	PRESSURE INSTRU	MENT CONNECTIONS	G (PG/PIT/PDG/PDIT)		DP INSTRUMEI	NT CONNECTIONS		DP INST	RUMENT CONNECTIONS
DIRECT MOUNTED	PRESSURE INSTRUMENTS	DIAPHRAGM SEAL	PRESSURE INSTRUMENTS		LEVEL		FLOW		FLOW
SIMPLIFIED P&ID REPRESENTATION	EXPANDED DETAILS	SIMPLIFIED P&ID REPRESENTATION	EXPANDED DETAILS	SIMPLIFIED P&ID REPRESENTATION	EXPANDED DETAILS	SIMPLIFIED P&ID REPRESENTATION	EXPANDED DETAILS	SIMPLIFIED P&ID REPRESENTATION	EXPANDED DETAILS
(TYPICAL)	ALL DESIGN PRESSURES 1/4"	**	*** *** *** *** *** *** *** *** *** *** *** *** ** *** *** *** *** *** *** *** *** *** *** *** *** ** *** *** *** *** *** *** *** *** *** *** *** *** ** *** *** *** *** *** *** *** *** *** *** *** *** ** *** *** *** *** *** *** *** *** *** *** *** *** ** *** *** *** *** *** *** *** *** *** *** *** *** ** *** *** *** *** *** *** *** *** *** *** *** *** ** *** *** *** *** *** *** *** *** *** *** *** *** ** *** *** *** *** **		PIPING INST. 2" 1/2" NOTE 6, 13 1/2" NOTE 6, 13 1/2"	FII	PIPING INST. 1/2" 1/2" 1/2" NOTE 6, 13 1/2" NOTE 6, 13 1/2" FE NOTE 6, 13 1/2"	FIT FE	INST. PIPING 1/2" NOTE 6, 13 1/2" NOTE 6, 13

TEMPERATURE INSTRUMENT CONNECTIONS NOTE 11				LEVEL INSTRUMENT CONNECTIONS						
TEMI	PERATURE	TEMP	ERATURE	LE	EVEL SWITCH	LEVEL GAUGE		LEVEL CONTROLL	ER OR LEVEL TRANSMITTER	
SIMPLIFIED P&ID REPRESENTATION	EXPANDED DETAILS	SIMPLIFIED P&ID REPRESENTATION	EXPANDED DETAILS	SIMPLIFIED P&ID REPRESENTATION	EXPANDED DETAILS	SIMPLIFIED P&ID REPRESENTATION	EXPANDED DETAILS	SIMPLIFIED P&ID REPRESENTATION	EXPANDED DETAILS	
TIT	TE NOTE 10 2" 1 1/2" TIT	TG	NOTE 10 1 1/2" TG TW		VENT 1/2" NOTE 6,13 1/2" NOTE 6,13		VENT 1/2" NOTE 6		VENT 1/2" NOTE 6 1/2" NOTE 9 NOTE 6 1/2" NOTE 6 1/2" NOTE 6 1/2" NOTE 6 1/2" NOTE 9 NOTE 6 1/2" NOTE 6 1/2" NOTE 6 1/2" NOTE 6 1/2" NOTE 9 NOTE 6 1/2" NOTE 6 1/2" NOTE 6 1/2" NOTE 6 NOTE 6	

GENERAL NOTES:

- 1. a. INSTRUMENT CONNECTIONS ARE TYPICAL ONLY. DETAILS ARE MODIFIED TO MATCH RELEVANT PIPING SPECIFICATION. ONLY LINE CLASS PIPING VALVES WILL BE SHOWN ON P&ID's. FOR INSTRUMENT ISOLATION VALVES REFER TO INSTRUMENT HOOK-UP DRAWINGS.
- b. MEASUREMENT AND CONTROL INSTRUMENT ARE INDEPENDENT OF
- SAFETY INSTRUMENTS.

WHEN INTERLOCKED WITH ESD SIGNALS.

- c. ALL SHUTDOWN SWITCHES FOR PROCESS PARAMETERS ARE HAVING INDEPENDENT TAPPING FOR EACH OF THEM.
- d. DELETED 2. a. HYDROCARBON VENTS AND DRAINS FROM LEVEL INSTRUMENTS AND CONTROL
- VALVES ARE CONNECTED TO THEIR RESPECTIVE DISPOSAL SYSTEMS. b. TYPICAL LEVEL BRIDLE SHOWING ISOLATION VALVES, VENTS AND DRAINS.
- ALL DETAILS ARE MODIFIED TO MATCH RELEVANT PIPING SPECIFICATION. LINE CLASS VALVES ARE INDICATED, INSTRUMENT VALVES ARE NOT SHOWN. c. LEVEL TRANSMITTER TO HAVE SEPARATE NOZZLES ON EQUIPMENT WHEN
- 3. GATE VALVES INDICATED ARE FOR NON-HYDROCARBON SERVICE ONLY. USE BALL VALVES FOR HYDROCABON SERVICE.
- 4. BALANCE LINE ARE CONNECTED TO VAPOUR SPACE IN TANK/VESSEL.
- 6. USE OF DOUBLE BLOCK AND BLEED ISOLATION VALVES SHALL CONFORM TO THE REQUIREMENTS OF THE ISOLATION PHILOSOPHY 50489-530-020-PHL-1003
- 7. SEE P&ID 50489-530-020-PID-1108.008 FOR BRIDLE/STANDPIPE ARRANGEMENTS.
- 8. DELETED.
- 9. REFER INSTRUMENT HOOK-UP DWG. (55-SERIES) FOR MORE DETAILS.
- 10. FOR VESSEL MOUNTED FLANGE SHALL BE 2" 300# AS A MINIMUM FOR PIPE MOUNTED. 1 1/2" 300# FOR BARE PIPE, 2" 300# FOR RTRP PIPE, & 3" 300# FOR LINED PIPE. 11. FOR LINE SIZE < 3", THE LINE SIZE IS EXPANDED TO 4" TO ACCOMODATE
- TEMPERATURE INSTRUMENT. 12. 1" FLANGE CONNECTION FOR DIAPHRAGM TYPE PRESSURE INSTRUMENT.
- 13. ISOLATION VALVE OF INSTRUMENTS CONNECTED TO ESD AND TV COMPRESSORS ANTI-SURGE ARE LO (LOCKED OPEN) TYPE.

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

AS-BUILT								
LARSEN & TOUBRO LIMITED								
NAME :	VAIBHAV VERMA							
DESIGNATION:	AGM							
SIGNATURE :	Am							
DATE :	15-Aug-2018							
DEPT/ DIVISON :	ENGINEERING							

		AGC	Bu	Ron	M.			
ZO	ISSUED FOR AS-BUILT	HSH/ABY	AKG	SRA	RAK	15.08.18		
0	ISSUED FOR CONSTRUCTION	HSH/ABY	AKG	SRA	RAK	03.06.16		
Ε	ISSUED INCORPORATED CLIENT COMMENTS	PAK/ABY	AKG	SRA	RAK	19.04.16		
D	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	31.12.15		
С	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	28.10.15		
OC	ISSUED INCORPORATED CLIENT COMMENTS	BAK/ABY	AKG	SRA	RAK	01.05.15		
В	GENERAL REVISION	JSI/AKT	AKG	SRA	RAK	17.01.15		
Α	ISSUED FOR APPROVAL	JSI/AKT	AKG	SRA	RAK	24.11.14		
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE		
1,,,,,,	BESOMI HOW	DIVIVII	OFFICINED	APPRD.		DITTE		
	CONTRACTOR REVISION							

K. S. C.



CONTRACTOR DETAILS:-



LARSEN & TOUBRO LIMITED FARIDABAD

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

DOCUMENT TITLE:-

PIPING & INSTRUMENTATION DIAGRAM STANDARD DRAWING (TYPICAL INSTRUMENT CONNECTION)

PROJECT NO.	DRAWING NO.						
	CONTRACTOR DRG. NO.	REV.	KOC DRG. NO.	REV			
	50489-530-020-PID-1106.001						
	SHEET NO. 1 OF 7		SHEET NO.				
EF1902	COMPANY DRG. NO.	REV.					
	EF1902-530-DC0-PID-0105.002 SHEET NO.						