

CASE STUDY

H2S REAL TIME MEASUREMENT AND ON-DEMAND TREATMENT IN GAS



PROBLEMS:

- 1 Low data frequency and high labor cost due to pulling manual readings
- 2 Poor accuracy of H2S stain tube readings
- 3 Potential operator exposure to poisonous gases
- 4 Inability to automate and optimize the treatment which leads to high chemical costs

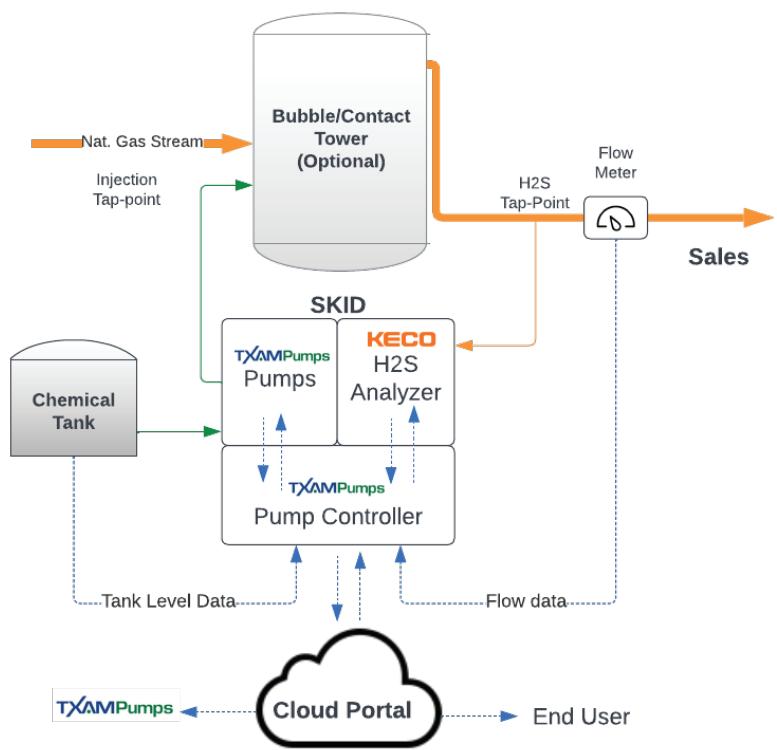
SOLUTION:

Using TXAM Pumps skid which includes smart pumps and KECO H2S analyzer allowed the operator to increase efficiency and reduce chemical cost. The TXAM pumps pump controller reads real time gas volumes through SCADA system and real time H2S concentrations from a KECO acetate tape analyzer.

RESULTS:

- 1 Complete automated treatment with real time telemetry.
- 2 Increased treatment efficiencies by 50% which leads to cost savings in the thousands of dollars each month.
- 3 Fast ROI due to chemical savings.
- 4 Ability to see real-time trending H2S concentrations, total gas volume, chemical usage, and tank levels

FLOW DIAGRAM:



APPLICATION DETAILS:

Location/ Application	Sales Spec H2S	Raw Gas H2S Concentration	Total gas Volume
CTB/Bubble Tower	4ppm	60-1000ppm	1-2 MMCF

BENEFITS:

Reduced chemical costs

CLIENT BACKGROUND:

Top 10 independent oil producer in the U.S. and a leader in America's energy renaissance



CUSTOMER STATEMENT:

"Over the last 18 years many things have changed in our industry through new challenges and new technologies. One of the greatest challenges operators face today is the removal of acid gases from the oil and gas phase. To meet the specifications for midstream partners removal of acid gases must be done upstream of sales pipelines at central tank batteries. Most of the time this process is done with a liquid chemistry application through direct injection, static mixers, and bubble towers. Operators can greatly reduce their chemical spend through efficiencies in these applications.

TXAM Pumps and KECO allowed me to increase efficiency and reduce cost with their skid mounted smart pumps at a CTB that was using a bubble tower application. Previously filled the tower with a non-triazine H2S scavenger and used the fill and drain method.

When H2S got out of spec we would drain 1500 gallons of scavenger and then fill it back up with the same amount. By adding the TXAM skid we were able to increase efficiencies by 50%. The TXAM pumps were reading real time gas volumes through our SCADA system and real time H2S concentrations from a KECO lead acetate tape analyzer. This allowed us to pump the correct amount of chemistry through fluctuations in the system and increase efficiency. Cost savings were thousands of dollars a month. With the TXAM desktop and phone application we were able to see trending H2S concentrations, total gas volume and chemical usage in real time."

Brad S.
Chemical Specialist of a Major Oil Producer

"In conclusion, with this data, we were able to automate the system and save on chemicals"



DESCRIPTION:

KECO H2S in Gas Analyzer in Combination with TXAM Skid

KECO

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