AMINE UNIT EVALUATION

To: AMINES & PLASTICIZERS LIMITED
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Date: _____

CUSTOMER INFORMATION:

Company:

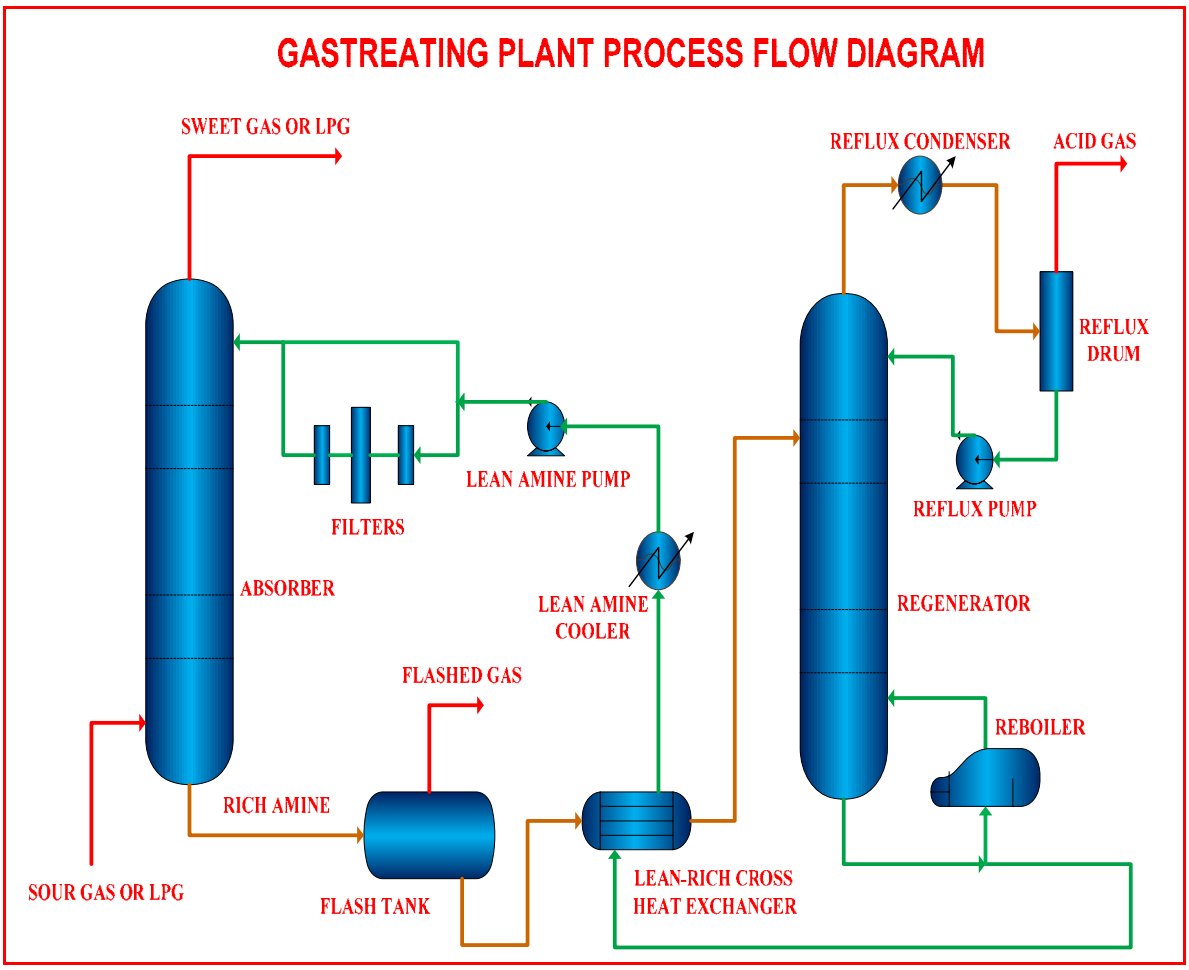
Contact Person:

Location:

Phone: **Fax:**

E-mail:

GENERAL PLANT LAY-OUT:



Metric units : ☒

ABSORBER DETAILS

NAME / NUMBER:

FEED STREAM CONDITIONS OF SOUR GAS OR LPG:

Source of feed

	DESIG	ACTUAL	
Flow:			MMSCMD gas
Pressure:			bar a
Temperature:			°C

FEED COMPOSITION OF SOUR GAS / LPG:

CO_2	mol%	H_2S	mol%		
H_2	mol%	CH_4	mol%	C_2H_6	mol%
C_2H_4	mol%	C_3H_8	mol%	C_3H_6	mol%
n-C_4	mol%	i-C_4	mol%	n-C_5	mol%
i-C_5	mol%	n-C_6	mol%		
CO	mol%	N_2	mol%	O_2	mol%
H_2O	mol%	COS	mol%	CS_2	mol%
C_1SH	mol%	C_2SH	mol%	C_3SH	mol%

Other components:

REQUIRED SPECIFICATION OF TREATED GAS OR LPG:

CO_2	ppmv gas	H_2S	ppmv gas	COS	ppmv gas

Other sulfur

LEAN AMINE DETAILS:

Temperature:	°C	Feed tray number:	
Design rate:	m3/h liquid	Actual rate:	m3/h liquid

ABSORBER DETAILS:

Diameter:	mm	Height:	mm

TRAYED ABSORBER		PACKED ABSORBER	
Type of trays:		Type of packing:	
Number of trays:		Packing material:	
Tray spacing :	mm	Nominal size:	mm
Number of		Packing Bed Height:	mm
Weir height:	mm	No. of Packed Beds	
Downcomer			
Side:	mm	Downcomer Area:	mm2
Central:	mm	Active Area :	mm2
Off Center	mm		

REGENERATOR DETAILS:		NAME / NUMBER:	
Diameter:	mm	Bottom pressure:	bara
Rich amine		Overhead	bara
- Temperature:	°C	Overhead	°C
- Feed tray number:		Reflux flow rate:	m3/h
TRAYED REGENERATOR		**PACKED REGENERATOR**	
Type of trays:		Type of packing:	
Number of trays:		Packing material:	stainless steel
Tray spacing :	mm	Nominal size:	mm
Number of passes:		Packing Bed	mm
Weir height:	mm	No. of Packed	
Downcomer width			
Side:	mm	Downcomer Area:	mm2
Central:	mm	Active Area :	mm2
Off Center:	mm		

REBOILER DETAILS:		NAME / NUMBER:	
Number of reboilers:		Heat source:	
Total design duty:	kcal/h	Total actual duty:	kcal/h

RICH-LEAN CROSS HEAT EXCHANGER DETAILS:		NAME / NUMBER:	
Total design duty:	kcal/h	Exchanger area:	m2
Rich amine:		**Lean amine:**	
Temperature in:	°C	Temperature in:	°C
Temperature out:	°C	Temperature out:	°C

LEAN AMINE COOLER DETAILS:		NAME / NUMBER:	
Total design duty:	kcal/h	Exchanger area:	m2

ACID GAS COOLER DETAILS:		NAME / NUMBER:	
Total design duty:	kcal/h	Exchanger area:	m2
Gas temperature in:	°C	Gas temperature out:	°C

FLASH DRUM DETAILS:		NAME / NUMBER:	
Operating pressure:	bara	Total volume:	m3

RICH AMINE MECHANICAL FILTER DETAILS:		NAME / NUMBER:	
Type :		Nominal size of cartridges:	

LEAN AMINE MECHANICAL AND CARBON FILTERS:

MECHANICAL FILTER BEFORE CARBON BED:

Type : Nominal size of cartridges:

CARBON BED: **YES** ☐ **NO** ☐

MECHANICAL FILTER AFTER CARBON BED: **YES** ☐ **NO** ☐

Type : Nominal size of cartridges:

% of main circulation flow treated

GENERAL BACKGROUND INFORMATION:

Current solvent used: ☐ MEA ☐ DEA ☐ DIPA ☐ DGA
☐ Other amines

Total solution inventory: m3 Concentration: Wt%

WHY YOU REASON(S) FOR CONSIDERING AN ALTERNATE SOLVENT:

☐ Energy savings ☐ Increased capacity ☐ Reduced corrosion

☐ Reduced CO_2 pick-up

Current operating problems: _____

_____

COMMENTS:

_____

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