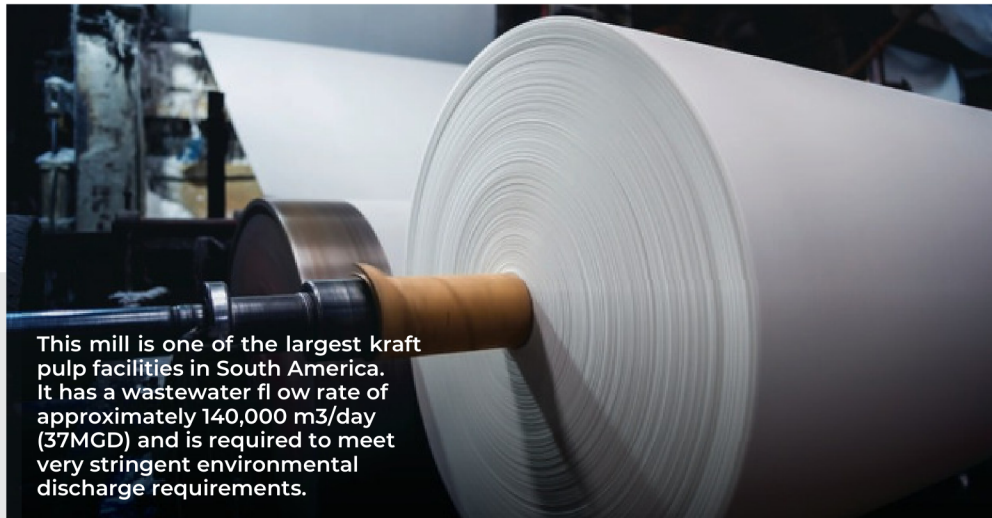


INDUSTRIAL WASTEWATER TREATMENT
PULP & PAPER

LARGE PULP MILL
IN SOUTH AMERICA
(Kraft Pulp)



This mill is one of the largest kraft pulp facilities in South America. It has a wastewater flow rate of approximately 140,000 m³/day (37MGD) and is required to meet very stringent environmental discharge requirements.

The Challenge/Problem

Recent requirements to increase production were stressing the capacity of the existing wastewater treatment system.

- Odors from the WWTP were causing complaints from neighbors
- Effluent concentrations of P and COD were causing challenges
- Biological treatment reactors were not performing at optimal efficiency

Treatment Plan and Execution

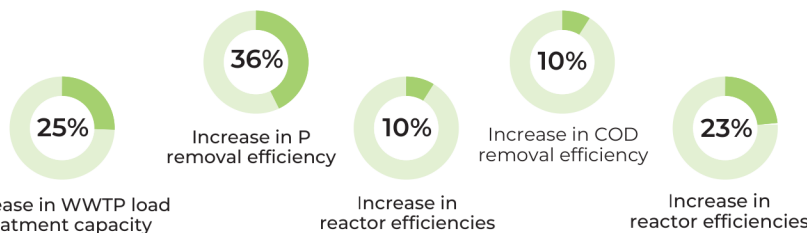
An engineer from the WWTP met with SciCorp engineers at a Tradeshow and requested assistance in addressing the challenges the WWTP was facing. The wastewater treatment plant elected to conduct an initial full-scale three-month treatment trial to evaluate the effectiveness of BIOLOGIC™ SR2.

SciCorp wastewater engineers assisted the WWTP engineers in setting up the trial and recommended two separate product addition points in the WWTP. The product dosing locations were equipped with continuous metering pumps at both locations. During the trial SciCorp engineers met with WWTP engineers on a weekly basis to assess the treatment performance data.

Success achieved by the WWTP

Shortly after implementation, the WWTP achieved very **SIGNIFICANT REDUCTION IN ODOR COMPLAINTS** and in H₂S and mercaptan odors throughout the plant, specifically in the areas of the secondary clarifiers and belt presses.

In addition, the WWTP was able to achieve the following additional significant benefits as a result of the use of BIOLOGIC™ SR2:



Based on the results achieved in the three-month trial, the plant decided to implement full-scale long term continuous treatment with BIOLOGIC™ SR2 at their facility and also decided to utilize the product at a second pulp mill also owned by the company.

+ **Significant reduction in carbon footprint and environmental impact**

Issues Avoided

By working with SciCorp, the plant operators were able to help the facility avoid:

- Lost revenue due to decreases in pulp production capacity
- Regulatory enforcement associated with odor complaints and effluent discharge concentrations
- Increased operating costs associated with sludge disposal and aeration
- Damage to the company brand in the community