

Effluent Monitoring Solutions

Avoid Unnecessary Fines

Benefits

Monitoring and trending your plant's effluent ensures:

- Your plant meets all relevant discharge regulations in order to avoid fines
- Availability of historical data of your effluent for traceability
- Gain transparency of effluent leaving your facility to identify the processes and activities in your facility which lead to product losses
- You can trust in your pH measurements and receive immediate email and SMS notifications for pH spikes
- Peace of mind, knowing your effluent discharge is compliant



The Challenge

All fines for violators across Canada are going up and large fines (greater than \$75,000) are increasing even faster. In 2018 the number of large fines went from 28 incidents to over 34, which is an increase of more than \$10 million in fines. Across Canada all provinces have increased the number of fines with Ontario, British Columbia and Alberta being the most aggressive. For example, Ontario has increased fines by a hefty average of 63% each year.

The increased pressure from government to decrease biochemical oxygen demand (BOD) effluent loads and to reduce spikes in pH in effluent has been quite evident. Ensuring your plant has an accurate and available pH measurement is more important than ever.

Ensuring the accuracy and stability of a pH point has long been a challenge of the industry and something which takes effort and resources to achieve.

The Solution

Endress+Hauser has developed a redundant pH system capable of self-monitoring to ensure continual operation. The system can operate with pH alone or with the addition of product loss detection and total suspended solids sensors.

pH Redundancy

Three pH measurements are analyzed in tandem within Endress+Hauser's CM444 Liquline transmitter. The two closest pH values are averaged by the CM444 and are taken as the most accurate measurement.

In order to provide functional feedback and ensure an accurate and consistent measurement, if any pH measurement drifts outside of a predefined bandwidth, the system alarms via SMS and email to key stakeholders within the plant and Endress+Hauser's service team.



“You can’t manage what you can’t control, and you can’t control what you don’t measure.”

Traceability

All pH measurements are recorded within the CM444 transmitter and captured by the Endress+Hauser service team and delivered as a report each month. This historic data can be used for analysis, trending and in the case of federal or provincial audit.

This data can also be uploaded to your W@M Endress+Hauser asset management portal so that it may be stored in one central location.

Identifying Product Loss

As the data captured is readily available, it is possible to trend spikes daily, weekly and monthly to show trends during these periods. Having access to the time and size of these spikes gives a layer of transparency to the possible processes or activities

which ran at these times. This helps you to trend and identify key ways in which to reduce product losses and effluent spikes.

Remote Monitoring

Using our Endress+Hauser FXA42 FieldGate, your pH redundancy system communicates via SMS and email to both key stakeholders within your organization, as well as highly trained Endress+Hauser technicians.

Instant notice of spikes in pH in your effluent load allows you to take the necessary action when it counts.

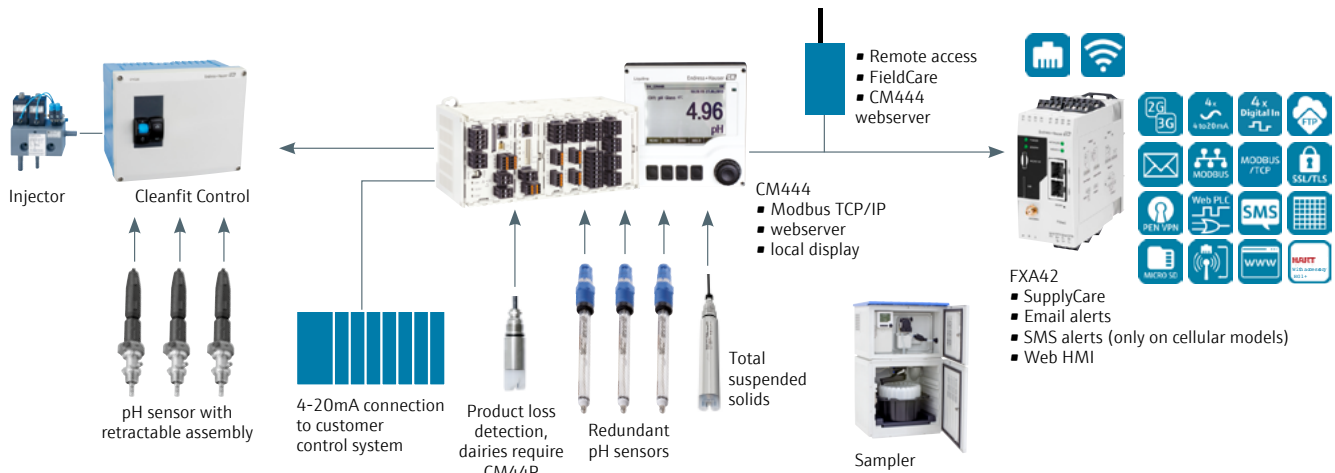
Our Endress+Hauser factory-trained technicians immediately log remotely into your system to see what is happening within the process and

ensure the spikes recorded are being addressed.

When a pH probe measures outside of tolerance, Endress+Hauser’s service department schedules a service visit to replace the probe to ensure the system is functioning as it should. This way, your pH system is always accurate and reliable.

More than Meets the Eye

The system may be equipped with product loss detection and total suspended solids measurement, Endress+Hauser Cleanfit retractable cleaning system and an Endress+Hauser CSF34 Sampling System to ensure you have more information and insight into your effluent process.



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