

## Wastewater Treatment: Fats, Oils and Grease Removal

Effective removal of fats, oils and greases (FOG) yields sustainable water cost savings. Stuart Ward of *Process Engineered Water Equipment* explains chemistry and equipment are key...

### Case Study

Tennessee Pride was started in 1943 by Douglas Odom Sr. and has produced sausage products, featuring the highest quality and real country flavor for over 65



HD² XLRator LS-100

years. Having been in the meat business all his life, he knew a thing or two about how to make sausage. After experiments with different spice formulas, he hit upon what is now known as the "secret recipe" that makes Tennessee Pride flavor so great. Today Larry Odom is the third generation of leadership and is improving the wastewater treatment at the Dickson TN facility.

### Sustainable Savings

The old oil skimmer system built for removal of fats, oils and grease (FOG) had several short-comings which needed to be



Old Surface Skimmer

addressed to achieve better treatment. PEWE determined that with careful use of available space, a complete wastewater treatment plant upgrade was possible.

The new system entailed a mixed EQ balance tank with pH control, flow proportional feed, a PEWE *PolyAccu Dose™* chemical make-down unit,

a stainless steel PEWE *HD² XLRator™* DAF unit complete with modern Rogue *MAX RGT™* regenerative turbine aeration. As a bonus the new operation featured an automated PEWE *Command Control* system panel with color touch-screen, standard alarms, backups and extra bypasses. The PEWE equipment was delivered on schedule and the install technical support on site

working with the Odom maintenance crew as well as designated chemical representative. They pre-jar tested the water to assure the right chemical program was in place and ready.



### Final Results

Upon start-up the new wastewater pretreatment system immediately achieved the desired results. The reductions exceed 99% for FOG, TSS and BOD. The EQ and the pH tank pre-conditioned the water downstream prior to the dosed polymer. The flow proportioned efficiently dosed the desired amount.



The stainless steel PEWE *HD² XLRator™* DAF was a easy to operate and keep clean by the staff.

Odom's Tennessee Pride is very satisfied with the new wastewater treatment system. The city POTW counts on the clean discharge. Larry Odom's vision for

the Tennessee Pride initiative to improve the Dickson facility wastewater is a big step forward. They are especially pleased to be able to help keep the community and their local home environment **Green**.



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