

OHIO'S COMPOSTING RULES AND BEST MANAGEMENT PRACTICES FOR FOOD SCRAPS COMPOSTING

**NEWMOA
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WEBINAR**

**ANGEL ARROYO-RODRÍGUEZ, RS, AICP
DIVISION OF SOLID & INFECTIOUS WASTE MANAGEMENT**

Objectives



- Regulatory framework and approach
- Establishing a food scraps composting facility
- Operational requirements
- Ohio's Food Scraps Management Initiative

Currently 7 Rules



3745-27-40	Authorized feedstocks, bulking agents, and additives and classification of composting facilities
3745-27-41	Notification requirements for class II, III and IV composting facilities
3745-27-42	Permit to install application for class I composting facilities
3745-27-43	Additional criteria for approval of permit to install applications for class I composting facilities
3745-27-45	Composting facility operations
3745-27-46	Standards for compost products
3745-27-47	Closure of composting facilities

Facility Classification

IV

- Yard waste
- Bulking agent

III

- Yard waste
- Bulking agent
- Animal waste
- Ag veg waste

II




- Yard waste
- Bulking agent
- Animal waste
- Ag veg waste
- Food scraps
- Industrial
- Carcasses / rendering

I

- Yard waste
- Bulking agent
- Animal waste
- Ag veg waste
- Food scraps
- Industrial
- MSW
- Carcasses / rendering

Requires Director's approval

Required Authorizations

	I	II	III	IV
Registration			✓	✓
License	✓			
Financial Assurance	✓			
Permit to Install	✓			
Size limitation			135,000 sq.ft.	

About licensing...

- License is like a Permit to Operate
- Establishes Amount of Maximum Daily Waste Receipt (AMDWR)
- Mandatory Inspections
 - Prior to commencement of operations
 - Biweekly during first 3 months
 - Quarterly then on



AMDWR & License Fees

AMDWR (tons)	Annual Fee
12 or less	\$300
13 to 25	\$600
26 to 50	\$1,200
51 to 75	\$1,800
76 to 100	\$2,500
101 to 200	\$6,260
201 to 500	\$15,000
501 or more	\$30,000

Proposed Update Feedstock Types

- Type D feedstocks are source-separated raw, harvested vegetables, fruits, and grains, and the paper from packaging that...
- Type D1 feedstocks are source-separated vegetables, fruits, and grains processed for human or animal consumption...
- Type E feedstocks are source-separated dairy products processed for human consumption such as, cheese, butter, milk, yogurt, eggs and cream, and meats processed for...



"Food scraps" means food residuals including but not limited to vegetables, fruits, grains, dairy products, meats, and the biodegradable packaging that may be commingled.

Facility Siting Criteria



Siting Criteria (Class II)



- ❑ 200 ft from surface waters of the state
- ❑ 200 ft from a public water supply well, developed spring or private potable water well
- ❑ 250 ft from a domicile
- ❑ Not in a regulatory floodplain
- ❑ Not on a national park or national recreation area
- ❑ Not on a state park or established state park purchase area

Construction Requirements

Based on performance standards
No construction materials specified

Site preparation

- ☐ 1-6% slope
- ☐ Pad shall allow equipment operation during inclement weather
- ☐ Install leachate collection / management structures as needed
 - ☐ Options:
 - ☐ BMP's
 - ☐ Ponds
 - ☐ Tanks
- ☐ Inspection prior to operation

Construction Requirements



Surface Water & Leachate

Based on performance standards

Increased stringency when substantial threat

Operate & Monitor

- ☐ Divert from materials placement area
- ☐ Control run-off, run-on & erosion
- ☐ Windrows parallel to slope
- ☐ No ponding around wastes or compost
- ☐ Monitor ground water as required by director or health commissioner

Good Water Management

Filter strip



Not-so-good Water Management



Operational Requirements



Composting Methods

- ❑ Windrows
- ❑ In-vessel
- ❑ Aerated static pile
- ❑ Others by approval



EarthTub®





**“Dry Batch”
Anaerobic
Digestion**

&

**Aerobic
Composting**



Specific to Food Scraps

- ❑ Notify 7 days before first acceptance
- ❑ Shred incidental paper
- ❑ Start composting in a timely manner
- ❑ Have a stockpile of biofilter material
- ❑ Control any free liquid



Nuisances/Health Hazards

- Prevent nuisances and/or health hazards caused by:
 - ▣ Odors
 - ▣ Dust
 - ▣ Noise
 - ▣ Fires
 - ▣ Vectors (insects, rodents, etc.)
 - ▣ Scattered litter



Equipment

- Operable equipment of adequate size & quantity available at all times
- Adequate equipment, materials & services available at or near the facility for control of fires



Contingency Plan



- Address the following
 - Discovery of prohibited material
 - Fires
 - Explosions
 - Spills
 - Equipment failure

- Be available at the facility

Access

- ❑ Maintain access roads to allow access during inclement weather conditions
- ❑ Limit access by non-employees during non-operating hours
- ❑ Keep away domestic & farm animals



Containers

- Non-biodegradable
 - Removed prior to incorporating into process
- Biodegradable
 - Shredded or managed to increase surface area



Proposed New Definitions



- Compostable serviceware means an item such as bowls, plates, cups, cutlery, and films, that meets ASTM D6400 or D6868...
- Compostable containers means a container composed of materials such as vegetable matter, paper, cardboard, and plastic that meets ASTM D6400 or D6868...

Quality Standards



- Heavy metals & Boron
- Pathogens
 - Fecal coliforms
 - Salmonella
- Inerts
- Maturity
- NPK
- Salinity
- pH
- Total organic carbon

Testing Frequency



- ALL compost must be tested prior to distribution
- Minimum of one composite sample for each 10,000 cubic yards or less
- Re-test if add new compost

Ohio Food Scraps Initiative

- Launched June 2007
 - Provide education
 - Identify funding
 - Facilitate partnerships
 - Increase infrastructure
- Regional projects



Education

Food Scrap Management - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Address http://www.epa.state.oh.us/ocapp/food_scrap/index.html

Google weather Go

Bookmarks 7 blocked Check AutoLink AutoFill Send to weather Settings

Ohio EPA Office of Compliance Assistance & Pollution Prevention
50 West Town Street, Suite 700 Columbus, OH 43215 (614) 644-3469

Chris Korleski, Director

Air Land Water Pollution Prevention Public Information

Food Scrap Management

Did you know that each American throws away an average of 1.3 pounds of food scraps every day? Each year, residents in Ohio generate enough food scraps to pile on a football field over a half mile high! Food scrap waste generated by all households in the United States could be piled on a football field more than 15 miles high.

The top two portions of the U.S. waste stream (paper and yard waste) have been successfully diverted from landfills through recycling and composting efforts, with recovery rates of 50 percent and 62 percent, respectively. Piling in comparison, the food scrap recovery rate is less than three percent.

Across the nation states are exploring ways to reduce pollution and encourage alternative methods of waste management such as recycling. Although some food scrap management programs are being implemented at the local level (universities, business locations, etc.), more can be done to help reduce the need for food scrap disposal.

U.S. Waste Generation by Category

Source:

OCAPP
Office of Compliance Assistance and Pollution Prevention

August 2009

Done

Start Novell GroupWise - Mailbox Food Scrap Management Microsoft PowerPoint - [...]

Fact Sheet

Regulations for Community and Commercial Food Scrap Composting Facilities

The remaining classes, as well as some examples of materials they can accept, are:

- Class I – all municipal solid wastes
- Class III – yard waste and animal waste
- Class IV – yard waste only

Establishing a Class II Composting Facility

The three steps needed to establish a Class II composting facility are registration, siting, and construction.

requires the completion of a form that includes facility location and general contact information, planned operation and processing information, a draft of the intended financial assurance instrument, and a statement certifying compliance with the established siting criteria. The registration form must be accompanied by a detailed plan view drawing. There is no fee for registration. Copies of the registration form are available online at www.epa.ohio.gov/portals/34/document/guidance/gd_461.pdf.

Stakeholder Meetings



- September 2007
 - Grocers, Farmers, Composters, Haulers, Solid Waste Districts, regulatory partners and others
- March 2008
 - Haulers (large and small)
- June 2008
 - Composters (commercial and institutional)

Partnerships

- Composting Pilot Project
- Supermarket Training Manual





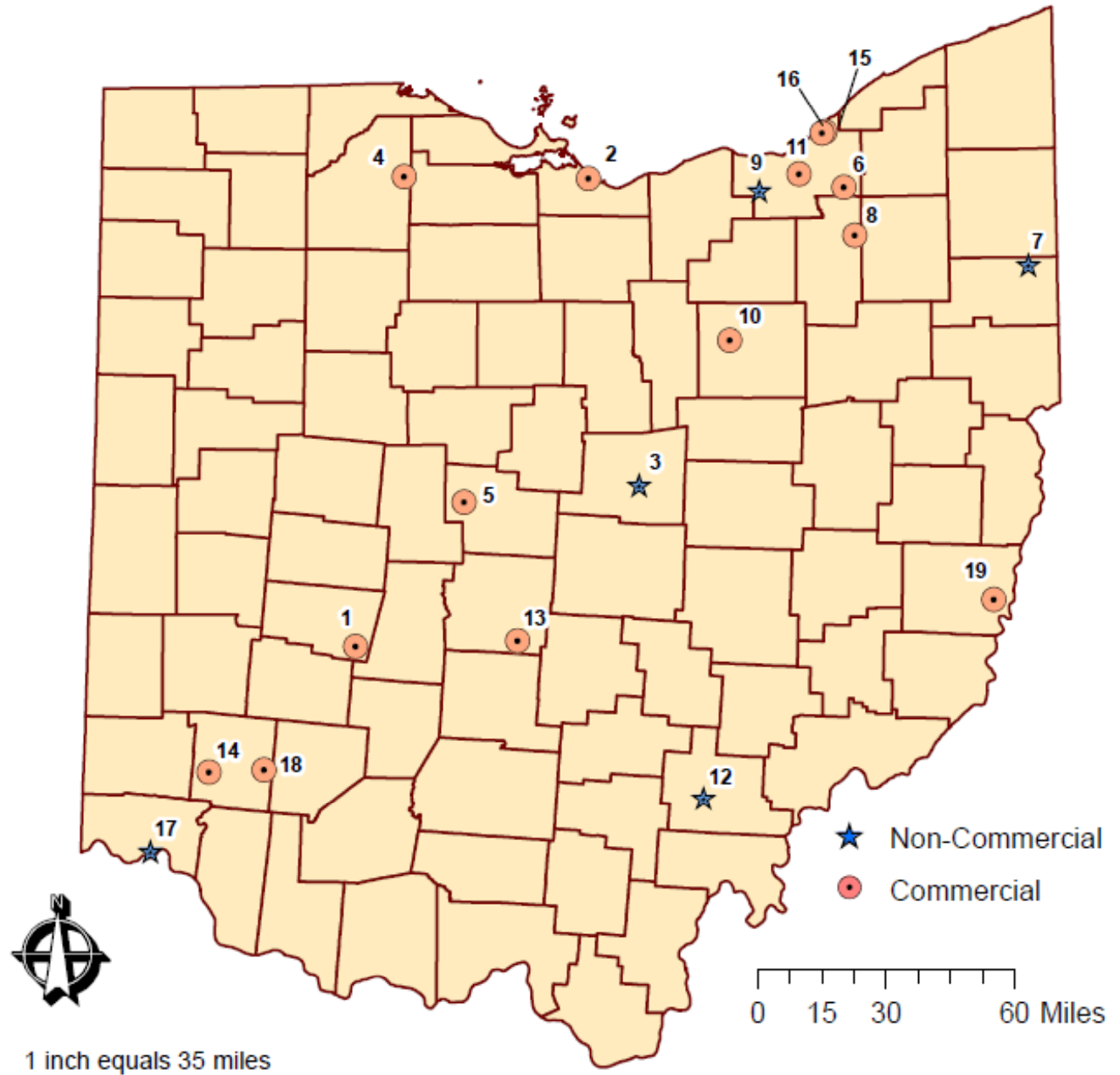
2008

- July 1 – Oct 31
- 24 stores
- Produce, deli, bakery, floral
- 654 tons
- Estimated 9,810 tons/yr



Food Scraps Composting Facilities

February 2010



Residential Co-collection



Thanks!

Contact us

www.epa.ohio.gov/dsiwm

Alison Shockley

614-728-5335

alison.shockley@epa.ohio.gov

Angel Arroyo-Rodríguez

614-728-5336

angel.arroyo@epa.ohio.gov

Maera Flynn

614-728- 5338

maera.flynn@epa.ohio.gov