



**WE SOLVE ODOR-FOG-SLUDGE ISSUES
AND REDUCE ENERGY/CHEMICAL COSTS**



INDUSTRIAL WASTEWATER TREATMENT

LARGE CHICKEN PROCESSOR

Operating Challenges

- Low performance of anaerobic pretreatment lagoons
- FOG accumulation in anaerobic lagoons
- High Fat Oil Grease offsite disposal costs related to DAF operation
- Odor issues
- High energy costs related aerobic treatment
- Aerobic sludge volume accumulation
- High FOG/Sludge, dredging/disposal costs
- Costly land application restrictions
- Nitrification denitrification issues
- Overall plant overloading
- Overall high plant operating costs

Treatment Plan & Execution

SciCorp worked with plant operating staff and developed treatment approach using SciCorp technology to address operating challenges.

SciCorp recommended the following:

BIOLOGIC™ SR2 addition at:

- ✓ Inlet to anaerobic pretreatment lagoons
- ✓ Inlet to sludge storage lagoons



Process changes implemented by plant staff to optimize utilization of SciCorp technology resulted in:

- ✓ FOG crust layer in pretreatment lagoons reduced 85%–95%
- ✓ BOD/COD removal in pretreatment lagoons increased from 40% to 85%
- ✓ Odors eliminated from anaerobic pretreatment lagoons
- ✓ BOD load to aerobic treatment, decreased by 85%
- ✓ Sludge accumulation in sludge pond eliminated
- ✓ Dredging of crust in anaerobic pretreatment lagoons eliminated
- ✓ Dredging frequency of sludge pond reduced by 75%
- ✓ Aeration demand for aerobic system dropped by 50%–75%
- ✓ Denitrification improved by 50% without adding carbon source
- ✓ Wastewater plant organic load capacity increased by 50%
- ✓ Operational cost savings using SciCorp technology showed 5:1 ratio (savings: costs)

Environmental/Carbon Footprint Impact Benefits

- Energy use dropped by 50% in aerobic treatment
- Energy use related to dredging and offsite disposal of FOG solids and sludge solids eliminated
- Carbon footprint of wastewater plant operations reduced 35-50%

Issues Avoided

- | Capital expenditures due to plant over loading avoided
- | FOG/Sludge land application ban no impact on plant operation
- | Offsite FOG/Sludge treatment avoided
- | Increase in dredging/disposal costs avoided by onsite treatment



Increase in
plant capacity



Improvement in
anaerobic pretreatment
efficiency



Diversion of FOG/Sludge
application to onsite
biological degradation



Odor eliminated from
anaerobic pretreatment
lagoons and sludge pond

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