Refinery

SAMCO
Separation from the ordinary

PROJECT BRIEF

Oil Refinery Replaces Old Softening Equipment and Reduces Boiler Makeup Water Hardness with UPCORE™ Softening System

PROJECT OVERVIEW

When an oil refinery in West Virginia needed to replace its softening equipment with a more efficient system, SAMCO helped the client install and run an effective UPCORE™ ion exchange system for minimal hardness and maximum results.

OBJECTIVE

Meet stringent boiler feedwater quality requirements for the refinery industry.

- < 0.1 ppm $CaCO_3$

SCOPE OF SERVICE

SAMCO delivered a detailed process, mechanical and electrical design and engineering, controls integration, system fabrication, commissioning. startup, and training.

CHALLENGES

- Extremely low hardness required for boiler makeup water
- Stringent water purity requirements for the refinery industry

SOLUTION

Helping the client replace it's old softening system with a sate-of-the-art UPCORE™ ion exchange softening system, SAMCO helped the company reduce its damaging calcium carbonate hardness used in the boiler makeup water. The prepackaged design allowed for quick and easy installation, and SAMCO also installed programmable logic controllers (PLC) to automate flow, temperature, pressure, and resistivity monitoring with an operator interface for ease of use.

TECHNOLOGY

Project deliverables and equipment included:

- UPCORE™ Softening System
- Pressure vessels
- Instruments & valves
- Chemical metering equipment
- PLC Controls
- Operator interface

OVERVIEW

Industry
Refinery

Location
West Virginia

Objective
Decrease hardness to 0.1 ppm calcium carbonate

Solution
400 GPM UPCORE™ Softening System

Looking to soften your boiler makeup water? Are contamination and hardness an issue?
Contact us today at www.SamcoTech.com • askengineers@samcotech.com • (716) 743 9000