

KSS ASSIST prevents potential issues at Carré de Réunion wastewater treatment plant



Overview

The Carré de Réunion wastewater treatment plant is nestled discreetly near the Palace of Versailles and the Versailles Gardens. It receives and treats wastewater of seven neighboring communities southwest of Paris. Previously, the conventional activated sludge process had been used to treat the municipal wastewater, but in 2009 expansion plans were underway to meet increasing capacity demands as efforts were sought to centralize treatment operations.

Objective

Operators at this wastewater plant looked to increase the treatment capacity and streamline process efficiency.

Solution

Koch Separation Solution supplied the PURON® MBR membranes which were integrated into the facility with a new bioreactor, new membrane filtration unit, and new fine sieves. This allows the plant to treat an average of 50,000 m³/day of wastewater from the incoming sewer system. During storm conditions, the hydraulic peak of the system reaches up to 6,000 m³/hour. This treated water is then discharged to the Seine River via the "Ru de Gally" creek.

In order to maximize their process efficiency, KSS ASSIST® was utilized which includes services aimed to keep the wastewater treatment system operating at the highest level. These services include membrane process optimization, plant audits and troubleshooting, continuous data analysis and reporting, operator training, and telephone support. The expert technical team at KSS is dedicated to assisting the plant operators to achieve system excellency throughout the entire membrane life cycle.



Achievements

Within the KSS ASSIST® contract, the original system – made up of two bioreactors sharing one filtration unit – was separated in such a way that both bioreactors now have four dedicated active filtration lines and one stand-by filtration line in order to achieve independent operation of the two bioreactors and corresponding filtration lines. This allows for increased plant availability and operational robustness through decreased downtime and plant by-passing. Data collection, analysis, regular site visits, and reporting is provided to proactively address potential issues that may result in significant damage or downtime. The continuous support through KSS ASSIST allows the plant to operate smoothly and reliably. The operators have been able to overcome some deficiencies and limitations of the plant design through optimization of operational parameters that increase reliability.

Takeaways

The service provided through KSS ASSIST at the Carré de Réunion wastewater treatment plant throughout the installation of the new MBR to maintain its daily operations have made great improvements in reliability of operation. Through KSS ASSIST, this wastewater treatment plant will stay online and operating at high performance levels for years to come.



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