

Effluent Monitoring

How redundant pH monitoring can pay off for your facility

Benefits

Monitoring and trending your plant's effluent with redundant pH ensures:

- Your plant meets all federal and provincial legislation in order to avoid fines
- Availability of historical data of your effluent loads for traceability
- Gain transparency of effluent leaving your facility to identify the processes and activities in your facility which lead to product losses
- Trust in your pH measurements and receive immediate email and SMS notifications for pH spikes in effluent load
- Peace of mind, knowing your effluent loads are under control



The Challenge

Between 1991 and 2009 the average quantum of environmental fines and penalties issued by all federal and provincial regulators in Canada was \$1.4 million per year. Ontario alone issued a total of \$3.2 million in fines and penalties, amounting to a 290% increase in 2015 versus the long-term historical average.

The increased pressure from government to decrease biochemical oxygen demand (BOD) effluent loads and to reduce the risk of 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.

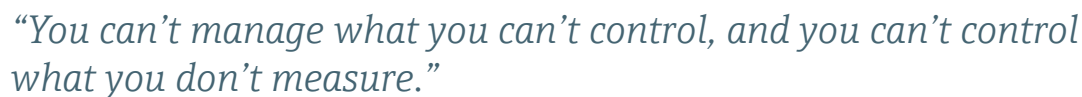
The Solution

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 CM44P Liquiline transmitter. The two closest pH values are averaged by the CM44P 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.

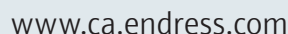


All pH measurements are recorded within the CM44P transmitter and captured by the Endress+Hauser service team and delivered as a report each month. This historic data can be used for analysis, trending and in the case of federal or provincial audit.

As the data captured is readily available, it is possible to trend spikes in pH, 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

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

The system may be equipped with product loss detection and total suspended solids measurement, Endress+Hauser Cleanfit retractable cleaning system and an Endress+Hauser CFS34 Sampling System to ensure you have more information and insight into your effluent process.



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