



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 IS THROUGH DCS.
3. DELETED.
4. VALVE CLOSURES AT HIGH LIQUID LEVEL H1 (SET @2480mm) VALVE OPENS AT LOW LIQUID LEVEL L1 (SET @420mm). ZSC OF LCV-6068, LCV-6083, LCV-6092 & LCV-6104 STOPS DUTY & STANDBY TRANSFER PUMP G-023A/B BY SLS LOGIC.
5-6. DELETED.
7. LOW LOW LIQUID LEVEL STOPS CORROSION INHIBITOR INJECTION PUMPS G-033A/B/C/D.
8. FLUSHING CONNECTIONS.
9. SCALE INHIBITOR DAY TANK COMES UNDER BUND AREA & SCALE INHIBITOR 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 SCALE INHIBITOR TRANSFER PUMP G-023A/B.
15. TANK CONCRETE BUND IS 115% CONTAINMENT OF D-034.
16. DEVIATION ALARMS ARE CONFIGURED IN THE DCS TO ALARM IF ACTUAL FLOW DIFFERS FROM SET BY 10%.
17. FLAME ARRESTOR INSTALLED WITH GOOSE NECK PIPE FOR VENT.
18. DELETED.
19. DELETED.
20. CHEMICAL INJECTION RATIO CONTROLLER TO BE SET IN PPM.
21. DELETED.
22. ANTI-RESISTANT CHEMICAL FLOOR ARE PROVIDED.
23. OVERFLOW NOZZLE ARE LOCATED ABOVE HHLL.
24. TANK AREA ARE PAVED. FLOOR IS SLOPED TOWARDS SUMP PIT.
25. VENT TO SAFE LOCATION ARE AS PER KOC-G-002 ALONG WITH GOOSE NECK & BIRD SCREEN.
26. (A) LOW POINT DRAIN IS PROVIDED AS APPROPRIATE.
(B) DELETED
27. CHEMICAL PUMPOUT CONNECTION.
28. PUMP SUCTION BALL VALVE & CALIBRATION POT BALL VALVE ARE LOCATED ADJACENT TO ONE ANOTHER FOR MEASURING THE FLOW.
29. PUMPS ARE PROVIDED WITH DIAPHRAGM RUPTURE ALARM (PAHH).
30. VACUUM TRUCK CONNECTION (PIPE & VALVE) : L&T SCOPE
31. PAHH STOPS LP HEADER SCALE INHIBITOR INJECTION PUMP.
32. DIRECT MOUNTING TO THE PUMP HEAD FOR DETECTING RUPTURE OF DIAPHRAGM.
33. CHEMICAL SKID DRAIN LINE TILL INLINE TEE CONNECTION IS IN L&T SCOPE.
34. MINIMUM STROKE OF 10% IS PROVIDED FOR ALL CHEMICAL INJECTION PUMP.

REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
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	HSJ/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

CONTRACTOR REVISION

KUWAIT OIL CO. K. S. C.
شركة نفط الكويت
ش.م.ك.

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 - SCALE INHIBITOR
(D-034 & G-034A/B/C/D)

PROJECT NO.	DRAWING NO.	REV.	KOC DRG. NO.	REV.
EF1902	CONTRACTOR DRG. NO.	50489-530-020-PID-1194.003	Z0	
	SHEET NO. 3 OF 5			
	COMPANY DRG. NO.	EF1902-530-DCO-PID-0194.003	A2	
	SHEET NO.			