

NON - SAFETY RELATED  
SEE NOTE 2

COOLING UNIT SEE  
M05-1115-4

COOLING UNIT SEE  
M05-1115-4

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

**NOTES:**

1. THE P&ID/C&I DIAGRAMS FOR THE C&I FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-1115 UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.
2. NUCLEAR SAFETY-RELATED DUCTWORK SYSTEM IS SHOWN ON THIS P&ID. THIS CLASSIFICATION APPLIES TO DUCTWORK AND DUCTWORK ACCESSORIES (EXCEPT DAMPERS) FURNISHED, FABRICATED AND INSTALLED UNDER SPECIFICATION K-2910. FOR SAFETY CLASSIFICATION OF DUCTWORK SUPPORTS SEE SUPPORT DRAWINGS. FOR SAFETY CLASSIFICATION OF EQUIPMENT SEE EQUIPMENT LIST. FOR SAFETY CLASSIFICATION OF PIPING/VALVES SEE LINE/VALVE LIST. FOR SAFETY CLASSIFICATION OF DAMPERS, SEE APPROPRIATE DAMPER LIST.
3. THIS FLOW OCCURS WHEN THERE IS A FIRE IN THE CENTRAL CABLE SPREAD AREA, CONTROL BUILDING EL. 781'-0" AND DAMPERS IVX55Y AND IVX61Y ARE CLOSED. FLOW IS EXITED TO THE UNCONTROLLED AIR SIDE, UNIT 2.

**CLINTON POWER STATION**  
**UPDATED SAFETY ANALYSIS REPORT**

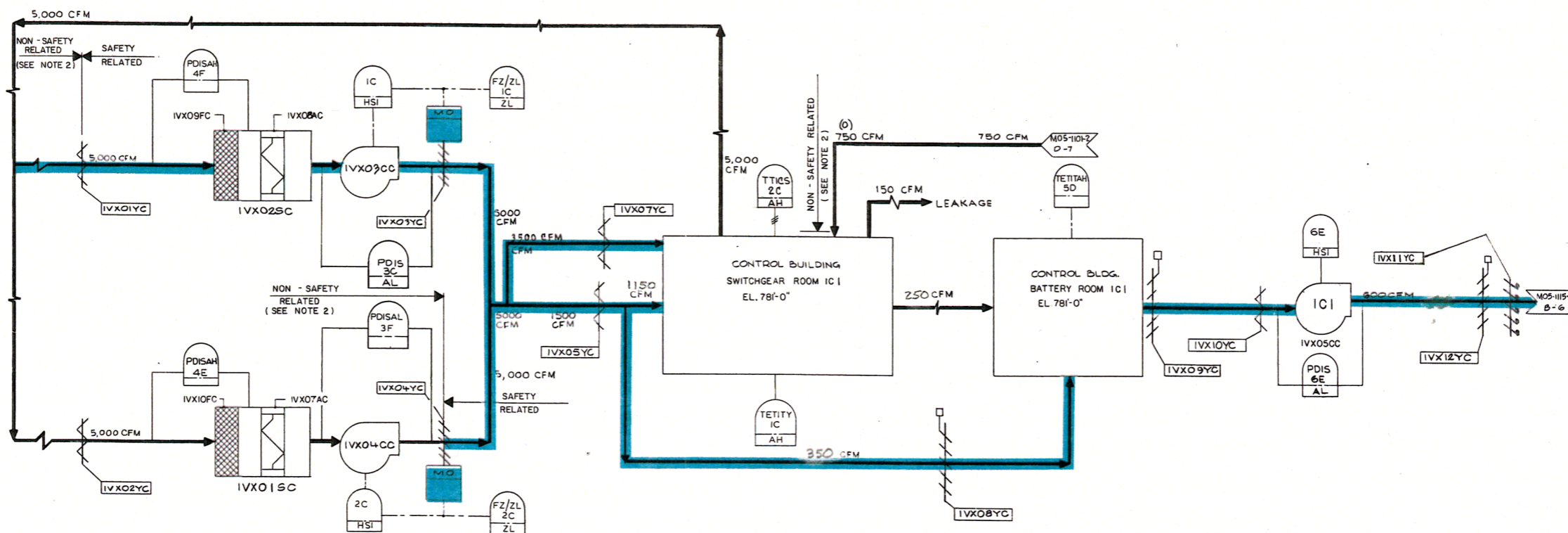
FIGURE 3.6-1  
DIVISIONAL SEPARATION AND  
HIGH-ENERGY P&ID'S-  
ESSENTIAL SWITCHGEAR HEAT REMOVAL  
SHEET 101 OF 111

IVX01SC  
SWITCHGEAR HEAT REMOVAL  
COIL CABINET  
K-2902

IVX02SC  
SWITCHGEAR HEAT REMOVAL  
COIL CABINET  
K-2902

IVX03CC  
IVX04CC  
SWITCHGEAR HEAT REMOVAL  
FANS  
K-2904

IVX05CC  
BATTERY ROOM  
EXHAUST FAN  
K-2904

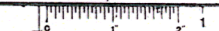


- NOTES:
1. THE P&ID/C&I DIAGRAMS FOR THE C&I FUNCTION SYMBOLS ARE SHOWN ON DRAWING MO-115-3 UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.
  2. NUCLEAR SAFETY-RELATED DUCTWORK SYSTEM IS SHOWN ON THIS P&ID. THIS CLASSIFICATION APPLIES TO DUCTWORK AND DUCTWORK ACCESSORIES (EXCEPT DAMPERS) FURNISHED, FABRICATED AND INSTALLED UNDER SPECIFICATION K-2910. FOR SAFETY CLASSIFICATION OF DUCTWORK SUPPORTS, SEE SUPPORT DRAWINGS. FOR SAFETY CLASSIFICATION OF EQUIPMENT, SEE EQUIPMENT LIST. FOR SAFETY CLASSIFICATION OF PIPING / VALVES SEE LINE / VALVE LIST. FOR SAFETY CLASSIFICATION OF DAMPERS, SEE APPROPRIATE DAMPER LIST.

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

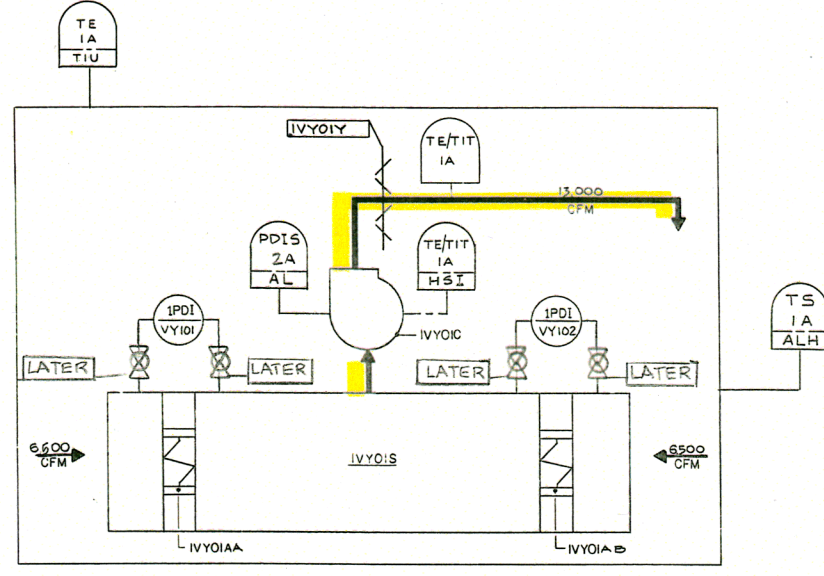
CLINTON POWER STATION  
UPDATED SAFETY ANALYSIS REPORT

FIGURE 3.6-1  
DIVISIONAL SEPARATION AND  
HIGH-ENERGY P&ID'S-  
ESSENTIAL SWITCHGEAR HEAT REMOVAL  
SHEET 102 OF 111

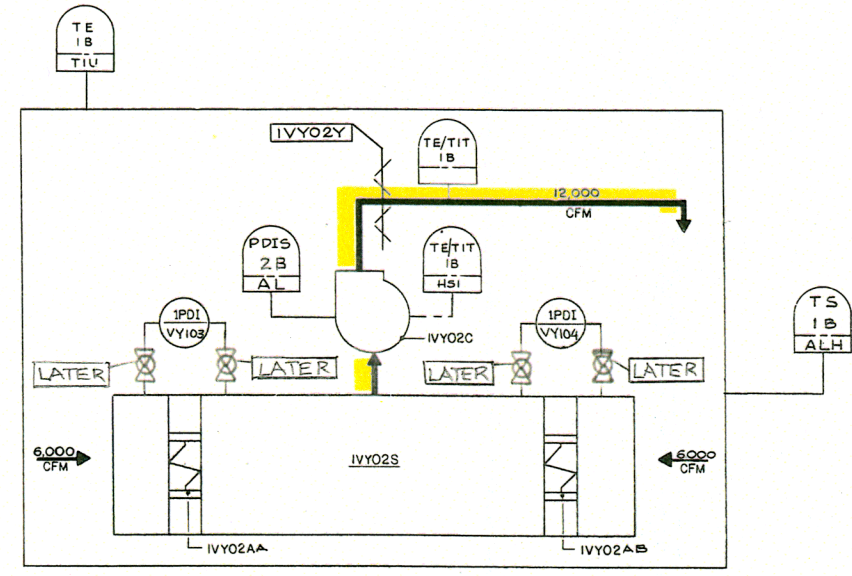


9111-50W

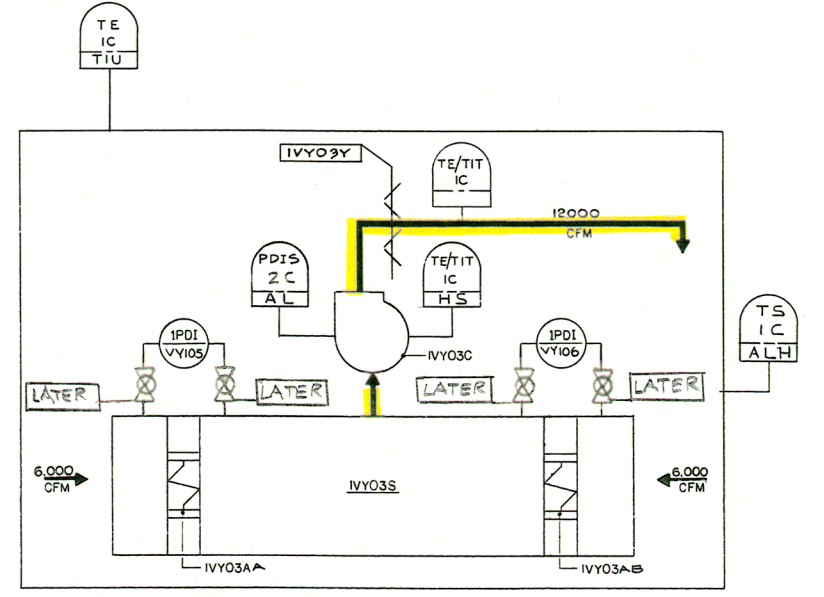
- IVY01S ECCS LPCS PUMP ROOM COIL CABINET K-2902
- IVY01C ECCS LPCS PUMP ROOM SUPPLY FAN K-2904
- IVY01AA, AB ECCS LPCS PUMP ROOM COOLING COIL K-2902
- IVY02C ECCS RHR PUMP ROOM A SUPPLY FAN K-2904
- IVY02S ECCS RHR PUMP ROOM A COIL CABINET K-2902
- IVY02AA, AB ECCS RHR PUMP ROOM A COOLING COIL K-2902
- IVY03C ECCS RHR HEAT EXCH.A ROOM SUPPLY FAN K-2904
- IVY03S ECCS RHR HEAT EXCH.A ROOM COIL CABINET K-2902
- IVY03AA, AB ECCS RHR HEAT EXCH.A ROOM COOLING COIL K-2902
- IVY04C ECCS RCIC PUMP ROOM SUPPLY FAN K-2904
- IVY04S ECCS RCIC PUMP ROOM COIL CABINET K-2902
- IVY04A ECCS RCIC PUMP ROOM COOLING COIL K-2902
- IVY05C ECCS RHR HEAT EXCH.B ROOM SUPPLY FAN K-2904
- IVY05S ECCS RHR HEAT EXCH.B ROOM COIL CABINET K-2902
- IVY05AA, AB ECCS RHR HEAT EXCH.B ROOM COOLING COIL K-2902



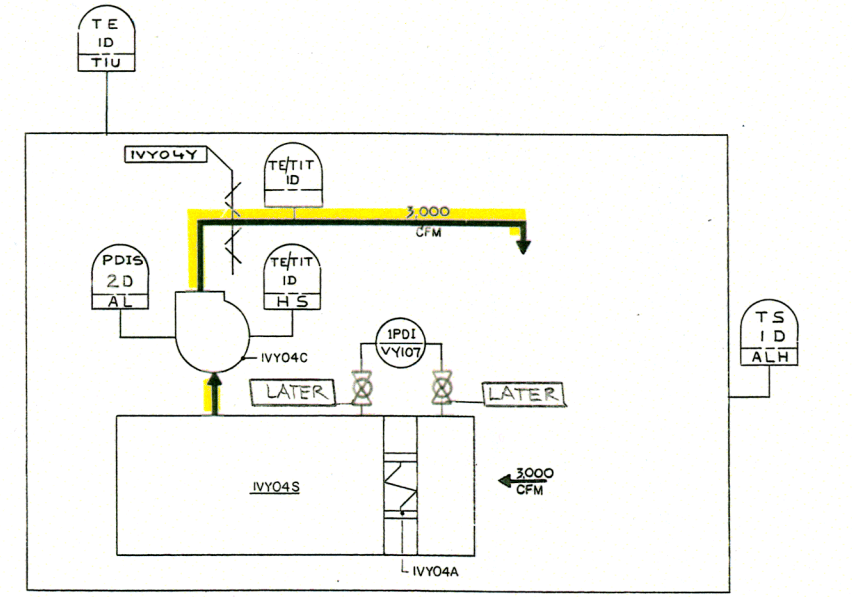
LPCS PUMP ROOM



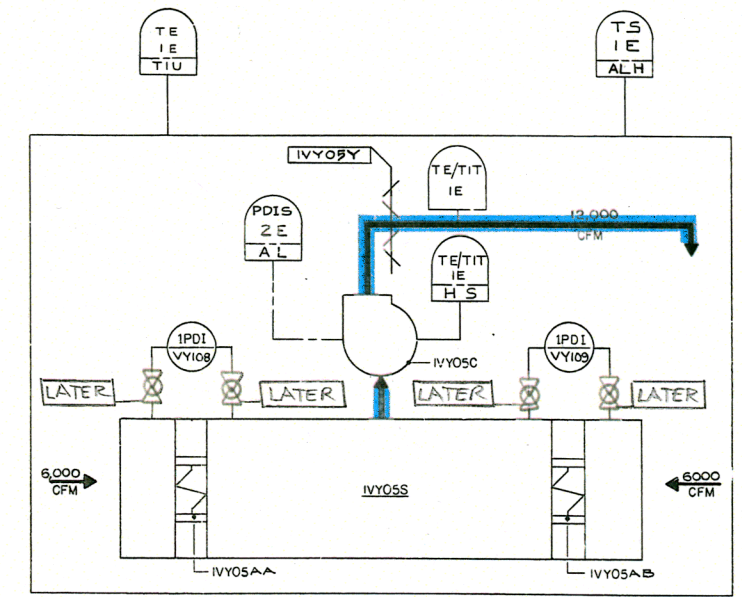
RHR PUMP A ROOM



RHR HEAT EXCHANGER A ROOM



RCIC PUMP ROOM



RHR HEAT EXCHANGER B ROOM

NOTES:  
 1. THE AIR FLOW FOR CABINETS WERE CALCULATED AT A DENSITY OF .075 LBS/FT<sup>3</sup>.  
 2. NUCLEAR SAFETY-RELATED DUCTWORK SYSTEM IS SHOWN ON THIS P&ID.  
 THIS CLASSIFICATION APPLIES TO DUCTWORK AND DUCTWORK ACCESSORIES (EXCEPT DAMPERS) FURNISHED, FABRICATED AND INSTALLED UNDER SPECIFICATION K-2910. FOR SAFETY CLASSIFICATION OF DUCTWORK SUPPORTS, SEE SUPPORT DRAWINGS.  
 FOR SAFETY CLASSIFICATION OF EQUIPMENT SEE EQUIPMENT LIST.  
 FOR SAFETY CLASSIFICATION OF PIPING/VALVES, SEE LINE/VALVE LIST.  
 FOR SAFETY CLASSIFICATION OF DAMPERS, SEE APPROPRIATE DAMPER LIST.

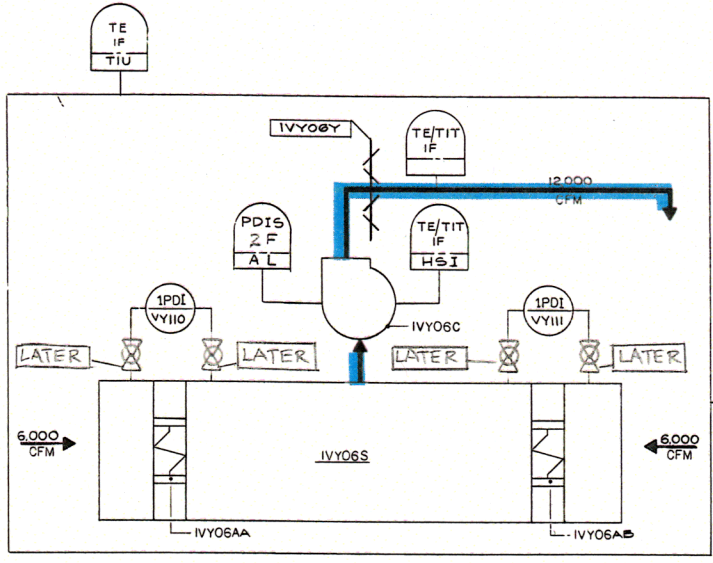
NOTE  
 THE P&ID/C&I DIAGRAMS FOR THE C&I FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-9116 UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.

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

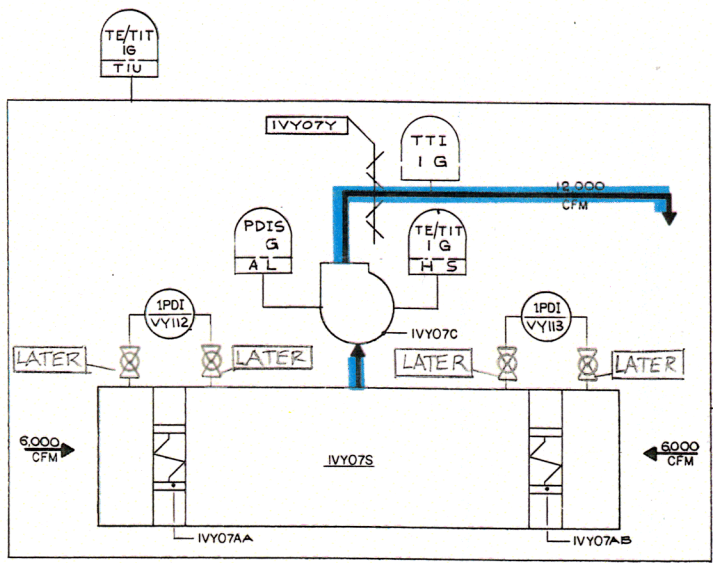
CLINTON POWER STATION  
 UPDATED SAFETY ANALYSIS REPORT  
 FIGURE 3.6-1  
 DIVISIONAL SEPARATION AND  
 HIGH-ENERGY P&ID'S-  
 ECCS EQUIPMENT ROOM COOLING  
 (SHEET 103 OF 111)

9111-GOW  
SHEET 2 OF 2

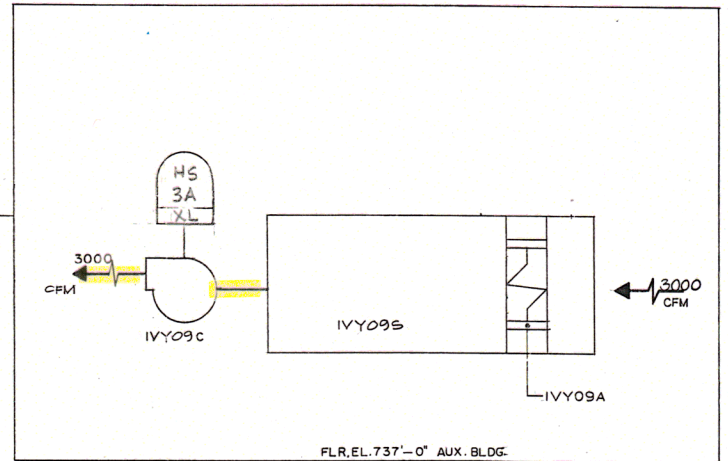
- |  |   |   |  |  |   |  |   |   |   |   |   |
|--|---|---|--|--|---|--|---|---|---|---|---|
| IVY06S<br>ECCS<br>RHR PUMP<br>ROOM B<br>COIL CABINET<br>K-2902 | IVY06C<br>ECCS<br>RHR PUMP ROOM B<br>SUPPLY FAN<br>K-2904 | IVY06AA, AB<br>ECCS<br>RHR PUMP ROOM B<br>COOLING COILS<br>K-2902 | IVY07C<br>ECCS<br>RHR PUMP<br>ROOM C<br>SUPPLY FAN<br>K-2904 | IVY07S<br>ECCS<br>RHR PUMP<br>ROOM C<br>COIL CABINET<br>K-2902 | IVY07AA, AB<br>ECCS<br>RHR PUMP ROOM C<br>COOLING COILS<br>K-2902 | IVY08CA, CB<br>ECCS<br>HPCS PUMP ROOM<br>SUPPLY FANS A & B<br>K-2904 | IVY08AA, AB, AC, AD<br>ECCS<br>HPCS PUMP ROOM<br>COOLING COILS A, B, C, D<br>K-2902 | IVY08SA, B<br>ECCS<br>HPCS PUMP ROOM<br>COIL CABINETS 4 & B<br>K-2902 | IVY09S<br>MSIV INBOARD ROOM<br>COIL CABINET<br>K-2902<br>IVY10S<br>MSIV OUTBOARD ROOM<br>COIL CABINET<br>K-2902 | IVY09A<br>MSIV INBOARD ROOM<br>COOLING COIL<br>K-2902<br>IVY10A<br>MSIV OUTBOARD ROOM<br>COOLING COIL<br>K-2902 | IVY09C<br>MSIV INBOARD ROOM<br>SUPPLY FAN<br>K-2904<br>IVY10C<br>MSIV OUTBOARD ROOM<br>SUPPLY FAN<br>K-2904 |
|--|---|---|--|--|---|--|---|---|---|---|---|



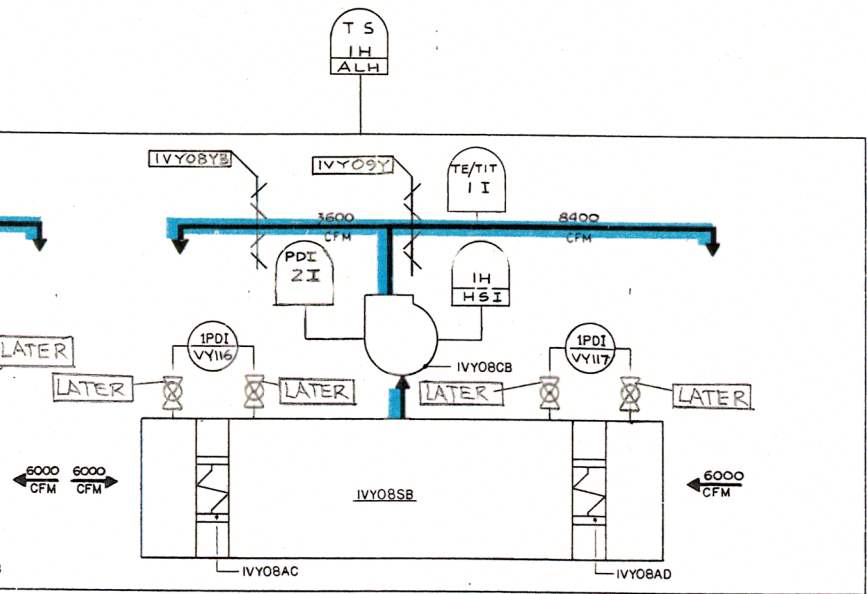
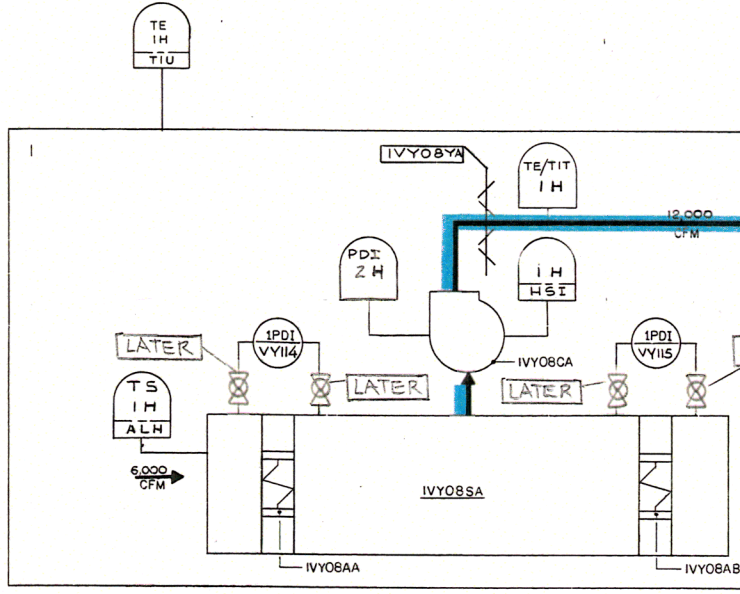
RHR PUMP B ROOM



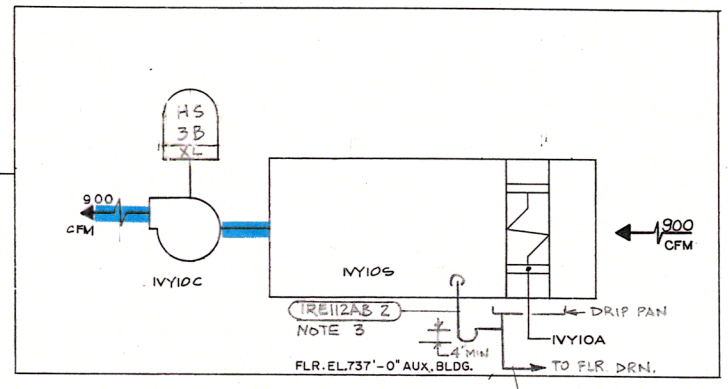
RHR PUMP C ROOM



MSIV INBOARD ROOM



HPCS PUMP ROOM



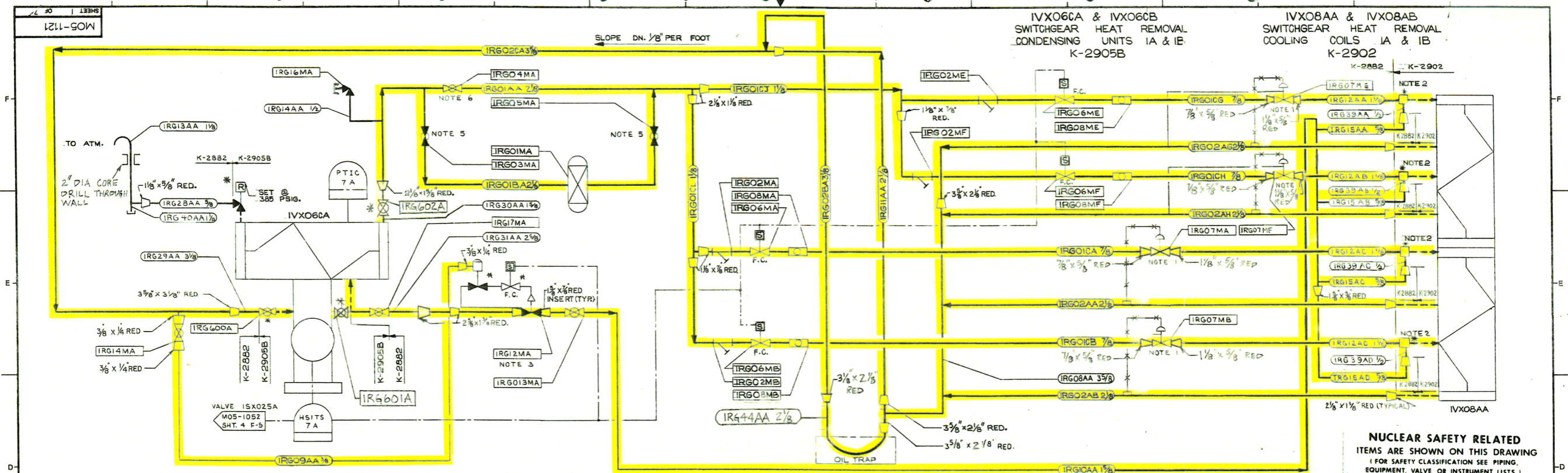
MSIV OUTBOARD ROOM

- NOTES:
1. THE AIRFLOW FOR CABINETS WERE CALCULATED AT A DENSITY OF .075 lb/ft<sup>3</sup>.
  2. NUCLEAR SAFETY-RELATED DUCTWORK SYSTEM IS SHOWN ON THIS PAID. THIS CLASSIFICATION APPLIES TO DUCTWORK AND DUCTWORK ACCESSORIES (EXCEPT DAMPERS) FURNISHED, FABRICATED AND INSTALLED UNDER SPECIFICATION K-2910. FOR SAFETY CLASSIFICATION OF DUCTWORK SUPPORTS, SEE SUPPORT DRAWINGS. FOR SAFETY CLASSIFICATION OF EQUIPMENT, SEE EQUIPMENT LIST. FOR SAFETY CLASSIFICATION OF PIPING/VALVES, SEE LINE/VALVE LIST. FOR SAFETY CLASSIFICATION OF DAMPERS, SEE APPROPRIATE DAMPER LIST.
  3. DRAIN PIPING BY SPEC. K-2882.

**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 M10-5116 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-  
ECCS EQUIPMENT ROOM COOLING  
(SHEET 104 OF 111)

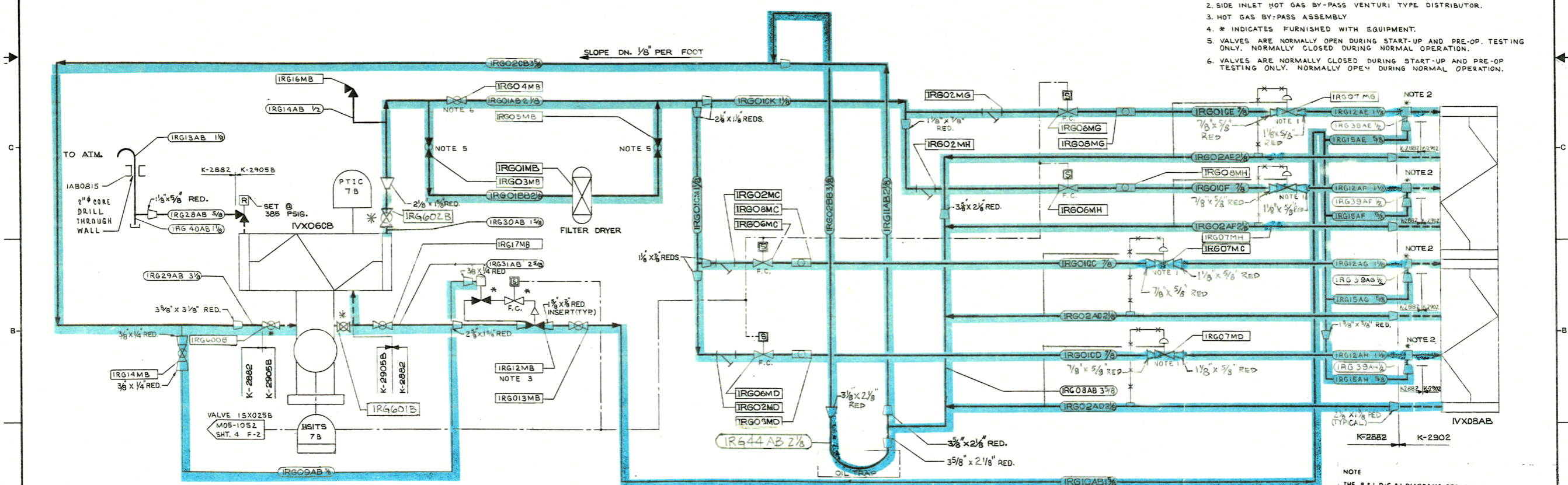


IVX06CA & IVX06CB  
SWITCHGEAR HEAT REMOVAL  
CONDENSING UNITS IA & IE  
K-2905B

IVX08AA & IVX08AB  
SWITCHGEAR HEAT REMOVAL  
COOLING COILS IA & IB  
K-2902

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

- NOTES:
- 1/4 EQUALIZER LINES.
  - SIDE INLET HOT GAS BY-PASS VENTURI TYPE DISTRIBUTOR.
  - HOT GAS BY-PASS ASSEMBLY.
  - \* INDICATES FURNISHED WITH EQUIPMENT.
  - VALVES ARE NORMALLY OPEN DURING START-UP AND PRE-OP. TESTING ONLY. NORMALLY CLOSED DURING NORMAL OPERATION.
  - VALVES ARE NORMALLY CLOSED DURING START-UP AND PRE-OP. TESTING ONLY. NORMALLY OPEN DURING NORMAL OPERATION.

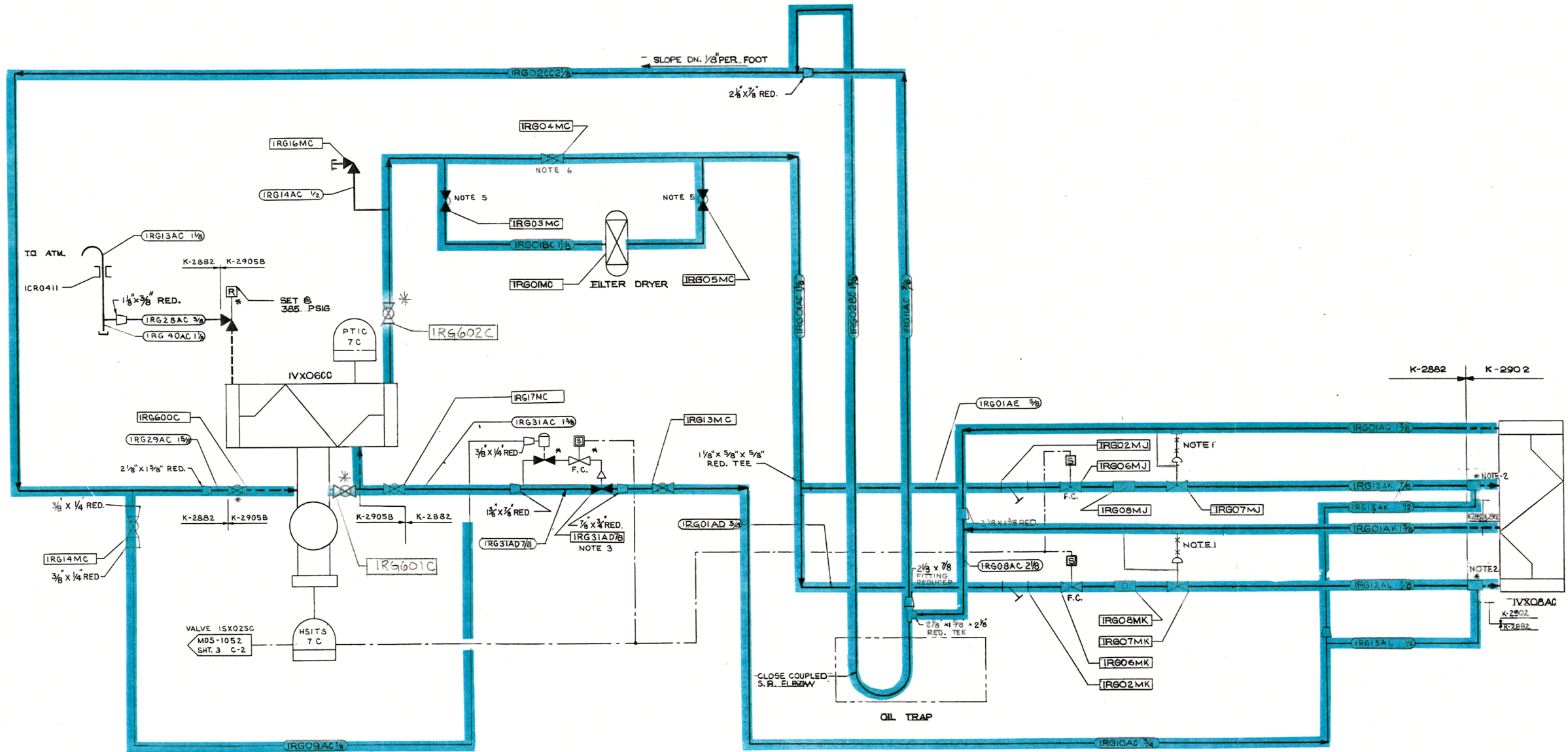


NOTE  
THE P&ID/C&I DIAGRAMS FOR THE C&I  
FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-9115  
UNLESS OTHERWISE NOTED SHEET NUMBER & DIAGRAM  
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL

**CLINTON POWER STATION**  
**UPDATED SAFETY ANALYSIS REPORT**  
FIGURE 3.6-1  
DIVISIONAL SEPARATION AND  
HIGH-ENERGY P&ID'S-  
REFRIGERATION PIPING SWITCHGEAR  
HEAT REMOVAL  
SHEET 105 OF 111

IVX06CC SWITCHGEAR HEAT REMOVAL CONDENSING UNIT IC K-2905B

IVX08AC SWITCHGEAR HEAT REMOVAL COOLING COIL IC K-2902



- NOTES:
1. 1/4" EQUALIZER LINES
  2. SIDE INLET HOT GAS BY-PASS VENTURI TYPE DISTRIBUTOR
  3. HOT GAS BY-PASS ASSEMBLY
  4. \* INDICATES FURNISHED WITH EQUIPMENT
  5. VALVES ARE NORMALLY OPEN DURING START-UP AND PRE-OP. TESTING ONLY, NORMALLY CLOSED DURING NORMAL OPERATION.
  6. VALVES ARE NORMALLY CLOSED DURING START-UP AND PRE-OP TESTING ONLY, NORMALLY OPEN DURING NORMAL OPERATION.

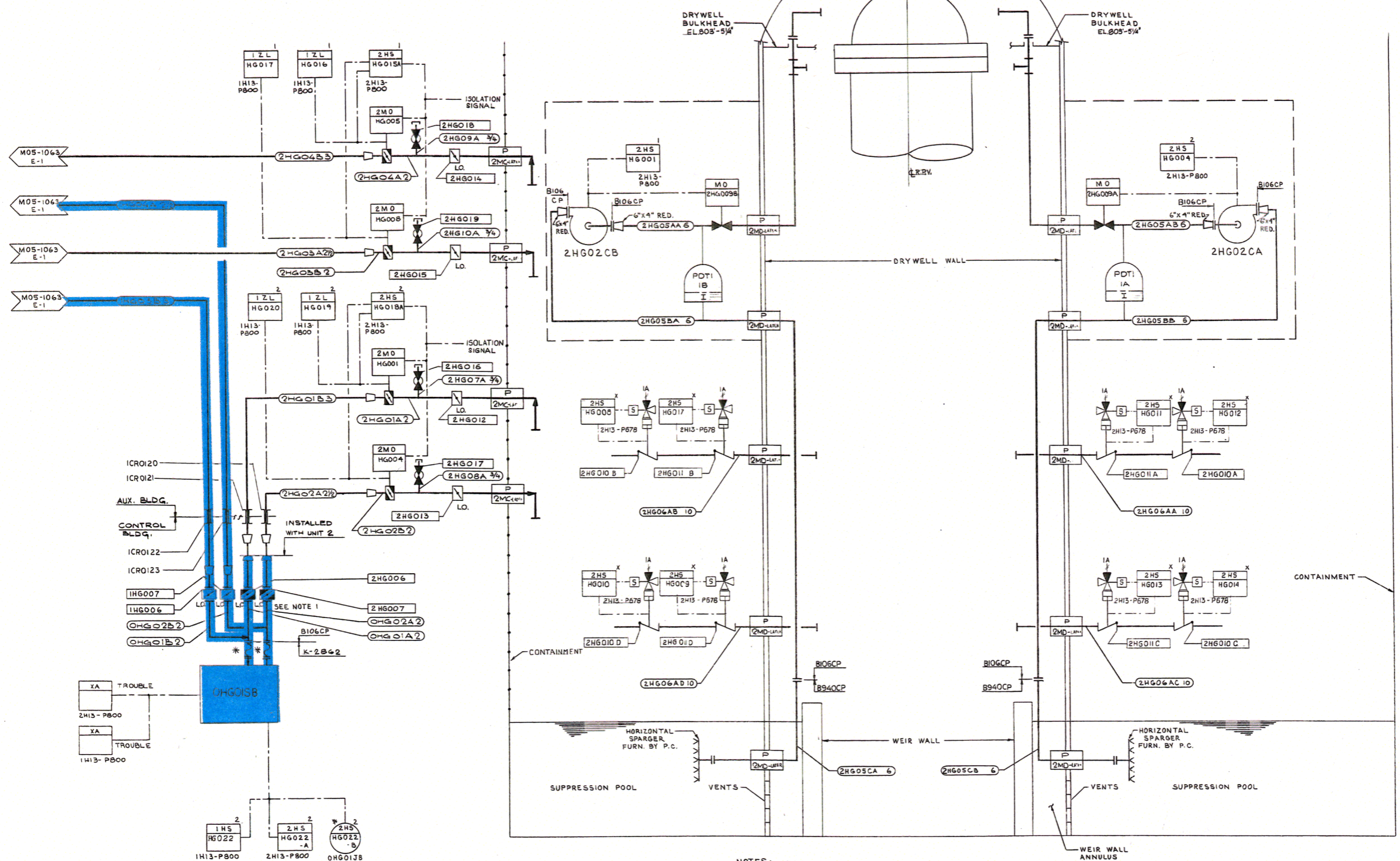
**NUCLEAR SAFETY RELATED**  
 ITEMS ARE SHOWN ON THIS DRAWING  
 (FOR SAFETY CLASSIFICATION SEE PIPING,  
 EQUIPMENT, VALVE, OR INSTRUMENT LISTS.)

NOTE  
 THE P&ID/C&I DIAGRAMS FOR THE C&I  
 FUNCTION SYMBOLS ARE SHOWN ON DRAWING M10-2115  
 UNLESS OTHERWISE NOTED SHEET NUMBER & DIAGRAM  
 REFERENCE ARE SHOWN IN THE FUNCTION LISTS.

CLINTON POWER STATION  
 UPDATED SAFETY ANALYSIS REPORT  
 FIGURE 3.6-1  
 DIVISIONAL SEPARATION AND  
 HIGH-ENERGY P&ID'S-  
 REFRIGERATION PIPING SWITCHGEAR  
 HEAT REMOVAL  
 SHEET 108 OF 111

OHGOISB  
CGCS HYDROGEN RECOMBINER  
K-2862

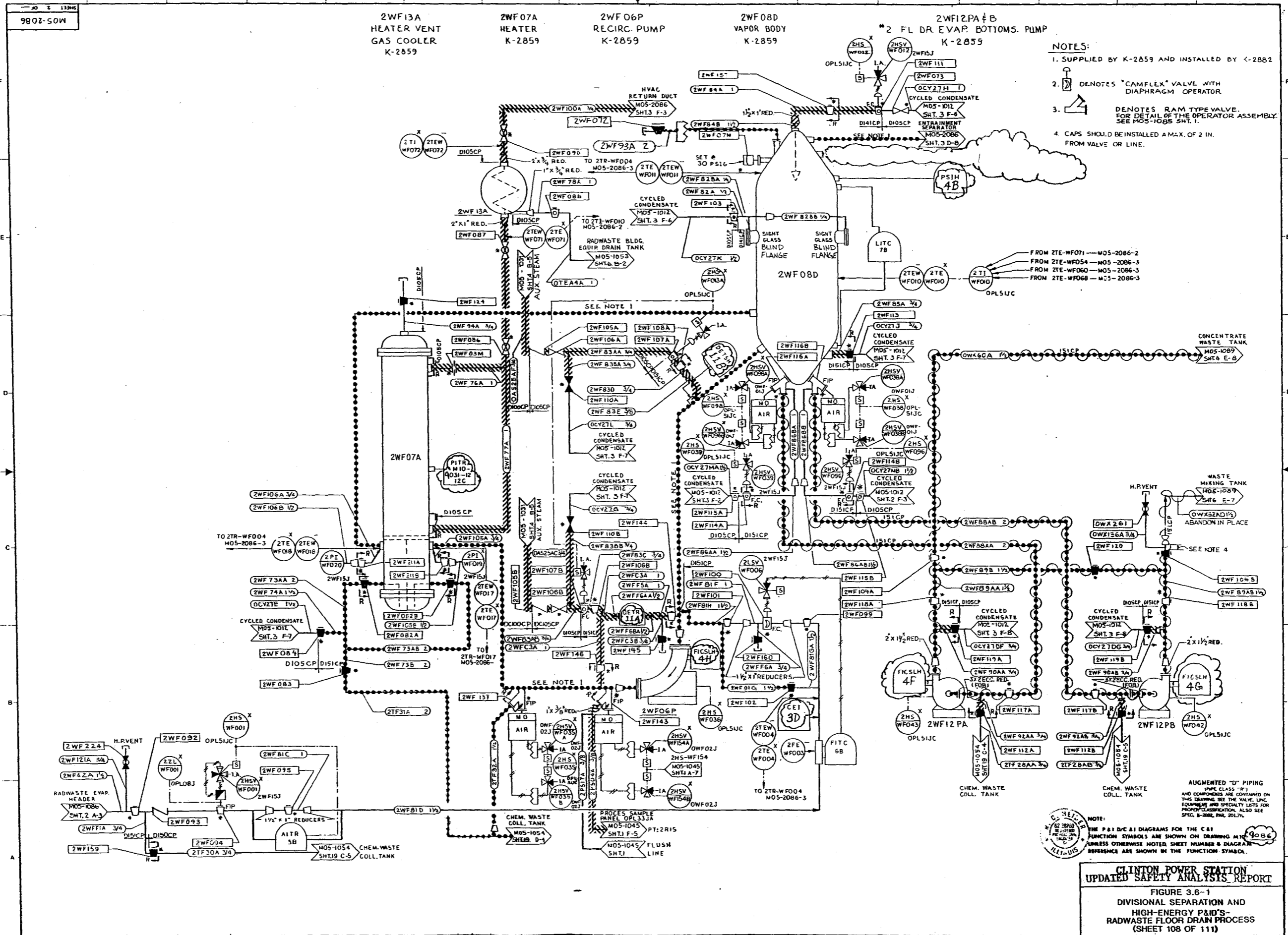
2HG02CA & 2HG02CB  
CGCS HYDROGEN  
COMPRESSORS 2A & 2B  
K-2862



NOTES: 1. WHEN UNIT 2 IS INSTALLED, VALVES 1HG006 AND 1HG007 SHALL BE LOCKED CLOSED, AND VALVES 2HG006 AND 2HG007 SHALL BE LOCKED OPEN.

**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 M10-2063  
UNLESS OTHERWISE NOTED. SHEET NUMBER & DIAGRAM  
REFERENCE ARE SHOWN IN THE FUNCTION SYMBOL.



- NOTES:
1. SUPPLIED BY K-2859 AND INSTALLED BY K-2882
  2. DENOTES "CAMFLEX" VALVE WITH DIAPHRAGM OPERATOR
  3. DENOTES RAM TYPE VALVE. FOR DETAIL OF THE OPERATOR ASSEMBLY SEE MOS-1085 SHT. 1.
  4. CAPS SHOULD BE INSTALLED A MAX. OF 2 IN. FROM VALVE OR LINE.

FROM ZTE-WF071 — MOS-2086-2  
FROM ZTE-WF054 — MOS-2086-3  
FROM ZTE-WF060 — MOS-2086-3  
FROM ZTE-WF068 — MOS-2086-3

AUGMENTED "D" PIPING  
PIPE CLASS "D"  
AND COMPONENTS ARE CONTAINED ON  
THIS DRAWING. SEE THE VALVE, LINE,  
EQUIPMENT AND SPECIALTY LISTS FOR  
PROPER CLASSIFICATION. ALSO SEE  
SPEC. 8-2882, PAR. 20.17.

NOTE:  
THE P&ID DIAGRAMS FOR THE CEI  
FUNCTION SYMBOLS ARE SHOWN ON DRAWING MOS-2086  
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-  
RADWASTE FLOOR DRAIN PROCESS  
(SHEET 108 OF 111)

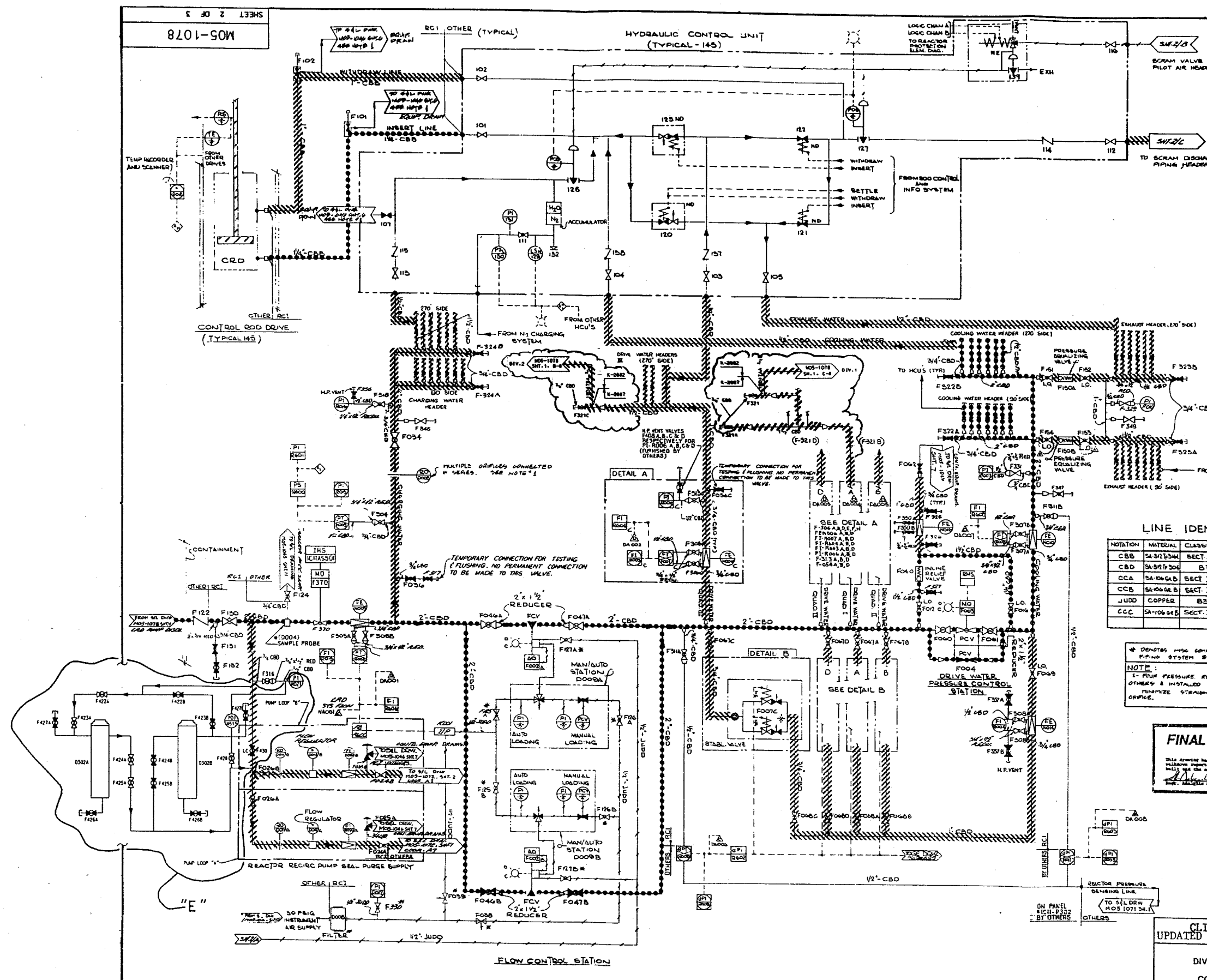




TABULATION OF INSTRUMENTATION LOCATED ON INSTRUMENT PANELS K11-P301 AND K11-P302 (PANELS PROVIDED BY OTHERS)

PANEL #	INSTR. #
K11-P301	FT-K11-M006
	PT-K11-M009
	FT-K11-M007A
	FT-K11-M007B
	FT-K11-M007C
	FT-K11-M007D
	POT-K11-M008
	PT-K11-M009
	POT-K11-M011
	PT-K11-M012
K11-P302	PI-K11-R003A
	PI-K11-R003B
	PI-K11-R003C
	PI-K11-R003D
	PI-K11-R004
	PI-K11-R005
	PI-K11-R006A
	PI-K11-R006B
	PI-K11-R006C
	PI-K11-R006D
	PI-K11-R007
	PI-K11-R010
	PI-K11-R012
	PI-K11-R013
PI-K11-R014	
FK-K11-D004A	
FK-K11-D004B	
FY-K11-K001	

NOTE:  
\* THESE INSTRUMENTS SHALL BE PROVIDED WITH HIGH POINT VENT VALVES ABOVE INSTR. PANEL.



LINE IDENTIFICATION

NOTATION	MATERIAL	CLASSIFICATION	SCHEDULE	ST. SMC
CBB	SA-312/304	SECT. III CL-2	80	CL-1
CBD	SA-312/304	B31-1	80	NON-SOSM
CCA	SA-106/616	SECT. III CL-2	100	CL-1
CCB	SA-106/616	SECT. III CL-2	100	CL-1
JDD	COPPER	B31-1	B-88/84K	NON-SOSM
CCC	SA-106/616	SECT. III CL-2	80	CL-1

\* DENOTES HPS COMPONENTS FURNISHED WITH ASSOCIATED PIPING SYSTEM BY K11.  
NOTE:  
1. FOUR PRESSURE REDUCING ORIFICES TO BE FURNISHED BY OTHERS & INSTALLED BY K11 IN SERIES.  
MINIMIZE STRAIGHT PIPE LENGTH BETWEEN EACH ORIFICE.

**FINAL AS-BUILT DRAWING**  
This drawing has incorporated all applicable RCR, RCR and revision reports to indicate responsibility between the contractor and the nuclear utility.  
*John D. ...*

CLINTON POWER STATION  
UPDATED SAFETY ANALYSIS REPORT  
FIGURE 3.6-1  
DIVISIONAL SEPARATION AND  
HIGH-ENERGY PAID'S-  
CONTROL ROD DRIVE SYSTEM  
(SHEET 110 OF 111)

