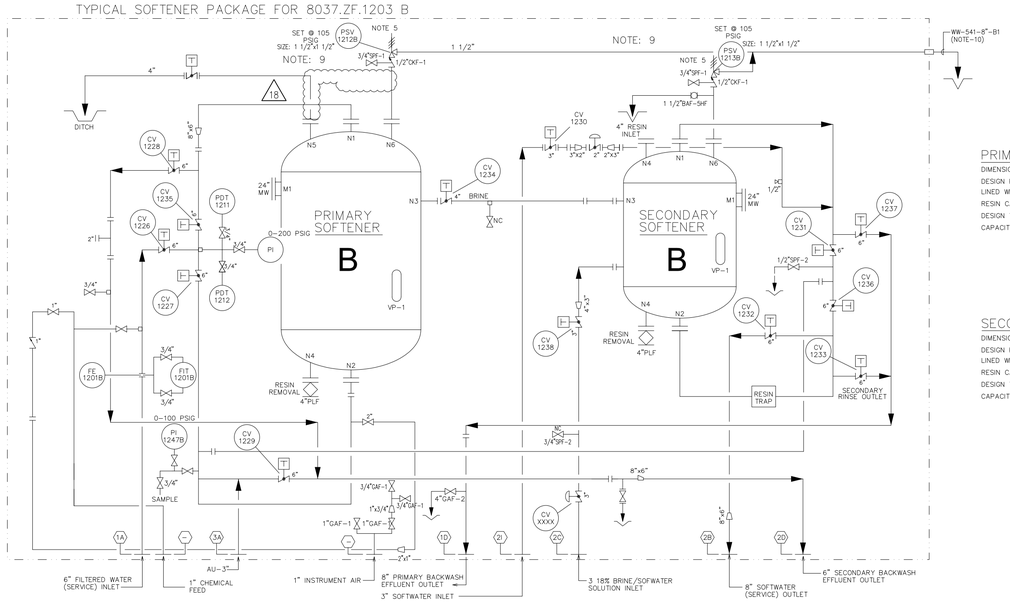
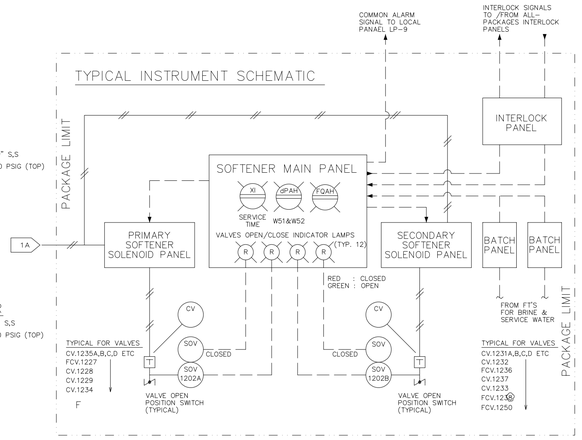


PRIMARY SOFTENER

DIMENSIONS	: 12'-0" DIA. X 9'-9" S.S
DESIGN PRESSURE	: 115 PSIG (BOT)/100 PSIG (TOP)
LINED WITH	: ENGARD 482
RESIN CAPACITY	: 243 FT3
DESIGN TEMP	: 250°F
CAPACITY	: 1543 FT3

SECONDARY SOFTENER

DIMENSIONS	: 9'-0" DIA. X 6'-6" S.S
DESIGN PRESSURE	: 115 PSIG (BOT)/110 PSIG (TOP)
LINED WITH	: ENGARD 482
RESIN CAPACITY	: 243 FT3
DESIGN TEMP	: 250°F
CAPACITY	: 604 FT3



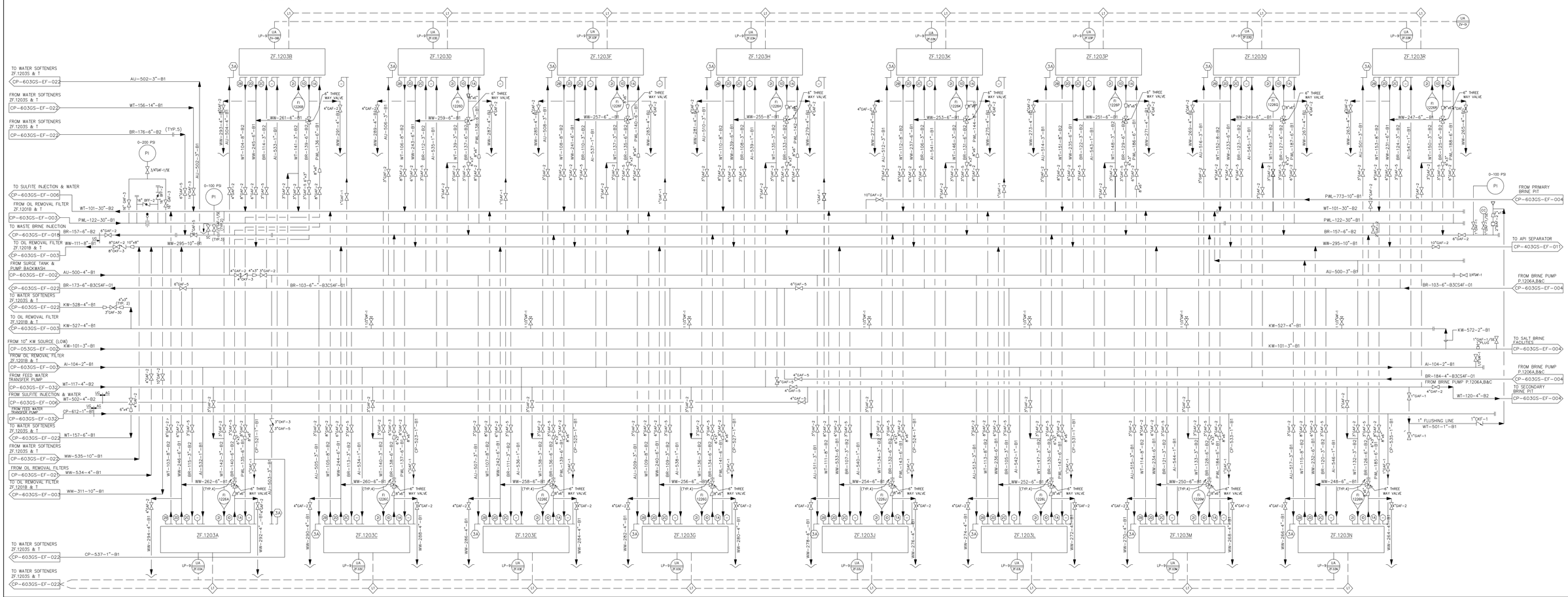
8037.ZF. 1203 A WATER SOFTENERS

CONTROL VALVES SEQUENCE CHART

OPERATION STEP	SOFTENER FUNCTION MODE	CV.1235 (PRIMARY)	SERVICE WATER INLET	FCV.1227 (PRIMARY)	BACKWASH INLET	CV.1228 (PRIMARY)	BACKWASH OUTLET	CV.1229 (PRIMARY)	RINSE OUTLET	CV.1234 (PRIMARY)	REGEN. BRINE INLET	CV.1231 (SECONDARY)	SERVICE WTR. INLET (SEC)	FCV.1236 (SECONDARY)	SOF. WATER SERVICE OUTLET	CV.1237 (SECONDARY)	REGEN. BRINE INLET (SEC)	FCV.1250 (SECONDARY)	BLOCK WTR. SUPP.	CV.1232 (SECONDARY)	SEC. BACKWASH IN	CV.1233 (SECONDARY)	SEC. BACKWASH OUT	CV.118 (3 WAY VALVE)	RINSE OUTLET	PAN. NO. VALVE FUNCTION	VALVE POSITION	
6	NORMAL SERVICE																										0°	0°
1	BACKWASH (PRIMARY)																										0°	0°
REF	BACKWASH (SECONDARY)																										0°	0°
2	REGENERATION (BRINE INTRO)																										90°	0°
3	BRINE DISPLACEMENT (PRIM'Y)																										90°	90°
4	RINSE (PRIMARY)																										0°	90°
5	RINSE (SECONDARY)																										0°	0°

☐ INDICATION VALVE IN OPEN POSITION

☒ INDICATION VALVE IN CLOSED POSITION



NOTES:

1. ALL EQUIPMENT, INTRUMENT AND LINE NUMBERS ON THIS DRAWING HAVE THE PREFIX 8037 UNLESS OTHERWISE NOTED.
2. THE LETTERS 'I' & 'O' ARE NOT USED IN THE EQUIPMENT NUMBERING SYSTEM.
3. FOR STANDARD P&ID LEGEND SEE THE FOLLOWING DRAWINGS
   - FOR PIPING & EQUIPMENT : DWG. NO. CP-050GN-FF-002
   - FOR INSTRUMFNTATION : DWG. NO. CP-050GN-FF-003
4. BACKWASH OF SECONDARY SOFTENERS TO BE CARRIED OUT AUTOMATICALLY BY PUSH BUTTON FURNISHED ON THE PANEL.
5. PSV'S FOR SOFTENING PACKAGE UNITS ZF.1203B THRU ZF.1203K TO BE TAGGED 1212B, 1212C,.....1212K FOR PRIMARY SOFTENER A & 1213B, 1213C.....1213K FOR SECONDARY SOFTENER.
6. THE PDI ON ZF.1203A HAS BEEN DEMOLISHED
7. THE N4 ON ZF.1203A IS BLINDED ONLY
8. THE FIT.1230 # ON ZF.1203 A HAS BEEN DEMOLISHED
9. PSV SIZE:
   SOFTENER # 1203 B (PRIMARY: 1 1/2"x1 1/2"), (SECONDARY: 1 1/2"x1 1/2")
10. LINE NO. WW-541-8"-B1 TO BE USE FOR WATER SOFTENER ZF.1203 P, Q & R

INTERLOCK NOTES:

1. ONLY 2 PACKAGED SOFTENER UNITS ARE TO BE IN "REGENERATION" AT A TIME.

DURI-WTPF03GS000-PRO-PID-IBU-0027-01

REV.	DATE	DESCRIPTION	BY	CHKD	DESIGN ENG'R	DESIGN T. LDR	PROJ ENG'R	PSI COOR	REFERENCE DRAWINGS
18	05-05-20	UPDATE AS PER PSI V&V (ID #5438)	RPGN	PUTM				TXPA	
17	11-12-18	AS BUILT AS PER PSI REVALIDATION MOC#481540	SM	AM				TZSX	
16	21-09-18	UPDATE AS PER PSI V&V MOC#307724	HERT	PUTM				TZSX	
15	16-12-15	AS BUILT PSM-PSI REMEDIATION PROJECT UNDER JOB NO.2445	APR/ND	JK	BAY	MWS	BAY		
14	20-07-15	UP-DATE FOR SMO FLARE & RELIEF PROJECT (JOB NO.#2332)	RDY	EVK	MRD	MWS	MRD		
13	03-11-11	AS BUILT DONE BY TF JAKARTA	YGI	DKM	IKS	JA	AKH		
12A	30-09-11	AS BUILT DONE BY TF JAKARTA (ISSUED FOR APPROVAL)	AP	DKM	IKS	AP	AKH		

PERTAMINA HULU ROKAN

DRAWN	MST.	06/09/86
CHECKED	WW.	31/10/86
DESIGN ENG'R.	INP.	13/09/86
DESIGN TEAM LEADER		
PROJECT ENG'R.	IHR.	22/10/86 OK 23/10/86
OPR'G DEPT.		

DRAWING TITLE

PIPING & INSTRUMENT DIAGRAM
WATER SOFTENERS
WATER TREATMENT PLANT
CENTRAL GATHERING STATION
DURI AREA-3

ITC NO. 21/OE-PMF/RP/2011 21/OE-PMF/2011

SCALE : NTS

SIZE :

CAD

DRAWN WITH CAD NEVER CHANGE THIS DRAWING BY HAND

DRAWING NO.

CP-603GS-EF-005-18