



GENERAL NOTES:

- A. FOR STANDARD SYMBOLS AND NOMENCLATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
B. ALL EQUIPMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 530-..
C. ALL INSTRUMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 030-..
D. FOR TYPICAL INSTRUMENT CONNECTION SBDV, XV, MOV & ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.001, .002, .003, .004, .005, .006 & .007.
E. FOR MISCELLANEOUS PIPING TYPICAL VALVING, DRAINAGE & GENERAL ARRANGEMENT OF LEVEL INSTRUMENTS, PUMPS, STRAINERS & CONTROL VALVES SEE DRAWINGS 50489-530-020-PID-1108.001 TO 1108.010.
F. DRAWING NUMBERS SHOWN IN P&ID CONTINUATION BOXES ARE ABBREVIATED SHOWING DRAWING SEQUENTIAL NUMBERS ONLY. THE FULL FORM OF THE DRAWING NUMBER IS 50489-530-020-PID-XXXX.SHT.NO.
G. FOR MATERIAL SELECTION DIAGRAM SEE DRAWINGS 50489-530-020-MSD-1001.001 TO 1023.
H. DETAIL NUMBERING FOR CI, SC, CC & CP SEE DRAWING 50489-530-020-PID-1108.003.
I. PAINTING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
J. LOW POINT DRAIN & HIGH POINT VENT ARE INDICATED IN P&ID.
K. FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHL-1009.
L. FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

- NOTES:
1. DELETED.
2. AUTOMATIC VARIABLE PUMP STROKE ADJUSTMENT SHALL BE THROUGH DCS.
3. DELETED.
4. VALVE CLOSING AT HIGH LIQUID LEVEL H1 (SET @2830mm) VALVE OPENS AT LOW LIQUID LEVEL L1 (SET @420mm). ZSC OF LCV-6062 & ZSC OF LCV-6067 STOPS DUTY & STANDBY TRANSFER PUMP G-021A/B. BY SSSS LOGIC.
5-6. DELETED.
7. LOW LOW LIQUID LEVEL STOPS DEMULSIFIER INJECTION PUMPS G-032A/B/C/D.
8. FLUSHING CONNECTIONS.
9. DEMULSIFIER DAY TANK COMES UNDER BUND AREA & DEMULSIFIER INJECTION PUMP IS PART OF PUMP SKID.
10. EYEWASH AND SAFETY SHOWERS ARE PROVIDED IN THE CHEMICAL INJECTION SKID AREA.
11. PROVIDE CORIOLIS FLOW MEASUREMENT AND FACILITY FOR LOCAL CALIBRATION.
12. TANK LEVEL INSTRUMENTS ARE CALIBRATED IN VOLUMETRIC UNITS.
13. DELETED.
14. HIGH HIGH LIQUID LEVEL STOPS DEMULSIFIER TRANSFER PUMP G-021A/B.
15. DEMULSIFIER DAY TANK & ALL PUMP SUCTION/DISCHARGE PIPING IS ELECTRICALLY HEAT TRACED.
16. TANK CONCRETE BUND IS 115% CONTAINMENT OF D-032.
17. DEVIATION ALARMS ARE CONFIGURED IN THE DCS TO ALARM IF ACTUAL FLOW DIFFERS FROM SET BY 10%.
18. DELETED.
19. FLAME ARRESTOR INSTALLED WITH GOOSE NECK PIPE FOR VENT.
20. DELETED.
21. DELETED.
22. DELETED.
23. CHEMICAL INJECTION RATIO CONTROLLER SET IN PPM.
24. DELETED.
25. ANTI-RESISTANT CHEMICAL FLOOR PROVIDED.
26. OVERFLOW NOZZLE IS LOCATED ABOVE HLLL.
27. TANK AREA IS PAVED. FLOOR IS SLOPED TOWARDS SUMP PIT.
28. VENT TO SAFE LOCATION ARE AS PER KOC-G-002 ALONG WITH GOOSE NECK & BIRD SCREEN.
29. (A) LOW POINT DRAIN IS PROVIDED AS APPROPRIATE.
(B) DELETED.
30. CHEMICAL PUMPOUT CONNECTION.
31. PUMP SUCTION BALL VALVE & CALIBRATION POT BALL VALVE IS LOCATED ADJACENT TO ONE ANOTHER FOR MEASURING THE FLOW.
32. PUMPS ARE PROVIDED WITH DIAPHRAGM RUPTURE ALARM (PAHH).
33. ELECTRICAL TRACING TEMPERATURE IS MAINTAINED AT 20°C.
34. TANK SUPPORTS ARE FIRE PROOFED.
35. VACUUM TRUCK CONNECTION (PIPE & VALVE) : L&T SCOPE
36. PAHH STOPS LP HEADER DEMULSIFIER INJECTION PUMP.
37. DIRECT MOUNTING TO THE PUMP HEAD FOR DETECTING RUPTURE OF DIAPHRAGM.
38. CHEMICAL SKID DRAIN LINE TILL INLINE TEE CONNECTION IS IN L&T SCOPE.
39. PIPE TO BE EXTENDED TO 200 MM ABOVE HLLL IN TANK TO PROVIDE OVERFLOW TO DISCHARGE INTO BUND.
40. MINIMUM STROKE OF 10% IS PROVIDED FOR ALL CHEMICAL INJECTION PUMP.

Z0	ISSUED FOR AS-BUILT	BAK/CHS	AKG	SRA	DER	12.09.18
01	ISSUED FOR CONSTRUCTION	BAK/CHS	AKG	SRA	DER	19.12.16
0	ISSUED FOR CONSTRUCTION	HSB/CHS	AKG	SRA	RAK	09.06.16
D	ISSUED INCORPORATED CLIENT COMMENTS	PAK/CHS	AKG	SRA	RAK	08.04.16
C	ISSUED INCORPORATED CLIENT COMMENTS	JSI/ABY	AKG	SRA	RAK	29.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	03.06.15
B	ISSUED INCORPORATED CLIENT COMMENTS	JSI/ABY	AKG	SRA	RAK	23.02.15
A	ISSUED FOR APPROVAL	BAK/ABY	AKG	SRA	RAK	12.12.14
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE

CONTRACTOR REVISION

KUWAIT OIL CO.
K. S. C.
شركة نفط الكويت
ش.م.ك.
A Subsidiary of Kuwait Petroleum Corporation

CONTRACTOR DETAILS:-
LARSEN & TOUBRO LIMITED
FARIDABAD

PROJECT TITLE:-
NEW GATHERING CENTRE GC-30
IN NORTH KUWAIT

DOCUMENT TITLE:-
PIPING & INSTRUMENTATION DIAGRAM
CHEMICAL INJECTION SKID #1- DEMULSIFIER
(D-032 & G-032A/B/C/D)

PROJECT NO.	CONTRACTOR DRG. NO.	REV.	KOC DRG. NO.	REV.
EF1902	50489-530-020-PID-1194.001	Z0		
	SHEET NO. 1 OF 5		SHEET NO.	
	COMPANY DRG. NO.	REV.		
	EF1902-530-DCO-PID-0194.001	A2		
	SHEET NO.			