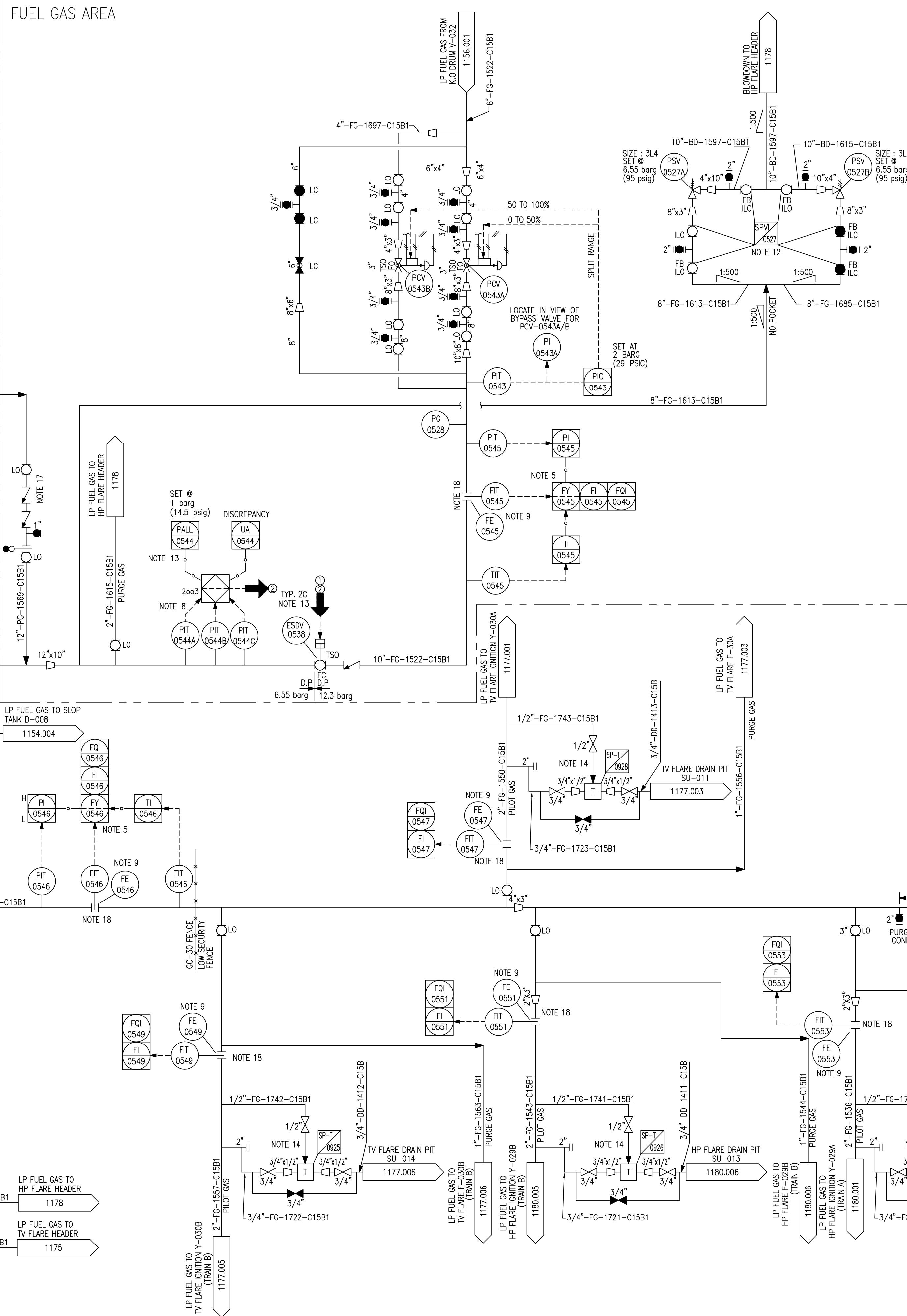


## FUEL GAS AREA




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 50489-530-001.002, 003.004, 004.005, 005.006, 006.007 & 007.008.
- E. FOR MISCELLANEOUS PIPING TYPICAL VALVING, DRAINAGE & GENERAL ARRANGEMENT OF FLOW 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-ISM-1006.


NOTES:

1. LOCATE ISOLATION VALVES FOR ALL BRANCHES AT MAIN HEADER.
2. DELETED.
3. DELETED.
4. FLOW MEASUREMENT FOR COMPENSATING GAS FLOWS IS PROVIDED AT INDIVIDUAL TANK INLETS (REFER TANK P&IDs).
5. FY PROVIDES PRESSURE AND TEMPERATURE COMPENSATION FOR FI & FQI.
6. DELETED.
7. DELETED.
8. THREE TRANSMITTERS ARE PROVIDED. ESD SYSTEM OPERATES ON TWO OUT OF THREE VOTING BASIS.
9. FE TO HAVE MINIMAL PRESSURE DROP.
10. DELETED.
11. DELETED.
12. RELIEF VALVE INLET AND OUTLET ISOLATION VALVES ARE KEY INTERLOCKED IN THE FOLLOWING POSITIONS:
  - ON-LINE RELIEF VALVES: INLET AND OUTLET VALVES ARE OPEN.
  - SPARE RELIEF VALVE: INLET VALVES ARE CLOSED, OUTLET VALVES ARE OPEN.
13. LOW LOW PRESSURE IN LP FUEL GAS HEADER INITIATES A LEVEL 2 ESD AND CLOSSES ESDV--0538 AND OPENS ESDV--0017 ON P&ID 1144.
14. MECHANICAL TRAPS AND DIP LEGS LOCATED AT ALL LOW POINTS, DISCHARGING INTO FLARE DRAIN PIT, ARE REQUIRED TO REMOVE ANY CONDENSATE FROM GAS TO PILOTS WHEN USING EMERGENCY FUEL GAS.
15. THIS LINE ONLY USED DURING GC PLANNED SHUTDOWN TO ALLOW COMPENSATING GAS
16. TO PROVIDE PROCESS GAS FOR BLANKETING HYDROCARBON TANKS DURING GC SHUTDOWN, WHEN ESDV--0017 (P&ID 1144) IS CLOSED.
17. TWO DISSIMILAR TYPE OF CHECK VALVE ARE PROVIDED.
18. STRAIGHT LENGTH REQUIRED FOR FLOW ORIFICE ARE 20D UPSTREAM AND 5D DOWNSTREAM.

AS-BUILT
KOC APPROVAL
NAME / KOC No:
DESIGNATION :
GROUP / TEAM :
SIGNATURE :
DATE :

AS-BUILT	
LARSEN & TOUBRO LIMITED	
NAME :	VAIBHAV VERMA
DESIGNATION :	AGM
SIGNATURE :	
DATE :	07-Aug-2018
DEPT/ DIVISION :	ENGINEERING

Z0	ISSUED FOR AS-BUILT	HSH/ABY	AKG	SRA	RAK	07.08.18
O1	ISSUED FOR CONSTRUCTION	HSH/ABY	AKG	SRA	RAK	08.08.16
O	ISSUED FOR CONSTRUCTION	PAK/ABY	AKG	SRA	RAK	04.06.16
E	ISSUED INCORPORATED CLIENT COMMENTS	PAK/CHS	AKG	SRA	RAK	14.04.16
D	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	04.01.16
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	21.10.15
OC	ISSUED INCORPORATED CLIENT COMMENTS	JSI/SSI	AKG	SRA	RAK	02.06.15
B	ISSUED INCORPORATED CLIENT COMMENTS	JSI/VSA	AKG	SRA	RAK	18.02.15
A	ISSUED FOR APPROVAL	JSI/ABY	AKG	SRA	RAK	12.12.14
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
				APPROV		




**KUWAIT OIL CO.**  
**K. S. C.**

(إسكانو شركة نفط الكويت)  
A Subsidiary of Kuwait Petroleum Corporation

**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  
LP FUEL GAS DISTRIBUTION

PROJECT NO.	DRAWING NO.			
EF1902	CONTRACTOR DRG. NO.	REV.	KOC DRG. NO.	REV.
	50489-530-020-PID-1157	Z0		
	SHEET NO. 1 OF 1		SHEET NO.	
	COMPANY DRG. NO.	REV.		
	EF1902-530-DCO-PID-0157.001	A1		
SHEET NO.				