

The background of the entire page is a photograph of a large industrial facility, likely a refinery or chemical plant. The scene is filled with complex piping, towers, and distillation columns. Several tall smokestacks are visible, each emitting thick plumes of white steam or smoke that rise into a clear blue sky. The overall atmosphere is one of active industrial operations.

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Are your analyzer measurements impacting process operations due to poor analyzer reliability performance?

Sample conditioning systems which are used to deliver process samples to an on-line analyzer are often the root cause for lower than desired "analyzer reliability". Poor sample conditioning system performance can be the result of an incorrect sample conditioning system design, inaccurate stream composition considerations, inadequate specification of system components, infrequent maintenance, and/or improper sample extraction and/or transport. These are just some of the possibilities that can contribute to poor sample conditioning system performance.

The undesirable effect of low measurement reliability is the increase of the lack of confidence in analytical data. This lack of confidence subsequently reduces the opportunity for process

operations to realize the full benefit from the investment in the measurement.

Ideally, the design of the sample conditioning system will occur with the best information available at the time of the design. Often, the information about the process stream composition, pressure, temperature, transport length, etc. provided is close, but may not be accurate.

The real test of the design of any sample conditioning system does not happen until after the design is placed into service.

High maintenance activity on sample conditioning systems provide support to the concept that "something has to be done" about the system. Field modifications, over time, can lead to some fairly complicated and poor performing sample conditioning systems. Field modified systems may also have the added problem of lack of documentation.

The Siemens advantage

Siemens, an industry leader in supplying integrated analytical systems, provides services to assist in the relief of underperforming or poor performing analytical measurement systems.

Siemens has the resources to inspect, review, and provide integrated sample system design recommendations to meet the needs of the process.

Siemens provides a service to inspect installations where measurement performance is underperforming the expectation. This technical effort will review the overall installation from sample point position, extraction, transfer, conditioning, and return of excess material for proper disposal. A detailed report is issued with recommendations for improving or resolving poor performing measurements. Siemens also supplies field support, complete rebuild, and installation services, if needed.

Siemens will also evaluate the sample conditioning system to include intelligent sensors and devices. Upgrading existing systems with "smart" sensors and logic, enables an analyzer to continually verify the quality of the analytical measurement. This notification provides value to the process owner.

Eliminating nuisance alarms returns valuable time back to the maintenance group to address real issues. In today's economy where "doing more with less" has become a mandate, the reduction or elimination of nuisance alarms carries high value.

Customer benefits of upgraded sample conditioning systems:

- Improved measurement reliability
- Improved maintainability
- Enhanced communications between the sample system and analyzer
- Reduced analytical failure due to poor sample delivery
- Reduced false alarms on the sample system performance

Not using Siemens analyzers?

Siemens integrates sample conditioning systems for all manufacturers' analyzers. Every analyzer, regardless of manufacturer, requires the delivery of process sample to be matched to the analyzer technology used.



Siemens has the expertise to provide the best possible solution for your analytical requirements. This means providing or improving a design where delivering a consistent, representative sample to an analyzer to help improve analytical reliability.

Siemens has the analytical experience to integrate a wide range of analytical technologies. This knowledge is based on thousands of analytical installations throughout the world. Many designs are similar, but when a design requires special consideration, Siemens will rely on the experience of the Siemens team to develop the best approach to solving difficult applications.

Support after the purchase

Not every sample conditioning system design performs well when first implemented. The "after the purchase" support provided by, or available from, Siemens proves our commitment towards the success of the process for our customers. Engineering services we provide are:

- Technical expertise to review existing problematic sample conditioning systems
- A complete technical review from the point of process to the point of return
- Drawings and documentation to improve existing sample conditioning systems, sample extraction, sample transport, and sample disposal
- Man-power to install or correct any findings
- Continued support to achieve an improved measurement.

Benefits of using Siemens

Use Siemens to help realize the potential of your process analyzer investment. Poor performing sample conditioning systems reduce the financial appreciation that could have been realized from properly designed analytical installation. Improving existing sample conditioning systems to gain the financial advantage of a reliable measurement is step one to improving confidence in process analytical measurements.

- Maintenance contracts
- Site evaluation / Product selection
- On-site calibration verification
- Application engineering
- Train customer operators and staff
- On-site and in house repair
- Equipment rentals
- Preventative maintenance programs
- Calibration/Performance certificates

For more information, please contact:

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