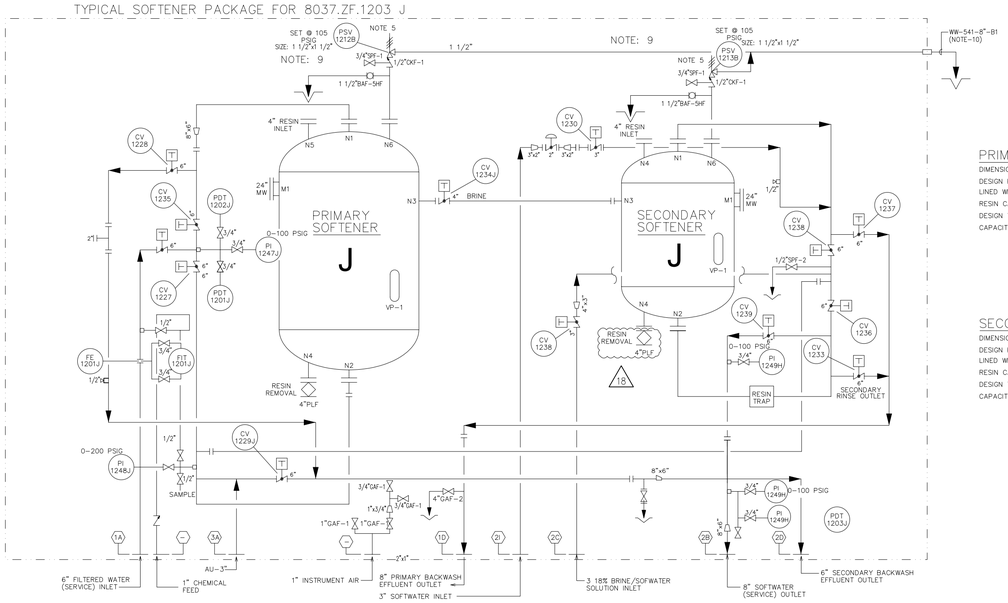
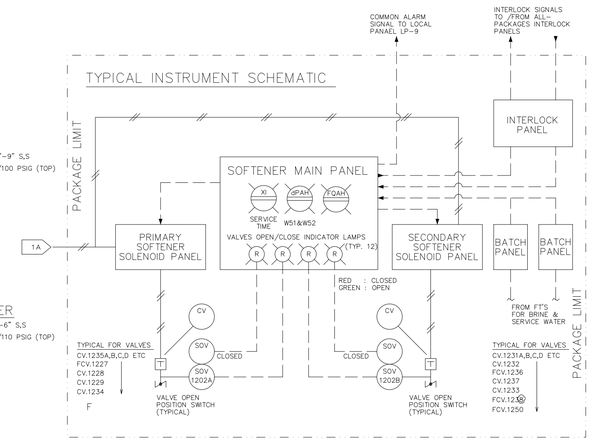



## PRIMARY SOFTENER

| | |
|---|---|
| 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

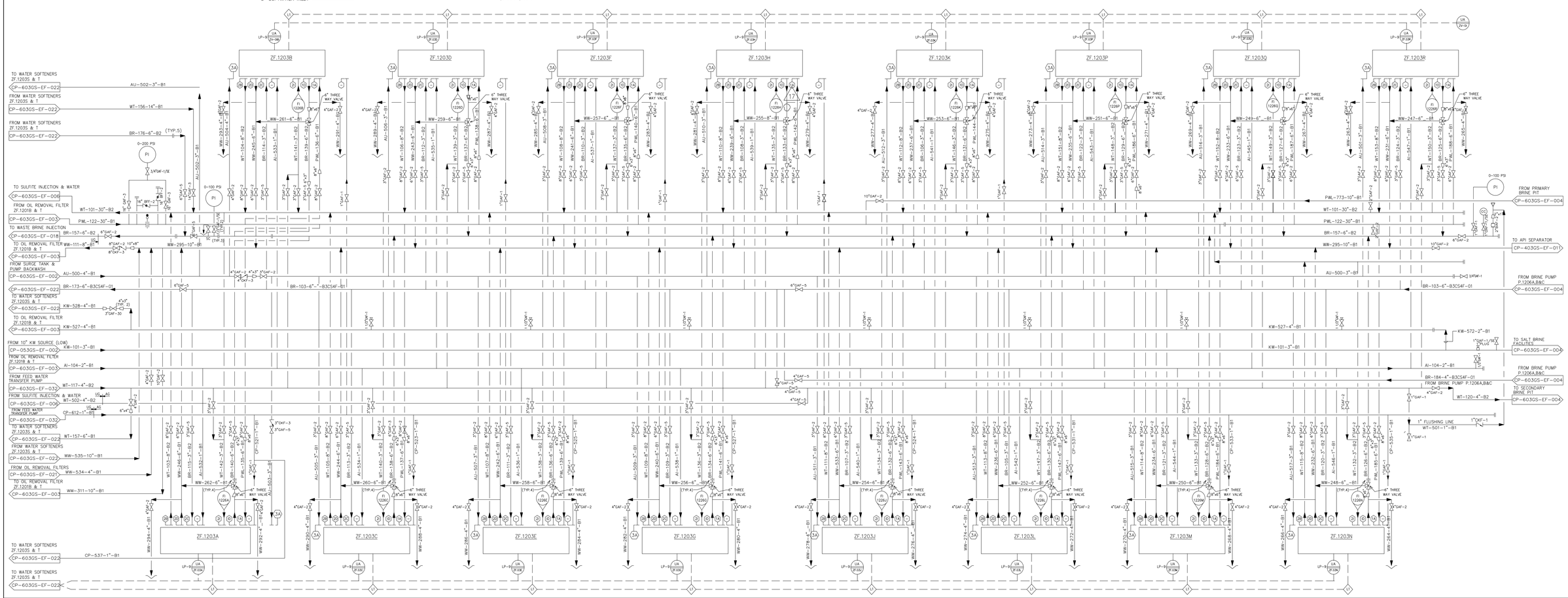
| OPERATION STEP | SOFTENER FUNCTION MODE | CV.1235 (SERVICE WATER INLET) | FCV.1227 (BACKWASH INLET) | CV.1228 (BACKWASH OUTLET) | CV.1229 (RINSE OUTLET) | CV.1232 (REGEN. BRINE OUTLET) | CV.1231 (SERVICE WTR. INLET (SEC)) | CV.1233 (SERVICE WTR. OUTLET (SEC)) | FCV.1236 (BRINE INLET (PRIM)) | CV.1237 (BRINE OUTLET (PRIM)) | FCV.1250 (SEC. BACKWASH IN) | CV.1234 (SEC. BACKWASH OUT) | CV.1B (BRINE OUTLET) | CV.1A (RINSE OUTLET) | 3 WAY VALVE (PRIMARY) | 3 WAY VALVE (SECONDARY) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 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° |

VALVE POSITION

NA NO VALVE FUNCTION

☐ 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-0506N-FF-002
   - FOR INSTRUMFNTATION : DWG. NO. CP-0506N-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 J (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-0027-08

| 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 #5635, 5640) | 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