

Benito Roggio Ambiental Buenos Aires, Argentina

project FOCUS

400 Tonne/Day Bio-Stabilization Facility

Benito Roggio Ambiental (BRA) of Buenos Aires, Argentina operates the largest landfill in South America. On any typical day the landfill receives over 2,500 tonnes of un-source separated municipal solid waste (MSW) for its collection service area in Buenos Aires (population 12 million residents). Incoming materials which consist of about 65 percent organic material are source separated on three picker lines to recover recyclable materials followed by trommel screens (2m diameter X 10m long) to remove the 4cm or larger material in the waste stream.

Following the on-site source separation, the compostable organic fraction is conveyed outside the processing building forming cone shaped piles. Contaminants, mainly the light fraction (plastic bottles), fall to the perimeter of the sloped piles, but it is not cost effective to remove them at this step.

Composting takes place in a large metal building with mechanical ventilation. However, the ventilation air changes per hour are insufficient to deal with high humidity inside the building and corrosion has begun its destructive toll. Currently, the organic feedstock is placed in twelve large concrete bunkers (12m wide X 50m long X 3.25m high). The bunkers have microporous membrane ePTFE covers designed for moisture, temperature and odor control. Each bunker has a dedicated 10Hp centrifugal blowers supplying air to seven aeration plenums cast in the concrete floor of each bunker.

Based on past experience BRA decided to construct their expansion outside to eliminate the corrosion and operator health related exposure issues. They contracted with MOR to design and supply equipment for a new Covered Aerated Static Pile system for the 400tonne/d expansion. Processed organic materials will be used for alternative daily cover at the landfill. Goals for the project are PFRP, stable finished product, and roughly 90 percent reduction in VOCs and odor emissions



Equipment Supply SPECS

- Four (4) MOR micropore ePTFE compost covers, 12.5m X 50m
- Four (4) 105mm AirFloor aeration plenums per bunker 50m long
- Four (4) 10Hp variable speed blowers with cast aluminum housings
- Twelve (12) radio frequency temperature probes with two thermocouples per probe (at tip and midpoint), 5 minute reporting frequency
- One MOR Aeration Management System including VFD panel, PLC panel, temperature probe receiver and weather station



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