



GENERAL NOTES:

- FOR STANDARD SYMBOLS AND NOMENCLATURE SEE DRAWINGS 50489-530-020-PID-1104.001 & .002.
- ALL EQUIPMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 530-.
- ALL INSTRUMENT NUMBERS SHOWN ON THIS P&ID ARE PRECEDED BY 030-.
- FOR TYPICAL INSTRUMENT CONNECTION SBDV, XY, MOV & ESDV DETAILS SEE DRAWINGS 50489-530-020-PID-1106.002, .003, .004, .005, .006 & .007.
- 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.
- DRAWING NUMBERS SHOWN IN P&ID CONTINUATION BOXES ARE ABBREVIATED SHOWING SEQUENTIAL NUMBERS ONLY. THE FULL FORM OF THE DRAWING NUMBER IS 50489-530-020-PID-XXXX.SHT.NO.
- FOR MATERIAL SELECTION DIAGRAM SEE DRAWINGS 50489-530-020-MSD-1001.001 TO 1023.
- DETAIL NUMBERING FOR CI, SC, CC & CP SEE DRAWING 50489-530-020-PID-1108.003.
- PAINTING & COATING ARE IN ACCORDANCE WITH KOC-P-001.
- LOW POINT DRAIN & HIGH POINT VENT ARE INDICATED IN P&ID.
- FOR CAUSE & EFFECT REFER DOC. NO. 50489-530-020-PHL-1009.
- FOR ALARM VALUES REFER DOC. NO. 50489-530-020-SUM-1006.

NOTES:

- 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 PROVIDED FOR START-UP AND SHUTDOWN.
- TYPICAL FP01 IS PROJECT SPECIFIC. REFER P&ID 50489-530-020-PID-1133.007 FOR DETAILS.
- DELETED.
- DELETED.
- DELETED.
- HEATER LOCAL CONTROL PANEL INCLUDES ALL RELATED ALARM SEQUENCE AND OPERATING LIGHT REPEATS.
- VALVES ARE TIGHT SHUT-OFF (TSO) TYPE PER ANSI CLASS VI OR HIGHER REQUIRED.
- DELETED.
- PROVISION AVAILABLE FOR SAFE DRAINAGE OF CONDENSATE FROM FUEL GAS LINE (FOR START-UP).
- VENT IS AS PER KOC STANDARD KOC-G-002.
- DELETED.
- DELETED.
- REFERENCE VENDOR DRAWING NO. 50489-530-020-29021-PID-V002
- SHUTDOWN LEVELS ARE EXECUTED IN BMS (BURNER MANAGEMENT SYSTEM) LOGIC.
- STRAIGHT RUN :420 UPSTREAM - 7D DOWNSTREAM.
- ELECTRICAL HEAT TRACING FOR FUEL GAS LINES UP TO PREHEATER.
- MECHANICAL MINIMUM STOP TO ENABLE MINIMUM FIRING RATE OF 10%.
- UPSTREAM ISOLATION VALVE OF TCV TO BE KEPT CLOSE WHILE NOT USING THAT TCV.
- PIT USED IN START UP SEQUENCE IN BMS LOGIC DIAGRAM.
- VALVE PRESSURE RATING 300#
- VOLUMETRIC FLOW RATE FOR FIC-1175A & FIC-1176A SET@ 630 kg/hr (842 Nm3/hr) WITH MOLECULAR WEIGHT OF 16.75.

TIE IN POINT LIST

No.	SERVICE	SIZE	RATING
TP-501	FUEL GAS SUPPLY	3"	150#

AS-BUILT

KOC APPROVAL

NAME / KOC No:

DESIGNATION:

GROUP / TEAM:

SIGNATURE:

DATE:

AS-BUILT

LARSEN & TOUBRO LIMITED

NAME:

DESIGNATION:

SIGNATURE:

DATE:

DEPT/ DIVISION:

ZO	ISSUED FOR AS-BUILT	BAK/SSI	AKG	SRA	RAK	01.09.18
O1	ISSUED FOR CONSTRUCTION	BAK/SSI	AKG	SRA	RAK	12.12.16
O	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

CONTRACTOR REVISION

KUWAIT OIL CO. **شركة نفط الكويت**
K. S. C. **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 A (F-101B)

PROJECT NO.	DRAWING NO.
50489-530-020-PID-1133.006	REV. KOC DRG. NO.
SHEET NO. 6 OF 16	Z0
COMPANY DRG. NO.	REV.
EF1902-530-DCO-PID-0133.002	SHEET NO.
SHEET NO.	A2