

LPG Processing Optimization

LPG is one of the most important products in a refinery. It can be the feedstock to other process units and also a finished product for petrochemical plants. Challenges with LPG processing include:

- Contaminants in the feed and treated LPG causing emulsions, foaming or acid consumption
- Not passing product specifications
- Low throughput in the amine unit contactor
- Amine solvent losses

The cost associated with amine solvent losses can be significant on a per year basis. In addition to several downstream effects and economic impacts such as:

- Amine solvent costs (up to USD 5/lb for specialty amines or formulated amine blends)
- Amine inventory, storage and replenishment maintenance
- Downstream impacts in fuel gas lines, burners, compressors and turbines
- Downstream impacts in mercaptans removal, alkylation and caustic units

The LPG Processing Optimization services is a multi-stage approach that includes on-site sampling and testing, evaluations and simulations for process performance. The program starts with no capital cost initiative initially. The program includes:

- Amine unit contactor evaluations
- Set point adjustments for amine loss minimization
- Performance review of caustic and alkylation units
- Instrumentation review and verification
- Suspended solids sampling and analysis
- Contaminant profiles at inlet feed streams
- Amine solvent quantification treated streams
- Surfactant and hydrocarbon analysis
- Separation equipment evaluations (filters, coalescers and activated carbon beds)

Products for LPG Optimization:

- Chemicals: emulsion breakers and antifoams
- Supplies: filters, coalescers and activated carbons
- Process systems: amine contactors, coalescing systems and water wash systems
- Recovery systems: amine solvent recovery systems (see image above)

For further information of LPG processing optimization, contact us at by telephone, email or visit our website.

