System Enables Nitrate Measurement Directly In-Line

Water and wastewater treatment facilities can automatically measure and control nitrate concentrations while ensuring government compliance and reducing operational costs with the StamoSens in-line nitrate measurement system.

Operating directly in-line, the CNS 70 nitrate sensor and the CNM 750 transmitter are specifically designed to measure the nitrate content of water and wastewater (including activated sludge). The self-compressing, multi-beam technology eliminates the need for chemicals.

In drinking water applications, the sensor works at the plant's inlet to monitor water from rivers, lakes and ground wells. The system controls the mixing of water from different wells, ensuring that the final water leaving the plant falls within EPA guidelines.

Periodic maintenance requirements are significantly lower with this system. Unlike other nitrate measurement systems, there is no need for reagents, pumps or rigorous maintenance procedures.

The system monitors and controls nitrification and denitrification in wastewater operations. In wastewater plants with a two-step operating system, the signal controls the internal sludge recirculation ratio. In plants with a single tank, the system is used to control the anoxic and aerobic zones.

Measuring Organic Content

Also available are the StamoSens CSM 750 transmitter and CSS 70 sensor. This transmitter and sensor work in tandem to analyze the absorption of light at 254 nm. The absorption coefficient can relay information relevant to the total organic carbon (TOC) concentration, the biological oxygen demand (BOD) levels and chemical oxygen demand (COD). With this system, treatment facility operators can monitor these elements around the clock, adjusting processes accordingly.

Unlike other nitrate measurement systems, there is no need for reagents, pumps or rigorous maintenance procedures.

This transmitter and sensor work in tandem to analyze the absorption of light at 254 nm.

For more information on this subject, circle 860 on the reader service card.