HYDROUS MANAGEMENT GROUP, LLC

HYDROUS

OBJECTIVE

The resort implemented an innovative solution for disinfecting treated water from its wastewater treatment plant, focused on eliminating the excessive use of hazardous chemicals, automating processes, and optimizing operating parameters within regulatory standards.

INTRODUCTION

The WWTP processes 3,000 m^3 of water per day. Due to conventional chemical treatment methods, it faced significant operational challenges, which led to the search for a more efficient and safer solution.

PROBLEM

Before the intervention, the plant faced the following issues:

- Chemical parameters outside regulatory limits
- Excessive consumption of chemicals
- Manual dosing processes
- Risks from handling hazardous substances
- Proliferation of bulking (filamentous microorganisms)

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RESORT WASTEWATER TREATMENT PLANT

RIVIERA MAYA

SOLUTION

The A-C2 electrochlorination system by aiguaclor® was installed, generating chlorine on-site from brine. This system:

- Automates the disinfection process
- Enables remote monitoring and control
- Replaces the need for hazardous chemicals

QUANTITATIVE AND QUALITATIVE BENEFITS

Quantitative:

- Significant reduction in monthly operating costs
- Elimination of logistics costs related to chemical storage and handling

Qualitative:

- Complete elimination of bulking
- Improved water treatment stability and quality
- Enhanced safety by removing manual handling of dangerous substances
- Continuous compliance with regulatory parameters
- Automated and remotely monitored operations reduce human error

INVESTMENT AND SAVINGS

The investment in the A-C2 system yielded rapid return through:

- Immediate reduction in chemical use
- Elimination of logistics and safety-related costs
- Improved operational efficiency, resulting in high profitability

CONCLUSION

The coastal resort replaced conventional disinfection at its 3,000 m^3/day wastewater treatment plant with an electrochlorination system. The upgrade eliminated chemical risks, automated disinfection, and stabilized operating parameters.