PROJECT BRIEF

Specialty Chemical Production Facility Cuts Wastewater Discharge Costs with SAMCO's High Pressure Reverse Osmosis Technology

PROJECT OVERVIEW

When a prominent specialty chemical producer faced rising wastewater disposal costs, the facility looked to SAMCO for an efficient wastewater recycling system to minimize discharge and maximize production.

OBJECTIVE

Recycle wastewater streams to reduce discharge costs associated with specialty chemical production lines. Reuse water specifications:

- 275 GPM capacity
- Total dissolved solids (TDS) at or below municipal water supply levels

SCOPE OF SERVICE

SAMCO delivered a high pressure reverse osmosis (RO) system, including comprehensive process, mechanical, and electrical design and engineering, system fabrication, commissioning, startup training and support.

CHALLENGES

- High recycle/reuse rate
- High capacity
- Low contaminant threshold for recycled water

SOLUTION

In line with the client's needs, SAMCO designed and delivered a high pressure RO system for recovery and reuse of wastewater in specialty chemical production. The design made use of high pressure seawater filtration membranes as well as UV sterilization equipment to achieve purity standards demanded by production operations. To minimize maintenance downtime, the unit included a clean-in-place (CIP) system to permit on-site cleaning of filtration membranes. The prepackaged design allowed for rapid delivery and startup, while included programmable logic controls (PLC) minimized on-site operation and maintenance demands

TECHNOLOGY

Deliverables and equipment included:

- 275 GPM RO unit with seawater membranes
- CIP system
- Interstage booster pump
- UV sterilization unit
- Instruments and valves
- High pressure pumps
- Auxiliary tanks and pumps
- PLC controls

OVERVIEW

Industry
Chemical

Location
Jeffersonville, IN

Objective
Reduce wastewater generated by specialty chemical production

Solution
275 GPM High Pressure RO System

Looking to optimize recycle/reuse rates? Are wastewater discharge costs an issue?
Contact us today at www.SamcoTech.com • askengineers@samcotech.com • (716) 743 9000