

Semiconductor



SAMCO

Separation from the ordinary

PROJECT BRIEF

Semiconductor Manufacturing Facility Installs Neutralization WWTP to Meet Stringent Discharge Regulations of Local POTW

PROJECT OVERVIEW

When a leading semiconductor manufacturing facility in Texas was challenged to meet discharge quality regulations per the local publicly owned treatment works (POTW), SAMCO helped the client develop an efficient neutralization wastewater treatment plant (WWTP) to treat their caustic waste.

OBJECTIVE

Satisfy stringent POTW water purity standards including:

- pH neutralization to 6.5–9.0
- Fluoride < 15 ppm

SCOPE OF SERVICE

The client worked with SAMCO to develop an effective solution that comprised concept development, detailed design/engineering, controls integration, system fabrication, field constructions, commission, and startup.

CHALLENGES

- Complex and varied contaminants
- Caustic waste
- Fast-track project, concept to completion

SOLUTION

SAMCO worked with the client to design and install a multi-treatment unit (MTU) with three systems working simultaneously to efficiently treat wastewater for release to the local POTW. A prepackaged, modular design (including prefabricated skids, piping racks, and platforms) enabled fast-track, turnkey project delivery with future expansion capability, and programmable logic controllers (PLC) minimized operations and maintenance demands by automating flow, temperature, pressure, and resistivity monitoring from a remote location.

TECHNOLOGY

900 GPM WWTP with equipment including:

- Equalization, pH reaction, and collection tanks
- Influent booster and recycle pumps
- Caustic recirculation/feed system
- Truck docking/transfer station
- Lime mixing and feed
- HF Precipitation/Clarification MTU
- Sludge handling and filter press
- Piping racks, stairs, platforms
- PLC controls/remote telemetry

OVERVIEW

Industry

Semiconductor

Location

Texas, US

Objective

Treat caustic wastewater per stringent POTW regulations.

Solution

900 GPM Neutralization Wastewater Treatment Plant with 20 GMP Hydrofluoric Acid Treatment & Waste Solvent Collection

Need help bringing your wastewater to industry compliance standards? Is water purity an issue? Contact us today at SamcoTech.com • askengineers@samcotech.com • (716) 743 9000