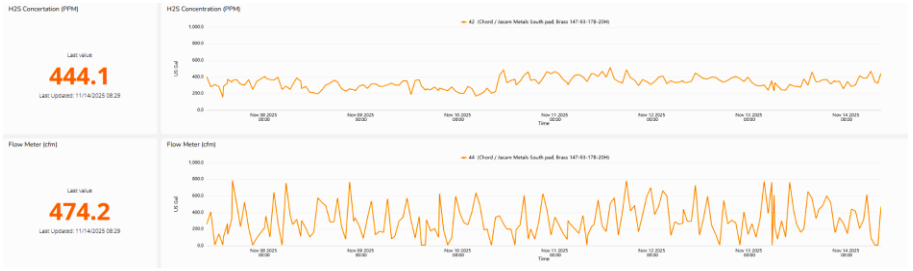

Real-time Multi-variable Intelligence in Action

Application Sheet #69

SITUATION

- A major operator spent $10–12M/year on H_2S scavenger due to constant-rate injection.
- The customer's goal was to automate injection based on real-time H_2S concentration and gas flow (CFM), while maintaining continuous H_2S scavenger injection for proper atomization.

REAL TIME
BENEFIT

40–70% reduction in H_2S scavenger usage, real-time data and remote monitoring

SOLUTION

- Sirius deployed a 500G Nova™ Tank Package with a Sirius Fusion2™ 300 and 100 Series pump, motor and controller.
- An H_2S analyzer was integrated into the system to continuously measure the H_2S concentration (PPM).
- The Fusion2™ controller automatically adjusts injection rate in real time using live H2S concentration and process gas flow data.
- With a 1000:1 turndown ratio, the system maintained continuous, stable flow at low injection rates while seamlessly handling spikes in flow or H_2S levels without requiring pulsation dampeners, stroke length adjustments or plunger changes.

RESULTS

- After installation, the customer saw immediate reductions in injection rates as follows:
  - System 1: from 144 reduced to 15–120 QPD
  - System 2: from 800 reduced to 45–800 QPD
  - System 3: from 1000 reduced to 14–100 QPD
- 40–70% lower chemical usage from day one, with further gains expected.
- Fewer site visits, reduced manpower and fuel costs with remote visibility.
- Real-time data and trends improved operator/supplier collaboration and planning.