

VENTURA COUNTY APCD SUPPLEMENTAL FORM - GLYCOL DEHYDRATION

Note: Please submit one of these forms for each glycol dehydration unit that you own or operate. Also include a process flow diagram detailing the glycol unit.

Glycol Dehydration Unit Identification

Facility Name _____	Contact _____
Reboiler Size (MMBTU/Hour) _____	Annual Hours of Operation _____
Type of Glycol (TEG, DEG, EG or Other) _____	

ROC Uncontrolled Emissions Calculation Input Data

Processed Gas Throughput Data	
Dry Gas Flow Rating (MMSCF/day) dry basis _____	Dry Gas Water Content (lb/MMSCF) _____

Note: As an alternative to specifying the dry gas water content, you may specify the number of equilibrium absorber stages. _____

Lean Glycol Water Content (wt % water) _____	Range (0-10%, by weight)
Lean Glycol Flow Rate (gpm) _____	or Recirculation Ratio (gal/lb H ₂ O) _____
Wet gas data required:	
Wet gas temperature or absorber temperature (°F) _____	Range (32 °F to 150 °F)
Wet gas pressure or absorber pressure (psig) _____	Range (0 psig to 5000 psig)
Is wet gas saturated with water? _____	
If not, enter wet gas water content _____ lb H ₂ O / mmscf	

For EG units only enter the following:	
Contactor Temperature (°F) _____	Range (-120 °F to 250 °F)
Contactor Pressure (psig) _____	Range (0 psig to 5000 psig)

Wet gas composition (dry basis volume percent):

Methane: _____	Heptanes: _____	Carbon Dioxide: _____
Ethane: _____	C ₃ +Heavies: _____	Hydrogen Sulfide: _____
Propane: _____	Benzene: _____	Nitrogen: _____
Butane: _____	Toluene: _____	2,2,4-Trimethylpentane: _____
Pentane: _____	Ethyl Benzene: _____	
n-Hexane: _____	Xylenes: _____	
Other Hexanes: _____		

Note: If the wet gas contains compounds not listed, enter C₄, C₅, C₆, and C₇ isomers as butanes, pentanes, other hexanes, and heptanes, respectively. The sum should approximate 100 percent. To convert from ppmv to volume percent, divide by 10,000.

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SUPPLEMENTAL FORM (continued) - GLYCOL DEHYDRATION**

Is the glycol pump electric or gas driven? _____
 If gas driven, enter the volume ratio, which is the ratio of the volume of gas used (acfm) to the volume of glycol pumped (gpm). _____

Note: To convert from standard cubic feet (SCF) to actual cubic feet, use the following formula:

$$\text{Volume in ACF} = 0.0283 * \text{Volume in SCF} * (T+460)/(P +14.7)$$

where T is the gas temperature (°F) and P is the gas pressure (psig)

Does the Unit have a Flash Tank? _____
 If yes, the calculation assumes the flash tank is considered to be in service along the Rich glycol line, downstream of the absorber and upstream of the regenerator.
 Flash Tank Temperature (°F) _____ Range (32 °F to 300 °F)
 Flash Tank Pressure (psig) _____ Range (5 psig to 5000 psig)

Does the unit have a stripping gas system? _____
 If yes, please check the type of gas and the flowrate in SCFM:
 Dry Gas _____ Flash Gas _____ Nitrogen _____ Other _____
 Gas Flow Rate _____ SCFM
 Additional information about system:

Does the glycol unit have an ROC control system? _____
 If yes, describe the system being used: Condenser _____ Incinerator _____
 Condenser: Temperature _____ °F Incinerator: Ambient Air Temperature _____ °F
 Pressure _____ psia Excess Oxygen _____ %
 Combustion Efficiency _____ %
 If control system is not listed above, please describe the system being used:

