

Sustainable Reuse of Former Steel Site

Large-Scale Composting

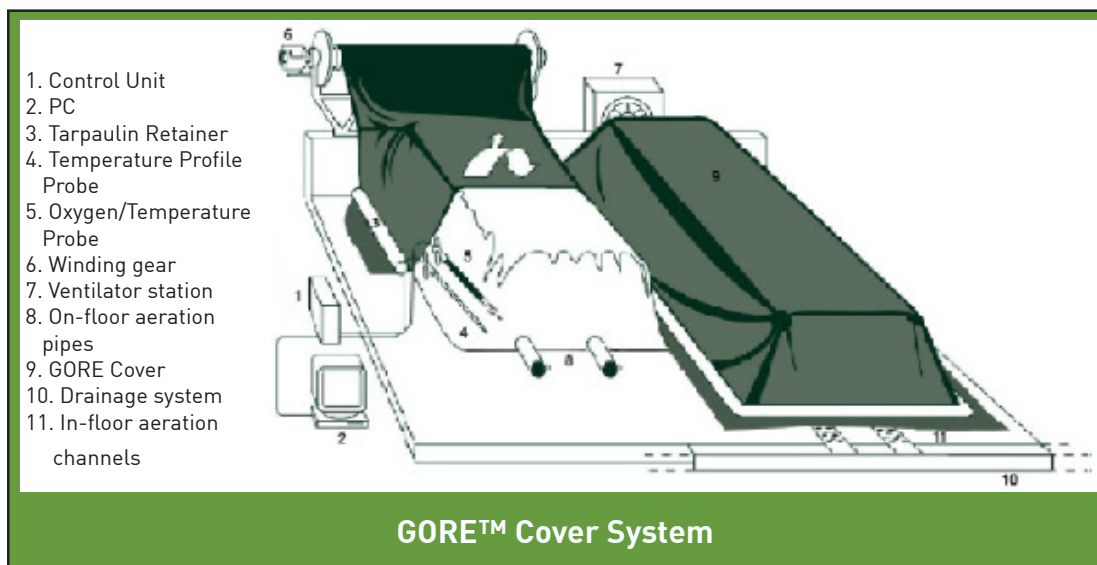
Project Summary

Chicago Composts LLC is a new venture formed by a Chicago restaurant group and Delaware-based The Peninsula Compost Group, LLC to do large-scale commercial composting from food and landscape waste. The venture is in negotiations to lease approximately 40 acres of vacant former steel mill property on Chicago's far Southeast Side to accomplish future growth. The project would utilize patented GORE™ Cover System technology and will require approximately \$25 million in capital investment. When fully operational, the facility is expected to create 15 to 20 full time permanent jobs and process 200,000 tons of compost annually.

The Delta Redevelopment Institute assisted with certain feasibility tasks including identification of a suitable site, due diligence investigation and economic incentives including the sale of carbon offset credits from diverting organic material from landfills. Delta's assistance was funded by a grant from U.S. EPA.

Green Economic Opportunity

According to the City of Chicago's Department of Environment, organic waste makes up approximately 40% of the waste generated within the City. Waste that is currently landfilled can instead be converted into a usable soil nutrient that is desperately needed in an urban environment. Composting can also create climate-related benefits by reducing methane gas in landfills and economic benefits by returning vacant brownfield sites to productive use. To aid in the effort of establishing food waste composting pilot sites, the City launched a grant program in early 2009. There are various technologies that can be tested and evaluated for large-scale economically-viable commercial food-waste composting facilities. Chicago Composts LLC has selected an encapsulated "in-vessel" system (the GORE™ Cover System) because odors and other emissions are effectively eliminated even for a broad range of organic materials including green waste, food waste, other source-separated organics, biosolids and municipal solid waste.



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Large-Scale Composting, continued

Conditions for a Success

Commercial food composting is a new type of sustainable business that may be a fit for large, former industrial sites where the right conditions for success exist.

- 1. Large Vacant Sites:** Large-scale composting facilities require a minimum of 20 acres of vacant land. Chicago Composts LLC is seeking to lease roughly 40 acres in order to provide adequate buffer space between its operations and adjoining industrial neighbors. Residential areas are more than half a mile from any part of the site. Although the investment in the site can be moved if necessary, Chicago Composts LLC is seeking a minimum lease term of 25 years with an option to extend for longer in order to secure the necessary capital financing.
- 2. Zoned for Heavy Industry:** Commercial composting facilities are generally located in heavy industrial areas such as Chicago's Calumet industrial area. This area once employed thousands of steel workers at Wisconsin Steel, Acme Steel, Republic/LTV Steel and US Steel-Southworks, all long shuttered and demolished. Easy access to industrial transportation systems (interstate highways, rail and barge) is also a necessity given the heavy volume of waste and product.
- 3. Policies and Incentives to Support Composting:** Rising landfill, disposal and transportation costs create incentives to divert material, along with state permitting requirements relating to waste-related facilities. New legislation in Illinois, which redefines food waste as a recoverable resource and not garbage, was passed in 2009 to reduce the time and expense of permitting food composting projects. Grants and incentives are also important to this emerging industry. The City of Chicago and State of Illinois both provide modest grants for feasibility studies to encourage waste diversion and recycling. More recent stimulus-related grants are also now being offered due to a temporary influx of additional funding for the state's renewable energy and recycling grant programs. Carbon offset credits could also offer a reliable income stream in a federally-mandated carbon trading system.

Risks and Challenges

A commercial composting business has many of the same needs facing other types of start-up businesses plus some additional industry-wide challenges:

- **Too Low or Too High Tipping Fees:** When the cost of disposing of waste in other ways is too low, composting is discouraged. When tipping fees rise, composting becomes more attractive -- unless they rise too high, resulting in noncompetitive compost pricing.
- **Customers:** Sale of 200 tons of compost a year will require a few large-scale customers. Major urban greening projects are sure to create demand for compost, but steady customers will need to be developed for a sustainable business opportunity.
- **Competition from waste haulers who own vertically integrated waste and processing facilities.**



Close-up view of a large windrow composting facility

For more information about Chicago Composts LLC, as well as its partners and technology go to: <http://www.deltaredi.org/currentprojects.php>.