

Food & Beverage



SAMCO

Separation from the ordinary

PROJECT BRIEF

Grape Crushing Plant and Winery Utilizes SAMCO's Complex Wastewater Treatment System Design to Meet Stringent Discharge Quality Regulations

PROJECT OVERVIEW

When a leading grape crushing plant and winery in New York was challenged to meet stringent wastewater limitations and reduce costly sewer discharge fees, the company consulted SAMCO for an innovative wastewater treatment plant (WWTP) design to treat highly complex discharge streams and reduce waste.

OBJECTIVE

Design top-of-the-line wastewater treatment system to greatly reduce wastewater volume and pollutant concentration despite highly complex contaminants and variable flow.

SCOPE OF SERVICE

The client worked with SAMCO to develop an effective solution that comprised a detailed plant survey with waste minimization, on-site pilot, treatability, and P2 studies; concept development; project estimation; and process design/project engineering.

CHALLENGES

- Highly complex contaminants and varied flow rates
- Stringent discharge limitations
- Plant expansion with added wastewater volume
- High sewer discharge cost

SOLUTION

Faced with inflexible municipal discharge regulations and high sewage discharge fees, SAMCO developed a WWTP design that implemented biological treatment, suspended solids flocculation, clarification, and sludge handling/dewatering to reduce the client's discharge volume by 30%, pollutant (P2) concentration by 50%, and efficiently bring it into regulatory compliance. Designed to normalize high influent biological oxygen demand (BOD) levels, SAMCO's on-site treatment design eliminated the client's reliance on publicly owned treatment works (POTWs), greatly improving ROI. SAMCO also designed the solution with programmable logic controllers (PLC) and a panel-view operator interface to automate monitoring of flow, temperature, pressure, and resistivity.

TECHNOLOGY

Project design concept included:

- Influent pumps
- Equalization tanks
- Chemical feeds
- Biological packed tower system
- Sludge handling/recycling
- Clarifier system
- Filter press
- Platform/stairs
- PLC Controls

OVERVIEW

Industry

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Location

New York, US

Objective

Bring highly complex wastewater into compliance by reducing volume and pollutants prior to discharge

Solution

70 GPM Wastewater Treatment System Design

Need help bringing your wastewater into compliance? Is contamination an issue?
Contact us today at SamcoTech.com • askengineers@samcotech.com • (716) 743 9000