No Complaints on Long Island

By Michael Cole

Long Island pump station eliminates odors

The new odor control system requires only an electric connection and potable water source.

ARTICLE SUMMARY

Challenge: The chlorine-based odor control system used at a Long Island pumping station was both hazardous and outdated.

Solution: During a pump station upgrade, the odor control system was replaced with a system that uses ozone and water to eliminate odors.

Conclusion: The new system is cost-effective and has successfully eliminated customer complaints.

n the view of superintendent Michael Reichel, it is nice to no longer get complaints about odors from the Howell Avenue pumping station which serves the Town of Riverhead Sewer District on Long Island, N.Y. "Believe me, if there were odors, they would call me," Reichel said.

The district installed an OHxyPhogg V80 odor control system from Parkson Corp. in July 2011, and has had no complaints since. The units use an air-atomizing three-fluid nozzle that combines ozone with a rapid application of micron-sized water droplets. The result is a hydroxyl radical fog that can be dispersed throughout a confined space, generating a large reaction surface area and oxidizing odors as well as fats, oils and grease (FOG). The systems are being used successfully in lift stations, wet wells, covered sludge thickeners and holding tanks. The systems require only a potable water source and a 110- or 220-VAC electrical connection.

The Howell Avenue Pump Station consists of two wet wells and is capable of handling up to 700,000 gal per day (gpd). It is located close to a residential neighborhood, with houses on three sides.

"We're literally in their backyards," Reichel said. The original pump station dates to 1936, and previously, the district used gaseous chlorine to control odors.

"It was effective, but hazardous," Reichel said. "When we rehabbed and expanded the pump station from 400,000 to 700,000 gal recently, we decided to go to another odor control technology. The footprint is small, so the district needed something that would take up a minimum amount of space."

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The OHxyPhogg system was recommended by the city's engineering firm, H2M Group, and Reichel and his staff visited an installation of the technology in a nearby city before deciding to install one in the Howell Avenue station. The unit went into operation in July 2011, and has been operating continuously ever since. It uses two standard nozzles, one to treat each of the wet wells to control the hydrogen sulfide release and FOG accumulation.

According to Reichel, the unit not only eliminates odors, but also is easy to maintain and costs little to operate. The only utility requirements are a standard electrical connection and potable water supply. The Riverhead district maintenance team replaces the water filter about once every six months so that it does not clog.

FOG also can accumulate in the pump station, and OHxyPhogg units oxidize and dissolve grease buildups. FOG buildup has been greatly reduced at the Howell Avenue station, even though additional FOG often is diverted from other pump stations.

The town of Riverhead is home to about 33,000 people and situated on the north shore of Long Island in Suffolk County. Its wastewater treatment plant has a design capacity of 1.2 million gal per day (mgd) and a current average flow of about 0.9 mgd.

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