Koester Associates, Inc.

Project Profile…

SANITAIRE

Albany County Sewer District, NY
North and South WWTP
Aeration Upgrades

Facility Contacts:

Superintendent of Operations: Richard Lyons (518)447-1610

Chief Operators: Tom Tommell, South Plant
Charles Cahill, North Plant

Engineer: Malcolm Pirnie, Inc.

Project Summary:

The Albany County North and South facilities were equipped with mechanical aerators. Fine bubble aeration was evaluated for the secondary treatment activated sludge process. Factors leading to the decision to upgrade to fine bubble aeration included power savings, increased operations flexibility, decreased maintenance, and increased treatment performance.

Aeration horsepower is the major electric demand at the North and South facilities. The in-place gas cleaning is designed to keep the aeration system operating at peak efficiency. The County realized that long term maintenance would be minimized with the in-place gas cleaning system.

Design Parameter	North Plant	South Plant
Tank Configuration	3 tanks, 4 grids per tank	3 tanks, 3 grids per tank
Average Daily Flow	22 MGD	21 MGD
Peak Hour Flow	55 MGD	44 MGD
Design Air Flow (avg/peak)	11,000/13,000 scfm	9,000/10,800 scfm

Sanitaire Fine Bubble Ceramic Disk Aeration Equipment

↓# Six Aeration Basins Total, each with multiple grids of 9" diameter ceramic disks
↓# Total Number of Diffusers: North Plant: 7,524 South Plant: 6,006
↓# In-place Gas Cleaning System with connections for portable cleaning equipment
↓# Pressure Monitoring station for each aeration grid