

Case History 23

Aeration Upgrade—Rendering

**Field Dale Farms installs
new O²ctopus® System to
cut costs and increase D.O. !**



Operating a poultry rendering facility on the outskirts of Toccoa, GA, Field Dale Farms runs an SBR to nitrify / denitrify a daily flow of 282,000 GPD. Typical of rendering operations, the water is nutrient rich, and must undergo significant treatment before discharge. The plant had installed a variety of aeration equipment, including six 30HP “Air Jammer” devices, a 50HP surface aerator, and another 75HP surface aerator, for a grand total of 305 connected horsepower. In spite all of this equipment, the plant frequently suffered periods of dangerously low dissolved oxygen levels. In November 2005, FBC installed a 12- unit O²ctopus® system, with diffusers set to a depth of 12-feet to enhance mixing and dissolved oxygen levels. The system operates with two blowers, which use 125HP to provide an additional 200 lbs of dissolved oxygen per hour.



New stainless O²ctopus® units were custom manufactured to augment existing aeration equipment to improve mixing, and raise dissolved oxygen.

Project Value: \$87,000,
*complete with blowers and
factory installation*



Field Dale Farms has operated it's new O²ctopus® system continuously since November 2005 to improve SBR operations. A diffused air system, the stainless O²ctopus® units have enabled the plant to reduce operating costs and improve treatment, especially during cold weather periods when surface aerators have a substantial cooling effect on the wastewater, reducing the effectiveness of the nitrification / denitrification process.