PRV Monitoring Reduces Emissions and Plant Energy Costs

RESULTS
• Real-time notification or pressure relief valve events
• Reduction in compliance costs (tens of thousands of dollars annually) and loss of ammonia

APPLICATION
Pressure Relief Valves

CUSTOMER
Ammonia manufacturer in North America

CHALLENGE
The plant had numerous undetected relief events across multiple PRV types – both direct spring and pilot operated pressure relief valves. Most of their relief valves go into a manifold system and they had limited visibility to events and which PRV actually lifted.

With new requirements to report any release of ammonia above 100 pounds to the EPA, the customer was looking for a way to gain real-time notification of relief events.

SOLUTION
The Emerson team recommended a multi-pronged hardware and software solution to provide real-time insight. This offering included acoustic transmitters on direct spring valves, differential pressure transmitters on pilot operated valves and the PlantWeb™ Insight Pressure Relief App. Emerson provided a turnkey solution including all startup services to ensure a smooth deployment with no additional work required by the customer.

RESOURCES
PRV Monitoring Application Guide
PRV Monitoring Demo Video

A major ammonia manufacturer now utilizes real-time PRV monitoring to identify relief events, reduce compliance costs and minimize product loss.