

Glycol Dehydration Calculations Template (2 pages)

As part of the supporting documentation, include the aggregate summary report and summary of input values. A few of the necessary inputs include the following:

- Actual glycol flow rate and actual gas throughput for current year (not permitted values)
- Extended wet gas analysis (composition upstream of absorber), speciated to include benzene, toluene, ethylbenzene, and xylene (BTEX) and hydrocarbons through C₈₊
 - do not use sales gas analyses
 - use a site-specific extended analysis with BTEX of the wet gas prior to the glycol contactor
- Regenerator control device information: condenser temperature and pressure at discharge to atmosphere, and/or combustion device fuel and air rates

For further guidance on glycol dehydration units, refer to the current year Emissions Inventory Guidelines (Appendix A, Miscellaneous VOC Sources, Glycol Dehydration Operations): <http://www.tceq.texas.gov/airquality/point-source-ei/psei.html>

Glycol Data Summary Tables

| | | |
|---|--------------|---|
| Company Name: | Site Name: | RN: |
| FIN: | EPN: | CIN: |
| Glycol Operations Data Inputs | Value | Units |
| Type Of Glycol Used: | | |
| Annual Hours Of Operation: | | |
| Emission Calculation Method: | | |
| Contactor Temperature : | | Degrees Fahrenheit (°F) |
| Contactor Pressure: | | Pounds per square inch gauge (psig) |
| Location At Site Where Gas Was Sampled: | | |
| Pump Type: | | |
| Dry Gas Flow Rate: | | Million standard cubic feet per day (MMSCF/Day) |
| Lean Glycol Flow Rate: | | Gallons per minute (gpm) |
| Flash Tank Pressure: | | psig |
| Flash Tank Temperature: | | °F |

| Wet Gas Composition | Concentration (vol %, dry basis) |
|---------------------|----------------------------------|
| Carbon Dioxide | |
| Nitrogen | |
| Methane | |
| Ethane | |
| Propane | |
| Benzene | |
| Toluene | |
| Ethylbenzene | |
| Xylene | |
| n-butane | |
| n-pentane | |
| n-hexane | |
| Isobutene | |
| Isopentane | |

| Controls (Complete for applicable control(s) at site) | |
|---|--|
| Flash Tank Controls | |
| Flash Tank (Yes/No): | |
| Control Type (If Applicable): | |
| Control Device Efficiency (If Applicable): | |
| Regenerator Control | |
| Regenerator Control Type -condenser, combustion, or both (complete applicable fields below): | |
| Condenser | |
| Temperature : | |
| Pressure: | |
| Control Curves (if used, attach low, high, and increment temperatures): | |
| Combustion | |
| Type (incinerator, flare, or thermal oxidizer): | |
| Control Device Efficiency: | |
| Reboiler | |
| % Of Time Burner Is On: | |
| % Of Time Heat Input > Maximum Heat Input Of Burner: | |
| Recycle/Recompress | |
| % Of Time System Is Down: | |