

New Air Floatation Technology Helps Beef Processor Meet Permit Levels

Challenge

A major beef processor in the Southeast United States was paying fines for exceeding its National Pollutant Discharge Elimination System (NPDES) permit levels for biological oxygen demand (BOD), fats, oils and grease (FOG) and total suspended solids (TSS). As a result, the city was threatening to turn off their municipal water supply and shut down plant operations. The waste treatment plant only utilized grease skim tanks that resulted in very poor control and high costs.

Solution

GE Water & Process Technologies conducted a site survey and engineering audit to determine the best solution. Jar tests were undertaken and a full-scale trial initiated to optimize the plant's performance. System hydraulic modifications and chemistry changes were implemented, and the skim tanks were modified to maximize the reduction of BOD, FOG and TSS through the use of the entrapped air floatation (EAF) technology licensed from Stewart Water Solutions Limited. Effluent stream samples were taken after the system modifications were completed to verify compliance.

Results

The new treatment program enabled the plant to meet all NPDES permit levels and avoid any legal actions. The total project savings from not having to purchase new capital equipment totaled US\$600,000.

About GE Water & Process Technologies

Water & Process Technologies, a unit of GE Infrastructure, is a leading global supplier of water, wastewater and process systems solutions. Water & Process Technologies delivers customer value by improving performance and product quality and by reducing operating costs and extending equipment life through a broad range of products and services. These products and services are used to optimize total water/process system performance, safeguard customer assets from corrosion, fouling and scaling, and protect the environment through water and energy conservation. For more information on Water & Process Technologies, visit gewater.com.

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