

## SORTING COMPOSTING PROCESS

In Canada, USA, Europe and Australia



Sorel-Tracy Facility (Canada)

- Diversion rate reaching 75%
- Process patented in Canada, the USA, Europe and Australia
- Annual waste input from 10,000 to 200,000 tons/year
- Compost meets North-American and European standards
- No leachates
- Projects carried out as turnkey or BOO



Delaware County Facility, NY (USA)

### FIELD OF APPLICATION

Mixed solid waste (domestic and industrial-commercial-institutional) and other processible organic waste.

### TECHNOLOGY DESCRIPTION

#### Waste Receiving Area

All wastes are sent by truck to the composting plant. Liquid wastes are unloaded into a tank from which they can then be pumped into the bioreactor as process water. Solid waste is unloaded into a pit in the receiving area and are then lifted from the pit by a grapple and overhead crane, and fed into the Bioreactor. This waste "feedstock" can be loaded into the bioreactor for up to 16 hours per day, seven days a week.



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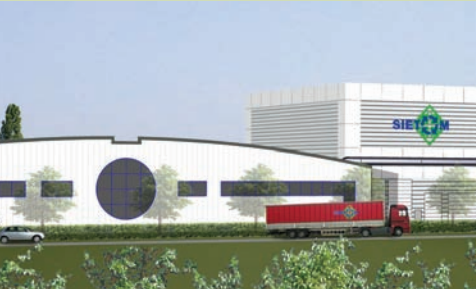
condition of the equipment while the composting building employee supervises the secondary refining. This employee works jointly with the yard supervisor who is in charge of loading the compost for shipping, handling waste containers and recyclable materials. In the summer, due to an increase in activities, an assistant supervises the waste treatment centre and the sorting of bulky and oversized waste.

#### Bioreactor



The Bioreactor is one of the key elements of the Conporec process. It accelerates the maturation and homogenization

processes. The waste is mixed inside the bioreactor 24 hours per day for a minimum of three days. The compostable organic material is then transformed into compost. Upon exiting the bioreactor, all materials, organic and non-organic, are sent by conveyor to the primary refining sector.



Tournan-en-Brie Facility (France)

#### Central Control Room



The Central Control Room is closed and overlooks the receiving area. It is designed to give the operator full view over the

receiving area. Through control panels and cameras, the operator has full control over the entire composting process. The plant operation team comprises one operator, an assistant and a sorting employee per shift. During the day shift, a maintenance employee ensures the proper

#### Primary Refining and Sorting



A rotary trommel separates the compost and sends it to the composting area. The non-compostable

wastes are sent to a manual and semi-mechanized sorting section. Recyclables are recovered and non-organics are compacted into containers to be transported for disposal.



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**Composting Building and Secondary Refining**



Upon its arrival to the composting building, the recovered compost is mechanically placed into windrows separated by concrete walls. The compost temperature and moisture content are controlled by force aeration under the windrows, which are turned at regular intervals to ensure proper homogenization and prevent preferential pathways. After several weeks of composting, the compost is transported to the secondary refining area. The non-organics and sharp foreign materials are removed to ensure the compost meets the quality criteria required by final users and imposed by regulatory agencies.

**Odour Control**



The entire process is carried out in closed buildings under negative pressure. All the air recovered from the buildings is sent to the biofilter. The biofilter is constructed in multiple cells working in parallel but which may be isolated for maintenance and repair while the others remain in operation. Gases are filtered in the biofilter, in which microorganisms eliminate the odour-generating compounds.

