LOS ANGELES COUNTY SANITATION DISTRICTS

Cutting Costs with a Modular Design and Flexible Solution

PROJECT OVERVIEW

Los Angeles County needed a composting system for Tulare Lake that met or surpassed emission requirements from the San Joaquin Valley Air Pollution Control District in California.

▪ **Ownership:**	Los Angeles County Sanitation Districts
▪ **Location:**	Kettleman City, CA
▪ **Start-Up:**	2016
▪ **Product**	SG Heap™ with GORE® Covers
▪ **Input quantity:**	200,000 TPY Stage 1 (100,000 wet tons dewater biosolids at 22% solids) Final design capacity: 1,000,000 TPY 2 Heaps, 50ft x 20ft x 9ft each
▪ **No. of Heaps:**	72 Heaps, 54 covered, 164 ft. x 26 ft. x 12 ft. each
▪ **Treatment time:**	8 weeks in 3 phases 4 weeks in Phase 1 – Covered 2 weeks in Phase 2 – Covered 2 weeks in Phase 3 – Uncovered
▪ **Aeration:**	In-floor
▪ **Control Parameters:**	Oxygen Control Mode
▪ **Input material:**	Biosolids / Wood chips, grass/straw and yard waste
▪ **Equipment:**	Maintenance building / Front-end-loader(s) / Conveyor(s) / Stationary mixers / Screen
▪ **End product:**	High Quality Finished Compost

LOS ANGELES COUNTY SANITATION DISTRICTS

Cutting Costs with a Modular Design and Flexible Solution

PROJECT CHALLENGES & RESULTS

This project started up in January 2016. The first phase of construction will be able to process 200,000 TPY of mixed biosolids with wood waste. At full design capacity, this facility will be capable of processing upwards of 1,000,000 TPY of organic material, or 500,000 wet tons of biosolids mixed with 500,000 tons of wood based bulking material.

Of significant importance to the LACSD project was the SG Heap™ System with GORE® Covers' ability to comply with the state and local regulatory requirements for meeting a Class A biosolids compost and for VOC emissions reduction. The SG solution provided cost saving benefits in both design and operation as compared to the original negative aerated static pile (ASP) design with a biofilter. And, the solution allowed for a phased in construction approach due SG's modular design and flexibility to expand as the process capacity grows over time.

As part of the technology selection process, the team participated in a series of demonstrations using the SG Mobile™ System with GORE® Covers and then the subsequent review by regulators to demonstrate the system's performance and compliance with strict rules governing pathogen reduction and VOC emission control. As a direct result of these trials, and combined with existing data from other GORE® Cover operating facilities, the GORE® Cover technology has received an assessment and recognition from the San Joaquin Valley Air Pollution Control District in California and a determination by the EPA's Pathogen Equivalency Committee as follows:

San Joaquin Valley Air Pollution Control District concurs that the GORE® Cover technology, when properly installed, operated and maintained per Gore specifications, is capable of meeting and/or exceeding the VOC emission requirements of District Rule 4565 (Biosolids, Animal Manure, and Poultry Litter Operations), District Rule 4566 (Organic Material Composting Operations) and District Best Available Control Technology (BACT) for co-composting operations. Facilities using the GORE® Cover experience greater than 90% reduction in process odors and VOC emissions when compared to open and uncovered compost systems.

The GORE® Cover technology also received a recommendation of national equivalency from the EPA Pathogen Equivalency Committee (PEC) that the GORE® Cover is capable of meeting and/or exceeding criteria for achieving Class A Biosolids as described in Alternative 5: Use of PFRP [503.32(a) (7) and (B) (1) of Appendix B. in a covered aerated static pile without the use of an insulating layer of material (such as finished compost).

LOS ANGELES COUNTY SANITATION DISTRICTS

Cutting Costs with a Modular Design and Flexible Solution

PROJECT IMAGES