

**WEST COUNTY WASTEWATER  
TREATMENT PLANT ODOR  
CONTROL DESIGN SERVICES  
LOUISVILLE, KY**

**FINAL PROJECT  
SCORECARD**

- 87% Reduction in plant odor emissions**
- 97% Reduction in hydrogen sulfide emissions**
- No plant odors detected in the community**

**WEA** was retained by the Louisville and Jefferson County Metropolitan Sewer District to design the \$2 million odor control system in 2002 for the 19.5 MGD WCWTP. One system included covers on the grit tanks and channels and **activated sludge diffusion** of captured air into the fine bubble aeration basins for treatment. The lower level of the screen room was isolated and the air was exhausted to a 14, 000 cfm **carbon adsorber**. For the third system, the influent channels to the aeration basins were covered and the air was treated in a **modular biofilter using synthetic media**. **WEA** also provided services during construction and witnessed the successful performance test on all systems. As a follow up, MSD required an assessment of odor reductions from the plant and community odor surveys to verify performance of the systems. Noise control was included for all exhaust fans and the existing aeration blowers.



**5,800 cfm biofilter by Biorem.**



**Aluminum covers on the grit tanks at the WCWTP**