

Cell-Max™ Delivers Increased H₂S Removal Efficiency

Joint Water Pollution Control Plant Skimmings' Odor Control System Upgrade



The four odor control cells retrofitted with Cell-Max™ demonstrated substantial improvements in H₂S treatment effectiveness

The **Joint Water Pollution Control Plant** (JWPCP) in the City of Carson, CA operates an advanced odor control system designed to mitigate foul air emissions generated by primary treatment processes. The **Skimmings' Odor Control System** (SOCS) consists of four dedicated odor control stations—E1, E2, E3, and E4—engineered to capture and treat odorous air from the headspace of sedimentation tank batteries and primary effluent channels. However, prolonged operation revealed the inefficacy of the existing plastic packing media, necessitating the evaluation and implementation of a more robust and efficient alternative to enhance system performance and ensure long-term odor mitigation.

To **optimize H₂S removal efficiency**, three of the four odor control cells were retrofitted with **Cell-Max™** structured media, demonstrating substantial improvements in treatment effectiveness. The final remaining cell, previously utilizing plastic media, was replaced with **Cell-Max™** media early last year, completing the full transition across all four cells.



The plant directly procured the media and successfully executed a self-installation, integrating the upgraded system into existing infrastructure. Post-installation performance monitoring has confirmed **sustained H₂S removal efficiencies exceeding 98%**, effectively mitigating odors from the treatment process.

H₂S loading at JWPCP exhibits seasonal fluctuations, with inlet concentrations ranging from 100 ppm to 300 ppm during summer months, typically stabilizing around 200 ppm. In cooler months, H₂S concentrations vary between 50 ppm and 150 ppm. The facility conducts routine in-house monitoring, with operational data and personnel observations consistently reporting **removal efficiencies between 98% and 99%**, validating the effectiveness of the media upgrade.

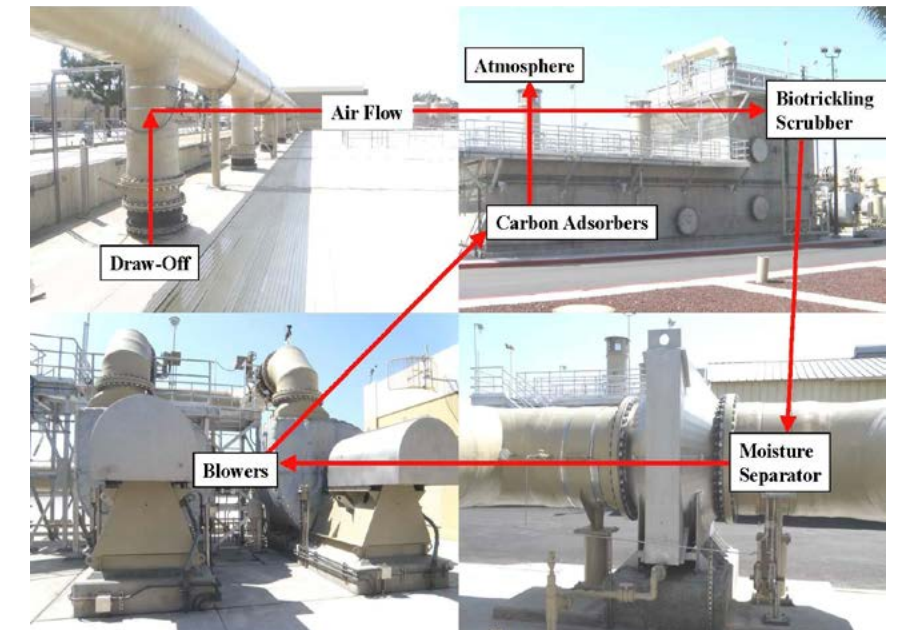
About Cell-Max™

Cell-Max™ is an advanced biological filtration media specifically engineered for high-performance odor control in environments with elevated H₂S concentrations. Its structured design maximizes biofilm development, enhancing microbial oxidation of sulfur compounds. Compared to conventional plastic packing materials, **Cell-Max™** offers superior surface area utilization, optimized mass transfer efficiency, and enhanced structural durability, ensuring long-term operational stability. Its successful deployment at JWPCP has delivered **consistent and reliable odor reduction**, reinforcing its effectiveness in municipal wastewater treatment applications.

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



Skimmings' odor control system station components



Cell-Max™ Media