Controlling Wastewater Pump Station Odors

Golfers playing at the prestigious Austin County Club in Austin, Texas no longer have to deal with wastewater pump station odors while enjoying a day on the course. To address the situation, the Austin Water Utility turned to BioAir Solutions of Voorhees, New Jersey, which installed an EcoPure Mini (EPM) odor control system at the utility's Davenport lift station, which is adjacent to the fairway on the sixth hole of the country club.

The EPM system installed by BioAir treats 300 cfm of air containing up to 50 ppmv of hydrogen sulfide (H2S) along with other organic sewage odors. The skid-mounted compact unit (4 feet x 9 feet) is only 5 feet tall, yet it consistently removes more than 99.5 percent of the H2S and more than 95 percent of all the odors in the airstream. The EPM unit replaced a carbon adsorption system, which needed regular carbon replacement, resulting in higher cost of ownership for Austin Water Utility and odor complaints from the nearby residents and the golfers.

The EPM unit features a dual technology system that combines the benefits of BioAir's patented EcoBase™ plastic synthetic biotrickling media, with a polishing stage featuring BioAir's EcoSorb media. The EcoBase media used in the EPM's primary treatment stage is the latest generation of structured plastic media engineered and designed to optimize treatment of sewage odors. Advantages of EcoBase include extremely low operating costs, minimal maintenance and years of hassle-free treatment with zero odor complaints from the operators or the neighbors.

"The Davenport lift station is located in the middle of an exclusive country club surrounded by high-end residential developments," said Joaquin A. Ordoñez, with

the Austin Water Utility's wastewater collection system engineering division.

"Consequently, the acceptable level of odors at the site is zero. We tried several different odor treatment solutions for this facility, including carbon filters. However, we were unable to find a reliable treatment solution, with minimal O&M requirements and low operating costs that also eliminated the need for continually replacing the carbon."

"We approached BioAir Solutions to assist with developing suitable design parameters for the lift station, and the end result was the installation of their EcoPure Mini system. Working with the BioAir team has been a good experience and their understanding and knowledge of municipal odor abatement and biological odor control has proved extremely helpful. The EPM unit has a very low-profile and a clean look, which is ideal for the sensitive location. We have had no odor complaints since the unit was installed." said Ordoñez.

According Louis le Roux, president of BioAir Solutions, the Davenport facility was an ideal location for the compact, low-maintenance and environmentally friendly EcoPure Mini unit.

"The EMP is a low-profile, highly efficient unit that eliminated virtually all of the odors shortly after being installed," said le Roux. "The only way anyone would even know it was operating would be to hit their golf ball out of bounds and stumble upon the unit," added le Roux.

For more information, visit www.bioairsolutions.com [1].

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