

A New Master Lift Station Comes Into Service for Natchitoches, LA



The Pump People®

The oldest town in the Louisiana Purchase, Natchitoches currently has a population of approximately 20,000 people. An old town means old infrastructure, so a project to upgrade the city's master lift station was recently set into motion.

According to Henry Shuler, owner and consulting engineer for Shuler Consulting Company, one of the biggest issues with the old station was its location, which was in a tiny city lot crammed into a corner between the road and a commercial business. In addition, the lift station was at limited capacity, as it only had four pumps.

"When you have that much sewage going into a very small wet well, corrosion becomes an issue. Odor was also a problem," said Shuler. "So beyond just the normal engineering side of it, you had some customer issues – so moving [the station] away from its current location was something very advantageous for the city."

The new property the company ended up building on for the city of Natchitoches is several acres, and the new station is in the middle of it. On a piece of land four times larger than the old one, the new station



The added convenience of truck/crane accessibility allows for performing easy equipment addition/removal and routine service and maintenance.



In the event of a power outage, four of the eight pump packages are equipped with a back-up engine that will automatically start based on fluid levels in the wet well.

gives the city the ability to operate a crane truck inside the building for pulling a pump, motor or other equipment. The lift station is also close enough to the previous property that the gravity lines were able to be easily rerouted without going a great distance.

The Equipment

At one point, the city looked at a variety of pump configurations for the old station. But, there was really no easy way to maintain it, according to Shuler.

The original master lift station had four 12" pumps. They were replaced with eight 10" pumps. When it came to programming these pumps, the process was user-friendly. Equipment operators can monitor each pump based on flow into the wet well and adjust the speed accordingly. The pumps operate at minimum speeds that can be easily increased..

The city also took advantage Gorman-Rupp's Integrinex® Advanced control technology. The manufacturer supplied a cellular modem for the SCADA system so the system can be monitored and adjusted as needed.

The motor control center, according to the lift station operators, is unprecedented. The controls are all touch-screen and very easy to use. Operators can monitor run times, engine status and pump status.

The new lift station's average flow is about 2 million gallons a day (MGD) and 6 MGD during peak flow. According to Matt Anderson, the utility director for the city of Natchitoches, the master station that was replaced was approximately 25 to 27 years old. Due to its age, the decision was made to replace rather than repair the station.

"We made the decision that if we're going to build this, let's build it for the next 30 years' worth of growth," said Anderson. "So [there's] quite a difference in our old master station and our new master lift station."

Instead of spending the necessary dollars in rehabbing and bypassing the station for months (which would mean taking the wet well out of service), investing the money in building a new station made more sense.

The new lift station has two separate wet wells with the capability to isolate one in the future. Each wet well contains four pumps – two in each well utilizing Gorman-Rupp's AutoStart engine-driven emergency back-up technology.

A Beneficial Partnership

Anderson has worked with Gorman-Rupp for over 23 years and considers the company a valuable partner. "We have many, many stations with Gorman-Rupp products, and we've always been satisfied with their parts availability," he said.

"Gorman-Rupp is probably our top company that we represent as far as sales," said Trent McCoy, municipal sales representative for Delta Process Equipment, the equipment distributor for this project. "Certainly my top manufacturer as far as municipal sewer sales. They make



it really easy to sell. I think Gorman-Rupp kind of speaks for itself as far as quality and reliability.”

Tornadoes and hurricanes (as well as a recent winter storm) are typical in this region of Louisiana. The new lift station was specifically designed to handle such events. During Hurricane Laura, for instance, the station was completely out of power for almost 40 hours but remained in operation.

“For 40 hours, during a heavy rain event, we had to rely on those backup engines to run those pumps, and they did a great job,” added Anderson.

In terms of Gorman-Rupp’s service elements, they are always available to help. When a problem arose, Gorman-Rupp and Delta Process were able to provide quick service to mitigate any issues.

About Gorman-Rupp Pumps

For more than 85 years Gorman-Rupp Pumps USA has manufactured pumps for municipal, sewage, industrial, mining, construction, petroleum, OEM, government, agriculture and fire markets.

The company’s extensive line of pump products include self-priming centrifugal pumps, standard centrifugal pumps, submersible pumps, rotary gear pumps, diaphragm pumps, engine-driven pumps, and priming assist pumps. In addition, Gorman-Rupp manufactures a complete line of state-of-the-art packaged lift stations and booster stations that include pumps, motors, controls, piping, accessories and enclosures.

For more information, contact Cyndi Hoffner,



Gorman-Rupp designed and manufactured the complex control technology to ensure the entire system works in harmony with the city’s unique requirements.

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