOTE:
 THE P&ID/C&I DIAGRAMS FOR THE C&I FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-1008 UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
 FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 F.W. HEATER DRAINS- TURBINE CYCLE
 (SHEET 20 OF 111)



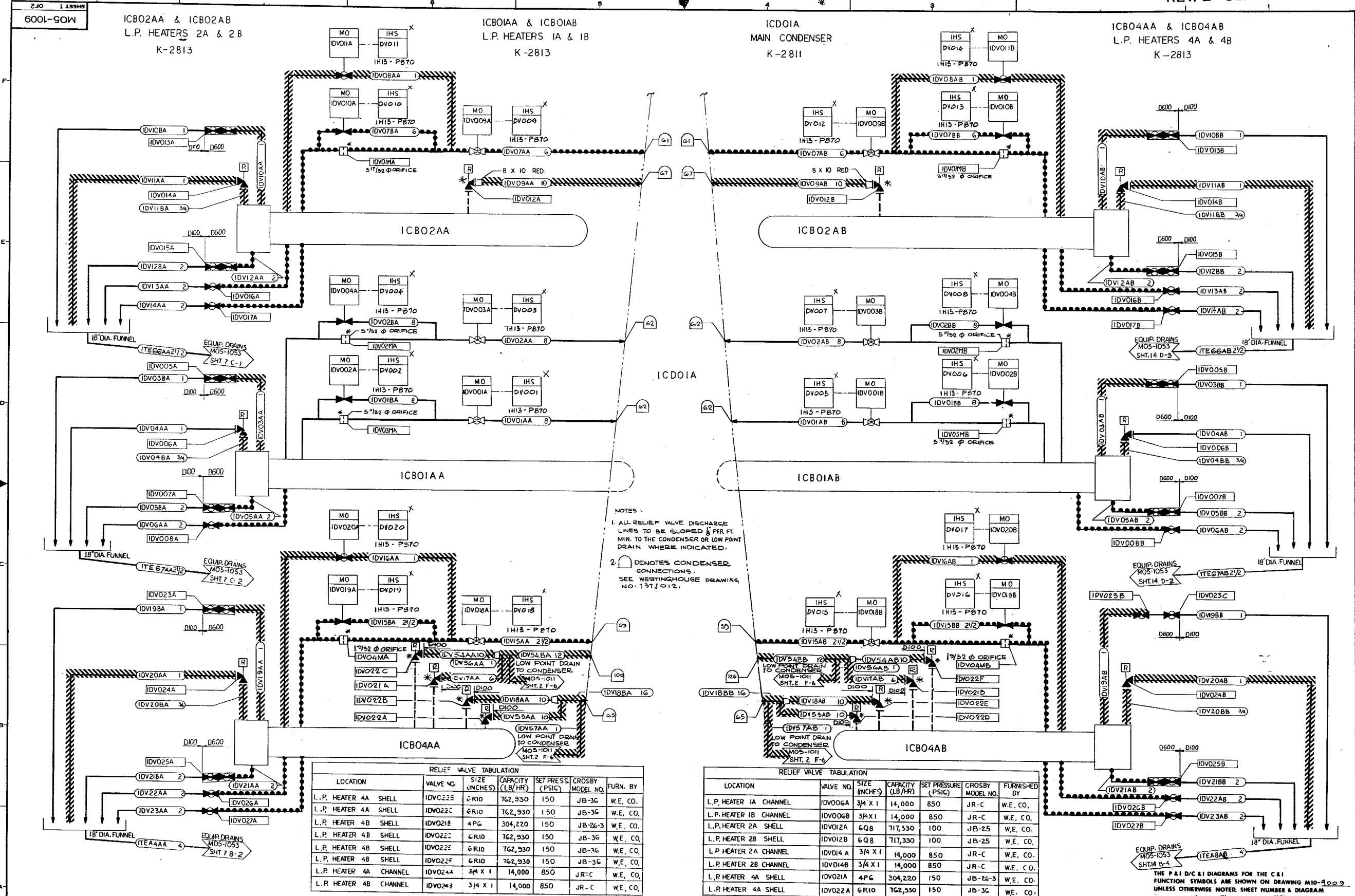
REVISION 7
DECEMBER 1996

NOTE:
 DENOTES CONDENSER CONNECTION SEE WESTINGHOUSE DWG 737J012

NOTE:
 THE P&ID/C&I DIAGRAMS FOR THE C&I FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-1008 UNLESS OTHERWISE NOTED SHEET NUMBER & DIAGRAM REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

**CLINTON POWER STATION
 UPDATED SAFETY ANALYSIS REPORT**

FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 F.W. HEATER DRAINS- TURBINE CYCLE
 (SHEET 21 OF 111)

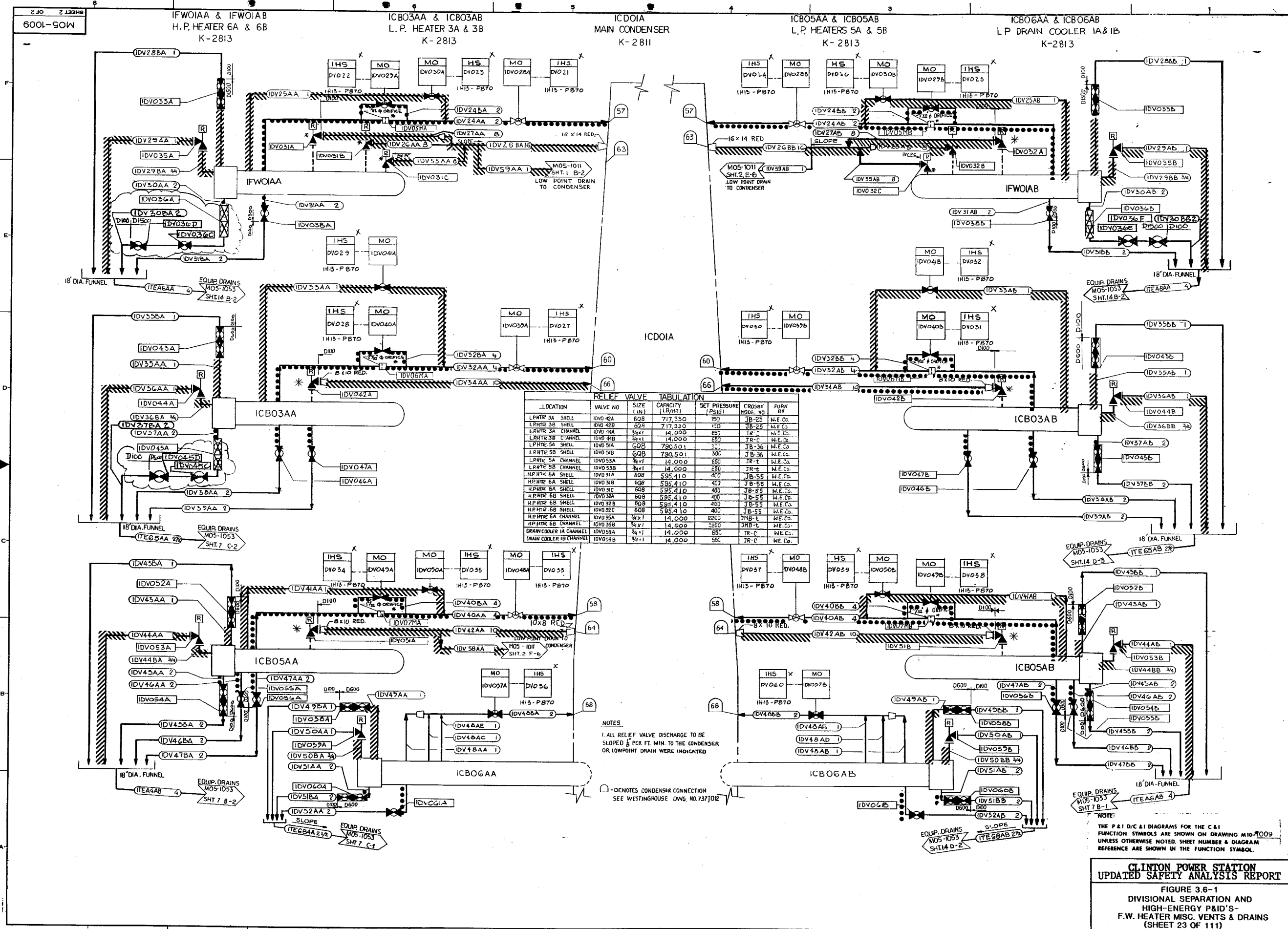


NOTES:
 1. ALL RELIEF VALVE DISCHARGE LINES TO BE SLOPED 1/8" PER FT. MIN. TO THE CONDENSER OR LOW POINT DRAIN WHERE INDICATED.
 2. ⊕ DENOTES CONDENSER CONNECTIONS. SEE WESTINGHOUSE DRAWING NO. 1371012.

RELIEF VALVE TABULATION						
LOCATION	VALVE NO.	SIZE (INCHES)	CAPACITY (LB/HR)	SET PRESS. (PSIG)	CROSBY MODEL NO.	FURN. BY
L.P. HEATER 4A SHELL	IDV022E	6R10	762,930	150	JB-3G	W.E. CO.
L.P. HEATER 4A SHELL	IDV022C	6R10	762,930	150	JB-3G	W.E. CO.
L.P. HEATER 4B SHELL	IDV021E	4PG	304,220	150	JB-26-3	W.E. CO.
L.P. HEATER 4B SHELL	IDV022C	6R10	762,930	150	JB-3G	W.E. CO.
L.P. HEATER 4B SHELL	IDV022E	6R10	762,930	150	JB-3G	W.E. CO.
L.P. HEATER 4B SHELL	IDV022F	6R10	762,930	150	JB-3G	W.E. CO.
L.P. HEATER 4A CHANNEL	IDV024A	3/4 X 1	14,000	850	JR-C	W.E. CO.
L.P. HEATER 4B CHANNEL	IDV024E	3/4 X 1	14,000	850	JR-C	W.E. CO.

RELIEF VALVE TABULATION						
LOCATION	VALVE NO.	SIZE (INCHES)	CAPACITY (LB/HR)	SET PRESSURE (PSIG)	CROSBY MODEL NO.	FURNISHED BY
L.P. HEATER 1A CHANNEL	IDV006A	3/4 X 1	14,000	850	JR-C	W.E. CO.
L.P. HEATER 1B CHANNEL	IDV006B	3/4 X 1	14,000	850	JR-C	W.E. CO.
L.P. HEATER 2A SHELL	IDV012A	6Q8	717,330	100	JB-25	W.E. CO.
L.P. HEATER 2B SHELL	IDV012B	6Q8	717,330	100	JB-25	W.E. CO.
L.P. HEATER 2A CHANNEL	IDV014A	3/4 X 1	14,000	850	JR-C	W.E. CO.
L.P. HEATER 2B CHANNEL	IDV014B	3/4 X 1	14,000	850	JR-C	W.E. CO.
L.P. HEATER 4A SHELL	IDV021A	4PG	304,220	150	JB-26-3	W.E. CO.
L.P. HEATER 4A SHELL	IDV022A	6R10	762,930	150	JB-3G	W.E. CO.

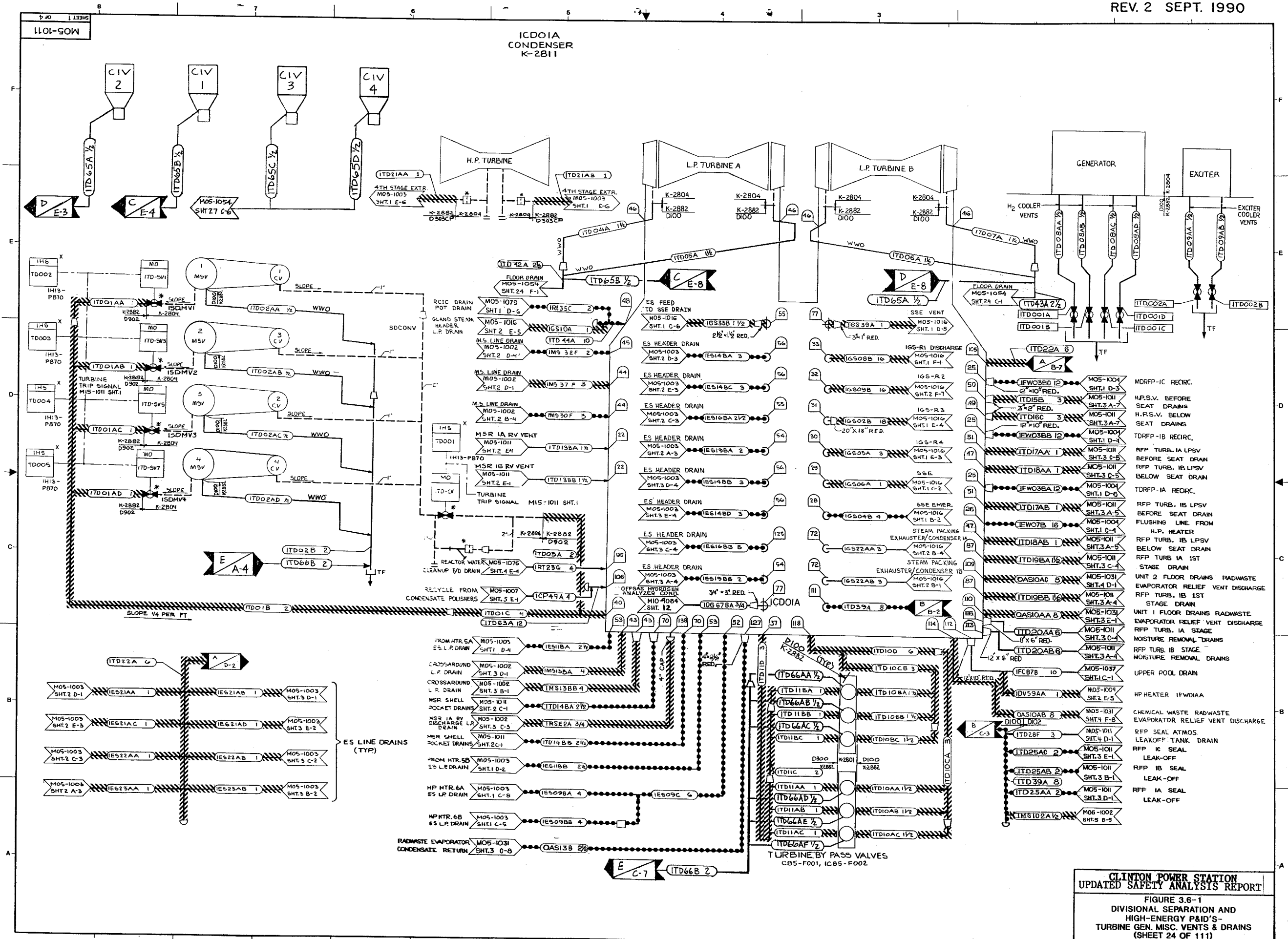
CLINTON POWER STATION
 UPDATED SAFETY ANALYSIS REPORT
 FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 F.W. HEATER MISC. VENTS & DRAINS
 (SHEET 22 OF 111)



RELIEF VALVE TABULATION						
LOCATION	VALVE NO.	SIZE (IN.)	CAPACITY (LB/HR)	SET PRESSURE (PSIG)	CROSSBY MODE	FURN BY
LPHTC 3A SHELL	IDV042A	60B	717,330	150	JB-25	W.E. Co.
LPHTC 3B SHELL	IDV042B	60B	717,330	150	JB-28	W.E. Co.
LPHTC 3A CHANNEL	IDV044A	3/4x1	14,000	250	TR-C	W.E. Co.
LPHTC 3B CHANNEL	IDV044B	3/4x1	14,000	250	TR-C	W.E. Co.
LPHTC 5A SHELL	IDV051A	60B	790,501	225	JB-36	W.E. Co.
LPHTC 5B SHELL	IDV051B	60B	790,501	225	JB-36	W.E. Co.
LPHTC 5A CHANNEL	IDV053A	3/4x1	14,000	250	TR-T	W.E. Co.
LPHTC 5B CHANNEL	IDV053B	3/4x1	14,000	250	TR-T	W.E. Co.
LPHTC 6A SHELL	IDV051A	60B	595,410	400	JB-55	W.E. Co.
LPHTC 6B SHELL	IDV051B	60B	595,410	400	JB-55	W.E. Co.
LPHTC 6A CHANNEL	IDV053A	3/4x1	14,000	250	TR-T	W.E. Co.
LPHTC 6B CHANNEL	IDV053B	3/4x1	14,000	250	TR-T	W.E. Co.
DRN COOLER 1A CHANNEL	IDV059A	3/4x1	14,000	250	TR-C	W.E. Co.
DRN COOLER 1B CHANNEL	IDV059B	3/4x1	14,000	250	TR-C	W.E. Co.

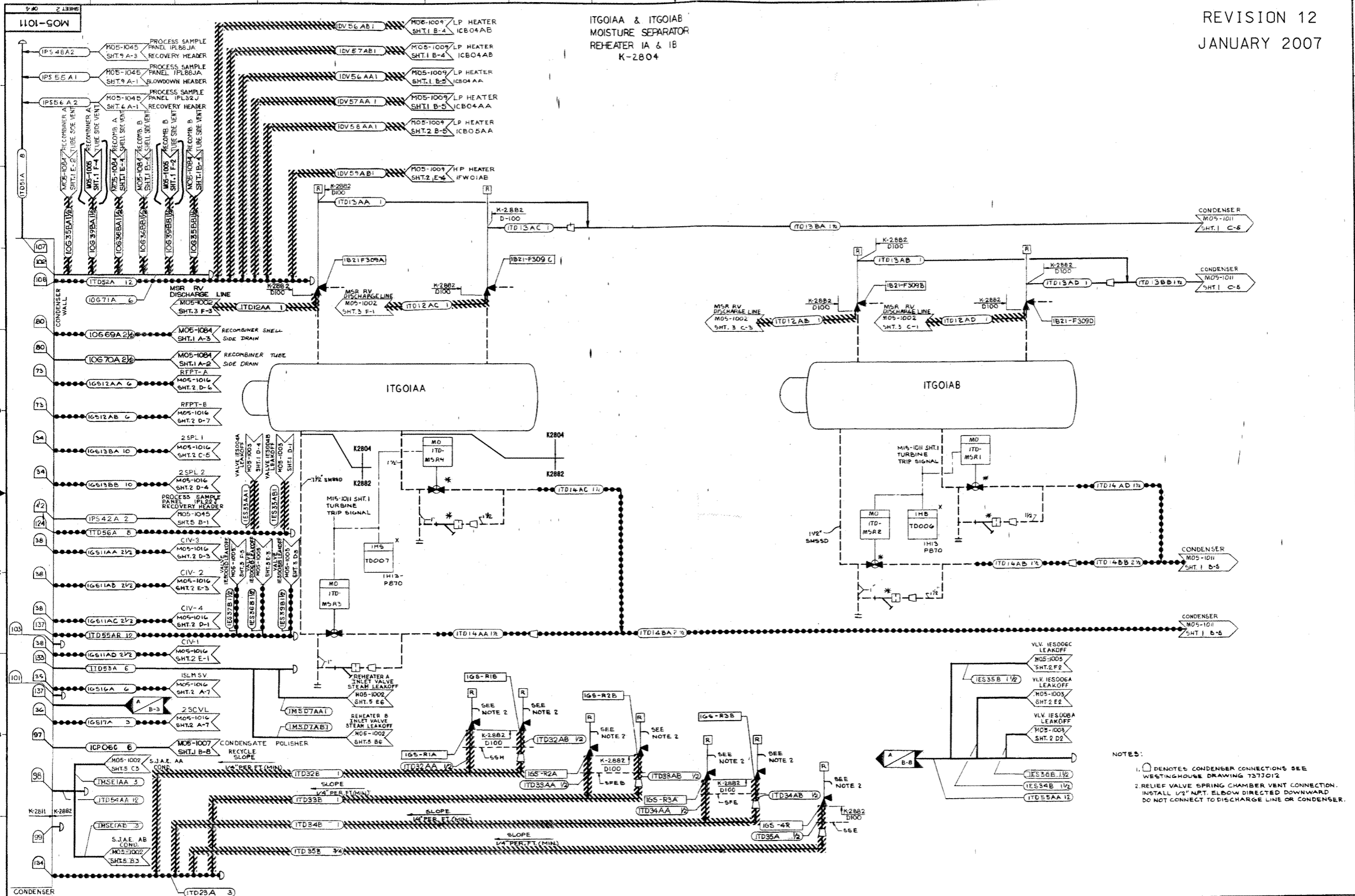
NOTES:
1. ALL RELIEF VALVE DISCHARGE TO BE SLOPED 1/8" PER FT. MIN TO THE CONDENSER OR LOW POINT DRAIN WHERE INDICATED
2. - DENOTES CONDENSER CONNECTION SEE WESTINGHOUSE DWG. NO. 737J012

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY P&ID'S-
F.W. HEATER MISC. VENTS & DRAINS
(SHEET 23 OF 111)



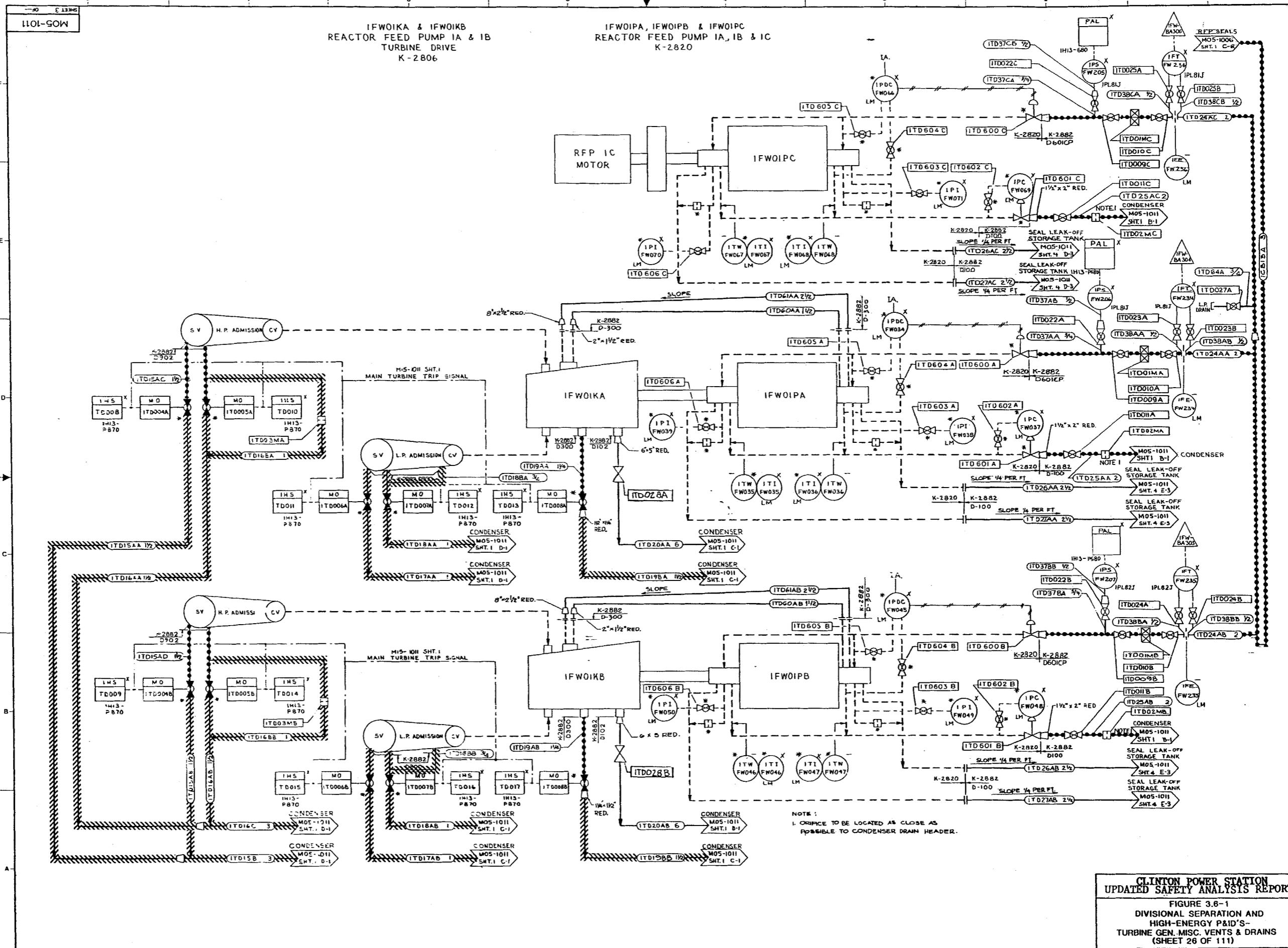
CLINTON POWER STATION
 UPDATED SAFETY ANALYSIS REPORT
 FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 TURBINE GEN. MISC. VENTS & DRAINS
 (SHEET 24 OF 111)

ITGOIAA & ITGOIAB
MOISTURE SEPARATOR
RE-HEATER IA & IB
K-2804



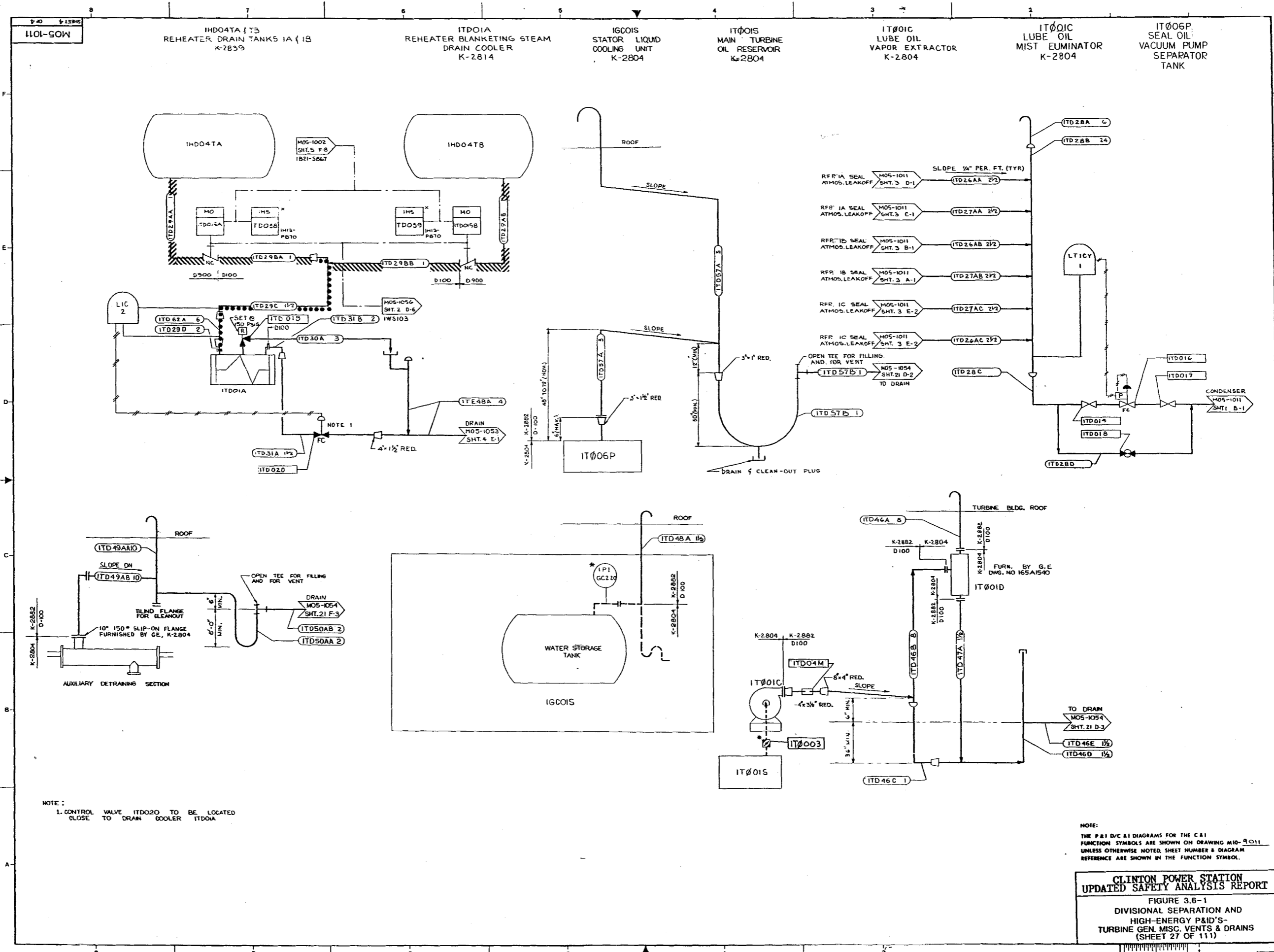
- NOTES:
1. □ DENOTES CONDENSER CONNECTIONS SEE WESTINGHOUSE DRAWING 737012
 2. RELIEF VALVE SPRING CHAMBER VENT CONNECTION. INSTALL 1/2" NPT. ELBOW DIRECTED DOWNWARD. DO NOT CONNECT TO DISCHARGE LINE OR CONDENSER.

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY P&ID'S-
TURBINE GEN. MISC. VENTS & DRAINS
(SHEET 25 OF 111)



NOTE:
 1. ORIFICE TO BE LOCATED AS CLOSE AS POSSIBLE TO CONDENSER DRAIN HEADER.

CLINTON POWER STATION
 UPDATED SAFETY ANALYSIS REPORT
 FIGURE 3.8-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 TURBINE GEN. MISC. VENTS & DRAINS
 (SHEET 26 OF 111)

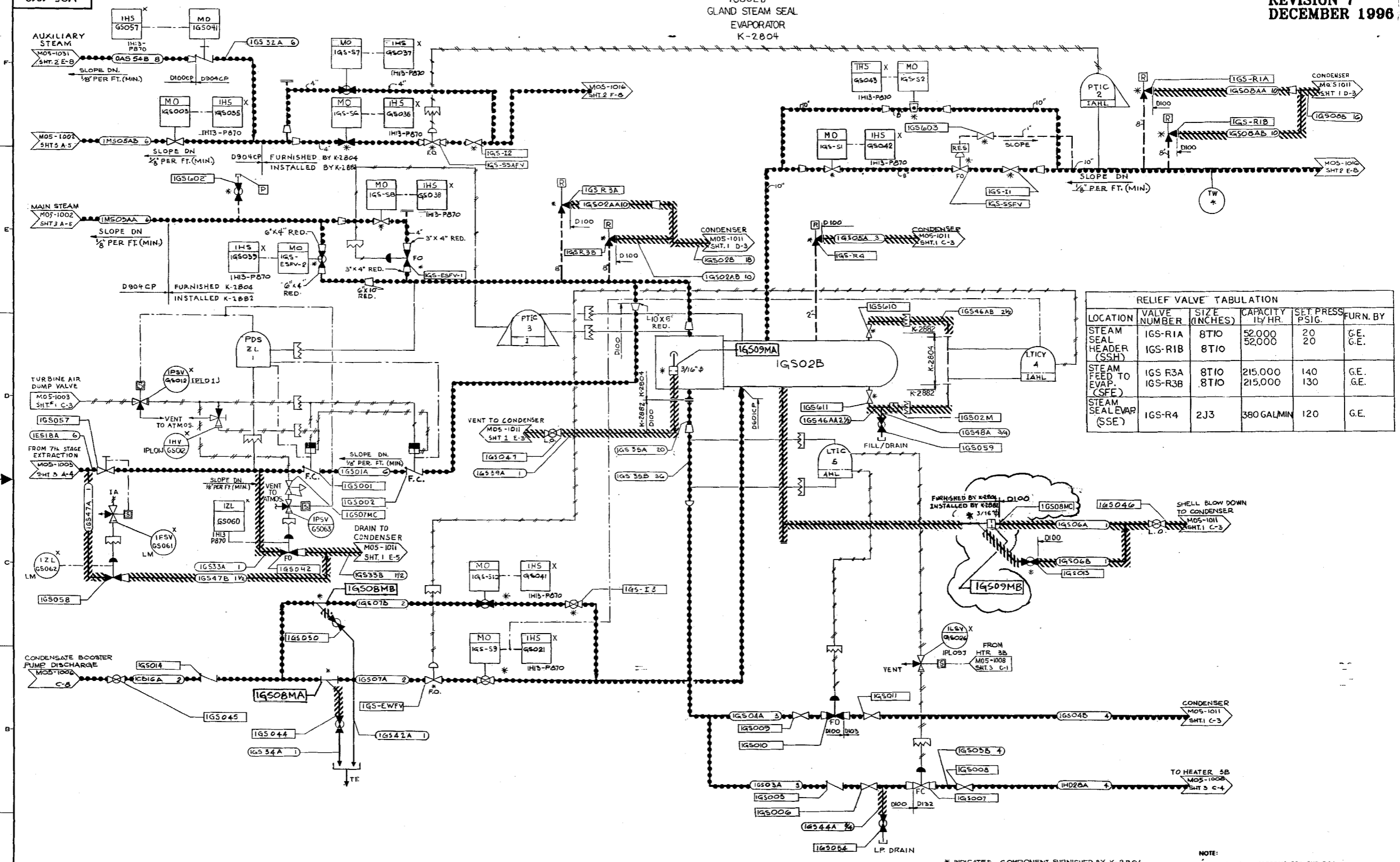


NOTE:
1. CONTROL VALVE ITD020 TO BE LOCATED
CLOSE TO DRAIN COOLER ITD01A

NOTE:
THE P&ID/D/C & I DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-9011
UNLESS OTHERWISE NOTED, SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY P&ID'S-
TURBINE GEN. MISC. VENTS & DRAINS
(SHEET 27 OF 111)

IGS02B
GLAND STEAM SEAL
EVAPORATOR
K-2804



RELIEF VALVE TABULATION

LOCATION	VALVE NUMBER	SIZE (INCHES)	CAPACITY (Lb/HR)	SET PRESS. PSIG.	FURN. BY
STEAM SEAL HEADER (SSH)	IGS-R1A	8T10	52,000	20	G.E.
STEAM SEAL HEADER (SSH)	IGS-R1B	8T10	52,000	20	G.E.
STEAM FEED TO EVAP. (SFE)	IGS-R3A	8T10	215,000	140	G.E.
STEAM FEED TO EVAP. (SFE)	IGS-R3B	8T10	215,000	130	G.E.
STEAM SEAL EVAP. (SSE)	IGS-R4	2J3	380 GAL/MIN	120	G.E.

* INDICATES COMPONENT FURNISHED BY K-2804
REFERENCE DWG. 842E420 REV. 4

NOTE:
THE P&ID/C&I DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-9016
UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

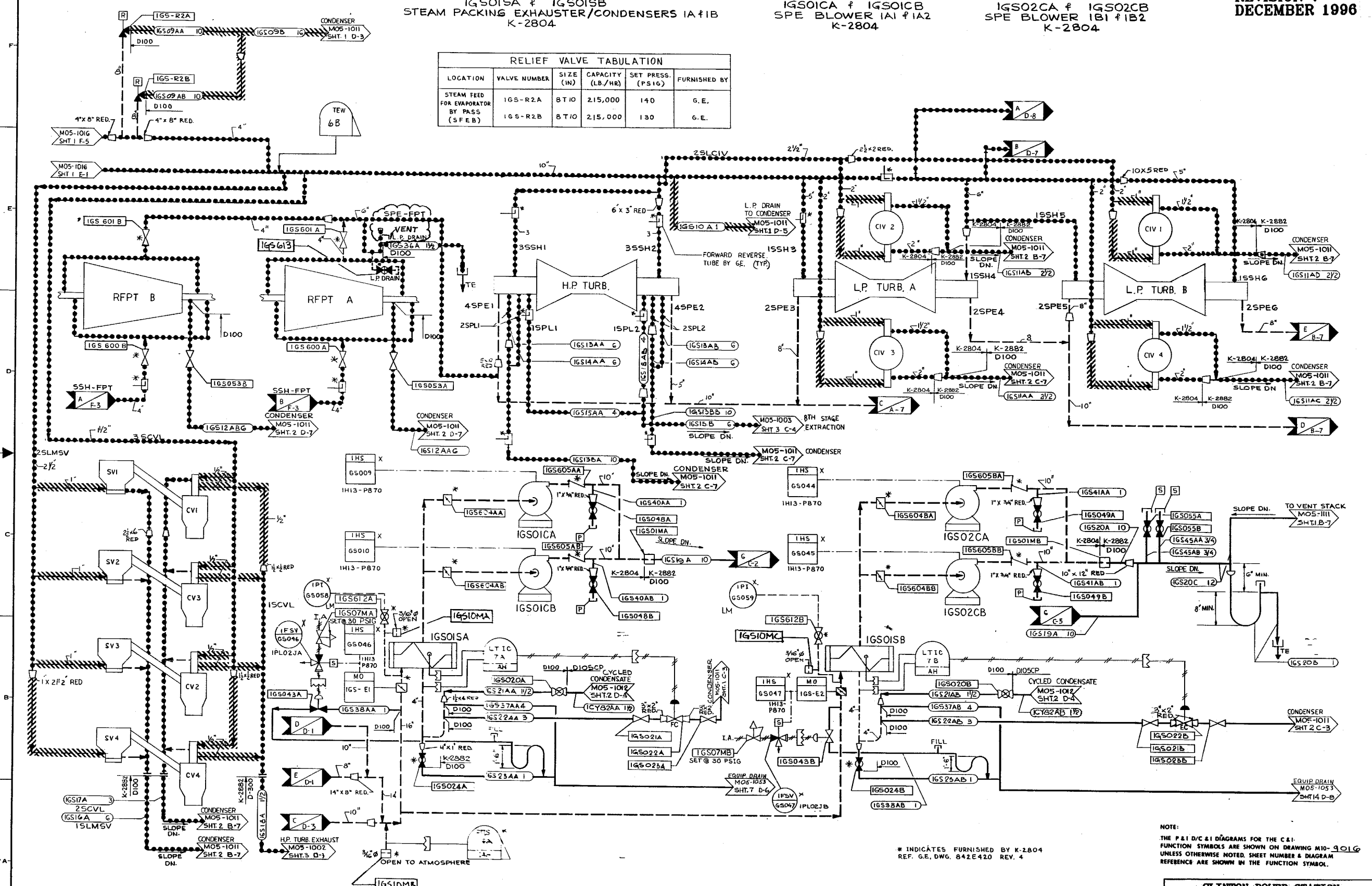
IGSOISA & IGSOISB
STEAM PACKING EXHAUSTER/CONDENSERS IA & IB
K-2804

IGSOICA & IGSOICB
SPE BLOWER IA & IB
K-2804

IGSO2CA & IGSO2CB
SPE BLOWER IA & IB
K-2804

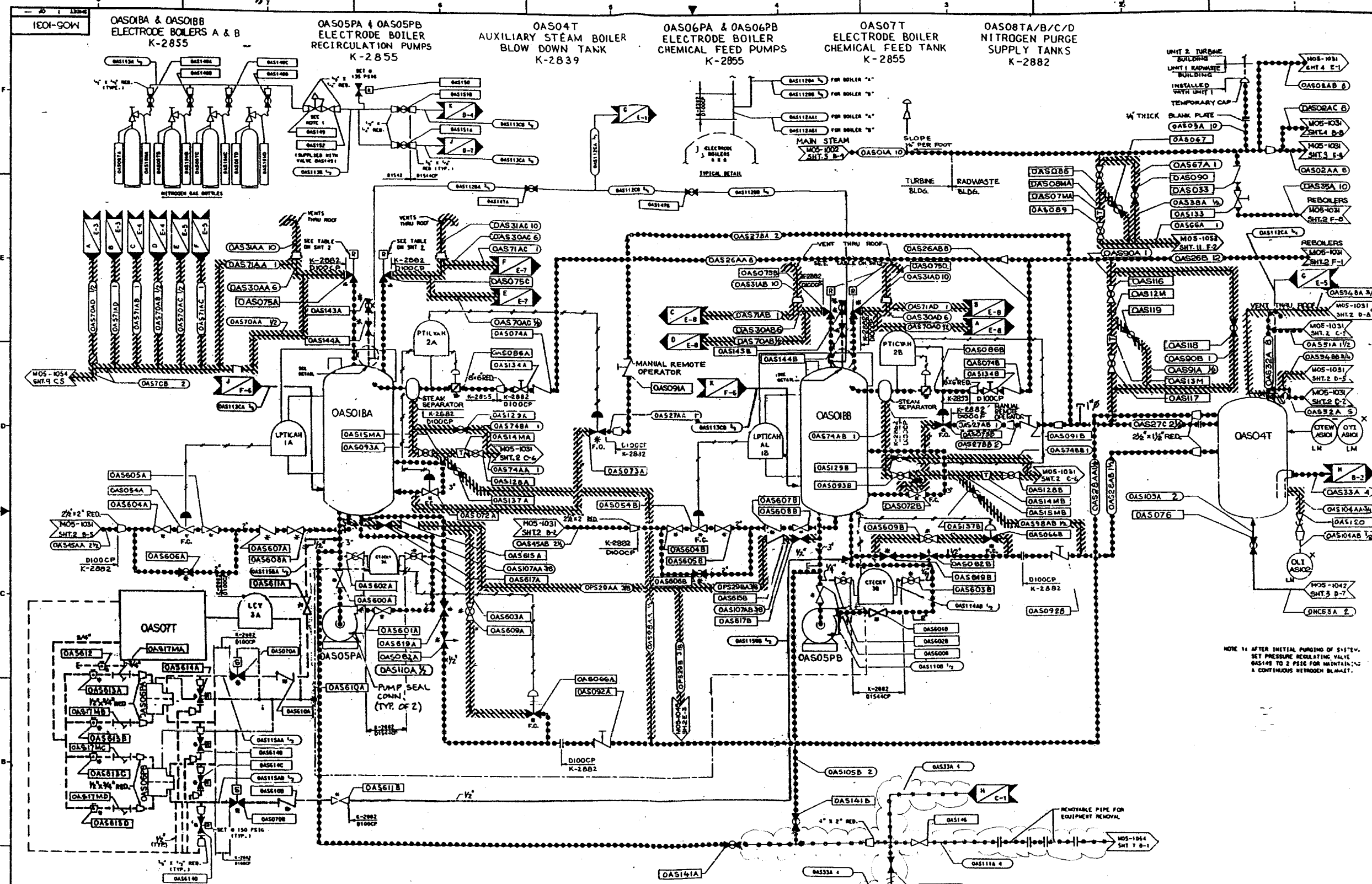
REVISION 7
DECEMBER 1996

RELIEF VALVE TABULATION					
LOCATION	VALVE NUMBER	SIZE (IN)	CAPACITY (LB./HR)	SET PRESS. (PSIG)	FURNISHED BY
STEAM FEED FOR EVAPORATOR BY PASS (S.F.E.B.)	IGS-R2A	8 T/O	215,000	140	G. E.
	IGS-R2B	8 T/O	215,000	130	G. E.



* INDICATES FURNISHED BY K-2804
REF. G.E. DWG. 842E420 REV. 4

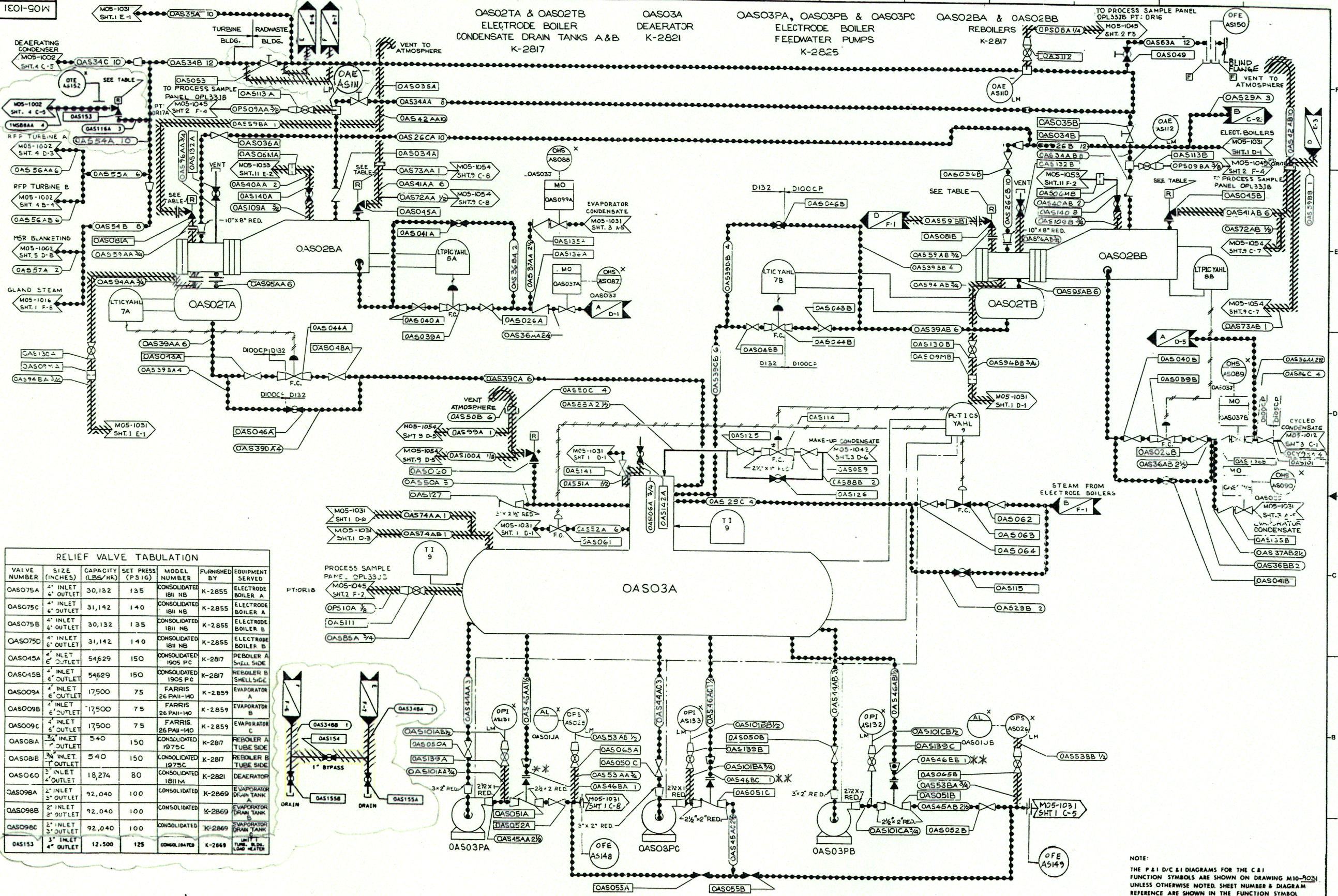
NOTE:
THE P&ID/C&I DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-901G
UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.



NOTE 1: AFTER INITIAL PURGING OF SYSTEM, SET PRESSURE REGULATING VALVE OAS149 TO 2 PSIG FOR MAINTAINING A CONTINUOUS NITROGEN BLANKET.

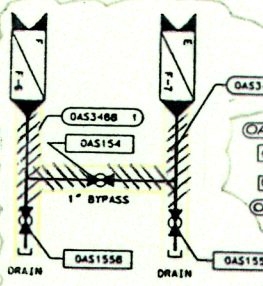
NOTE
THE P&ID/C&I DIAGRAMS FOR THE C&I FUNCTION SYMBOLS ARE SHOWN ON DRAWING 410-2021 UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM REFERENCE ARE SHOWN IN THE FUNCTION.

**CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT**
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY PAID'S-
AUXILIARY STEAM
SHEET 30 OF 111



RELIEF VALVE TABULATION						
VALVE NUMBER	SIZE (INCHES)	CAPACITY (LBS/HR)	SET PRESS. (PSIG)	MODEL NUMBER	FURNISHED BY	EQUIPMENT SERVED
OASO75A	2" INLET 6" OUTLET	30,132	135	CONSOLIDATED 1811 NB	K-2855	ELECTRODE BOILER A
OASO75C	2" INLET 6" OUTLET	31,142	140	CONSOLIDATED 1811 NB	K-2855	ELECTRODE BOILER A
OASO75B	2" INLET 6" OUTLET	30,132	135	CONSOLIDATED 1811 NB	K-2855	ELECTRODE BOILER B
OASO75D	2" INLET 6" OUTLET	31,142	140	CONSOLIDATED 1811 NB	K-2855	ELECTRODE BOILER B
OASO45A	2" INLET 6" OUTLET	54,629	150	CONSOLIDATED 1905 PC	K-2817	REBOILER A SHELL SIDE
OASO45B	2" INLET 6" OUTLET	54,629	150	CONSOLIDATED 1905 PC	K-2817	REBOILER B SHELL SIDE
OASO09A	2" INLET 6" OUTLET	17,500	75	FARRIS 26 PAII-140	K-2859	EVAPORATOR A
OASO09B	2" INLET 6" OUTLET	17,500	75	FARRIS 26 PAII-140	K-2859	EVAPORATOR B
OASO09C	2" INLET 6" OUTLET	17,500	75	FARRIS 26 PAII-140	K-2859	EVAPORATOR C
OASO2BA	3/4" INLET T OUTLET	540	150	CONSOLIDATED 1975 C	K-2817	REBOILER A TUBE SIDE
OASO2BB	3/4" INLET T OUTLET	540	150	CONSOLIDATED 1975 C	K-2817	REBOILER B TUBE SIDE
OASO60	2" INLET 2" OUTLET	18,274	80	CONSOLIDATED 1811 M	K-2821	DEAERATOR
OASO98A	2" INLET 3" OUTLET	92,040	100	CONSOLIDATED	K-2869	EVAPORATOR DRAIN TANK
OASO98B	2" INLET 3" OUTLET	92,040	100	CONSOLIDATED	K-2869	EVAPORATOR DRAIN TANK
OASO98C	2" INLET 3" OUTLET	92,040	100	CONSOLIDATED	K-2869	EVAPORATOR DRAIN TANK
OAS153	3" INLET 4" OUTLET	12,500	125	CONSOLIDATED	K-2869	TURBINE BLDG. CONDENSER

PROCESS SAMPLE
PANEL OPL33JB
MOS-1045
SHT.2 F-4
OPS10A 3/8
OAS111
OAS85A 3/4

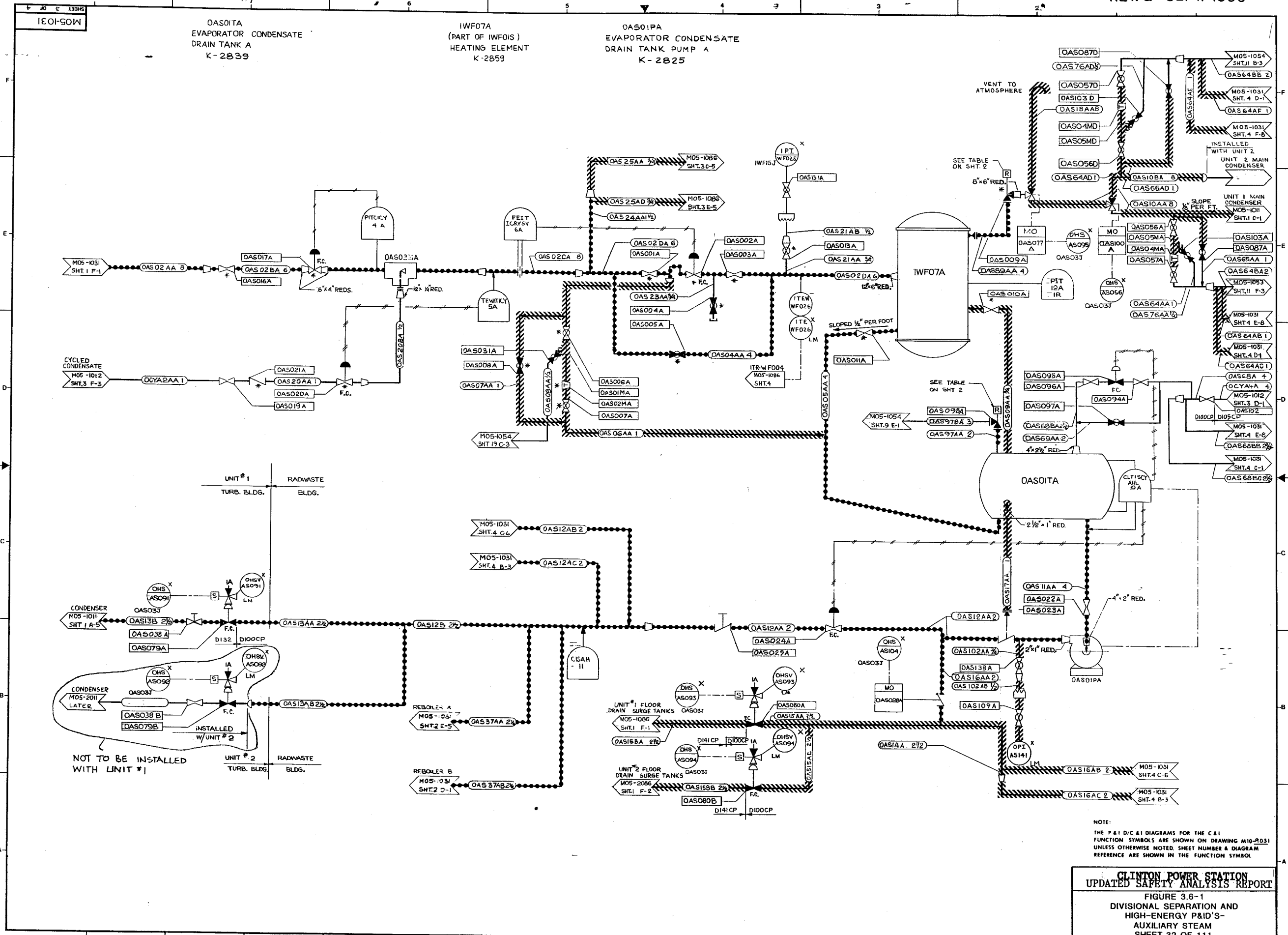


** Note: If optional ARC valve is used in lieu
of LARC for OAS051A/B/C, 1" line
(OAS46BA/B/C) is not required.

NOTE:
THE P&ID/C&I DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-2021.
UNLESS OTHERWISE NOTED, SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT

FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY P&ID'S-
AUXILIARY STEAM
SHEET 31 OF 111



1E01-SOW

OAS01TA
EVAPORATOR CONDENSATE
DRAIN TANK A
K-2839

IWF07A
(PART OF IWFOIS)
HEATING ELEMENT
K-2859

OAS01PA
EVAPORATOR CONDENSATE
DRAIN TANK PUMP A
K-2825

CYCLED
CONDENSATE
MOS-1012
SHT.3 F-3

CONDENSER
MOS-1011
SHT.1 A-5

CONDENSER
MOS-2011
LATER

NOT TO BE INSTALLED
WITH UNIT #1

UNIT #1
TURB. BLDG.

RADWASTE
BLDG.

UNIT #2
TURB. BLDG.

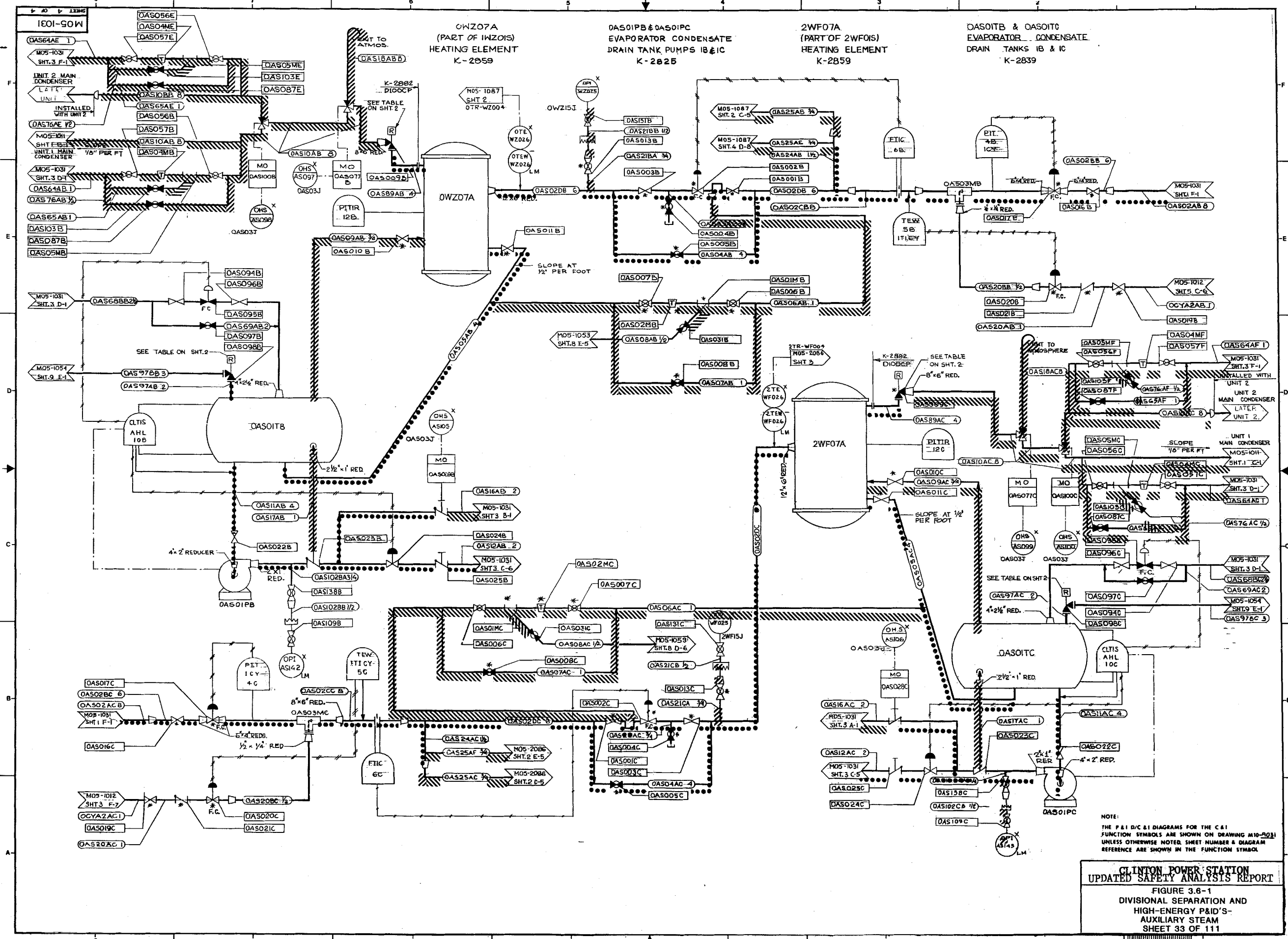
RADWASTE
BLDG.

UNIT #1 FLOOR
DRAIN SURGE TANKS

UNIT #2 FLOOR
DRAIN SURGE TANKS

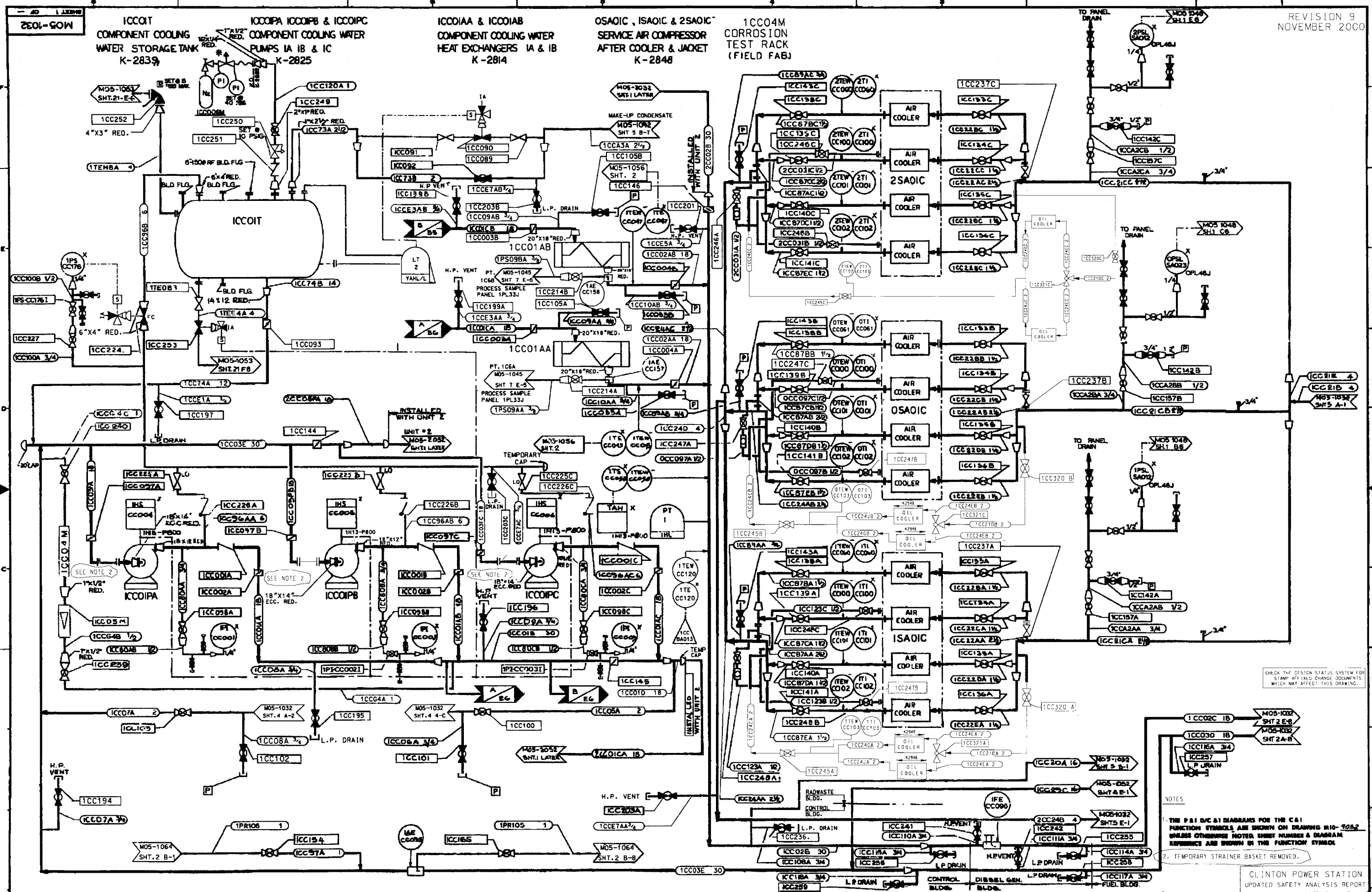
NOTE:
THE P&ID'S AND FUNCTION SYMBOLS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-1031
UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY P&ID'S-
AUXILIARY STEAM
SHEET 32 OF 111



NOTE:
 THE P&ID/C&I DIAGRAMS FOR THE C&I
 FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-1031
 UNLESS OTHERWISE NOTED, SHEET NUMBER & DIAGRAM
 REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL

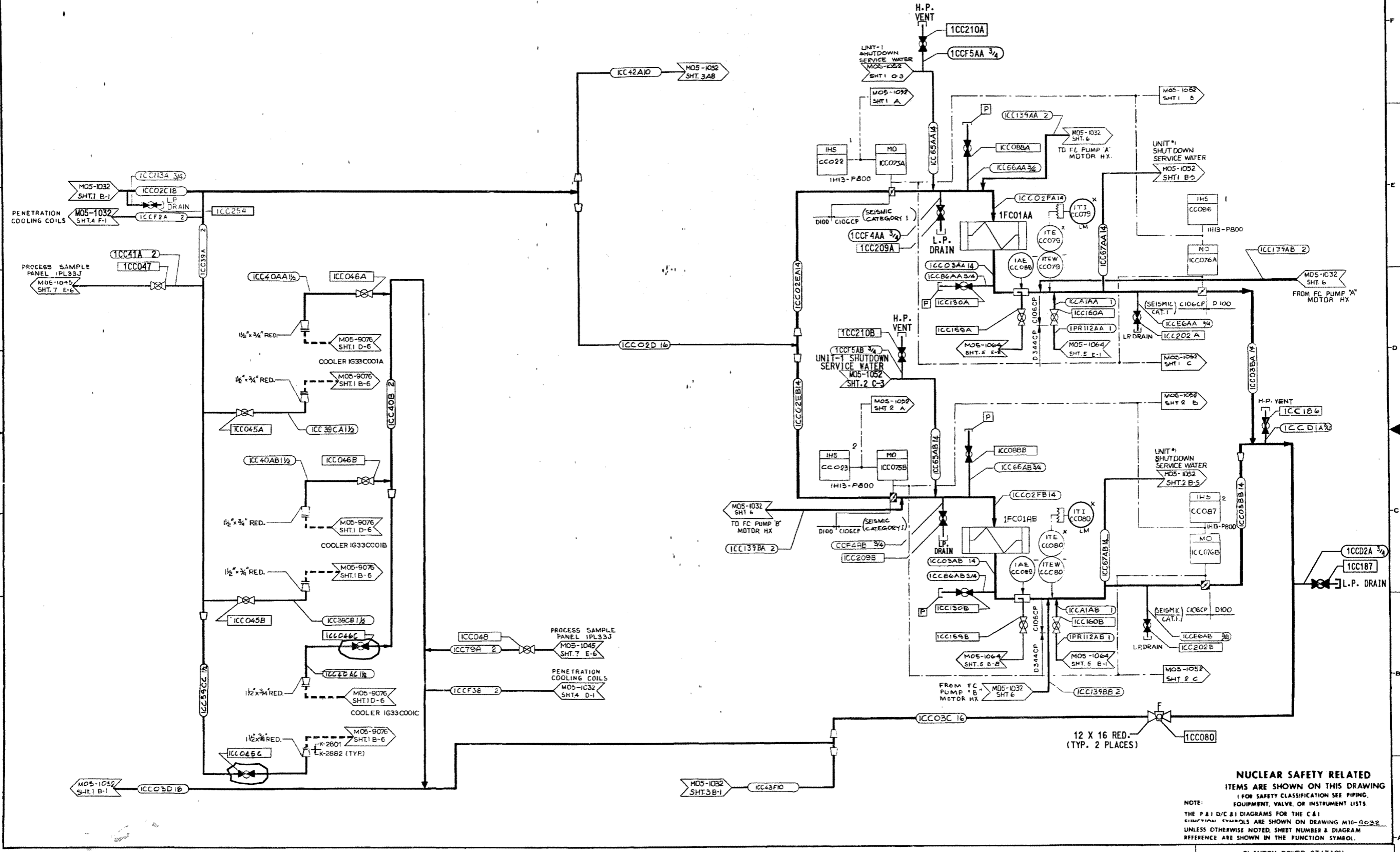
CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
 FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 AUXILIARY STEAM
 SHEET 33 OF 111



NOTES
1. THE P&ID DIAGRAMS FOR THE C&I FUNCTION SYMBOLS ARE SHOWN ON DRAWING MIO-2052 UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.
2. TEMPORARY STRAINER BASKET REMOVED.

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT

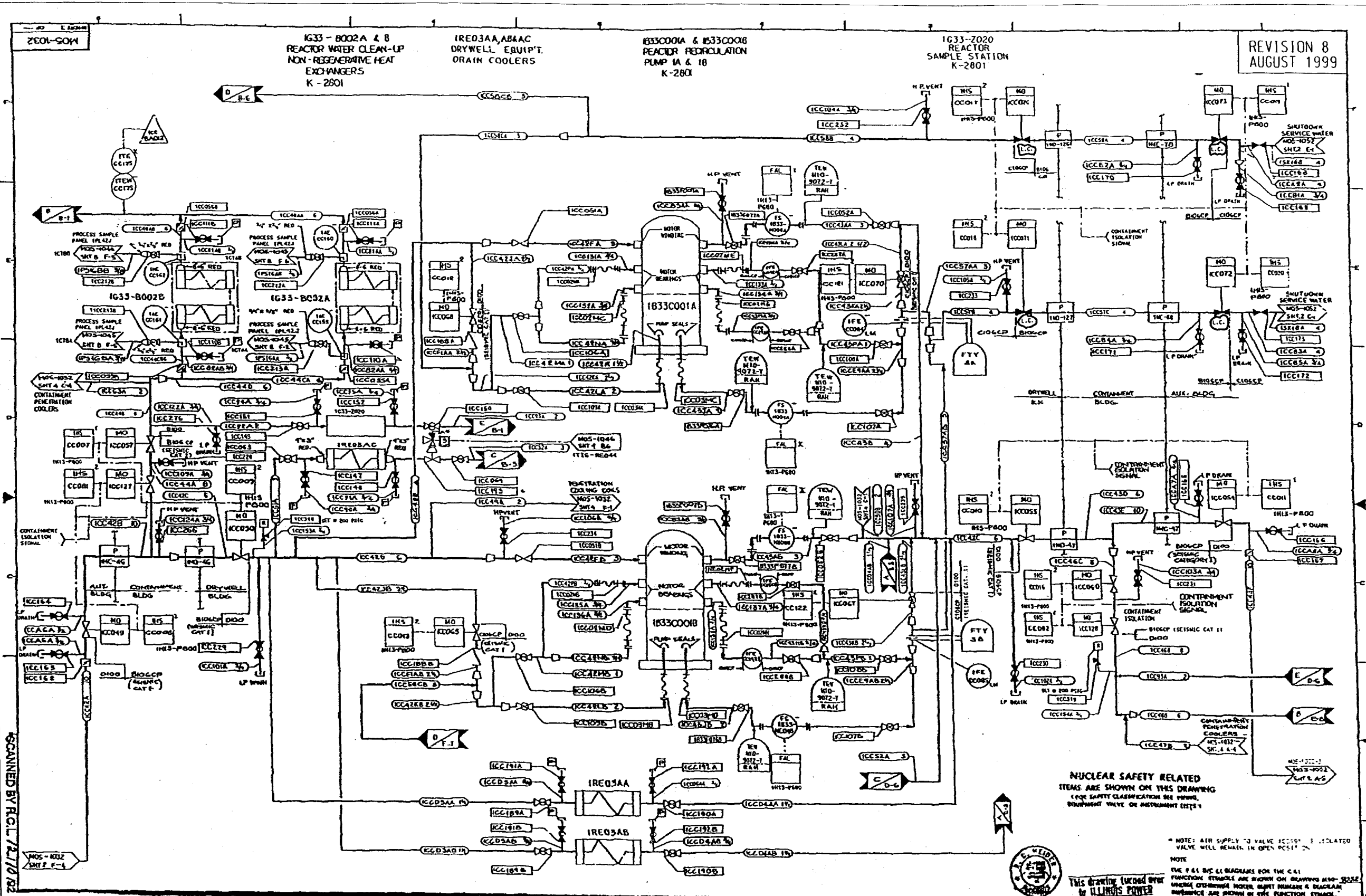
FIGURE 3.6-1
DIVISIONAL SEPARATION AND HIGH-ENERGY PAID'S COMPONENT COOLING WATER SHEET 34 OF 111



NUCLEAR SAFETY RELATED
 ITEMS ARE SHOWN ON THIS DRAWING
 FOR SAFETY CLASSIFICATION SEE PIPING,
 EQUIPMENT, VALVE, OR INSTRUMENT LISTS
 NOTE:
 THE P & I D/C & I DIAGRAMS FOR THE C & I
 FUNCTIONAL SYMBOLS ARE SHOWN ON DRAWING M10-1032
 UNLESS OTHERWISE NOTED, SHEET NUMBER & DIAGRAM
 REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

CLINTON POWER STATION
 UPDATED SAFETY ANALYSIS REPORT

FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 COMPONENT COOLING WATER
 SHEET 35 OF 111



REVISION 8
AUGUST 1999

NUCLEAR SAFETY RELATED
ITEMS ARE SHOWN ON THIS DRAWING
(SEE SAFETY CLASSIFICATION SEE DRAWING
EQUIPMENT VALUE OR INSTRUMENT LIST)

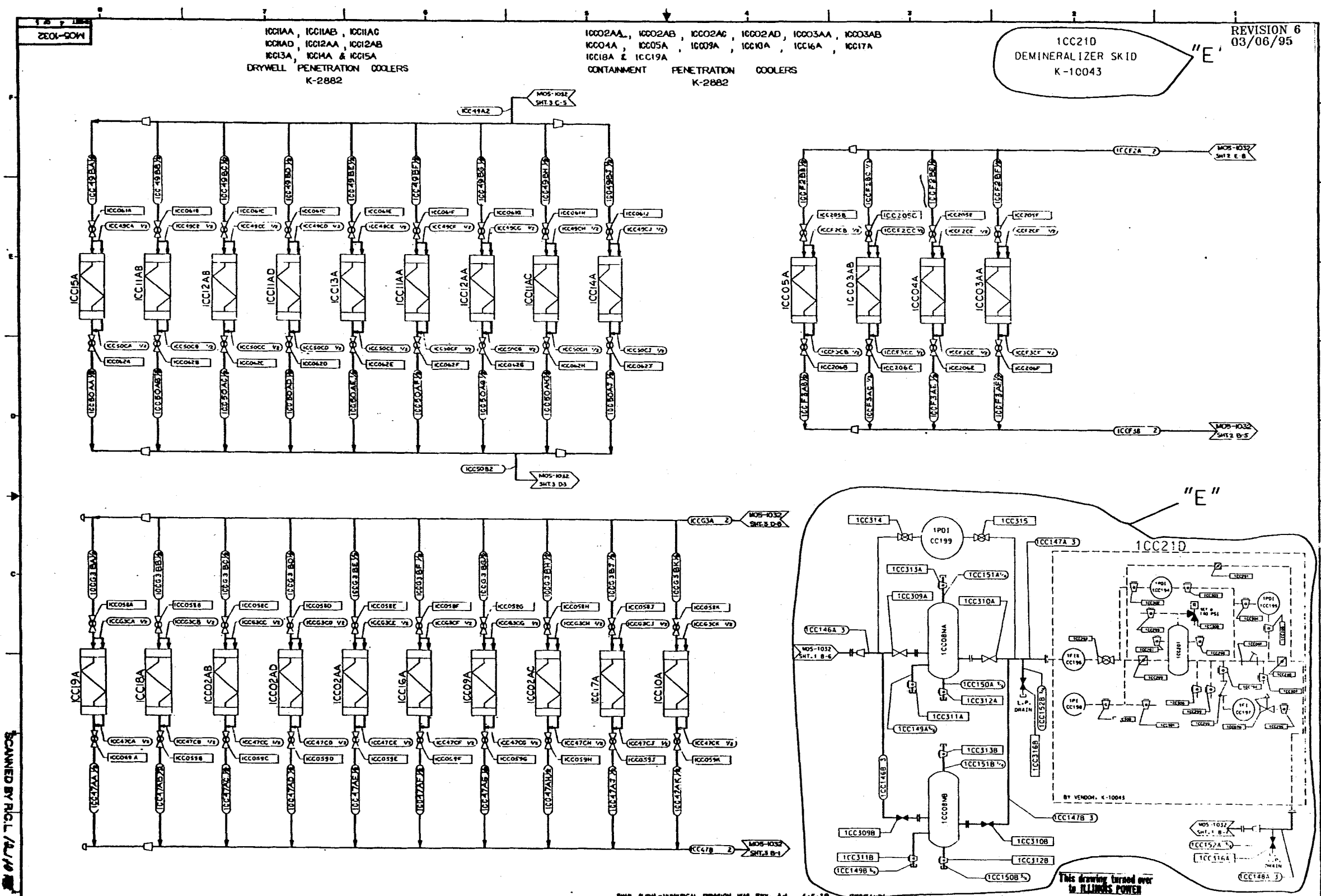
NOTE:
AIR SUPPLY TO VALVE ICC151 IS ISOLATED
VALVE WILL REMAIN IN OPEN POSITION

NOTE:
THE P&ID BVC & DIAGRAMS FOR THE CAS
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M00-2222
WHERE OTHERWISE NOTED, PART NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

This drawing locked out
by ILLINOIS POWER

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT
FIGURE 3.6-1
DIVISIONAL SEPARATION AND
HIGH-ENERGY PAID'S-
COMPONENT COOLING WATER
SHEET 36 OF 111

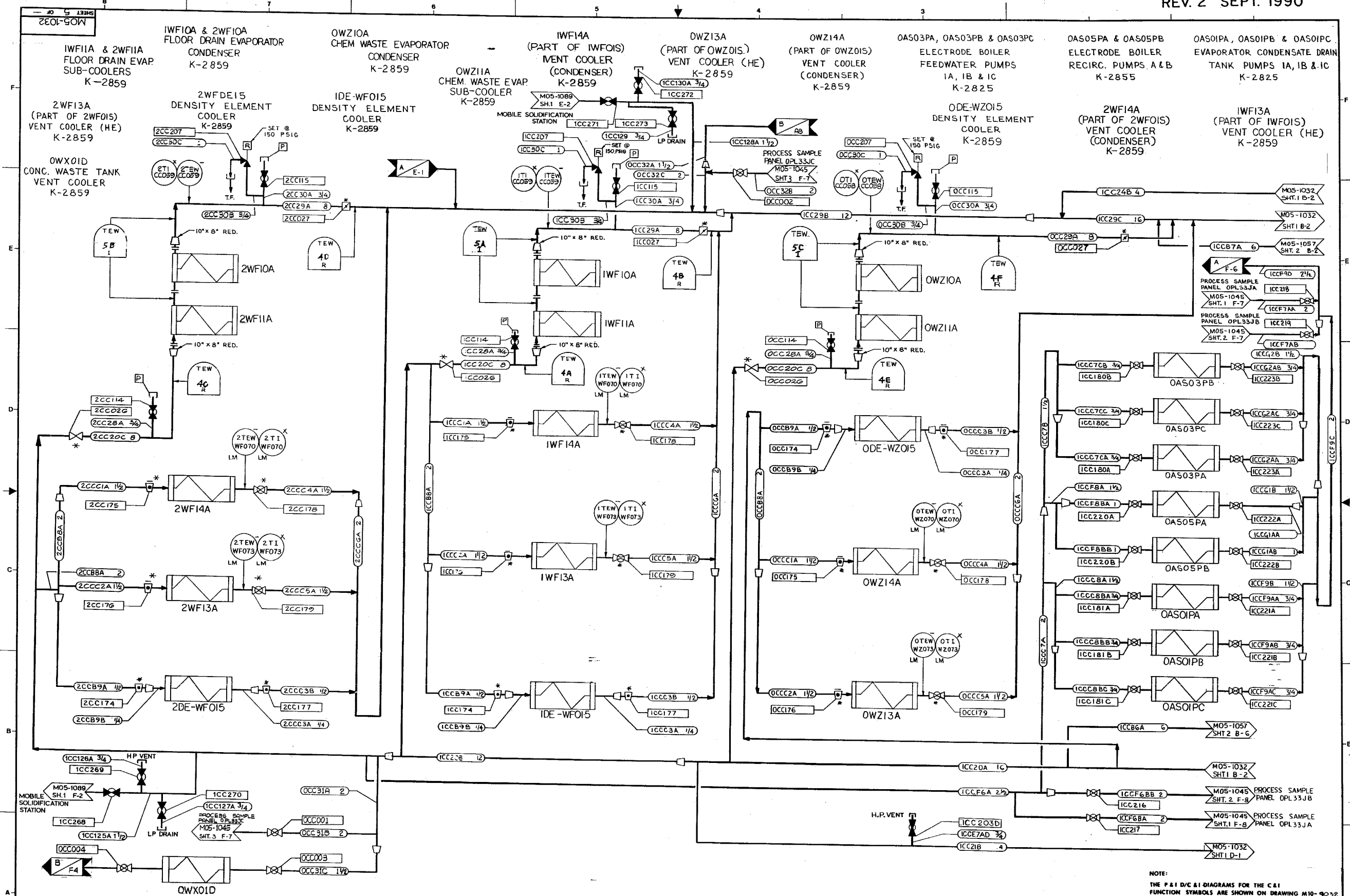
SCANNED BY R.C.L./2/10/02



SCANNED BY RCL/AJ/10

CLINTON POWER STATION
UPDATED SAFETY ANALYSIS REPORT

FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 COMPONENT COOLING WATER
 SHEET 37 OF 111

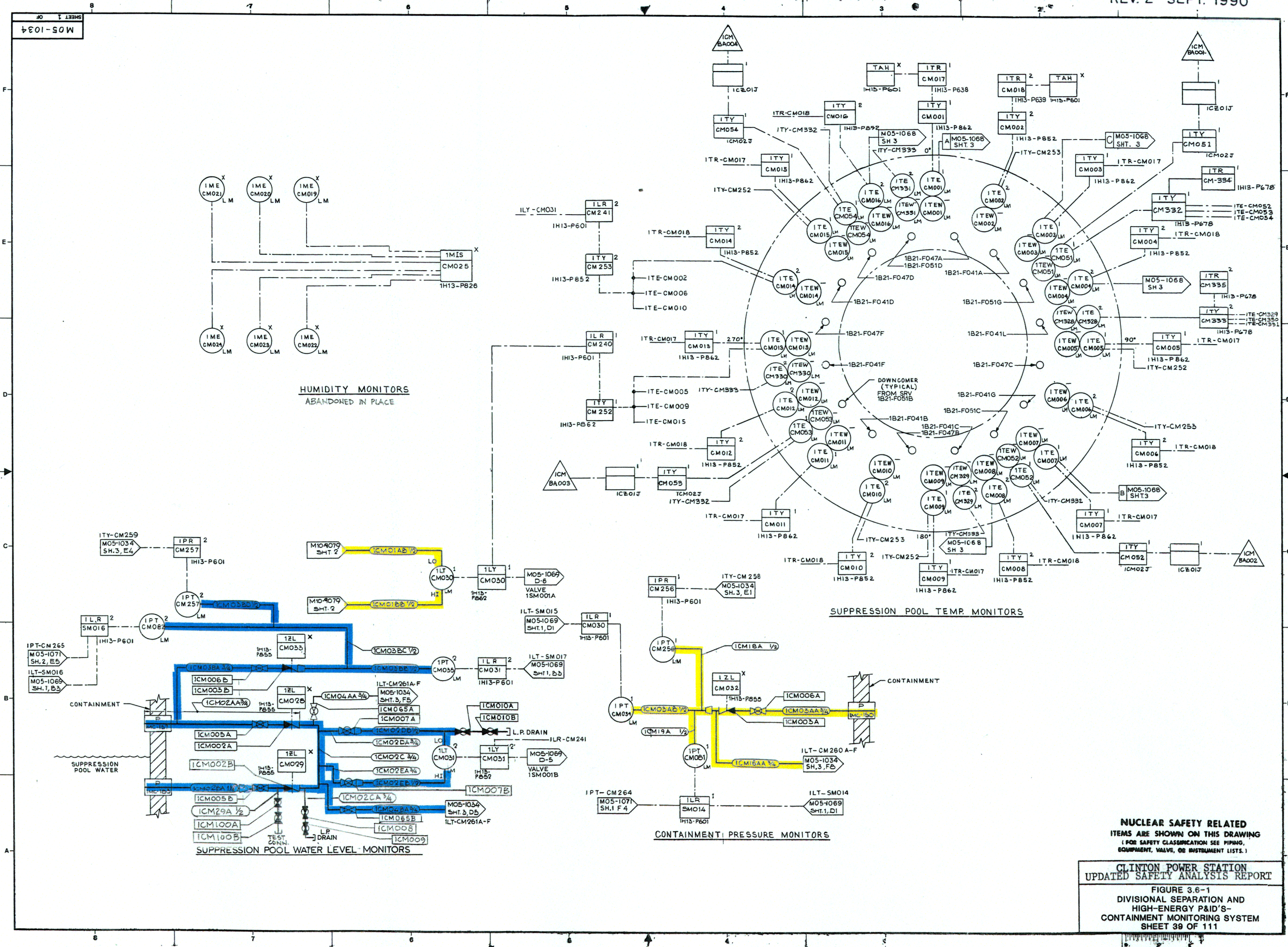


NOTE:
 THE P&ID/C&I DIAGRAMS FOR THE C&I
 FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-9032.
 UNLESS OTHERWISE NOTED, SHEET NUMBER & DIAGRAM

CLINTON POWER STATION
 UPDATED SAFETY ANALYSIS REPORT
 FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 COMPONENT COOLING WATER
 SHEET 38 OF 111

M05-1034

F
E
D
C
B
A



HUMIDITY MONITORS
ABANDONED IN PLACE

SUPPRESSION POOL TEMP. MONITORS

CONTAINMENT PRESSURE MONITORS

SUPPRESSION POOL WATER LEVEL MONITORS

NUCLEAR SAFETY RELATED
 ITEMS ARE SHOWN ON THIS DRAWING
 (FOR SAFETY CLASSIFICATION SEE PIPING,
 EQUIPMENT, VALVE, OR INSTRUMENT LISTS.)

CLINTON POWER STATION
 UPDATED SAFETY ANALYSIS REPORT

FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 CONTAINMENT MONITORING SYSTEM
 SHEET 39 OF 111

1H13-P867
CONTAINMENT H₂/O₂ ATMOSPHERE
MONITORING SYSTEM CONTROL
PANEL
K-2929

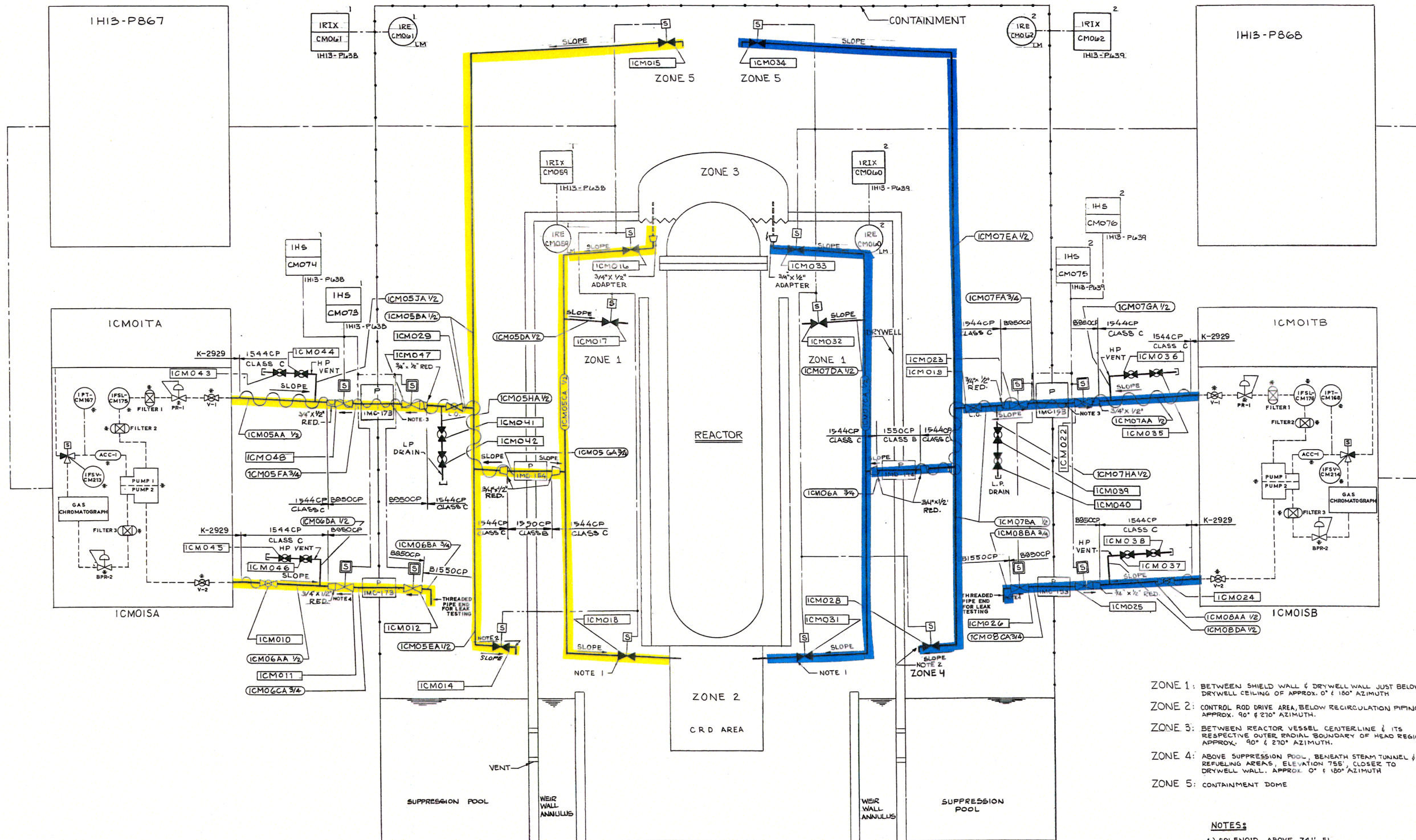
1CM01TA
CONTAINMENT H₂/O₂ ATMOSPHERE
MONITORING SYSTEM
CALIBRATION GAS SKID
K-2929

1CM01SA
CONTAINMENT H₂/O₂ ATMOSPHERE
MONITORING SYSTEM
PUMP / ANALYZER SKID
K-2929

1H13-P868
CONTAINMENT H₂/O₂ ATMOSPHERE
MONITORING SYSTEM CONTROL
PANEL
K-2929

1CM01TB
CONTAINMENT H₂/O₂ ATMOSPHERE
MONITORING SYSTEM
CALIBRATION GAS SKID
K-2929

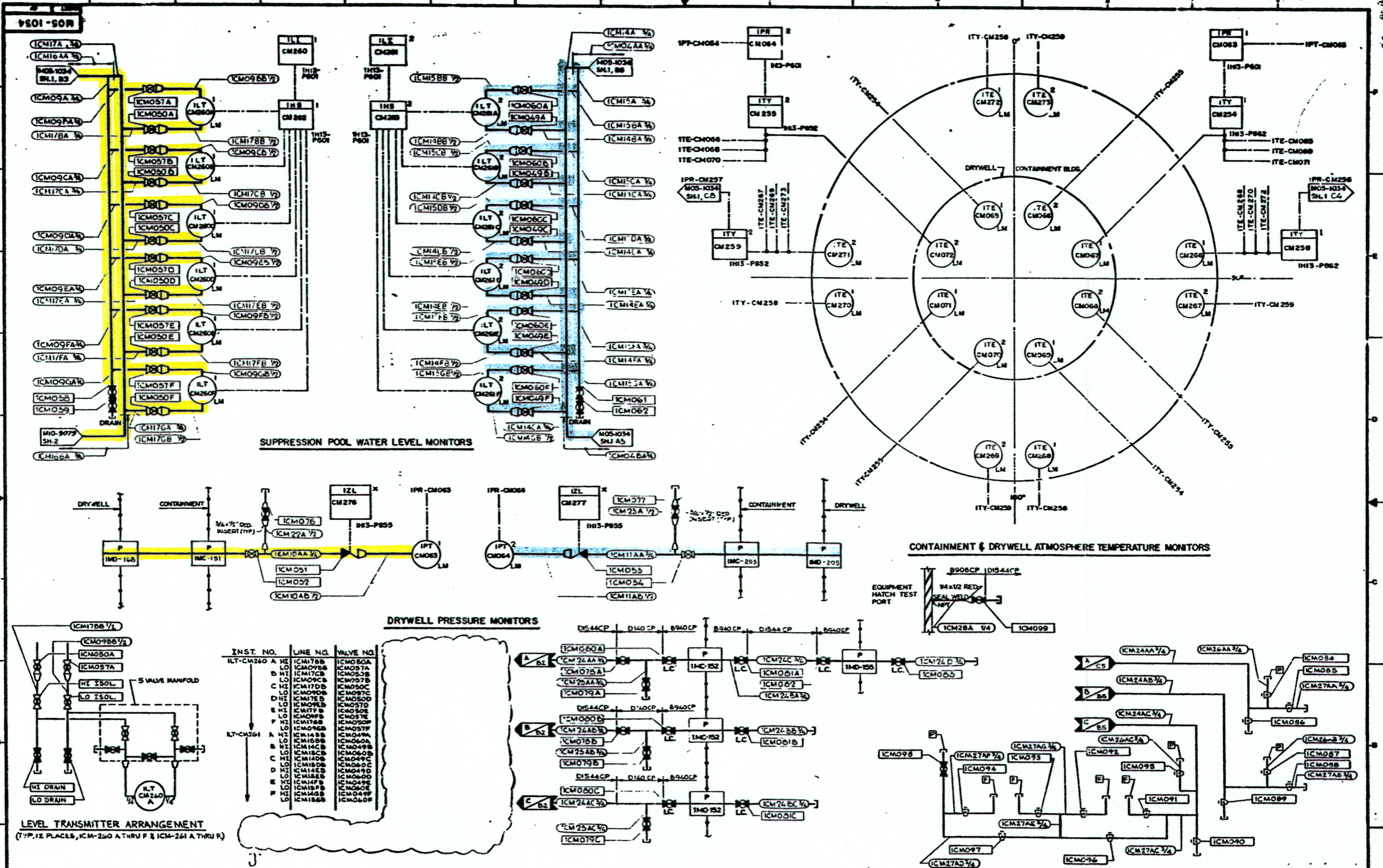
1CM01SB
CONTAINMENT H₂/O₂ ATMOSPHERE
MONITORING SYSTEM
PUMP / ANALYZER SKID
K-2929



- ZONE 1: BETWEEN SHIELD WALL & DRYWELL WALL JUST BELOW DRYWELL CEILING OF APPROX. 0° & 180° AZIMUTH
- ZONE 2: CONTROL ROD DRIVE AREA, BELOW RECIRCULATION PIPING APPROX. 90° & 270° AZIMUTH.
- ZONE 3: BETWEEN REACTOR VESSEL CENTERLINE & ITS RESPECTIVE OUTER RADIAL BOUNDARY OF HEAD REGION APPROX. 90° & 270° AZIMUTH.
- ZONE 4: ABOVE SUPPRESSION POOL, BENEATH STEAM TUNNEL & REFUELING AREAS, ELEVATION 75' CLOSER TO DRYWELL WALL, APPROX. 0° & 180° AZIMUTH
- ZONE 5: CONTAINMENT DOME

- NOTES:
- 1.) SOLENOID ABOVE 74' EL.
 - 2.) SOLENOID ABOVE 762' EL.
 - 3.) PENETRATION IMC-153 & IMC-173, SAMPLE LINE MUST BE HEAT TRACED
 - 4.) VALVES WITH — TO BE INSTALLED TO PROHIBIT FLOW IN DIRECTION SHOWN WHEN CLOSED.

NUCLEAR SAFETY RELATED
ITEMS ARE SHOWN ON THIS DRAWING
(FOR SAFETY CLASSIFICATION SEE PIPING,
EQUIPMENT, VALVE, OR INSTRUMENT LISTS.)



INST. NO.	LINE NO.	VALVE NO.
ILT-CM260	A	HI
ICM178B	B	HI
ICM098B	C	HI
ICM050A	D	HI
ICM050B	E	HI
ICM050C	F	HI
ICM050D	G	HI
ICM050E	H	HI
ICM050F	I	HI
ICM050G	J	HI
ICM050H	A	LO
ICM050I	B	LO
ICM050J	C	LO
ICM098A	D	LO
ICM098B	E	LO
ICM098C	F	LO
ICM098D	G	LO
ICM098E	H	LO
ICM098F	I	LO
ICM098G	J	LO
ICM098H	A	ISOL.
ICM098I	B	ISOL.
ICM098J	C	ISOL.
ICM098K	D	ISOL.
ICM098L	E	ISOL.
ICM098M	F	ISOL.
ICM098N	G	ISOL.
ICM098O	H	ISOL.
ICM098P	I	ISOL.
ICM098Q	J	ISOL.
ICM098R	A	ISOL.
ICM098S	B	ISOL.
ICM098T	C	ISOL.
ICM098U	D	ISOL.
ICM098V	E	ISOL.
ICM098W	F	ISOL.
ICM098X	G	ISOL.
ICM098Y	H	ISOL.
ICM098Z	I	ISOL.
ICM098AA	J	ISOL.
ICM098AB	A	ISOL.
ICM098AC	B	ISOL.
ICM098AD	C	ISOL.
ICM098AE	D	ISOL.
ICM098AF	E	ISOL.
ICM098AG	F	ISOL.
ICM098AH	G	ISOL.
ICM098AI	H	ISOL.
ICM098AJ	I	ISOL.
ICM098AK	J	ISOL.
ICM098AL	A	ISOL.
ICM098AM	B	ISOL.
ICM098AN	C	ISOL.
ICM098AO	D	ISOL.
ICM098AP	E	ISOL.
ICM098AQ	F	ISOL.
ICM098AR	G	ISOL.
ICM098AS	H	ISOL.
ICM098AT	I	ISOL.
ICM098AU	J	ISOL.
ICM098AV	A	ISOL.
ICM098AV	B	ISOL.
ICM098AV	C	ISOL.
ICM098AV	D	ISOL.
ICM098AV	E	ISOL.
ICM098AV	F	ISOL.
ICM098AV	G	ISOL.
ICM098AV	H	ISOL.
ICM098AV	I	ISOL.
ICM098AV	J	ISOL.

NUCLEAR SAFETY RELATED
 ITEMS ARE SHOWN ON THIS DRAWING
 FOR SAFETY CLASSIFICATION SEE PERMITS,
 EQUIPMENT, VALVE, OR INSTRUMENT LIST.

This drawing turned over
 to HMMRS POWER

**CLINTON POWER STATION
 UPDATED SAFETY ANALYSIS REPORT**

FIGURE 3.6-1
 DIVISIONAL SEPARATION AND
 HIGH-ENERGY P&ID'S-
 CONTAINMENT MONITORING SYSTEM
 SHEET 41 OF 111

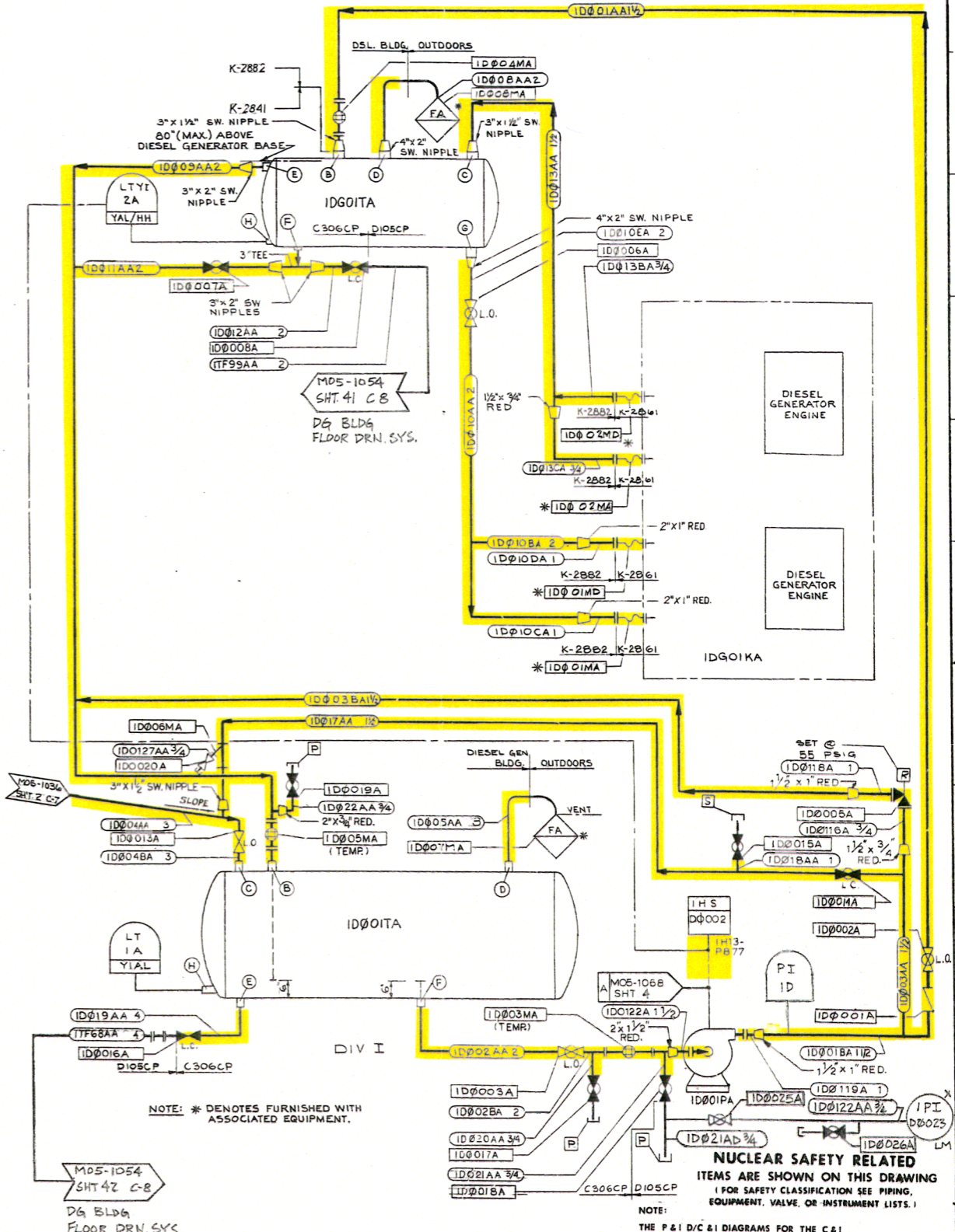
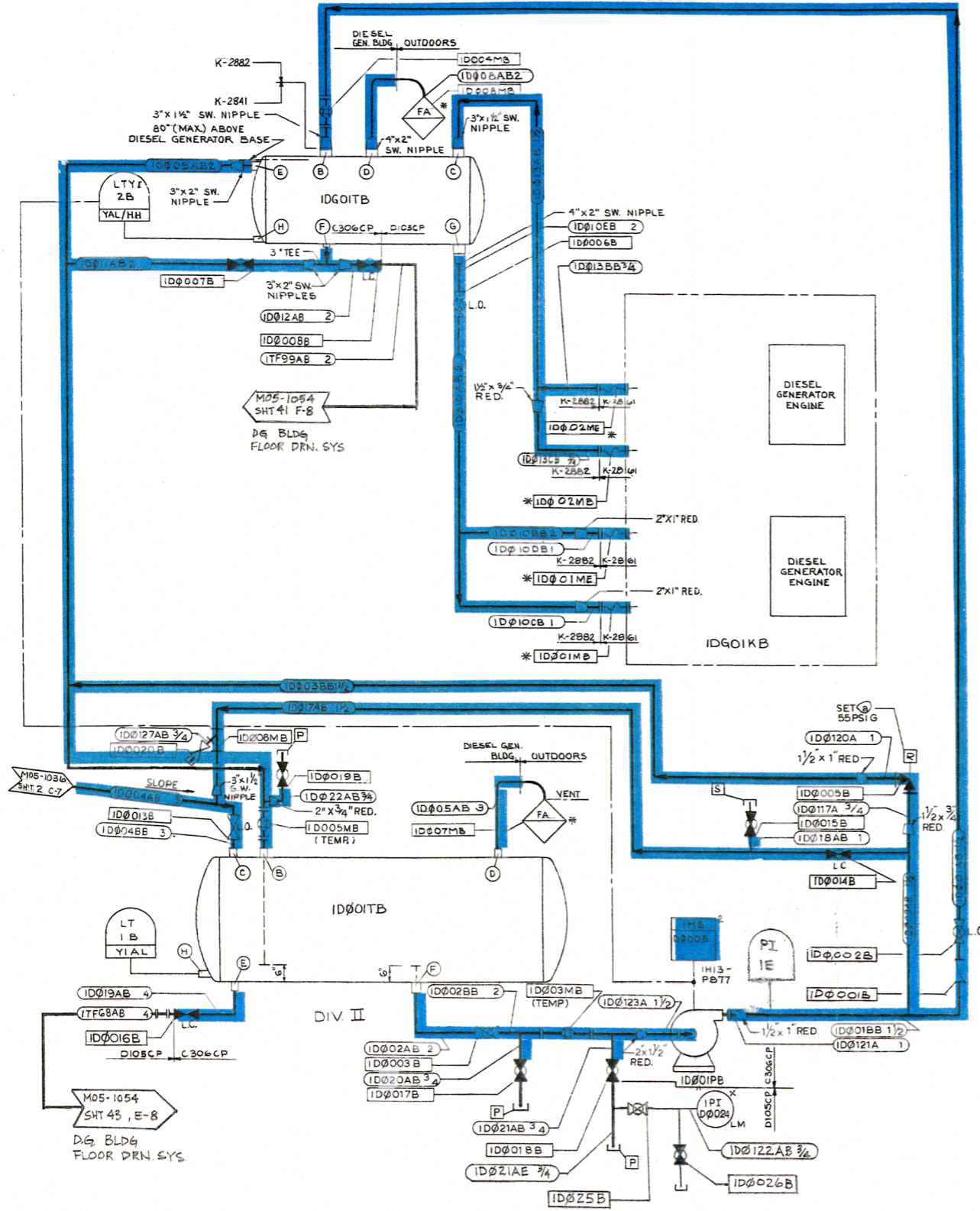
9E01-90W

ID001TA & ID001TB
DIESEL GENERATOR FUEL OIL
STORAGE TANKS
K-2842

ID001PA & ID001PB
DIESEL GENERATOR FUEL OIL
TRANSFER PUMPS
K-2826A

IDG01TA & IDG01TB
DIESEL GENERATOR FUEL OIL
DAY TANK
K-2841

IDG01KA & IDG01KB
DIESEL GENERATOR ENGINES SET SWID
K-2801



NOTE: * DENOTES FURNISHED WITH ASSOCIATED EQUIPMENT.

NUCLEAR SAFETY RELATED
ITEMS ARE SHOWN ON THIS DRAWING
(FOR SAFETY CLASSIFICATION SEE PIPING,
EQUIPMENT, VALVE, OR INSTRUMENT LISTS.)

NOTE:
THE P&ID/C&I DIAGRAMS FOR THE C&I
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-9036
UNLESS OTHERWISE NOTED, SHEET NUMBER & DIAGRAM
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.