

REFERENCE

DRAWINGS

PFD FOR COOLING TOWER SYSTEM

3981-50-DE-PR-PID-020

NOTES

1. CHEMICALS WILL BE INJECTED AT SUITABEL DISTANCE FROM EACH OTHER AND AT SEVERAL POINTS, THE INJECTED POINT WILL BE SPECIFIED BY CHEMICAL VENDOR.

2. DELETED.

3. DELETED.

4. CONTROL VALVES SET TO BE LOCATED AT GRADE.

5. LOCATED IN VALVE PIT.

6. DELETED.

7. FOR DETAILS, REFER TO VENDOR PIPING & INSTRUMENT DIAGRAM FOR COOLING TOWER PACKAGE DOCUMENT No. "3981-VD-001-FRB-00-PR-PID-2003".

8. 3 OUT OF 6 FANS HAVE VFD SYSTEM.

9. DELETED.

10. OIL IN WATER DETECTOR TO MONITOR HYDROCARBON LEAKAGE (MAX. 5 ppm) IN COOLING WATER RETURN.

11. CORROSION COUPON ASSEMBLY.

12. DETAIL OF FAN MOTOR SIGNALS:

TYPICAL A

13. TO VARIABLE SPEED MOTOR CONTROL CIRCUIT

GENERAL NOTES:

1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-BA-PR-PID-045 THRU 3981-00-BA-PR-PID-055

2. EACH INSTRUMENT TAG NUMBER HAS A PIANT IDENTIFICATION NUMBER (PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.

HOLDS

1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER.

2. LINE SIZE.

03	ISSUED FOR APPROVAL	06-Jan-2026	M.KHERADKAR	M.JAMSHIDI	M.HESHIRAGHI
02	ISSUED FOR APPROVAL	30-Aug-2025	M.KHERADKAR	M.JAMSHIDI	M.HESHIRAGHI
01	ISSUED FOR APPROVAL	21-Dec-2024	M.FALLAHI	M.JAMSHIDI	E.SHAFAGHATI
00	ISSUED FOR APPROVAL	27-Nov-2023	F.EBRAHIMI	A.HADIPOUR	A.AGHAEI
REV.	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:	MC:		CONTRACTOR/CONSULTANT:		

PROJECT TITLE:

PROPANE DEHYDROGENATION (PDH) PROJECT

DOCUMENT TITLE:

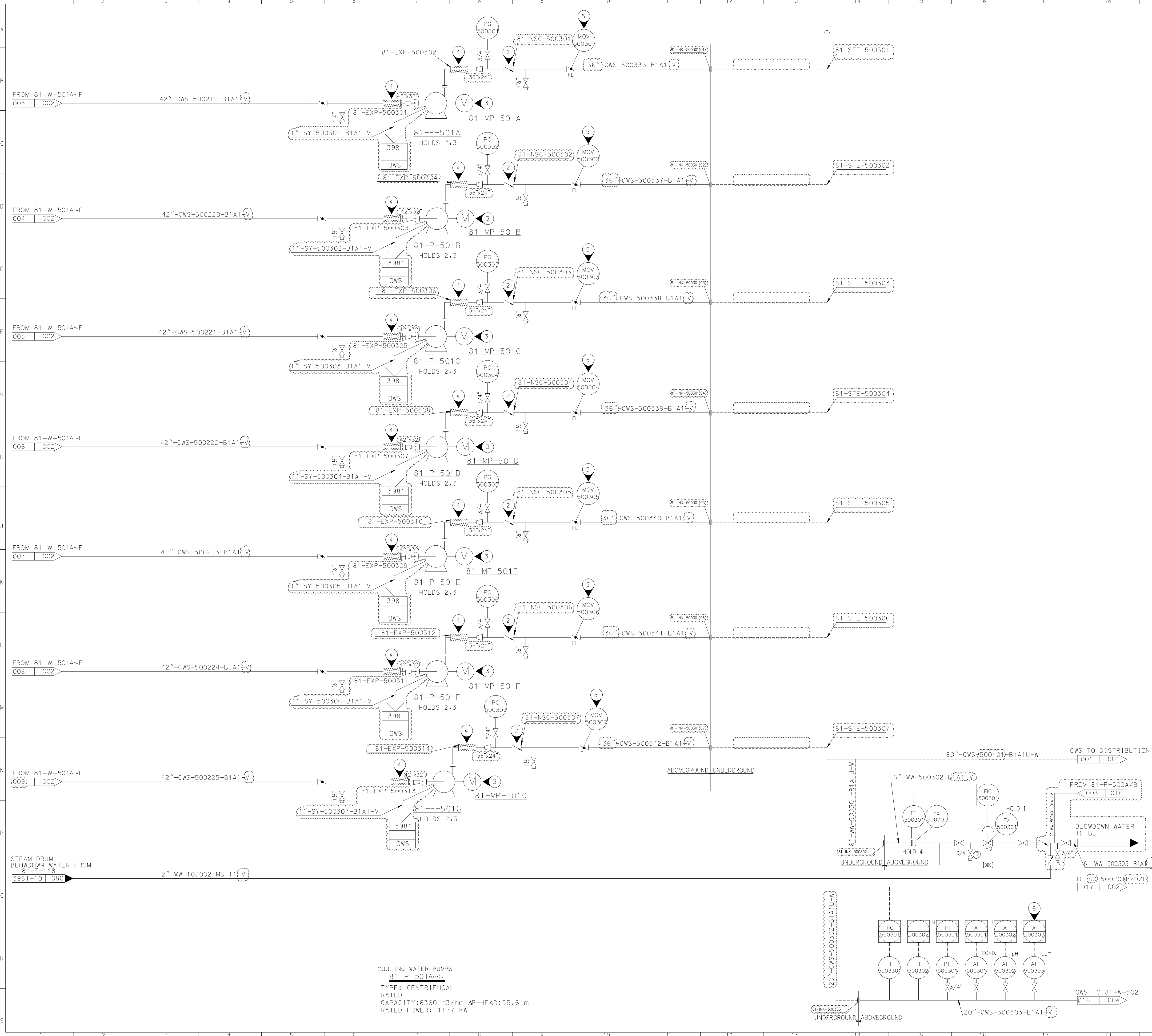
PIPING AND INSTRUMENT DIAGRAM
COOLING TOWER PACKAGE

DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC. TYPE	SERIAL NO.
	3981	50	DE	PR	PID	002

SCALE:

SIZE: A1	SHEET NO: 1 OF 1	REVISION: 03	CLASS: 1
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REFERENCE

PFD FOR COOLING TOWER SYSTEM

DRAWINGS

3981-50-DE-PR-PID-020

NOTES

1. DELETED.

2. NON-SLAM NRV.

3. DETAIL "PUMP A" SEE DWG 3981-00-DE-PR-PID-055.

4. CONSIDERING OF EXPANSION JOINT WILL BE FINALIZED,BASED ON PIPING REQUIREMENT.

5. DETAIL "MO"

6. CL <150ppm

LOCATE & REMOTE OPERATED VALVE, LINE SIZE

MOTOR

MOV XXXXX

FL

MHSO XXXXX

MHSC XXXXX

MHSL XXXXX

MHRO XXXXX

MHRC XXXXX

MZIO XXXXX

MZIC XXXXX

MIA XXXXX

MZIL XXXXX

LOCAL OPEN HAND SWITCH

LOCAL CLOSE HAND SWITCH

REMOTE/LOCAL SELECTOR SWITCH

REMOTE OPEN COMMEND

REMOTE CLOSE COMMEND

MOV OPENED STATUS

MOV CLOSED STATUS

MOV FAILURE ALARM

MOV LOCAL/REMOTE STATUS

GENERAL NOTES:

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2. EACH INSTRUMENT TAG NUMBER HAS A PIANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.

HOLDS

1. CONTROL VALVE, ITS ISOLATION, BY PASS VALVE SIZE AND NUMBER OF EXPANDER/REDUCER.

2. PUMP SUCTION/DISCHARGE NOZZLE SIZE.

3. DETAIL OF PUMP VENT & DRAIN .

4. FLOWMETER CONNECTION SIZE.

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01	ISSUED FOR APPROVAL	21-Dec-2024	M.FALLAH	M.JAMSHIDI	E.SHAFAGHATI
00	ISSUED FOR APPROVAL	27-Nov-2023	F.EBRAHIMI	A.HADIPOUR	A.AGHAEI

REV.	PURPOSE OF ISSUE	ISSUE DATE	PREPARE	CHECKED	APPROVED
OWNER:	MC:	CONTRACTOR/CONSULTANT:			

PROJECT TITLE:

PROPANE DEHYDROGENATION (PDH) PROJECT

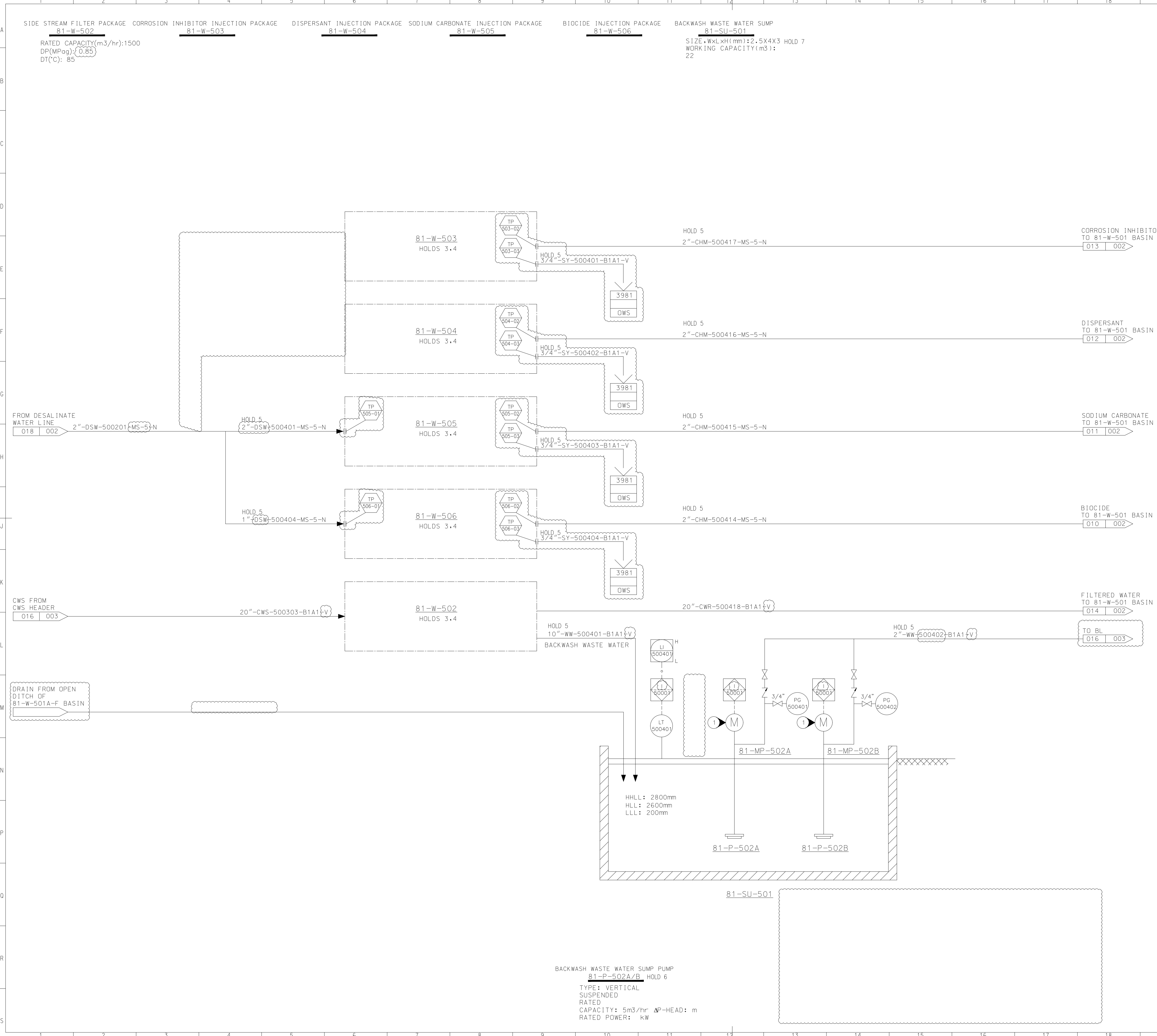
DOCUMENT TITLE:

PIPING AND INSTRUMENT DIAGRAM
COOLING WATER CIRCULATION PUMPS

DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC. TYPE	SERIAL NO.
	3981	50	DE	PR	PID	003

SCALE:	SIZE: A1	SHEET NO: 1 OF 1	REVISION: 03	CLASS: 1
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REFERENCE		DRAWINGS				
PFD FOR COOLING TOWER SYSTEM		3981-50-DE-PR-PID-020				
NOTES						
1. DETAIL "PUMP" SEE DWG 3981-00-DE-PR-PID-055						
GENERAL NOTES:						
1. FOR GENERAL LEGEND, ABBREVIATIONS, NOMENCLATURE, INSTRUMENTATION, EQUIPMENT SYMBOLOGY AND GENERAL DETAILS SEE DWG'S 3981-00-BA-PR-PID-045 THRU 3981-00-BA-PR-PID-055						
2. EACH INSTRUMENT TAG NUMBER HAS A PIANT IDENTIFICATION NUMBER(PROJECT CODE=81) WHICH WILL NOT BE SHOWN ON THE PID'S.						
HOLDS						
1. PUMP SUCTION/DISCHARGE NOZZLE SIZE.						
2. DETAIL OF PUMP VENT & DRAIN .						
3. PACKAGE DETAILS WITH VENDOR BATTERY LIMIT.						
4. REQUIRED UTILITY AND LINE SIZE FOR THE PACKAGE.						
5. LINE SIZE.						
6. PUMP DATA						
7. DIMENSION OF SUMP						
03	ISSUED FOR APPROVAL	06-Jan-2026	M.KHERADKAR M.JAMSHIDI M.H.ESHRAHGH			
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PROJECT TITLE:						
PROPANE DEHYDROGENATION (PDH) PROJECT						
DOCUMENT TITLE:						
PIPING AND INSTRUMENT DIAGRAM COOLING WATER SIDE STREAM FILTER AND CHEMICAL INJECTION PACKAGES						
DOC NO.:	PROJ.CODE	Sec.	PHASE	DEP.	DOC. TYPE	SERIAL NO.
	3981	50	DE	PR	PID	004
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