

First Ever Bio-Scrubber® Going Strong After 24 Years

Critical upgrades and enhancements ensure continued high performance

GES Biotek, a leader in advanced odor control and biofiltration solutions, proudly announces the successful upgrade and performance testing of the Bio-Scrubber® at the Livermore Wastewater Treatment Plant (WWTP). This achievement underscores **GES Biotek's** unwavering commitment to providing sustainable, high-performance solutions for municipal wastewater treatment facilities.

Continuing the Legacy of Innovation



Ken Corey

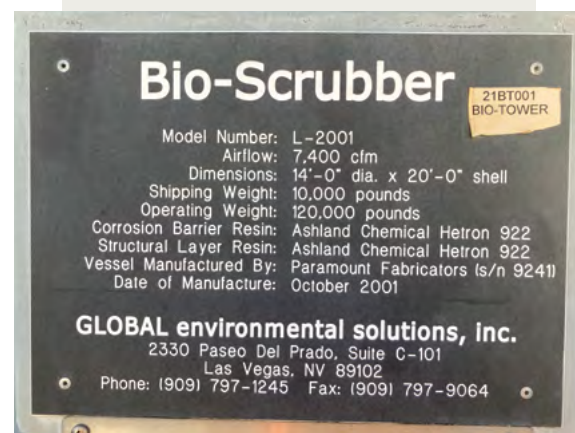
The **Livermore Bio-Scrubber®**, originally installed in 2001, was a pioneering biological odor control system and the first of its kind. Designed and patented by **Ken Corey** of Global Environmental Solutions, Inc. (now **GES Biotek, LLC**), it set a new standard in biological odor control technology.

Featuring **GES Biotek's** proprietary **Crater-Max®** media, the system optimizes airflow distribution and microbial activity, enabling the effective degradation of odor-causing compounds like hydrogen sulfide (H₂S). Over two decades of operation have validated **Crater-Max®**'s durability and efficiency in maintaining robust microbial ecosystems and achieving consistent odor reduction.

"Upgrading the Livermore Bio-Scrubber® reinforces **GES Biotek's** dedication to advancing **sustainable and effective odor control technologies**," said Steve McCance, Vice President of Operations at **GES Biotek**. "We are proud to continue building on the legacy of this **groundbreaking system** while delivering **exceptional performance** for our clients."



The Livermore Bio-Scrubber®, the first of its kind, has been going strong since its installation in 2001.



Improvements included installing a new outlet transition with discharge stack and sample flanges as well as upgrading the pump, piping, valves, and flow strainers.



Performance testing showed the upgraded system achieved near-undetectable odor levels.



Sprayer nozzles evenly distribute fluid over the Crater-Max® media bed.

Key Upgrades and Results

During the recent upgrade, the Bio-Scrubber® was restored to its original design specifications with critical enhancements to improve performance:

- **New media depth:** Ensuring compatibility with increased airflow (CFM).
- **New outlet transition:** Includes discharge stack with sample flanges.
- **Advanced monitoring instrumentation:** Including pH and flow devices for improved system oversight.
- **Mag Drive Recirculation Pump:** New pump and piping with required valves and flow strainers.
- **Critical tower component replacements:** Enhancing reliability and efficiency.

Performance testing after the upgrades demonstrated exceptional results, with the Bio-Scrubber® reducing inlet H₂S concentrations of up to 6.6 parts per million by volume (ppmv) to an average outlet concentration of less than 0.5 ppmv. Outlet readings consistently ranged between 0.0 and 0.1 ppmv, achieving near-undetectable odor levels and reinforcing the system's reliability and efficiency.

About GES Biotek

Headquartered in Batavia, Illinois, **GES Biotek** specializes in innovative odor control and biofiltration systems for municipal and industrial applications. With a focus on sustainability, **GES Biotek** delivers advanced solutions designed to serve the needs of future generations while benefiting communities and the environment.

GES Biotek — Good for People, Good for the Environment

For more information about the Livermore WWTP project or **GES Biotek's** cutting-edge products and services, visit GESBiotek.com.