

Microelectronics



SAMCO

Separation from the ordinary

PROJECT BRIEF

Major Analog Chip Manufacturing Facility Installs Acid Wastewater Treatment Plant to Meet Stringent Discharge Quality Requirements

PROJECT OVERVIEW

When a leading analog chip manufacturing facility in California was challenged to meet rigorous discharge quality regulations, SAMCO, in partnership with the general contractor, developed an innovative solution to neutralize and treat their highly acidic wastewater.

OBJECTIVE

Provide the customer with a solution to efficiently neutralize acid waste and adjust pH from < 2 to 6-9.

SCOPE OF SERVICE

The client worked with SAMCO to develop an effective solution that comprised concept development, a detailed plant survey, process equipment procurement, process design/engineering, commission, and startup.

CHALLENGES

- Widely varied influent flow and composition
- Stringent discharge limitations
- Extremely tight footprint
- Critical application requiring high uptime
- Install new system around existing while maintaining production

SOLUTION

In order to avoid a detrimental plant shutdown while the new waste system was built, SAMCO predesigned and fabricated an integrated catwalk and structural support system that could be gradually phased in to the new WWTP. A multi-tank design allowed for minimal impact and process upsets to the effluent waste with gravity flow that maximized process flexibility with minimal moving parts, and dual alkali feed systems supported peak needs and redundancy. SAMCO also included programmable logic controllers (PLC) with remote telemetry to automate the monitoring of flow, temperature, pressure, and resistivity.

TECHNOLOGY

Project concept and design included:

- Equalization tanks
- Influent pumps
- Bulk lime storage and makeup
- Caustic and lime circulation loops
- Mixing tanks
- PLC Controls with remote telemetry

OVERVIEW

Industry

Microelectronics

Location

California, US

Objective

Adjust pH and treat contaminated wastewater to meet rigorous discharge quality regulations

Solution

450 GPM Acid Waste Neutralization System

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