

Water quality monitoring has evolved significantly over the past decade. Today's industrial manufacturers have access to technologies that are capable of monitoring various wastewater quality parameters and contaminants of concern in a simple and effective manner.

A continuous stream of water quality information to a plant's control system can provide significant value.

Here are 4 benefits that can come from implementing real-time monitoring at your wastewater treatment plant:



Effluent Regulatory Compliance

Many industrial manufacturers are under continuous pressure to meet increasingly stringent effluent regulations. An immediate benefit of online water quality monitoring is the ability to detect and improve response time to changes or events that may have otherwise gone unnoticed.

By simply gaining greater visibility of the wastewater treatment process an operator has the real-time information needed to foresee and resolve problems long before they become a compliance issue.







Wastewater Process Control

Directly related to regulatory compliance is the ability to treat wastewater from the production process effectively and efficiently before discharge.

From a process control and improvement perspective, real-time information could not be more valuable.

Traditional methods for accessing water quality information have been heavily tied to the laboratory. While laboratory analysis is needed for compliance reporting purposes, it provides only periodic snapshots of information with long intervals in between, which is often not useful for process control. Further, the cost, time, and complexity associated with most tests creates a barrier to more frequent testing capacity.

With continuous monitoring, operators have access to a wealth of both historical and real-time information to aid in decision making. Process control measures can be made with confidence, and results from these control measures can be monitored in real time to gauge performance.

For those looking to gain greater efficiencies in their process, real-time water quality monitoring just may be the place to look.



Production Plant Feedback

For some industries, a significant quantity of valuable product ends up in the wastewater stream through rinsing, CIP, spills, or other events.

Identification of events and real-time monitoring of water quality trends over time also serve as a valuable tool to provide feedback to the production plant.

Production plant operators can utilize the information to identify inefficient processes and improve them as they are provided with the ability to make data driven decisions. Not only will this put more revenue into production from the recovery of lost product, but it will simultaneously reduce the burden on the wastewater treatment plant.







Cost Reduction

A direct outcome of operating a more efficient wastewater treatment plant with real-time monitoring is a reduction in operating expenses.

Depending on the type of treatment employed, savings may come through lower energy costs, reduced chemical usage and sludge disposal, and more.

For some plants, an improvement in effluent water quality could mean reduced surcharge fees or permit fines. Compound any cost reductions or revenue boosts incurred from production plant feedback improvements and the return on investment for real-time water quality monitoring is almost instantaneous.



Whether the decision to incorporate online water quality information into your treatment plant starts with monitoring a single parameter or a multi-parameter monitoring system, the initiative will very likely result in positive outcomes for your wastewater treatment operations.



