

Big Savings Near the Big Easy

Flygt Concertor™ delivers clog free and energy saving solutions in St. Tammany Parish, LA

A progressive private utilities company in Louisiana was chomping at the bit to try new pump station technology that would eliminate clogs and unscheduled maintenance, all the while saving power.

St. Tammany Parish, Louisiana, which has a population of around 250,000, sits north of New Orleans on the other side of Lake Ponchartrain. Utilities, Inc. of Louisiana (UIL) operates 192 sewage lift stations and 30 wastewater treatment plants in St. Tammany Parish. In 2011, Gulf States Engineering Company, Inc., a Xylem distributor found in Covington, Louisiana, began a working relationship with UIL to replace lift station equipment that was dealing with an increasingly problematic wastewater stream.

Using the Flygt N-Pump, Gulf States began a program to replace all of UIL's major lift station equipment, which previously had been plagued with clogs resulting from a difficult wastewater stream riddled with "flushables" and other debris. To date, UIL has been very satisfied with their energy savings, reduced unscheduled maintenance due to clogging, and overall dramatic improvement in the quality of their stations.

When UIL was approached regarding the Concertor trial for the southern U.S., featuring an integrated and intelligent pumping solution, they jumped at the opportunity to participate. Concertor combines a fully integrated control system with IE4 motor efficiency, state-of-the-art Adaptive N-hydraulics, and intelligent functionalities. By integrating a control system that can automatically adapt to an ever-changing wastewater environment, the optimal level of performance is delivered while significantly reducing total cost of ownership. All of this has been achieved with a significantly smaller footprint.

Scope

The sewage lift station chosen for the installation was a commercial site near a major shopping center in an area that serves retail, restaurants, and



Concertor trial pump



Down in the sump

Customer: Utilities, Inc. of Louisiana

Challenge: Clogging Problems

Products: Flygt Concertor™

private residences. The existing station had been upgraded in the last two years with a pair of Flygt NP3127 HT, ten-horsepower pumps that were working well at the time of the upgrade. The desire to participate in the trial allowed UIL to determine how the use of variable frequency drives (VFD) may reduce operation costs while simultaneously testing new technology.

The built-in intelligence makes it quicker and easier to set-up and operate functions that would otherwise require a very sophisticated monitoring and control system.

Solution

In August 2015, one of the existing pumps was removed from the station completely and its controls were elevated so they could operate only during periods of high inflow or demand. The Concertor trial pump was then installed with its own monitoring system in about an hour and began operation. One of the key drivers in UIL's participation was the fact that this pump station pumps into a 16-inch manifold force main and pumps directly to a treatment plant about two miles away. Knowing that off peak demand would benefit from the use of a variable rate pumping system, UIL wanted the opportunity to determine how much might be saved by utilizing current technology.

Results

Within a short period of time, significant energy savings of \$1,000.00 per month were observed at the site due to reduced power consumption during off peak periods. And what's more, demand charges were reduced due to the use of the integrated VFD in the unit, which completely eliminated inrush current during starting.

Additionally, the Concertor pump features several other benefits observed by UIL. The built-in sump and pump cleaning feature rendered the station completely free of grease and floatables previously observed. Accordingly, the need for frequent and regular station cleaning that was normally a part of UIL's protocol and costs were eliminated. UIL estimates that the cost of each cleaning was about \$350.00 each.

A second feature of the system that was highlighted is the clog detection feature. The station has not required any unscheduled maintenance or call outs during the trial period, resulting in additional costs savings over the previous pump setup—unscheduled callout maintenance is valued at \$1000.00 per incident, which occurred about twice a year.

UIL remains a valued partner with Gulf States Engineering Co., Inc. and Xylem and since this trial UIL has regularly inquired: "When can we get more of those Intelligent Pumps"?

Power savings, elimination of clogs, and drastically reduced maintenance - just another example in a growing list of Concertor system successes.



Existing control panel next to Concertor control

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