INDUSTRIAL WASTEWATER

WWTS Upgrade for Paper Manufacturing

Industry:	Paper Flexible Packaging
System:	8,000 gpd Waste Water Treatment System Design
Location:	South Carolina
Goals:	Remove Oil/Grease, Suspended Solids, Heavy Metals, Color, BOD, COD

Project Overview:

SAMCO's state-of-the-art process design for Waste Water Treatment System upgrade at a major company's Flexible Packaging Plant utilizes Heavy Metals Precipitation, Suspended Solids Flocculation, Clarification, Biological Treatment, Sludge Handling/Dewatering to treat wastewater from printing press area containing heavy metals based colors/pigments and starch paste make-up area containing starch waste. It is also designed to achieve up to 50% recycle/reuse in the Paper Flexible Packaging industry.

Critical Issues:

- Complex contaminants & varied flow
- Stringent discharge limits
- Existing WWTS not in compliance
- Reduced O&M costs

Vision for Solution:

- Pollution prevention (P2), waste minimization, recycle/reuse & source segregation strategies to reduce contaminant load on wastewater treatment plant, reduce chemical feed, reduce sludge waste, achieve 50% recycle/reuse and handle added expansion load
- Segregate wastewater from starch paste for biological treatment & from printing press area for physical/chemical treatment in lieu of combined wastewater treatment, for maximized ROI
- Utilize our standard products & pre-packaged system design for fast-track turnkey project delivery and performance guarantee
- PLC w/ Remote Telemetry for minimum onsite operator attention
- Modular design with expansion capability for future needs

Project Scope:

- Detailed Plant Survey
- Treatability Studies
- Project Estimation
- P2 & Waste Minimization Studies
- Concept Development
- Process Design/Project Engineering

Equipment Description:

- Equalization Tanks
- Chemical Feeds
- Clarifier System
- Biological System
- PLC Controls
- Influent Pumps
- Reaction Tanks Unit
- Sludge Handling/Filter Press
- Recycle Pumps
- Platforms/Stairs

Special Features:

- Engineering studies reduce 30% wastewater & 50% pollutant concentration
- Design incorporates a modular expandability and future add-on capability for changing needs