

North East Residuals & Biosolids Annual Conference, Exhibit & Tour

2014
SPECIALTY
CONFERENCE
& WORKSHOP
SERIES

Co-sponsored by: New England Water Environment Association & North East Biosolids and Residuals Association

Managing Food-Waste- Management Odors

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Energy and Environmental Affairs

Massachusetts Waste Disposal Bans

- » About the Waste Bans
- » Regulations, Policies & Guidance
- » Compliance Assistance for Generators of Waste
- » Compliance Assistance for Waste Haulers
- » Compliance Assistance for Solid Waste Facility Operators
- » Solid Waste Facility Third-Party Inspections & Inspectors



By the Numbers

- » **Date:** October 1, 2014
- » **Threshold:** 1 ton of food waste per week
- » **Institutions:** approximately 3,000 affected
- » **Sites:** 49 facilities accepting food waste
- » **Capacity:** over 350,000 tons per year
- » **Regulations:**
 - > Site Assignment Regulations 310 CMR 16.04 and 16.05
 - > Waste Ban 310 CMR 19.17



Types of Facilities

Type of Process	Number	Capacity (Ave. TPD)*
Compost	28	475
Compost – In Vessel	3	175
Compost – Site Management	3	45
Animal Feed	11	n/a
Anaerobic Digester	4	312
Totals	49	1,007

* Average, tons per day

Potential Demand : over 4,000 tons per day



Odor Citations

- » Most odor citations relate to the place of cover material at landfills
- » **310 CMR 19.207: Handling Facility Operation and Maintenance Requirements**
 - > (1) General...prevent dust, odors, noise and other nuisance conditions...
 - > (21) Recycling Operations...(d) ...materials...that cause odor...shall not be accumulated.



Segments of FWM System

» Generators: Businesses and Institutions

- > Responsible for separating food waste from other waste materials
- > Compostable material could be included with food waste

» Haulers: Transporters of Waste Material

- > Risk of transporting prohibited wastes
- > Train employees
- > Educate customers

» Disposal Facilities

- > Reject loads with more than 30% of banned materials
- > Conduct waste stream monitoring and load inspections



Generators – Odor Issues

» Waste Reduction

- > Less than one ton of food waste per week

» On-site Treatment / Management

- > Pulpers/shredders, Dehydrators, Composters

» On-site Storage

- > Bins, Dumpsters – covered and leak proof
- > Outside Storage - odors, rodents



Haulers – Odor Issues

» Food Waste Storage Bins

- > Compatible with transfer truck
- > Access to bins

» Leakage

- > During loading and transport

» Frequency of pick-ups

- > Multiple pick-ups per week, particularly in summer

» Contaminants



FWM Facilities – Odor Issues

- » **Receiving**
 - > Dumping of FWM from haulers
- » **Screening and Sorting**
 - > Removing of contaminants
 - > Preparing FWM for processing
- » **Side Stream Wastes**
 - > Bypass materials
 - > Bulking materials
- » **Processing**



Case Study – City of Marlborough, MA



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Perceptions / Expectations

» Food Waste Management Facilities:

- a) Odors are not emitted when a facility is managed and operated correctly.
- b) Food waste is a potentially odorous product and odors from a facility are emitted occasionally.
- c) Odors are a natural process of decomposition and off-site impacts are to be expected.

» Food Waste Recycling:

- a) Is a low cost way to dispose of food waste.
- b) Is a higher cost option compared to landfilling, but landfilling has been banned.
- c) Is a process that has higher costs, but brings value to a material the is considered a waste.



Questions



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