



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 SBOV, XV, MOV & ESIV DETAILS SEE DRAWINGS
50489-530-020-PID-1106.002, .003, .004, .005, .006 & .007.
E. FOR MISCELLANEOUS PIPING TYPICAL VALVING, DRAINAGE & GENERAL ARRANGEMENT OF LEVEL INSTRUMENTS
PUMP, COMPRESSOR, MOTOR, ETC. 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 KCC-P-001.
J. LOW POINT DRAIN & HIGH POINT VENT ARE INDICATED IN P&ID.
K. FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHI-1009.
L. FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

1. PROVISION IS AVAILABLE FOR LIMITING THE OPENING OF TCV TO A LOW FIRE POSITION (65 kg/h) AT THE START-UP AND TO A HIGH FIRE POSITION AT THE MAXIMUM SAFE FIRING RATE (651 kg/h). NECESSARY PROVING SWITCHES, INTERLOCKS & MANUAL LOADING STATIONS SHOULD BE PROVIDED FOR START-UP AND SHUTDOWN.
2. TYPICAL FP01 IS PROJECT SPECIFIC. REFER P&ID 50489-530-020-PID-1133.011 FOR DETAILS.
3. DELETED.
4. DELETED.
5. DELETED.
6. HEATER LOCAL CONTROL PANEL INCLUDES ALL RELATED ALARM SEQUENCE AND OPERATING LIGHT REPEATS.
7. VALVES ARE TIGHT SHUT-OFF (TSO) TYPE PER ANSI CLASS VI OR HIGHER REQUIRED.
8. DELETED.
9. PROVISION AVAILABLE FOR SAFE DRAINAGE OF CONDENSATE FROM FUEL GAS LINE (FOR START-UP).
10. VENT ARE AS PER KOC STANDARD KOC-G-002.
11. DELETED.
12. DELETED.
13. REFERENCE VENDOR DRAWING NO. 50489-530-020-29021-PID-V002
14. SHUTDOWN LEVELS ARE EXECUTED IN BMS (BURNER MANAGEMENT SYSTEM) LOGIC.
15. STRAIGHT RUN :42D UPSTREAM ~ 7D DOWNSTREAM.
16. ELECTRICAL HEAT TRACING FOR FUEL GAS LINES UP TO PREHEATER.
17. MECHANICAL MINIMUM STOP TO ENABLE MINIMUM FIRING RATE OF 10%.
18. UPSTREAM ISOLATION VALVE OF TCV ARE KEPT CLOSE WHILE NOT USING THAT TCV.
19. PIT USED IN START UP SEQUENCE IN BMS LOGIC DIAGRAM.
20. VALVE PRESSURE RATING 300#
21. VOLUMETRIC FLOW RATE FOR FIC-2173A & FIC-2174A SET@ 630 kg/hr (842 Nm3/hr) WITH MOLECULAR WEIGHT OF 16.75.

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

NO	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	DATE
01	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	12.12.16
0	ISSUED FOR CONSTRUCTION	PAK/PRS	AKG	SRA	RAK	10.06.16
D	ISSUED INCORPORATED CLIENT COMMENTS	HSH/PS	AKG	SRA	RAK	09.05.16
C	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	11.09.15
B	ISSUED INCORPORATED CLIENT COMMENTS	BAK/VSA	AKG	SRA	RAK	17.02.15
A	ISSUED FOR APPROVAL	BAK/VSA	AKG	SRA	RAK	29.11.14
REV.	DESCRIPTION	DRAWN	CHECKED	HOD	PEM	DATE
					APPR.	

CONTRACTOR REVISION

KUWAIT OIL CO. K. S. C.	 إيسى شوكات حوسبة البترول الكويتية 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 DESALTER FEED HEATER FUEL GAS SYSTEM TRAIN B (F-201A)		
PROJECT NO.	DRAWING NO.	
EF1902	CONTRACTOR DRG. NO.	REV. KOC DRG. NO.
	50489-530-020-PID-1133.010	ZO
	SHEET NO. 10 OF 16	SHEET NO.
	COMPANY DRG. NO.	REV.
	EF1902-530-DCO-PID-0133.002	A2
SHEET NO.		