Reducing H_2S Exposure while Improving Efficiency

Application Sheet #58

REAL TIME BENEFIT

- ESG Improvement!
- Protects Personnel!
- Saves Money!

SITUATION

- A customer operates Central Tank Batteries (CTBs) in South Texas. The oil entering the facilities has elevated levels of hydrogen sulfide (H2S). Consequently, the operator was required to visit the CTBs at least once daily to adjust chemical injection rates to meet the H_2S levels.
- These frequent site visits resulted in unnecessary exposure of personnel to hazardous sour gas, and significant costs related to driving time and site visits.
- To ensure the chemical was delivered for this critical application, deliveries were arranged only when personnel were on location.

SOLUTION

- The Sirius Atlas plastic pump was installed in tandem with a tank level monitoring system and the Sirius remote access Connect platform.
- The Atlas pump was set up to communicate with the flow meters via a 4-20 milli-amp signal, enabling a scaled linear adjustment of the H_2S scavenger injection rates based on oil production.

RESULTS

- The combination of autonomous feedback control of injection rates coupled with remote access allowed the operator to scale back site visits from daily to twice per week, per facility.
- Man-time including driving was reduced by ten hours per facility per week.
- Exposure to H_2S was reduced by more than 60%.
- The integration of remote tank level monitoring allowed the operator to see that critical deliveries were made, without the requirement for personnel being on location (shown below in red).