

Proving Cost Effectiveness of a Newly Upgraded Composting System

PROJECT OVERVIEW

The Staten Island Compost Facility processed yard waste for the Department of Sanitation New York (DSNY.) It has been operated under contract by WeCare Organics (now Danali Water Solutions LLC.)

As part of NYC's food waste composting program the facility is being upgraded from an open windrow turning operation to a 16-heap SG Bunker® System with GORE® Covers to process food waste in a more environmentally responsible manner.

▪ Ownership:	Department of Sanitation New York
▪ Location:	Fresh Kills, Staten Island, NY Upper Marlboro, MD
▪ Construction:	Phase 1 Complete / Phase 2 Scheduled 2021
▪ Product	SG Bunker® with GORE® Covers
▪ Input quantity:	60,000 TPY
▪ No. of Heaps:	16 Bunkers, 16 covered, 164 ft. x 27 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 – Covered
▪ Aeration:	In-floor
▪ Control Parameters:	Oxygen Control Mode
▪ Input material:	Source Separated Organics (Residential and Commercial Food Waste) / Wood Chips, Grass/Straw and Yard Waste
▪ Equipment:	Pre-Treatment (Tiger depackaging machine, grinders) / Front-end-loader(s) / Mobile Screen
▪ End product:	High Quality Finished Compost

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PROJECT CHALLENGES & RESULTS

During 2014-2015, DSNY and its consultant performed a composting technology evaluation to determine the best technology to use for the facility retrofit at the existing Staten Island Compost Facility located at the Fresh Kills Landfill on Staten Island.

Of significant importance to the Staten Island Compost project team was the GORE® Cover capability to comply with the state and local regulatory requirements for:

1. Meeting strict air quality standards for odors and VOC emission reduction
2. Complete separation of process water (leachate) from storm water
3. Production of high quality finished compost

Sustainable Generation's SG Bunker® System with GORE® Covers was chosen for the project.

Since that time SG has been working with GHD Engineers and WeCare/Danali in the design of the system.

Because the site location is on a closed landfill there has been special consideration given to the geotechnical aspect of the project requiring multiple phases of construction.

Construction for the project is underway. **Phase 1**, which focused on the site work portion of the project, is complete. Phase 2 of the project is the construction of the 16-windrow SG Bunker® System with GORE® Covers. Construction is scheduled for 2021.