

CASE STUDY

BEAST™ Bioscrubber

Wastewater Treatment Plant,
Jackson, Mississippi



THE PROBLEM

The West Rankin Utility Authority wastewater treatment plant in Jackson, Mississippi treats between eight and 10 million gallons of wastewater a day with a capacity to treat up to 20 million gallons. The newly built plant serves state-owned facilities and customers in multiple cities, including the State Hospital at Whitfield. The process of dewatering digested biosolids releases H₂S gas in the air, which causes a very distinct and unpleasant odor. The facility needed a solution to remove the odorous gas from the air because it was receiving consistent odor complaints from the surrounding neighborhood.



THE SOLUTION

PureAir determined the most efficient solution to remove the high volume of gases emitted at the facility is its Biologically Engineered Adsorbent Scrubber Technology (BEAST™) BST-2100 filled with Sulphasorb Si™ biomedium substrate. This multi-stage air scrubber is specifically designed to handle H₂S concentrations of 300+ ppm and airflows up to 15,000 CFM with fully remote monitoring capabilities. The advanced biomedium, Sulphasorb Si™, is extremely porous creating a large amount of surface area for odor eating bacteria to prosper. With 10+ years of biomedium life, it is easy to install and resistant to high acidity levels, offering a highly effective and low maintenance solution.

Since its installation, the BEAST™ bioscrubber has consistently removed 99.9% of H₂S from the air. The odor complaints have stopped, leaving the customer extremely satisfied.