

Amine Treater Waste Gas

The Customer

The Company is a midstream natural gas company that provides comprehensive services to natural gas producers, including natural gas gathering, processing, treating and natural gas liquids fractionation.

The Process

Raw natural gas is extracted from the wells and sent to an Amine System to remove acid gases, CO₂ and hydrogen sulfide (H₂S). This is accomplished by running the gas through a column with amine liquid flowing in the opposite direction, stripping the acids from the gas and absorbing them into the liquid. The natural gas is then sent for processing while the amine is sent to be regenerated. The regeneration process removes the acid gases from the amine solution, allowing the amine solution to be re-used. The acid gases are then sent to an abatement system, such as a thermal or catalytic oxidizer, for destruction. The Customer's discharge stream consisted mostly of CO₂ with trace levels of combustible constituents such as methane, ethane and propane.

The Challenge

The Company wanted to protect their oxidizer from receiving high LFL concentrations of these combustible constituents. They needed an analyzer that could detect hydrocarbons in the CO₂ discharge stream and if the LFL concentration exceeded an acceptable limit for the oxidizer, divert the discharge to either a flare or the atmosphere.



They wanted an analyzer that could provide a continuous, near real-time reading. It had to be fast, highly reliable and operate in the absence of oxygen.

The Solution

The Company was directed to Control Instruments Corp by a leading manufacturer of air pollution equipment. This OEM had first-hand experience with our application expertise, flexibility and commitment to finding the best solution for their specific problem.

After a thorough investigation and education of the monitoring technologies available, the Company chose Control Instruments' NDIR Analyzer.

The analyzer is accurate for the primary combustible constituents in the waste gas stream, does not require oxygen to operate and has a fast response time, allowing for corrective action to be taken upon alarm and prevent damage to the oxidizer.

SIC Code

- 49229901: Pipelines, Natural Gas

NAICS Code

- 486210: Pipeline Transportation of Natural Gas