

City of Toronto

Source Separated Organics (SSO)

16 years Operations Experience

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"How to ensure the operator of a municipal food waste processing facility maintains and operates to meet the goals of the municipality."

- For most municipalities a food waste processing facility will become a significant part of its' SWM infrastructure.

Failure is not an option!

What is important when it comes time to operate?

- Odour Control
- Processing Rates
- Price per tonne processed
- Process Guarantees
- Facility Maintenance and Upgrades
- Operator Selection

Odour Control

- Highest priority in my opinion; failure can and will shut down your facility; Often a long painful process
- Zero Odour Complaints is clearly achievable; Multiple facilities have achieved this
- Requires good design (based on a few simple principles) and diligent, knowledgeable owners and operators
- Odour issues detected early can be rectified; Don't wait for complaints!

Processing Rates

- Normally 'guaranteed' by the design group /technology provider and tested during start-up
- Often 'good' engineering practice means there is little to no margin for error on side of operations.
- Critical facilities may have a higher level of 'back-up' systems.
- Spare parts are critical to maintaining full capacity (parts from overseas can take 6 to 12 weeks for delivery)

Price/ Tonne Processing Rate

- Don't Want to Overpay; waste of taxpayer money
- Don't Want to Underpay; may force an operator into taking shortcuts (reduced spare parts inventory, reduced maintenance, reduced processing if losing money on every tonne)
- Know your facility operating costs. Ask for records on utilities use, chemicals use, haulage costs, major maintenance, etc...
- Reduce operator risk to control costs: If costs are unknown operator may assume the worst case add mark-up and price accordingly.

Price/ Tonne Processing Rate (con't)

- Work towards transparency and control; good operator should be willing to share this information.
- Don't discount very small or very large operating companies. Either can be competitive while meeting your goals.
- Be cautious of 'low-ball' operating bids. Sometimes operating costs can be hidden in overall project costs and are not sustainable.

Process Guarantees

- Utilize performance bonding based on clear, /achievable, important operational goals.
- Processing rate normally designed in but not necessarily achievable 100% of the time. Must have some margin of error in operations.
- Once the waste stream is well understood; stable; and measureable other guarantees may be possible (Biogas Yield, Residue Rates,...
- Without all these factors guarantees can add significant risk which can add significant cost.
- Different technologies have different strengths and weaknesses; not all will achieve the same guarantees. Risk normally falls on technology provider.

Facility Maintenance and Upgrades

- Plan for capital upgrades, work with operator to determine what is necessary
- Plan for spare parts inventory; higher inventory = higher operating reliability
- Best to have spare parts supply with project start-up
- Good operator will maintain and add to spare parts inventory
- Redundant systems reduce need for spare parts
- Spare parts to be in place at end of contract
- Facility inspection plan for end of contract with expectation of good facility condition relative to age.

Operator Selection

- If possible find an operator with experience running similar facilities.
- Particular focus on operators past history related to odour control and complaint history.
- Develop close relationship with operator. Expect immediate feedback on processing delays, odour complaints and investigations, spills, etc...
- If costs seem out of line ask for details. Your preferred operator should be willing to share information. How much 'risk' has your operator built into the cost? Is it necessary? Can risk be shared or reduced?
- Interview your operator; Can you work with them?