

# Project Profile

## Middle GA Poultry Processor

### edge™ Allows Compliance with Organic Coagulant

#### APPLICATION

One of two 500 GPM Dissolved Air Flotation systems.

#### THE PROCESS

**Dissolved air flotation (DAF)** is a water treatment process that clarifies wastewater by the removal of suspended matter such as oil, grease or solids. The removal is achieved by dissolving air in the water or wastewater under pressure and then releasing the air at atmospheric pressure in a flotation tank or basin. The released air forms tiny bubbles which adhere to the suspended matter causing the suspended matter to float to the surface of the water where it may then be removed by a skimming device.

#### THE PROBLEM

Polymers, and coagulant are used in significant quantities to improve effluent quality and thicken sludge. Chemical costs and sludge hauling costs are very high for poultry processing operations.

#### CUSTOMER PROFILE

One of the nation's leading poultry companies was interested to see if the Edge would allow them to replace Ferric Chloride with organic coagulant. Previous attempts were not successful when BOD proved to be too high. Organic coagulant will provide tighter sludge resulting in fewer tanker loads and the ability to sell the sludge to rendering.

#### SOLUTION

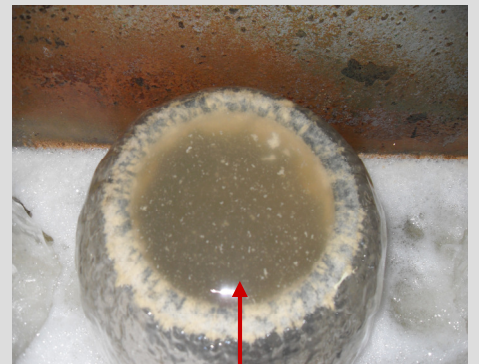
Griswold Water Systems provided one 6" Edge electronic water treatment system and installed it in one of two DAF feed lines. The treated DAF was converted to Organic Coagulant and two 20 hour composite effluent samples (control and treated) were sent to the lab for analysis. Lab results indicated BOD of 199 which is well in compliance. A full week of composite sampling will prove consistent results.

#### RESULTS & FUTURE POTENTIAL

- BOD 199
- Sludge loads will be UP TO 50% less
- Sludge will sell to rendering
- Potential Savings = \$500,000 / Year



6" EDGE Installed in 1 of 2 DAF Feed Lines



Control Effluent with Ferric Chloride



EDGE Effluent with Organic Coagulant



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