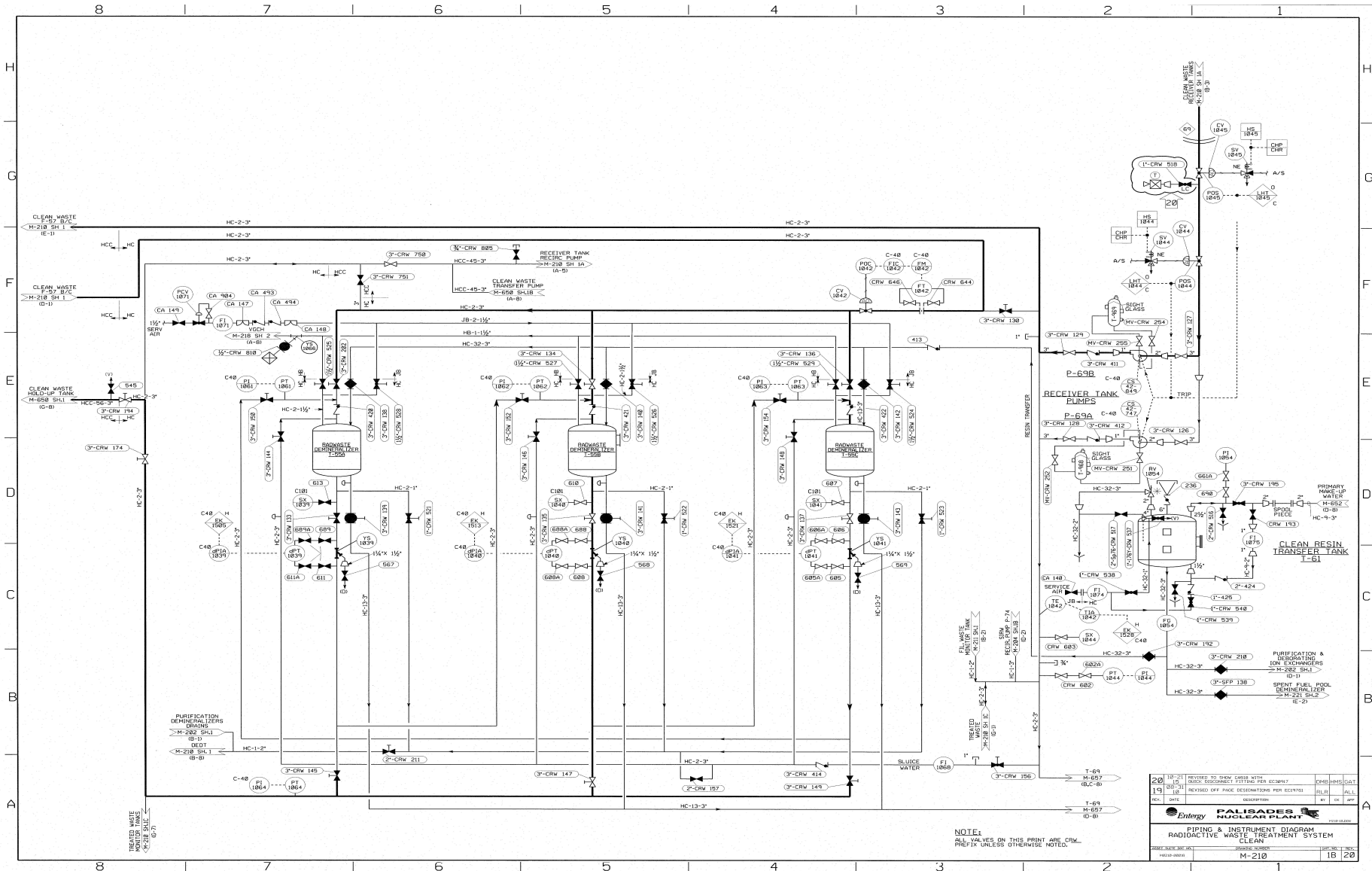


PIPING AND INSTRUMENT DIAGRAM
RADIOACTIVE WASTE TREATMENT SYSTEM CLEAN



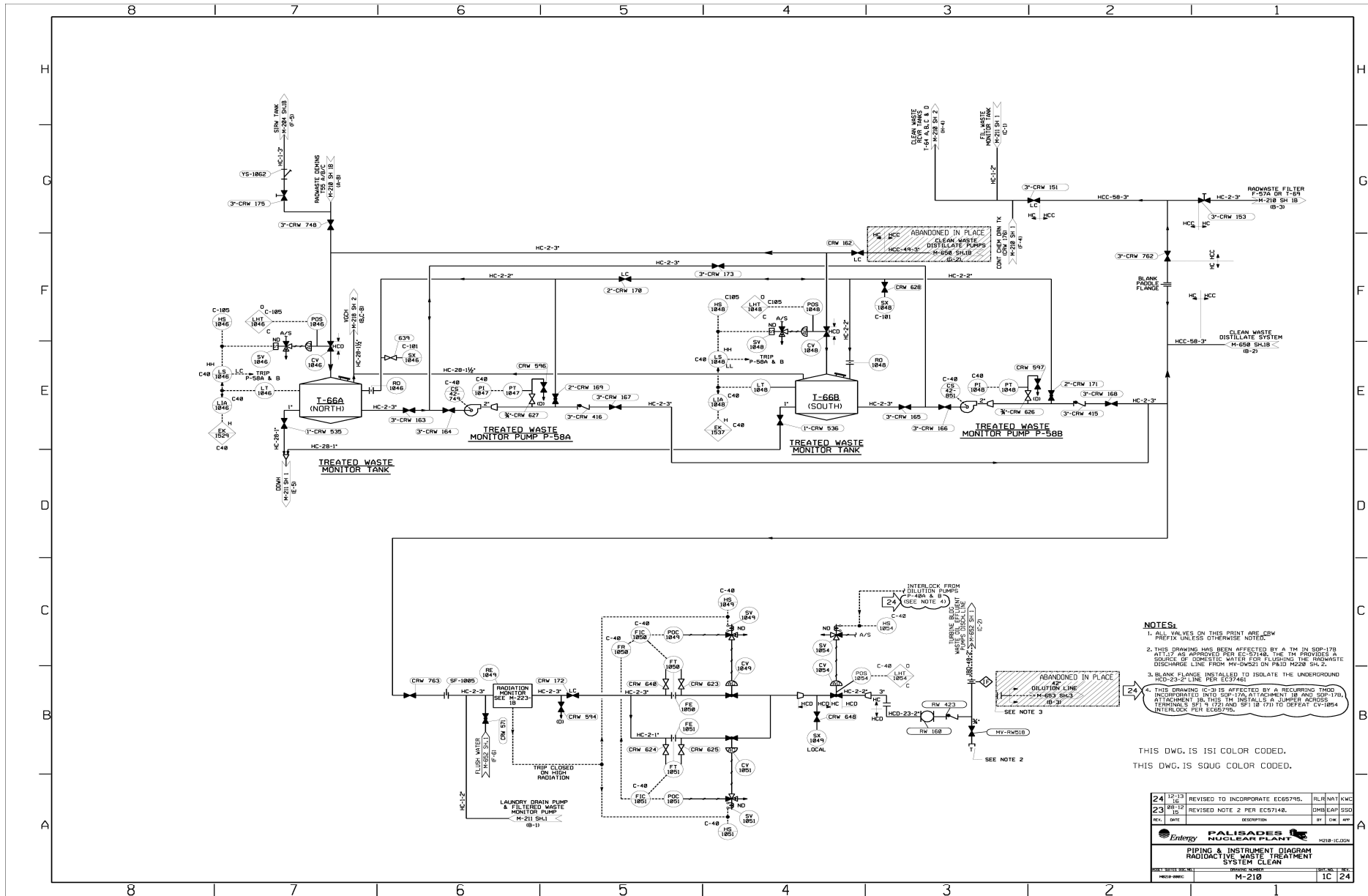
NOTE:
ALL VALUES ON THIS PRINT ARE CRW.
PREFIX UNLESS OTHERWISE NOTED.

20	10-21	REVISED TO SHOW CROSS WITH RADIO ASSOCIATED TITING FOR SCOPING	DNB/HNS/DAT
19	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
18	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
17	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
16	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
15	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
14	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
13	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
12	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
11	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
10	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
9	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
8	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
7	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
6	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
5	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
4	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
3	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
2	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT
1	08-31	REVISED OFF-PHASE DECONTAMINATION FOR SCOPING	DNB/HNS/DAT

Palisades Nuclear Plant
Piping & Instrument Diagram
Radioactive Waste Treatment System
Clean

M-210
1B 20

PIPING AND INSTRUMENT DIAGRAM
RADIOACTIVE WASTE TREATMENT SYSTEM CLEAN



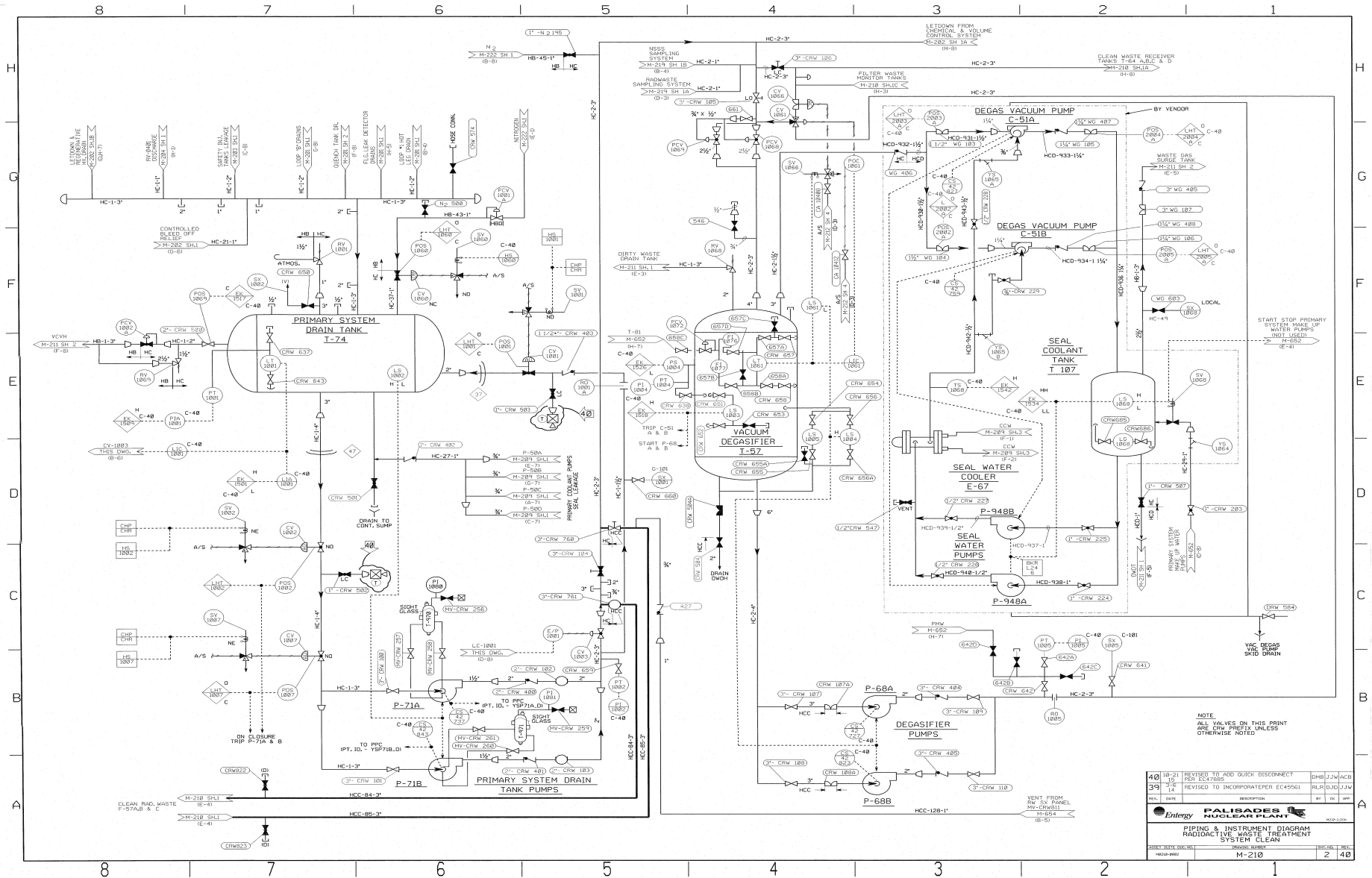
- NOTES:**
1. ALL VALUES ON THIS PRINT ARE CRW PREFIX UNLESS OTHERWISE NOTED.
 2. THIS DRAWING HAS BEEN AFFECTED BY A TM IN SOP-178 AT 17 AS APPROVED PER EC-5714B. THE TM PROVIDES A SOURCE OF DOMESTIC WATER FOR FLUSHING THE RADIOACTIVE DISCHARGE LINE FROM PP-0952 ON P&ID H208 SH. 2.
 3. BLANK FLANGE INSTALLED TO ISOLATE THE UNDERGROUND HCD-23-2 LINE PER EC374E1.
 4. THIS DRAWING (C-3) IS AFFECTED BY A RECURRING TM INCORPORATED INTO SOP 170, AT 17, WHICH ADDS TERMINALS SF 1721 AND SF 1718 TO DEFEAT CV-1094 INTERLOCK PER EC6579B.

THIS DWG. IS IS1 COLOR CODED.
THIS DWG. IS SQUG COLOR CODED.

REV.	DATE	DESCRIPTION	BY	CHK
24	12-13	REVISED TO INCORPORATE EC6579B.	RLR/NA	KWC
23	08-17	REVISED NOTE 2 PER EC5714B.	DMB/EAP	SSD
22	05-12			

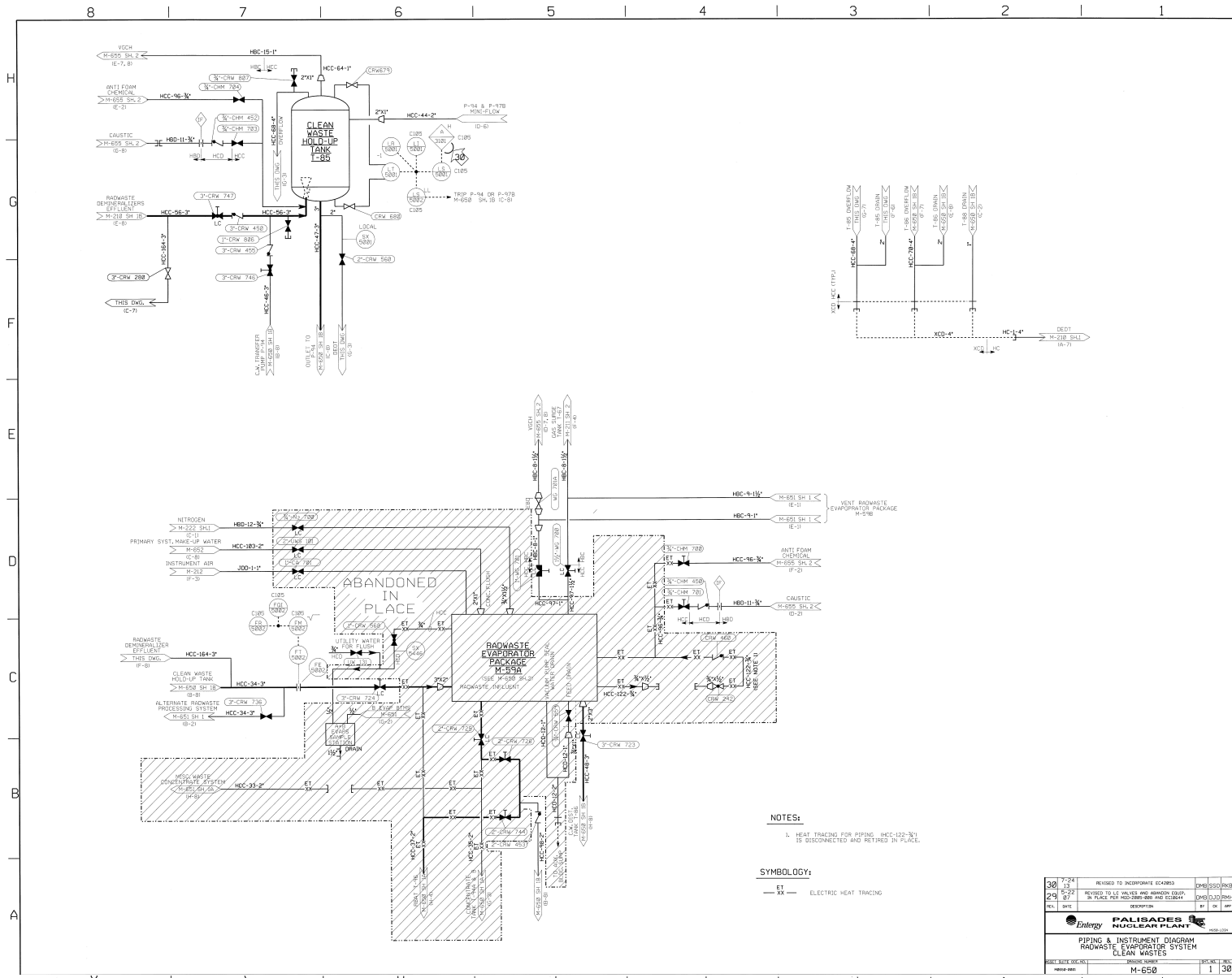
PIPING & INSTRUMENT DIAGRAM RADIOACTIVE WASTE TREATMENT SYSTEM CLEAN			
SHEET 2015 (30) HCD-210	DRAWING NUMBER M-210	SHEET NO. 1C	REV. 24

**PIPING AND INSTRUMENT DIAGRAM
RADIOACTIVE WASTE TREATMENT SYSTEM CLEAN**

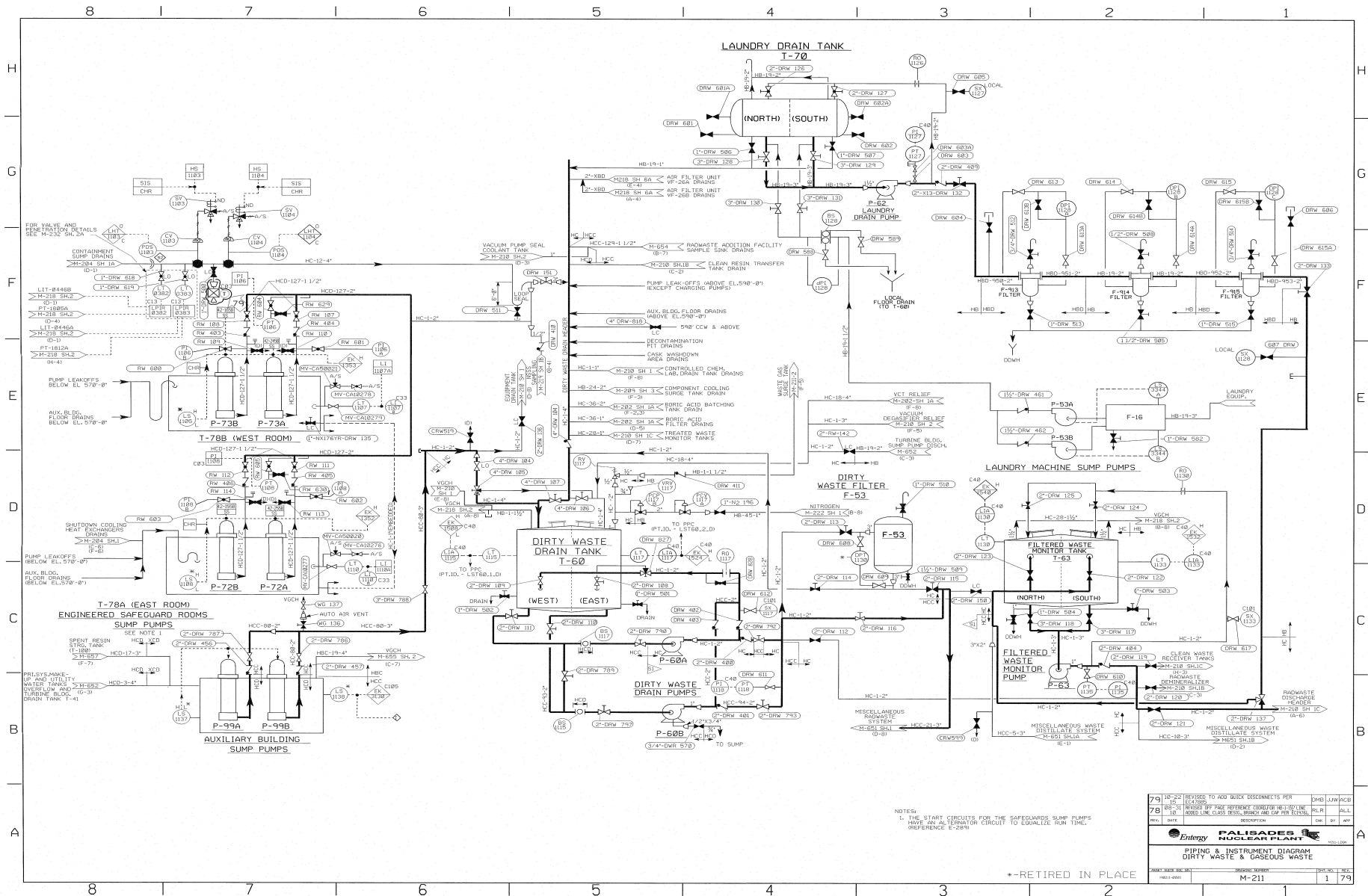


40	REVISED TO ADD QUICK DISCONNECT FOR LC37650	DHB/JJW/ACB
39	REVISED TO INCORPORATE PER EC45561	RLR/DJC/JJW
14		WJ/DK/APP
REV. NO.	DATE	DESCRIPTION
PIPING & INSTRUMENT DIAGRAM RADIOACTIVE WASTE TREATMENT SYSTEM CLEAN		
3800-3016 (REV. 10)	3800-3016 (REV. 10)	3800-3016 (REV. 10)
M-210		2 40

PIPING AND INSTRUMENT DIAGRAM
RADWASTE EVAPORATOR SYSTEM CLEAN WASTES



PIPING AND INSTRUMENT DIAGRAM
DIRTY WASTE & GASEOUS WASTE



79	REVISED TO ADD BOX CONNECTIONS PER 10/10/09	DWD	JUN/09
78	REVISED OFF PAGE REFERENCE CORRECTOR 10-10/09	PLR	MAY 09
18	ADDED LINE CLASS DESIGN, BRANCH AND CAP PER REVISED	ONE	BY 09
REV	MISCELLANEOUS WASTE DISTILLATE SYSTEM	REVISED	ONE BY 09

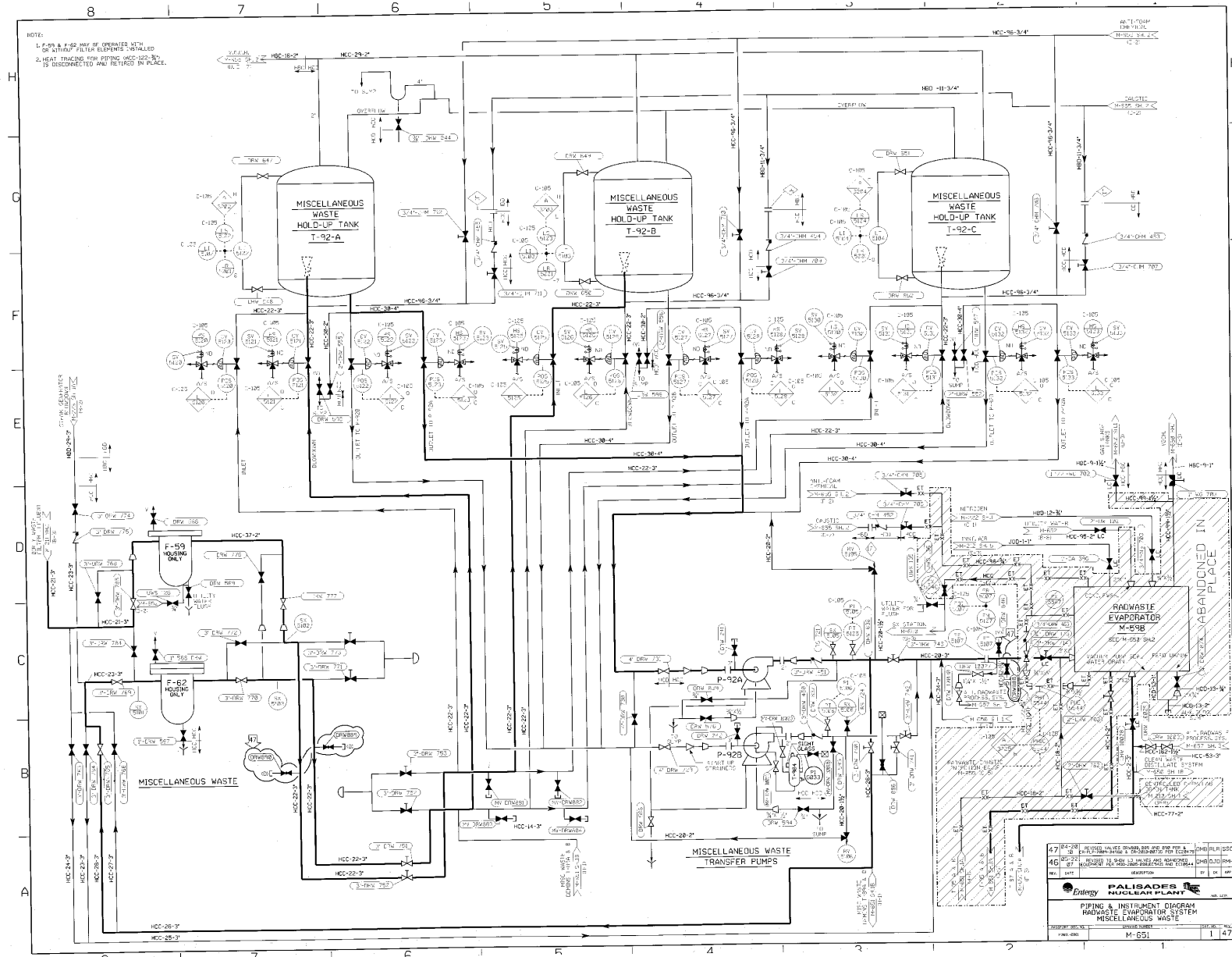
Entergy **PALISADES NUCLEAR PLANT**
 PIPING & INSTRUMENT DIAGRAM
 DIRTY WASTE & GASEOUS WASTE

SHEET NO. 11-211
 SHEET TOTAL 11-211
 SHEET NO. 11-211
 SHEET TOTAL 11-211

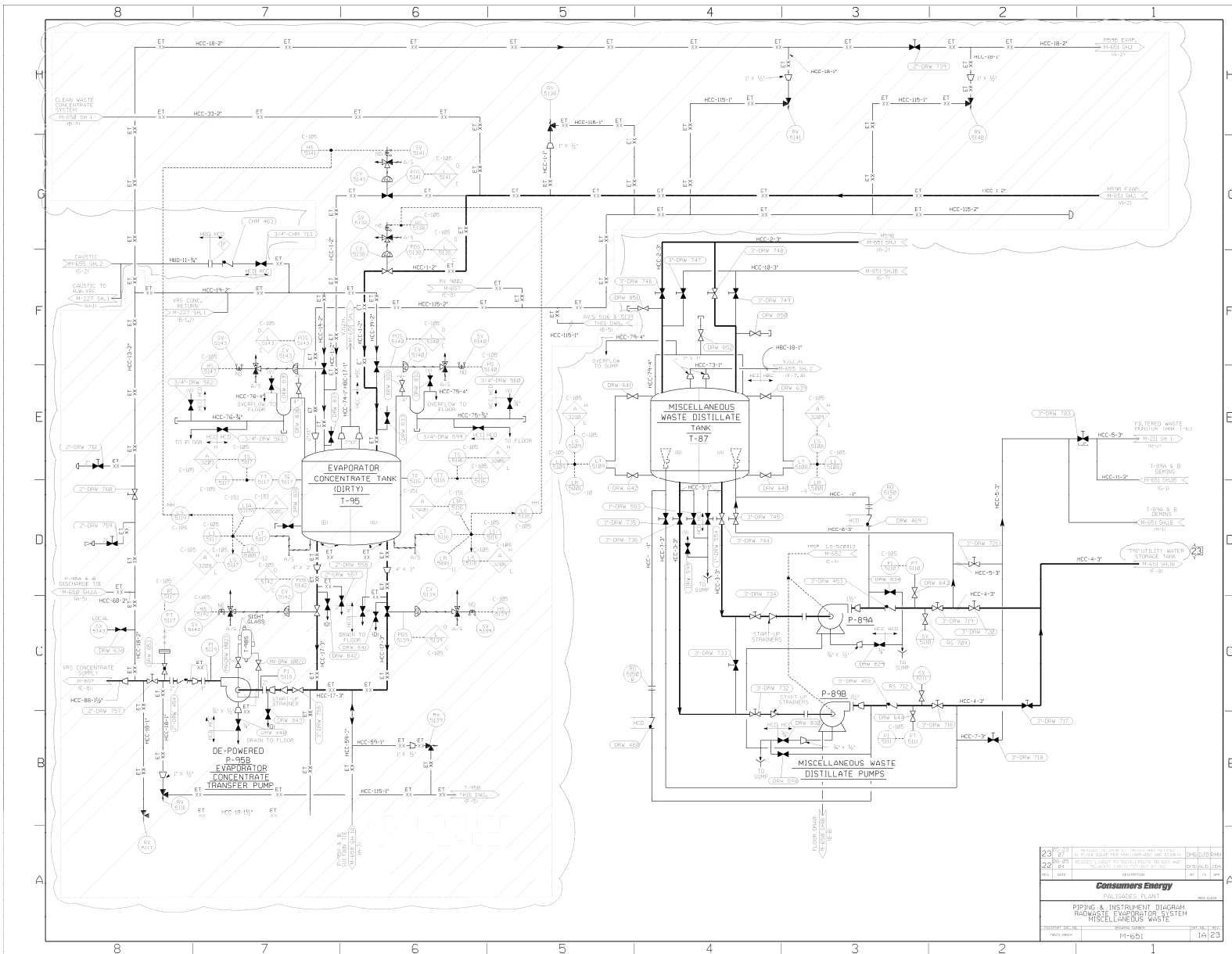
NOTES:
1. THE START CIRCUITS FOR THE SAFEGUARDS SUMP PUMPS MUST BE AN ALTERNATOR CIRCUIT TO EQUALIZE RUN TIME. (REFERENCE E-285)

--RETIRED IN PLACE

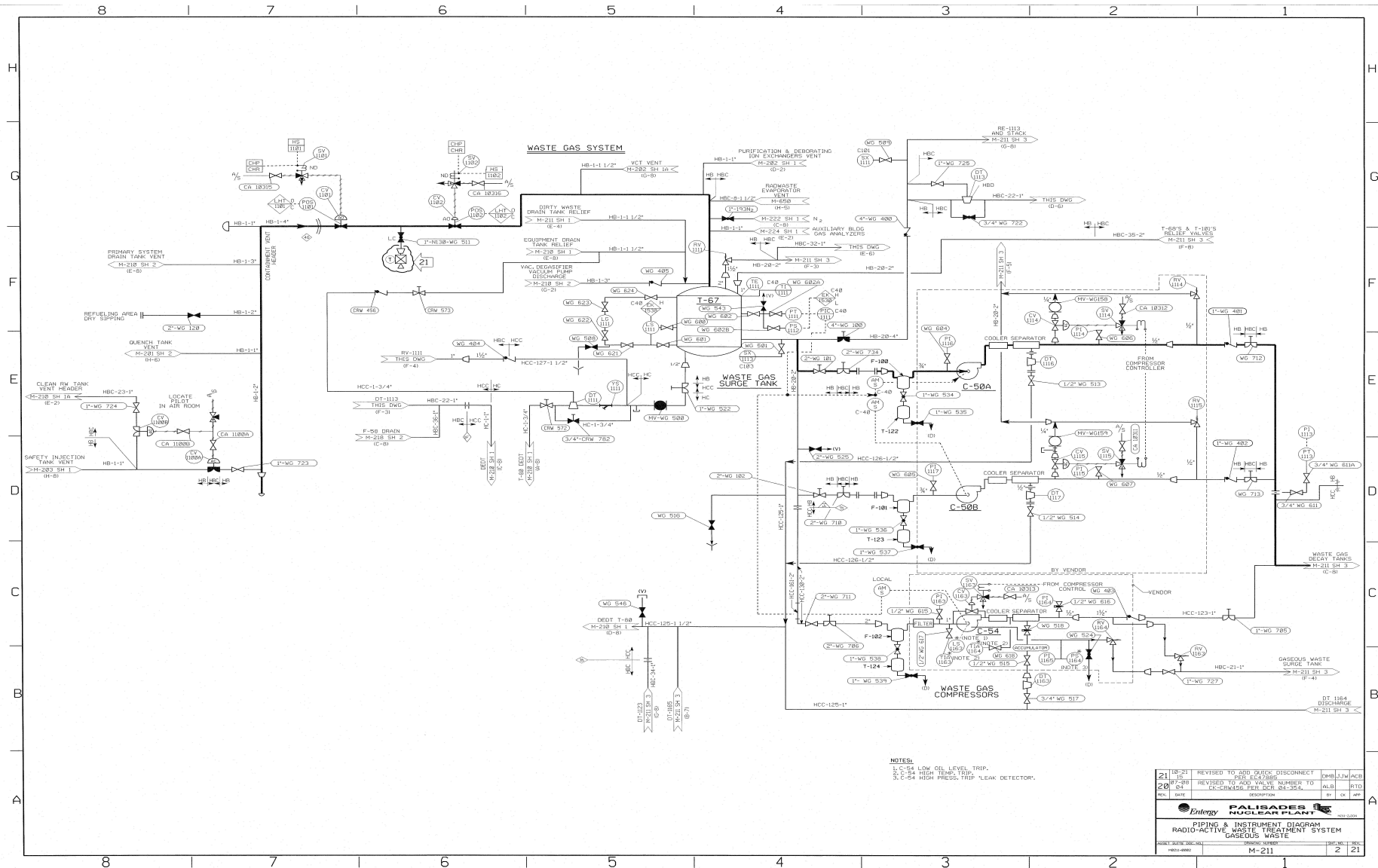
PIPING AND INSTRUMENT DIAGRAM
RADWASTE EVAPORATOR SYSTEM MICELLANEOUS WASTE



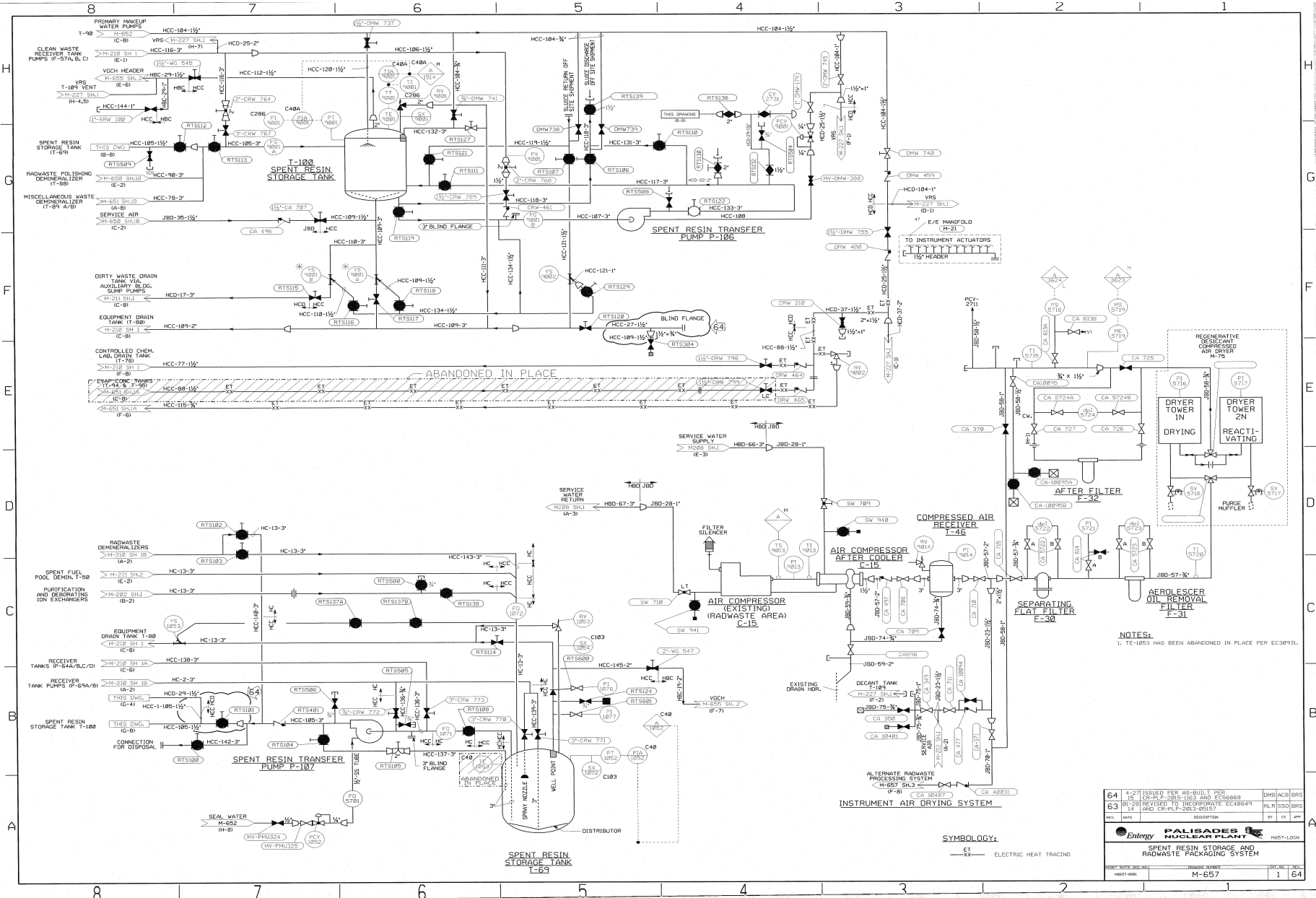
PIPING AND INSTRUMENT DIAGRAM
RADWASTE EVAPORATOR SYSTEM MICELLANEOUS WASTE



PIPING AND INSTRUMENT DIAGRAM
RADIOACTIVE WASTE TREATMENT SYSTEM GASEOUS WASTE



SPENT RESIN STORAGE AND RADWASTE PACKAGING SYSTEM

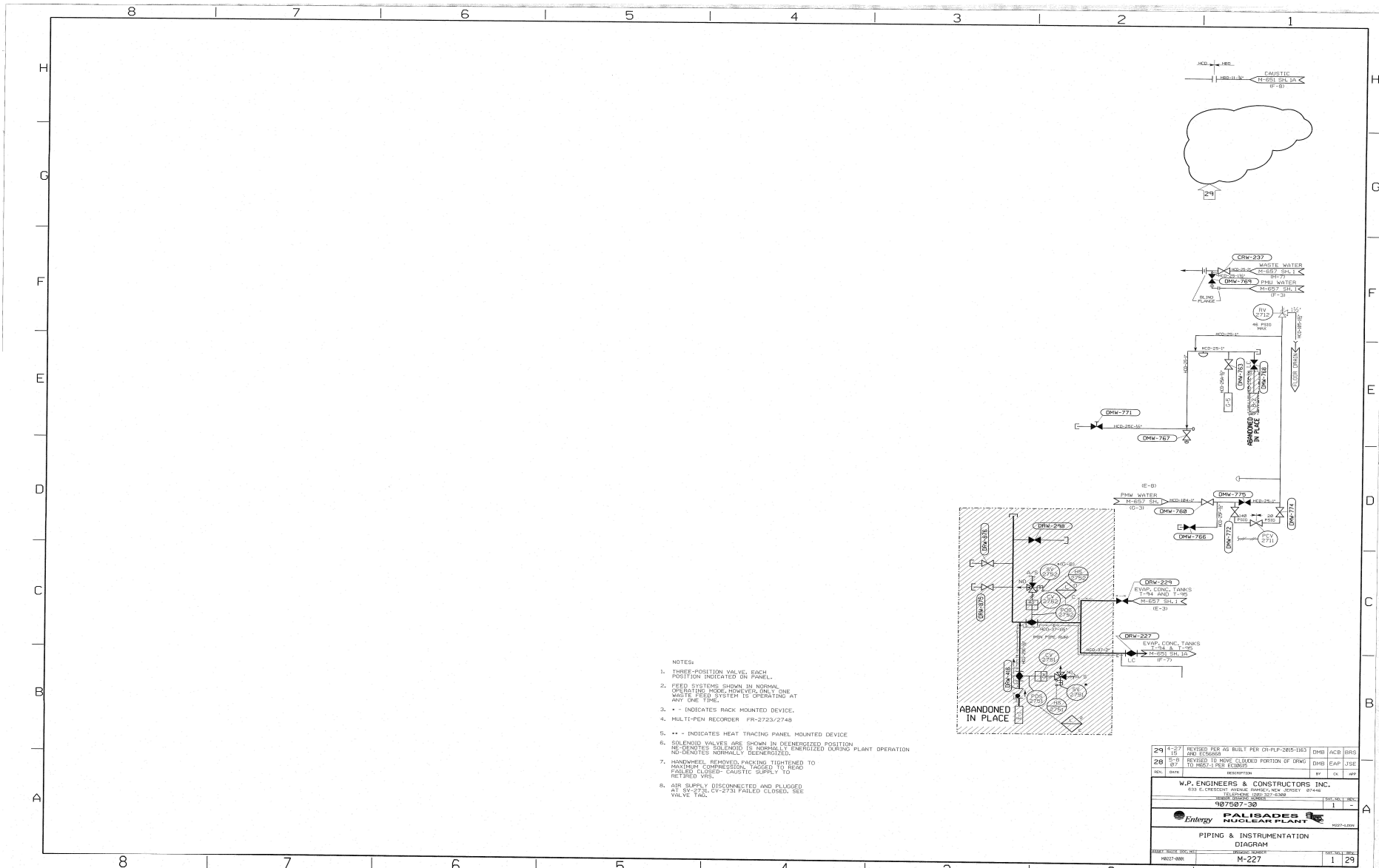


NOTES:
1. TE-1083 HAS BEEN ABANDONED IN PLACE PER EC30931.

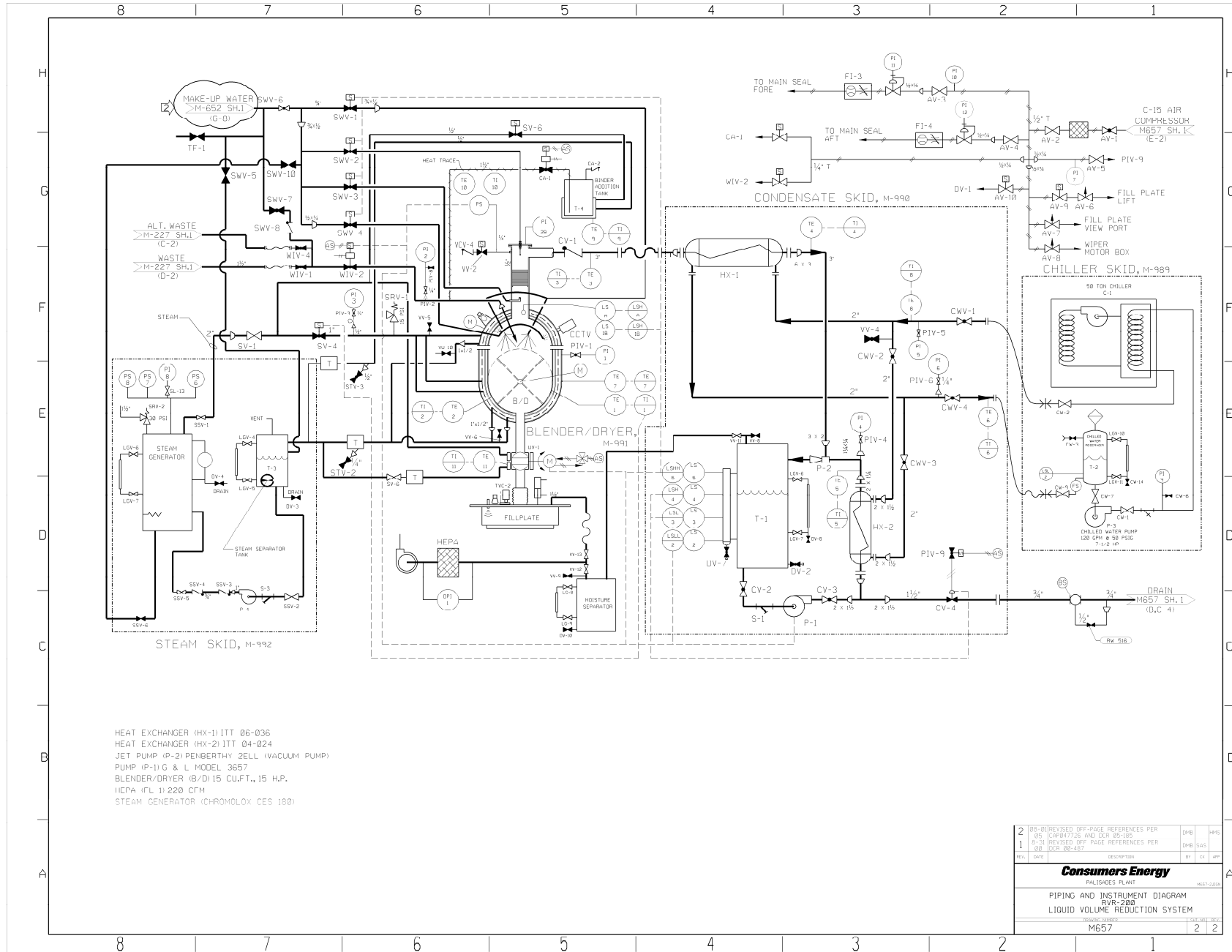
64	4-27	ISSUED PER AS-BUILT PER	DW/ACB	GRS
63	10-28	REVISED TO INCORPORATE EC48849	RLR/SSD	GRS
		AND CR-PLP-2013-05157	BY	OK APP
DATE		DESCRIPTION	BY	
64		REVISION	M-657	
64		REVISION	1	

FALISADES NUCLEAR PLANT
ENTERTY
SPENT RESIN STORAGE AND RADWASTE PACKAGING SYSTEM
M-657-1.00N

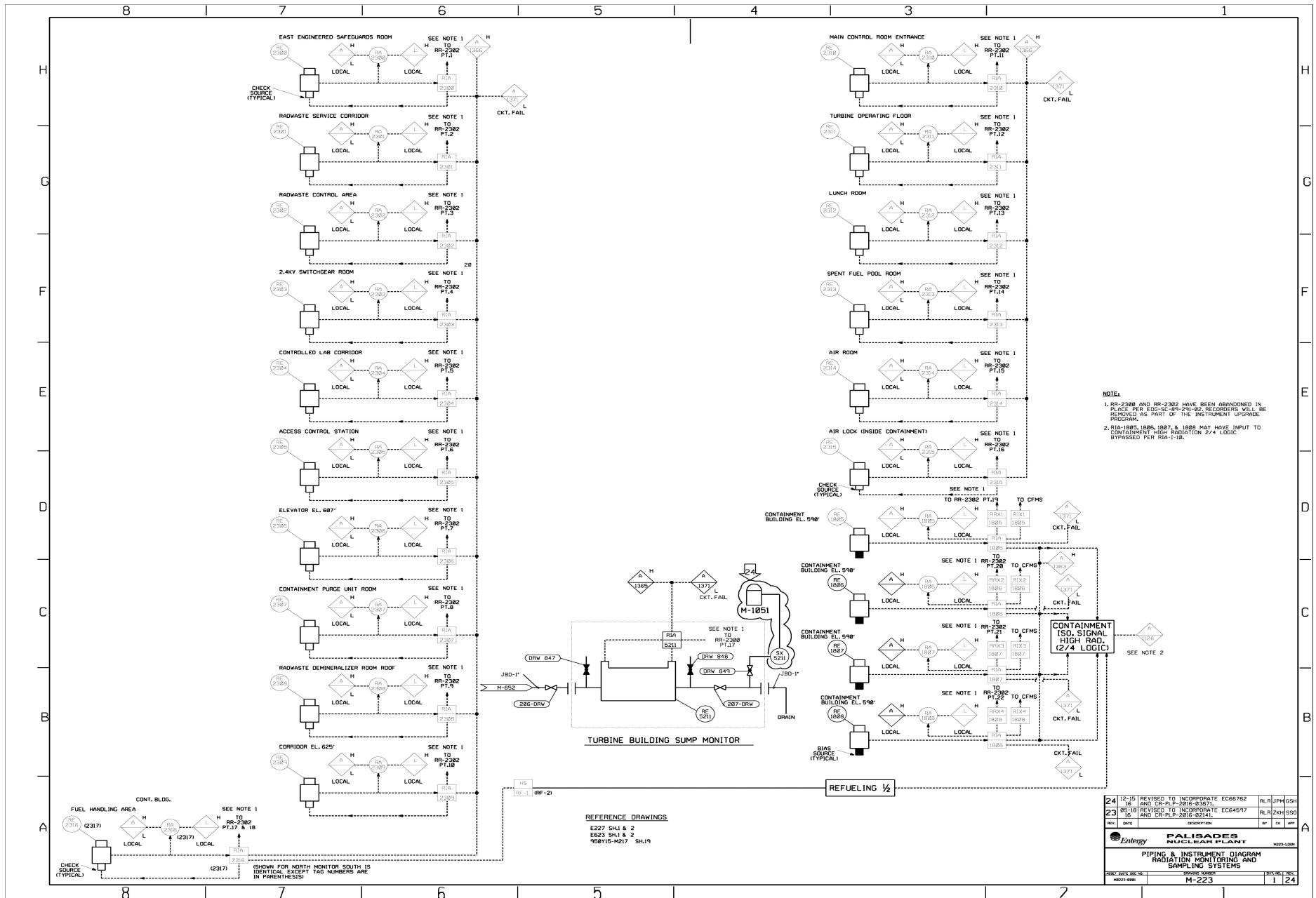
PIPING AND INSTRUMENTATION DIAGRAM
RADWASTE SOLIDIFICATION SYSTEM



PIPING AND INSTRUMENT DIAGRAM
LIQUID VOLUME REDUCTION SYSTEM



PIPING AND INSTRUMENT DIAGRAM
RADIATION MONITORING AND SAMPLING SYSTEMS

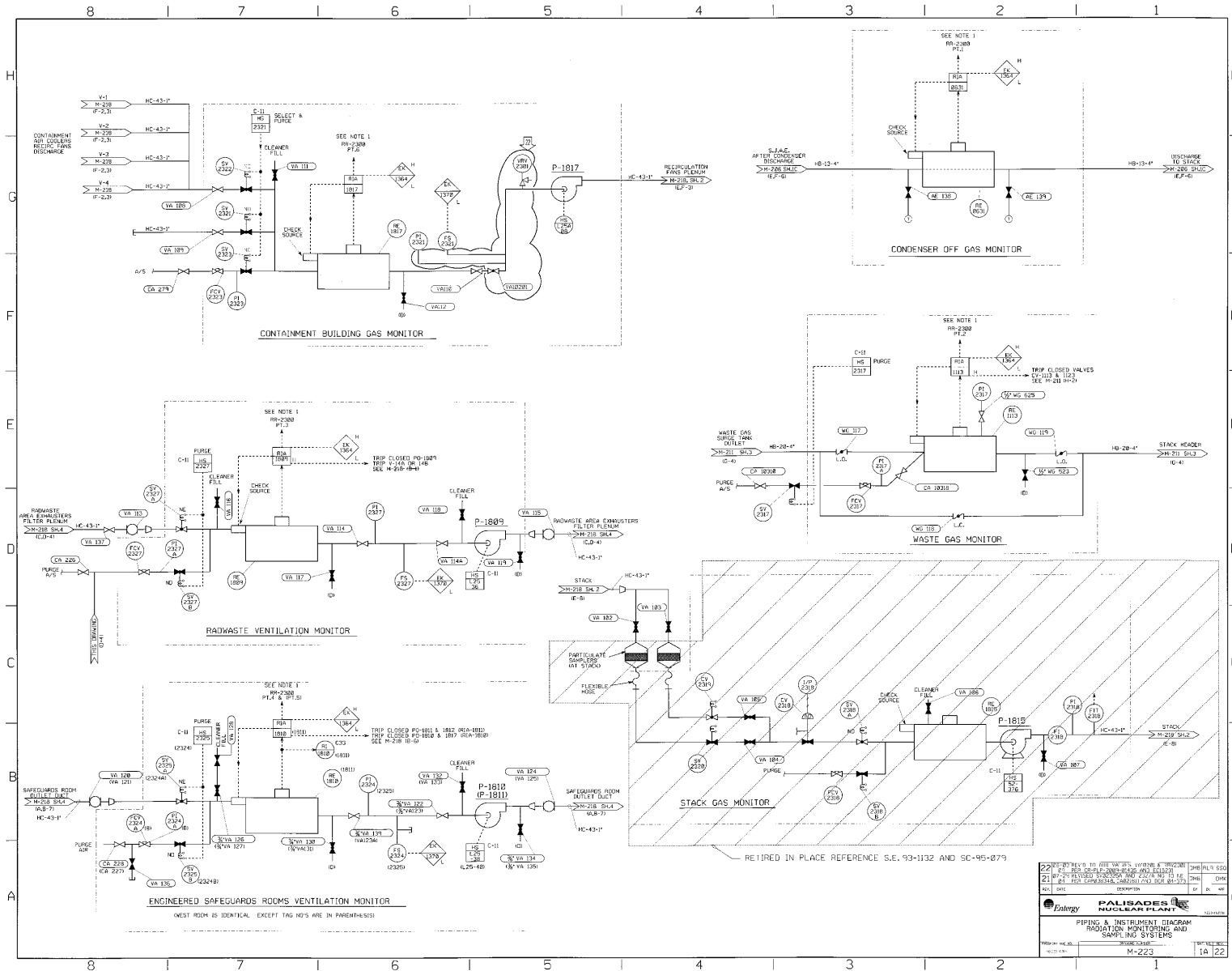


NOTE:
1. RR-2300 AND RR-2302 HAVE BEEN ABANDONED IN PLACE FOR EIC-95-29-231-62. RECORDS WILL BE REMOVED AS PART OF THE INSTRUMENT UPGRADE PROGRAM.
2. RIA-1005, 1006, 1007, & 1008 MAY HAVE INPUT TO CONTAINMENT HIGH RADIATION 2/4 LOGIC BYPASSED PER RIA-1-10.

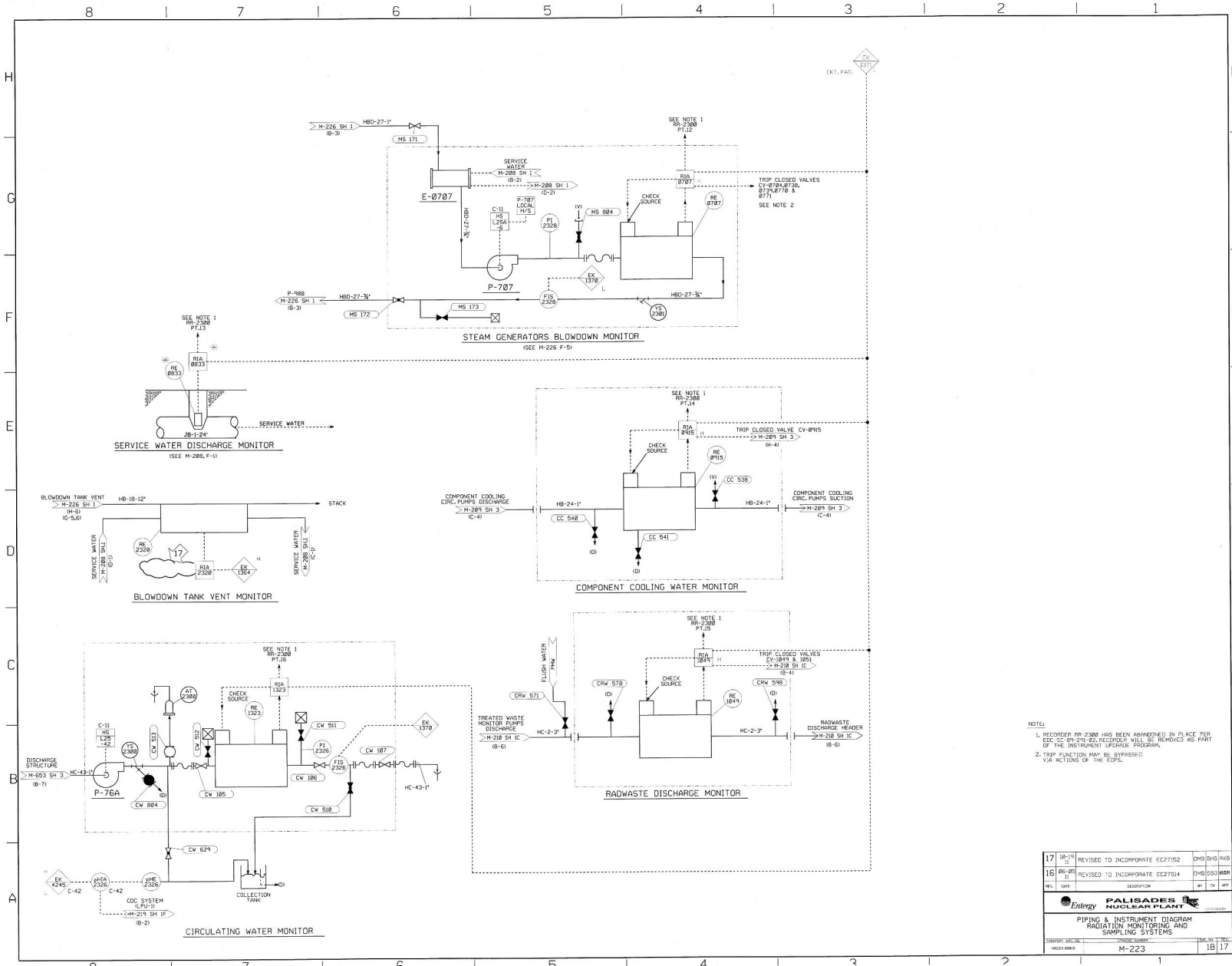
REFERENCE DRAWINGS
E227 SH1 & 2
E623 SH1 & 2
*58Y15-M217 SH1,9

24	12-15	REVISED TO INCORPORATE ECG6762	RLR	JPM	GSH
23	08-18	REVISED TO INCORPORATE ECG4547	RLR	ZKH	SSD
REV.	DATE	DESCRIPTION	BY	CHK	APP
			PALISADES NUCLEAR PLANT M-223		
PIPING & INSTRUMENT DIAGRAM RADIATION MONITORING AND SAMPLING SYSTEMS					SHEET NO. 1 OF 24

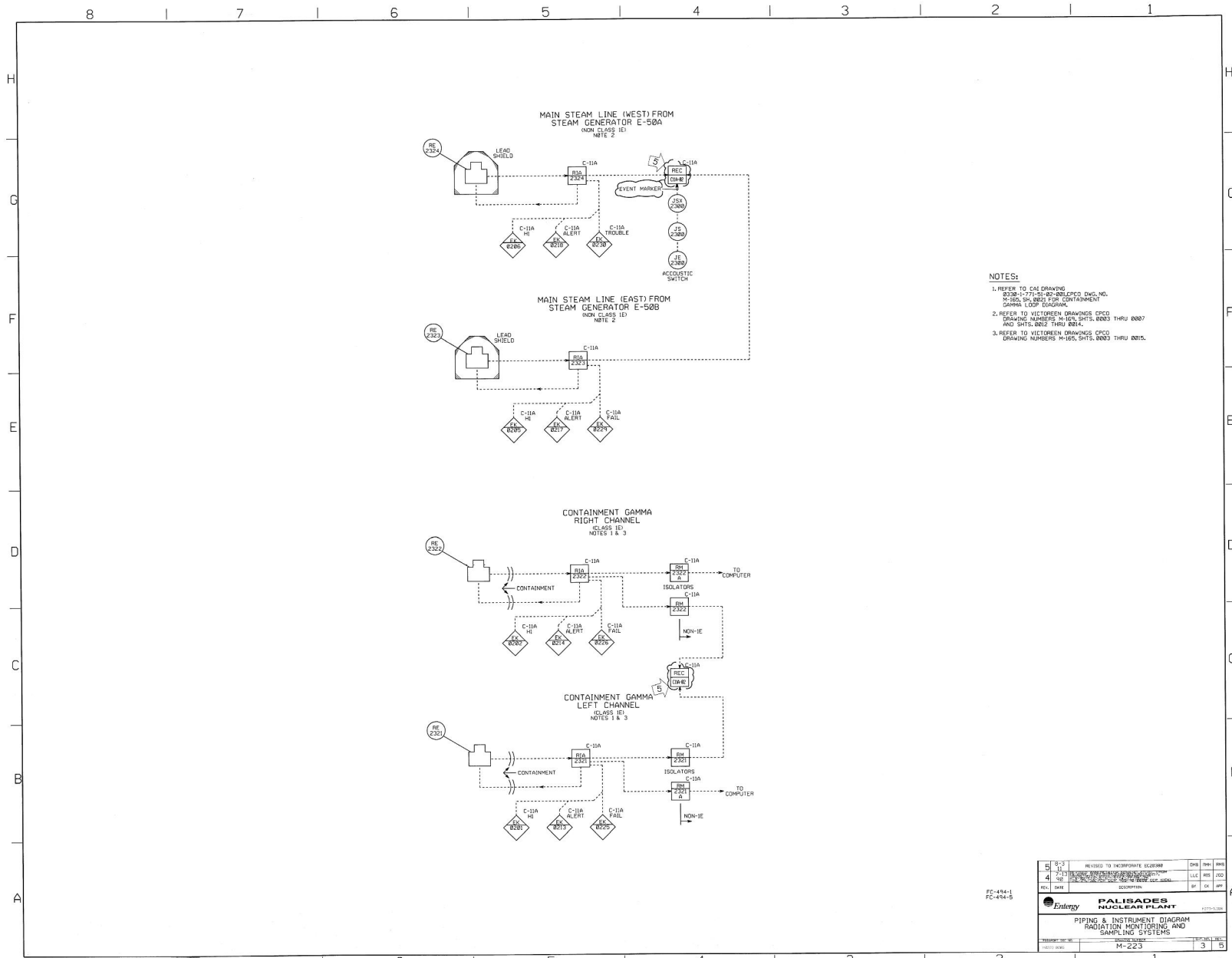
PIPING AND INSTRUMENT DIAGRAM
RADIATION MONITORING AND SAMPLING SYSTEMS



PIPING AND INSTRUMENT DIAGRAM
RADIATION MONITORING AND SAMPLING SYSTEMS



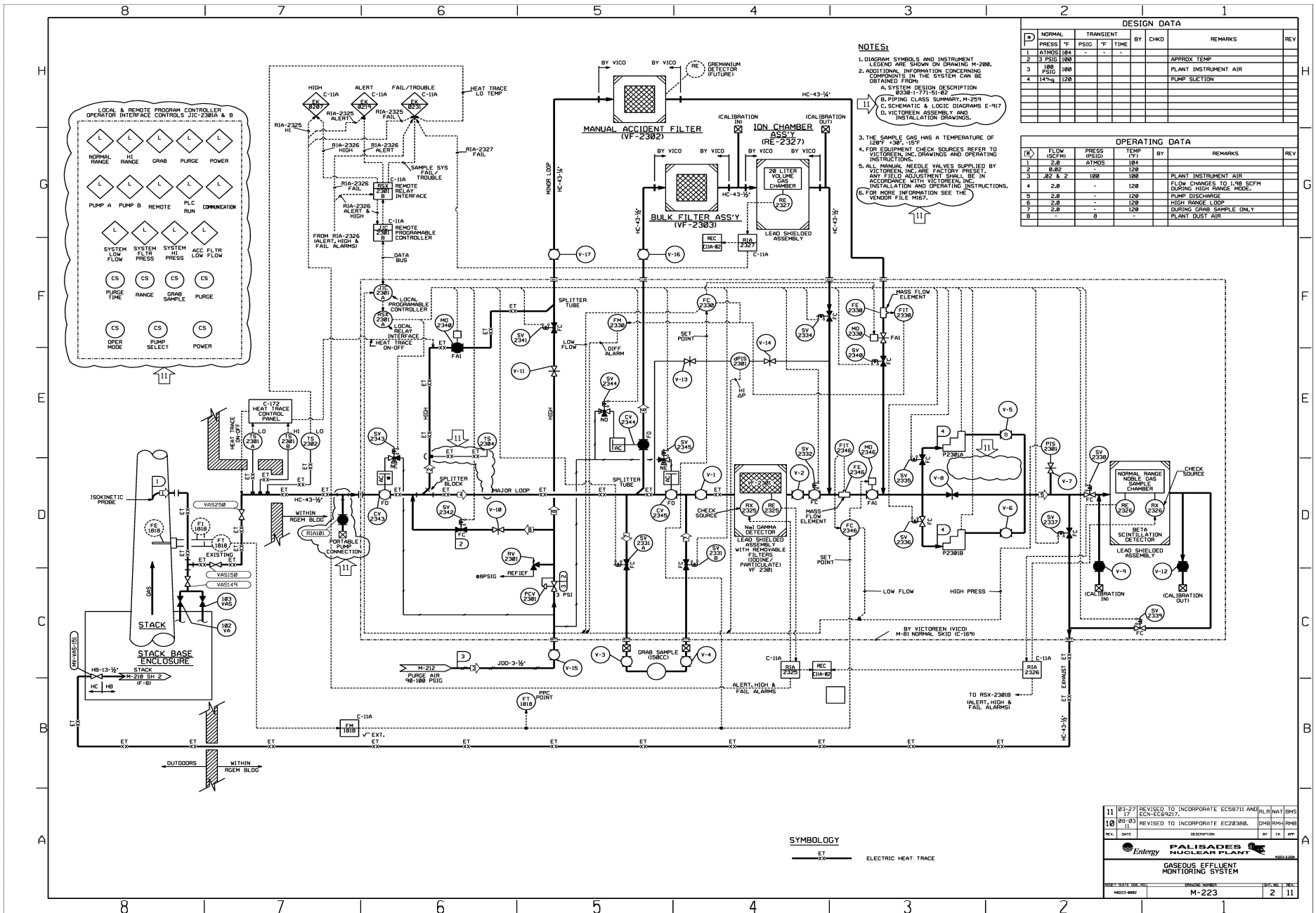
**PIPING AND INSTRUMENT DIAGRAM
RADIATION MONITORING AND SAMPLING SYSTEMS**



- NOTES:**
1. REFER TO CAL DRAWING 8030-1-771-81-80-BUSHEED DWG. NO. M-160, M-160C FOR CONTAINMENT GAMMA LOOP DIAGRAM.
 2. REFER TO VICTOREN DRAWINGS CPDC DRAWING NUMBERS M-158, SHTS. 8003 THRU 8007 AND SHTS. 8012 THRU 8014.
 3. REFER TO VICTOREN DRAWINGS CPDC DRAWING NUMBERS M-155, SHTS. 8003 THRU 8015.

5	5-3	REVISED TO INCORPORATE ADDRESS	DHS	TRM	08/88
4	2-13	REVISIONS TO ADDRESS COMMENTS	LLC	REC	JOC
1	1-10	ISSUE FOR THE 1984-1985 CYC. 2000	SP	CA	08/84
REV.	DATE	DESCRIPTION	BY	CHK	APP
Palisades Nuclear Plant PIPING & INSTRUMENT DIAGRAM RADIATION MONITORING AND SAMPLING SYSTEMS			M-223 3 5		

GASEOUS EFFLUENT MONITORING SYSTEM



NOTES:

1. DIAGRAM SYMBOLS AND INSTRUMENT LEGEND ARE SHOWN ON DRAWING M-208.
2. ADDITIONAL INFORMATION CONCERNING COMPONENTS IN THIS SYSTEM CAN BE OBTAINED FROM:
 - A. SYSTEM DESIGN DESCRIPTION 8338-1-71-51-82
 - B. PIPING CLASS SUMMARY, M-259
 - C. SCHEMATIC & LOGIC DIAGRAMS E-917
 - D. VICTOREEN ASSEMBLY AND INSTALLATION DRAWINGS.
3. THE SAMPLE GAS HAS A TEMPERATURE OF 150°F ±30, 151°.
4. FOR EQUIPMENT CHECK SOURCES REFER TO VICTOREEN, INC. DRAWINGS AND OPERATING INSTRUCTIONS.
5. ALL MANUAL NEEDLE VALVES SUPPLIED BY VICTOREEN, INC. MUST BE FIELD ADJUSTED IN ACCORDANCE WITH VICTOREEN'S INSTALLATION AND OPERATING INSTRUCTIONS. FOR MORE INFORMATION SEE THE VENDOR FILE M167.

DESIGN DATA						
ID	NORMAL PRESSURE	TRANSIENT PRESSURE	TIME	BY	CHKD	REMARKS
1	ATMOS	184	-	-	-	APPROX TEMP
2	PSIG	100	-	-	-	PLANT INSTRUMENT AIR
3	PSIG	100	-	-	-	PUMP SUCTION
4	147"	120	-	-	-	

OPERATING DATA						
ID	FLOW (SCFM)	PRESS (PSIG)	TEMP (°F)	BY	CHKD	REMARKS
1	2.8	ATMOS	184	-	-	PLANT INSTRUMENT AIR
2	8.82	-	120	-	-	FLOW CHANGES TO 1.40 SCFM DURING HIGH RANGE MODE.
3	.82 & 2	100	100	-	-	PUMP DISCHARGE
4	2.8	-	120	-	-	HIGH RANGE LOOP
5	2.8	-	120	-	-	DURING GRAB SAMPLE ONLY
6	2.8	-	120	-	-	PLANT DUST AIR
7	2.8	-	120	-	-	
8	-	8	-	-	-	

SYMBOLLOGY

ET ELECTRIC HEAT TRACE

11	83-27	REVISED TO INCORPORATE EC59711 AND ECN-EC64217.	PLR/NAT/BMS
10	83-93	REVISED TO INCORPORATE EC28388.	DHB/RH/RHB
1	83-11	REVISED TO INCORPORATE EC28388.	BY ST/APP

Energy **FALSADES** **NUCLEAR PLANT**

GASEOUS EFFLUENT MONITORING SYSTEM

SCALE: SHEET: 000001 DRAWING NUMBER: M-223 DATE: 11/83

**ARCHITECTURAL ACCESS CONTROL AND RADIATION ZONING
(PLANT IN OPERATION)**

Portions of this page have been
redacted per 10 CFR 2.390(d)(1).

ARCHITECTURAL ACCESS CONTROL AND RADIATION ZONING
(PLANT IN OPERATION)

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ARCHITECTURAL ACCESS CONTROL AND RADIATION ZONING
(PLANT IN OPERATION)

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