

## INDUSTRIAL WASTEWATER

# WWTS Design for Paper Manufacturing

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

### Project Overview:

SAMCO's state-of-the-art Waste Water Treatment System process design at a leading 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
Plant expansion w/ added water & wastewater load	Reduced O&M costs
Fast-track, concept to completion	

### 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	P2 & Waste Minimization Studies
Treatability Studies	Onsite Pilot Studies
Concept Development	Process Design/Project Engineering
Project Estimation	

### Equipment Description:

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

