



Reduction Excess Sewage Surcharges: FOG's (Fats,Oils,Grease) & TSS In A Large N.E. Bio-Processing Facility

The Bio-processing Facility Project Process Description

It processes 250,000 GPD of FOG's, septage, and bio-solids. Trucks arriving, discharge into grit receiving tanks. The influent is pumped into a 500,000 gallon mixing/storage tank. From the storage tank, it is pumped into the belt press facility for dewatering. The filtrate from the dewatering operation is pumped to a clarifier tank. The overflow from the clarifier tank it is pumped into the final tank which then is discharged into the regional sewage authority.

The program goal was to demonstrate the effectiveness of EcoCatalyst in reducing FOG's and TSS amounts thru out the process . The ultimate goal was to reduce excess FOG and TSS surcharges imposed by the regional sewer authority.

Analytical samples were taken on 11/12 before injection of EcoCatalyst to establish the base line. The results were consistent with the facility's historical laboratory analysis. Additional samples were taken during and after the product injection. TSS was measured at the discharge point to the regional sewage authority. FOG's were measured at the storage tank, belt press cake, belt filtrate ,and at the effluent discharge.

EcoCatalyst was injected (11/12 through 11/18) into the sludge feed/mixing tank with chemical feed pump at the rate of 18 ppm of processed volume or 4.5 GPD/250,000 gallons of bio-sludge.

The Results:

FOG's

- 1.Sludge holding /mixing tank there was an 73% reduction of FOG's.
- 2.Belt press cake -69% reduction of FOG's.
- 3.Belt press filtrate -76% reduction of FOG's.
- 4.Effluent discharge -62% reduction of Fog's. There was one day spike which could be explained as analytical error or more likely a clean out process of the facility equipment.

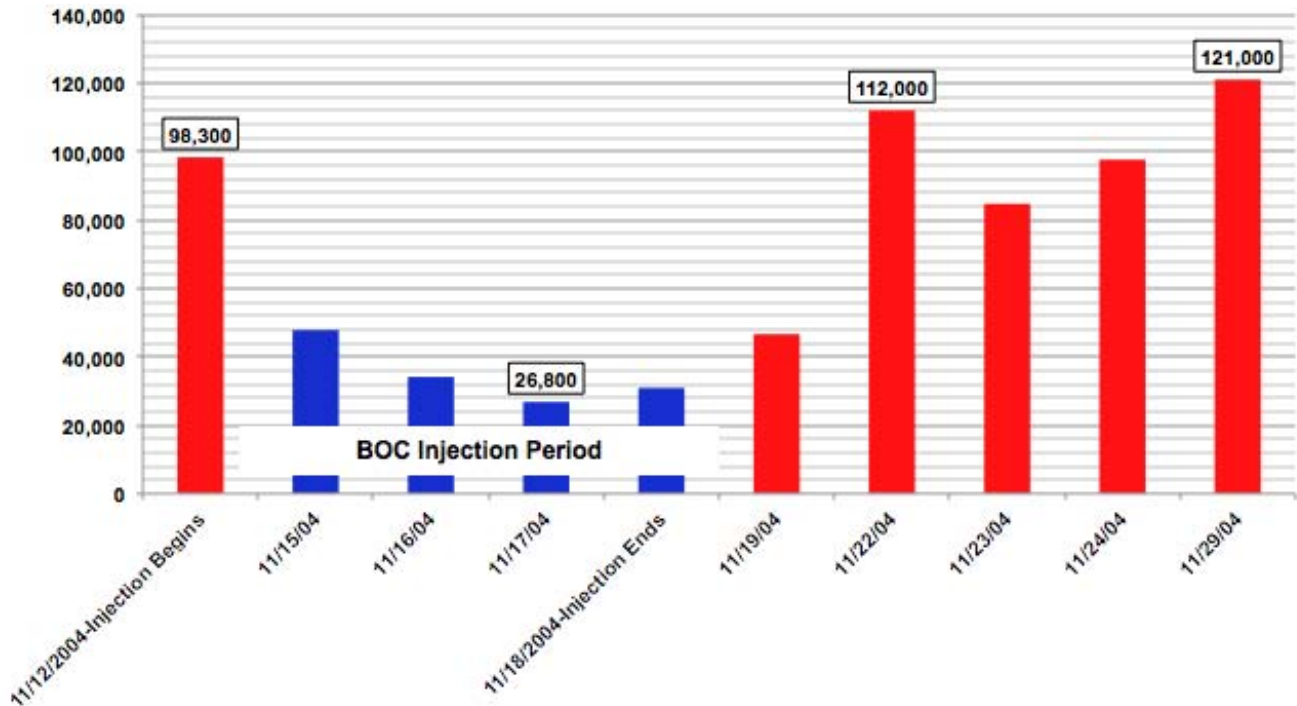
TSS

- 1.Effluent discharge -55% reduction of TSS.

Overall, this has lead to a major reduction in excess surcharges.

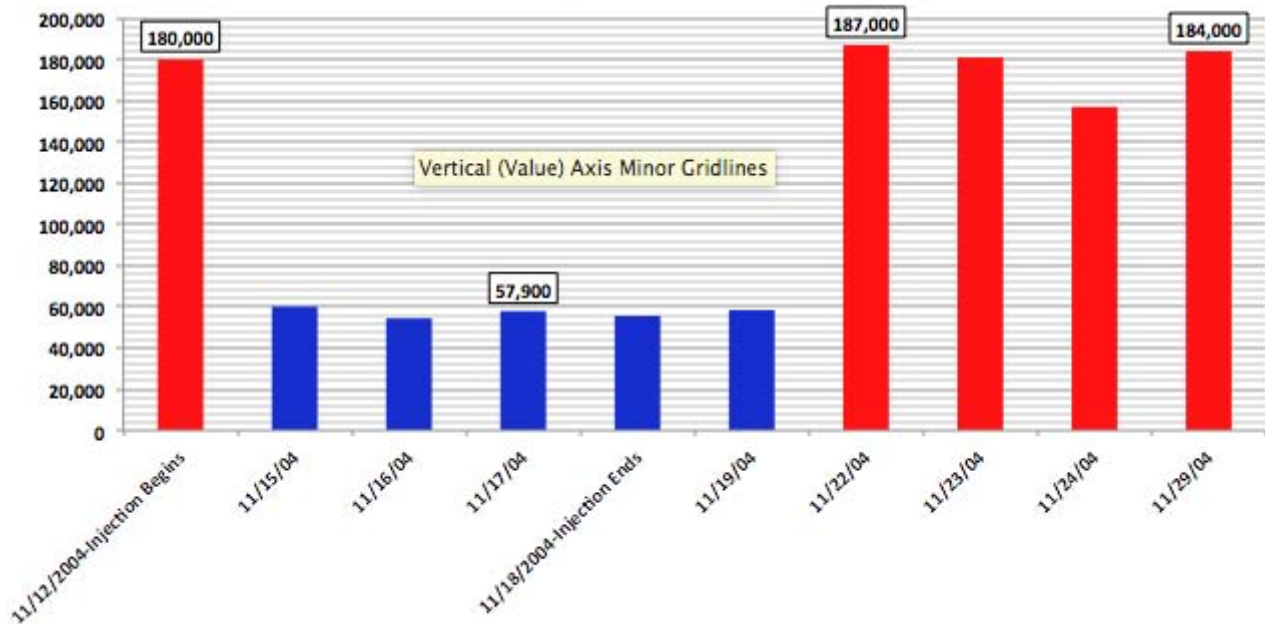
Reduction Of FOG's-Holding/Mixing Tank - 73% Reduction

Feed Sludge Holding/Mixing Tank - FOG (Mg/Kg Dry)

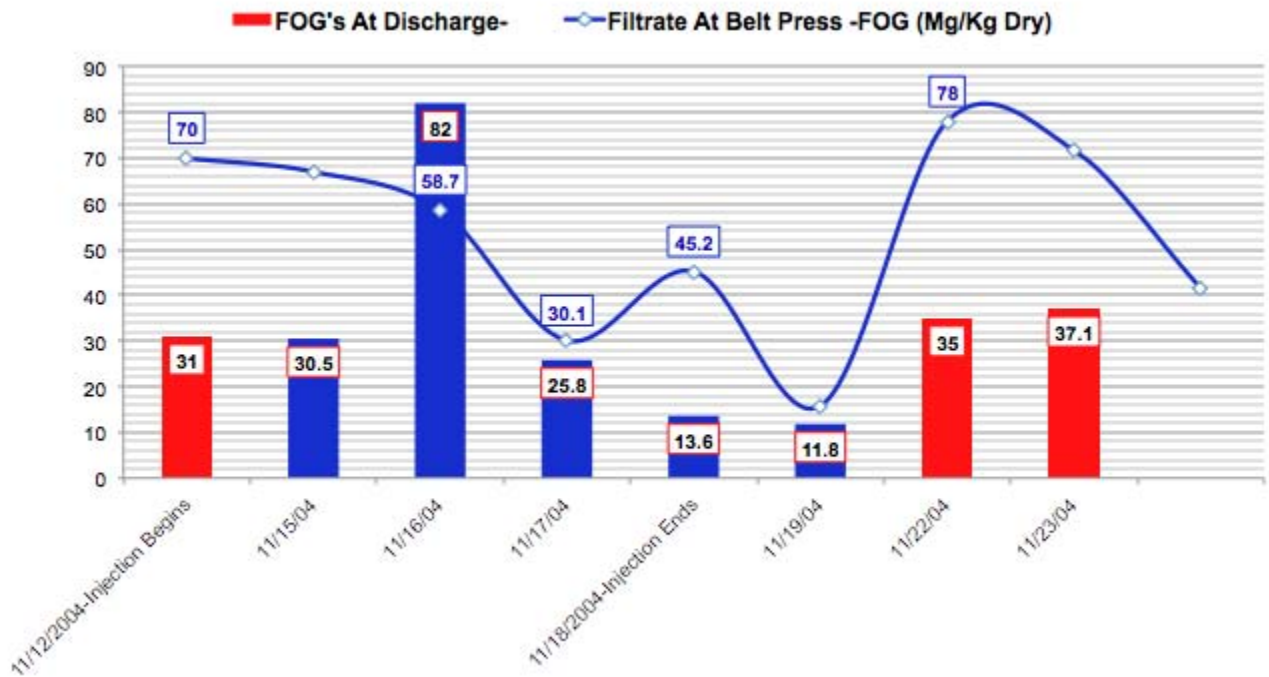


Reduction Of FOG's-Belt Press Cake - 69% Reduction

Belt Press Sludge Cake - FOG (mg/Kg Dry)



Belt Press Filtrate -76% Reduction Effluent Discharge- 62 % Reduction



Effluent Discharge -55% Reduction Of TSS Effluent TSS- (Mg/Kg Dry)

