



PROJECT BRIEF

Power Plant Optimizes Boiler Feed Purification for Continuous Flow with SAMCO Multimedia Filtration Unit

PROJECT OVERVIEW

When a natural gas power plant in Middletown, CT needed a solution for the removal of suspended solids from boiler feedwater, SAMCO delivered a containerized filtration unit that optimized the performance of the client's existing deionization equipment.

OBJECTIVE

Remove dissolved solids in preparation for downstream deionization processes. Project specifications:

- Maximum turbidity level of <1 NTU

SCOPE OF SERVICE

SAMCO delivered a containerized multimedia filtration system, comprising design and engineering services, system fabrication, controls integration, commissioning, startup training, and support.

CHALLENGES

- Large flow capacity
- Low turbidity tolerance of existing deionization equipment
- Limited operator availability

SOLUTION

Due to downstream deionization processes, the client needed to produce filtered water with low turbidity levels. In line with the client's needs, SAMCO delivered a 410 GPM filtration unit for removal of suspended solids from boiler feedwater. The unit's multimedia filters enabled the effective removal of both coarse and fine particulates, while its containerized design enabled fast-track delivery and installation. Outfitted with a tubular backwash filter, the unit allowed for media regeneration in place, yielding consistent system performance and minimal maintenance downtime. To mitigate operational demands, the solution included integrated programmable logic controllers (PLC) for remote process monitoring.

TECHNOLOGY

SAMCO delivered a quadriplex multimedia filter train, including:

- Conex container
- Tubular backwash filter
- Pressure vessels and internals
- Rinse and recycle pump
- Coagulant feed
- PLC controls

OVERVIEW

Industry

Power

Location

Middletown, CT

Objective

Remove suspended solids to <1 NTU

Solution

410 GPM containerized quadriplex multimedia filtration unit