

81-W-501
COOLING TOWER PACKAGE
VOLUME 5000 m3 (Each cells)

81-P-501 A/B/C/D/E/F/G
COOLING TOWER PUMPS
CAPACITY (Nor/Rated) 5000/6000 m3/hr
DIFFERENTIAL PRESSURE 5.3 barg
NUMBER OF PUMPS 5+2

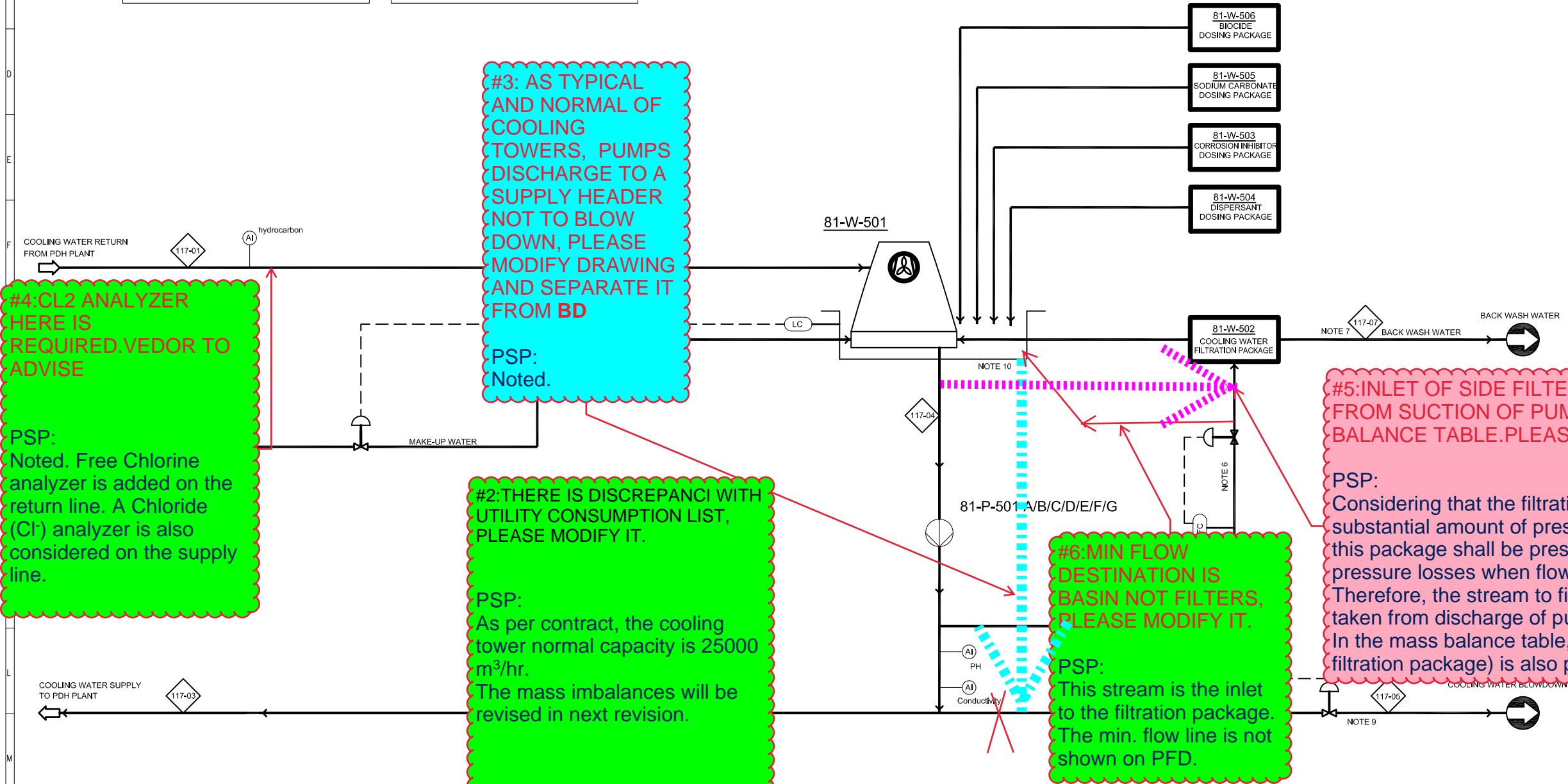
81-W-502
COOLING TOWER FILTRATION PACKAGE

81-W-506
BIOCIDE DOSING PACKAGE

81-W-505
SODIUM CARBONATE DOSING PACKAGE

81-W-503
CORROSION INHIBITOR DOSING PACKAGE

81-W-504
DISPERSANT DOSING PACKAGE



STREAM NO. (Note 4)	117-01	117-02	117-03	117-04	117-05	117-06	117-07
TEMPERATURE C	47	25 (Note 14)	37	37	37	37	37
PRESSURE barg	3.5	5.5	5.5	0.2	5.5	5.5	2 (Note 7)
MASS FLOW Kg/h	29,682,300	637,147	29,798,100	31,377,399	89,196	1,489,905	14,899
MASS ENTHALPY KJ/Kg	-	-	-	-	-	-	-
VAPOR PHASE							
MOLE WEIGHT Kg/Kgmole	-	-	-	-	-	-	-
DENSITY (ACT) Kg/m3	-	-	-	-	-	-	-
LIQUID PHASE							
DENSITY (ACT) Kg/m3	989.4100	997.1000	993.2700	993.2	993.27	993.27	993.27
VISCOSITY CP	0.5731	0.8904	0.6904	0.6904	0.6904	0.6904	0.6904

REFERENCE DRAWINGS

DWG. NUMBER

Note :

1. FILLING LINE.
2. REQUIRED DOSING PACKAGES SHALL BE REVIEWED BY VENDOR DURING DETAIL ENGINEERING.
3. COOLING WATER SUPPLY DEMAND WILL BE FINALIZED DURING DETAIL DESIGN.
4. TOTAL NUMBER OF REQUIRED COOLING TOWER CELLS WILL BE FINALIZED BY VENDOR DURING DETAIL DESIGN.
5. 7 ELECTRICAL PUMPS ARE CONSIDERED FOR COOLING WATER PUMPS, (5 DUTY PUMPS + 2 SPARE PUMPS).
6. REQUIRED CONTROL FLOW VALVE SHALL BE CONSIDERED BY FILTRATION PACKAGE VENDOR.
7. STREAM PRESSURE AND BACK WASH FLOW RATE ARE PRELIMINARY AND WILL BE FINALIZED BY VENDOR DURING DETAIL DESIGN.
8. COOLING TOWER PACKAGE OUTLET PRESSURE WILL BE FINALIZED AFTER RECEIVING VENDOR DATA DURING DETAIL DESIGN.
9. COOLING WATER BLOW DOWN FLOW RATE IS PRELIMINARY AND WILL BE FINALIZED BY VENDOR DURING DETAIL DESIGN.
10. 6 (5+1) COOLING WATER CELLS CONSIDERED IN INITIAL CONSIDERATION.
11. ALL DATA TO BE FINALIZED DURING DETAIL DESIGN AFTER RECEIVING VENDOR DESIGN DATA
12. NUMBER AND CAPACITY OF COOLING WATER PUMPS AND THEIR COOLING TOWER CELLS WILL BE FINALIZED DURING DETAIL DESIGN AFTER RECEIVING VENDOR DESIGN DATA.
13. CHLORINE PACKAGE TO BE REVIEWED BY THE VENDOR.
14. THIS ITEM WILL BE FINALIZED BY THE OWNER

#1: PLEASE CHECK THE FLOW OF FILTERS BY VENDOR, TYPICAL 5% OF FLOWRATE IS TAKE

PSP:

Side stream filtration normal capacity (117-06) is 1250 m3/hr which is 5% of circulating cooling water rate.

The indicated stream (117-07) is the result of backwashing which is required for cleaning of filter. The final flow rate of backwash shall be specified by Filtration Package vendor.

00	ISSUED FOR COMMENT	18-Dec-2024	M.FALLAHI	M.JAMSHIDI	E.SHAFAGHATI
REV.	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED

OWNER:

MC:

CONTRACTOR/CONSULTANT:

PROJECT TITLE:

PROPANE DEHYDROGENATION (PDH) PROJECT

DOCUMENT TITLE:

PFD for Cooling Tower System

DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC. TYPE	SERIAL NO.
	3981	50	DE	PR	PFD	020

SCALE: 1:100	SIZE: A3	SHEET NO: 1 OF 1	REVISION: 01	CLASS: 1
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