

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. ALL LINES ENTER THE TOP OF THE HEADER.
- 2. THREE TRANSMITTER ARE PROVIDED. ESD SYSTEM OPERATES WITH TWO OUT OF THREE VOTING BASIS.
- 3. ELECTRIC TRACING TO BE POWERED FROM STAND-BY GENERATOR ALSO.
- 4. TAKE-OFF TO COMPRESSORS SHALL ENSURE TO ALLOW ANY ACCUMULATED LIQUID FLOW TOWARDS THE COMPRESSOR SUCTION SCRUBBER.
- 5. (a) PCV-0060A IS DESIGNED TO HANDLE 18% OF TOTAL FLOW RATE CONSIDERING 100% OPENING OF PCV-0060A DUE TO LEVEL-3 SHUTDOWN (ONE COMP. TRIP) SO THIS DOES NOT LEAD TO TRIPPING OF OTHER COMPRESSOR DUE TO LOW-LOW SUCTION PRESSURE (PALL-0321).
- (b) PCV-0060B & PCV-0060C IS DESIGNED FOR 82% OF TOTAL FLOW RATE. PCV-0060C IS STAND BY FOR PCV-0060B.
- (c) TV COMPRESSOR SHUTDOWN (EITHER SINGLE OR BOTH TRAIN) SHALL FORCE OPEN PCV-0060A IF PCV-0060A IS GREATER THAN 127 mmWG TO 100% TO RELEASE THE PRESSURE TO FLARE AT THE TIME OF SHUTDOWN TO PREVENT PVRV OPENING ON INDIVIDUAL TANK WHICH EVENTUALLY RELEASE HC TO ATMOSPHERE.
- (d) PCV-0060A & PCV-0060B OR PCV-0060A & PCV-0060C ARE OPERATED AS SPLIT RANGE CONTROL VALVE.
- 6. COMPRESSOR VENDOR FINALIZES THE CONTROL SCHEME FOR THE COMPRESSOR PACKAGE REFER CONTROL NARRATIVE FOR TANK VAPOR COMPRESSOR PACKAGE (50489-530-020-07355-PHL-0001).
- 7. DELETED.
- 8. TIME DELAY OF MINIMUM 120 SECONDS IS REQUIRED BETWEEN OPENING OF PCV-0060A AND PCV-0060B/C.
- 9,10. DELETED.
- 11. PROVIDE INTERLOCK WHICH PREVENTS BOTH PCV-0060B & PCV-0060C OPENING AT THE SAME LINE.
- 12. PALL-0321 SHALL TRIP THE COMPRESSORS. COMPRESSOR(S) TRIP SHALL FORCE PCV-0060A TO OPEN QUICKLY 100%. CONTROL OF PCV-0060A IS RESET AFTER A PREDETERMINED TIME PERIOD OF (10 SECOND AFTER FULL OPENING OF PCV-0060B OR PCV-0060C) TO ENABLE PCV-0060A/B OR PCV-0060A/C TO REGAIN THE CONTROL.
- 13. ADEQUATE PIPING SUPPORT ARE PROVIDED TO AVOID OR MINIMIZE VIBRATION.
- 14. DELETED.
- 15. STRAIGHT LENGTH REQUIREMENT FOR ORIFICE FLOW METER ARE 20D UPSTREAM & 5D DOWNSTREAM.
- 16. FOR CORROSION MONITORING STATIONS (CMS):-
  - (a) CMS ARE INSTALLED AS PER KOC-MP-035.
  - (b) PROPER ACCESS PIT OR PLATFORM ARE PROVIDED FOR RETRIEVAL OF COUPEN/PROBE.
  - (c) MATERIAL FOR CMS ARE PROCURED FROM KOC APPROVED VENDOR LIST.
  - (d) CMS ARE LOCATED IN BOTTOM 6 O'CLOCK POSITION.
  - (e) TAG NUMBERING OF CMS IS AS PER APPENDIX-C OF KOC-MP-035.
- 17. ONE ADDITIONAL INTERNAL CORROSION MONITORING POINT IS INSTALLED AT THE TOP AT 12 O'CLOCK POSITION.
- 18. MASTER PRESSURE CONTROLLER MONITORS AND MAINTAINS THE COMPRESSOR SUCTION PRESSURE BY VARYING THE SPEED OF THE MOTOR.
- 19. DE STANDS FOR DE-ENERGIZED.

REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
Z2	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	25.11.18
Z1	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	08.10.18
Z0	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	05.09.18
01	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	12.12.16
0	ISSUED FOR CONSTRUCTION	HSH/VSA	AKG	SRA	RAK	30.02.16
D	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	28.01.16
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	15.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	30.05.15
B	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	17.02.15
A	ISSUED FOR APPROVAL	BAK/VSA	AKG	SRA	RAK	05.12.14


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

PROJECT NO.	DRAWING NO.
50489-530-020-PID-1140	Z2
SHEET NO. 1 OF 1	SHEET NO.
COMPANY DRG. NO.	REV.
EF1902-530-DCO-PID-0140.001	A2
SHEET NO.	

AS-BUILT

KOC APPROVAL

NAME / KOC No:

DESIGNATION:

GROUP / TEAM:

SIGNATURE:

DATE:

AS-BUILT

LARSEN & TOUBRO LIMITED

NAME: VAIBHAV VERMA

DESIGNATION: AGM

SIGNATURE:

DATE: 25-Nov-2018

DEPT/ DIVISION: ENGINEERING