



Case Study # 104

Wastewater Odor Treatment

A number of sources in the wastewater treatment process such as the headworks, aeration tanks, settling tanks and dewatering press can produce high-intensity odors from gaseous sulfide emissions. The most common sulfides are hydrogen sulfide (H₂S) and methyl mercaptan.

The highlighted installation was for a major municipality in the southeast and utilizes Verantis' new, high efficiency 3-K Tellerette Packing. This design operates at a velocity over 600 fpm or 20% higher than traditional designs. This enabled us to reduce the tower diameter saving space and reducing pumping requirements. Full scale performance tests confirmed the high removal efficiency at the increased velocity. The system also utilizes the Verantis high efficiency, backward curved CLUB series FRP fans.



Product Literature: (click on links to take you to the literature)

[SPT Bulletin 12-2](#)

[3-K Tellerette Curve 12-10.14](#)

[CLUB Fan Bulletin 11-4](#)

Application	Odor Control
Exhaust Volume	10,000 ACFM 38,000 ACFM 55,000 ACFM
Exhaust Temperature	90° F
Contaminant	Hydrogen Sulfide Methyl Mercaptan
Removal Efficiency	99.5%
Scrubbing Solution	Dilute NaOH & NaOCl
Exhaust Pressure	3" W.C.
Materials of Construction	FRP