



# South Carolina Compost Regulation Revision Food Recovery Summit

Charleston, South Carolina

November 17, 2015

**South Carolina Department of Health and Environmental Control**

*Promoting and Protecting the Health of the Public and the Environment*



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**R.61-107.4**

**SWM:**

**YARD TRASH AND LAND-CLEARING  
DEBRIS; AND COMPOST**

**EFFECTIVE APRIL 23, 1993**

## Feedstocks

Organics estimated as 20-30% of MSW  
Regulation referenced only LCD and YT

## Exemptions

Small and on-site exemptions needed

## Industry Wants Standards

Expanded feedstocks  
Testing requirements  
Operating parameters

## Streamline Flexibility

General Permits  
Regulate according to category/size  
BOW permits



2009: FL, GA, KY, MS, USCC

Georgia Compost Regulation Revision  
(Strawman)

EPA Region IV Template

US Compost Council Model Regulation

South Carolina Notice of Drafting 2004

**BACKGROUND**



# USCC MODEL TEMPLATE ISSUES

Performance based vs. prescriptive (odors, site plans)

Terminology, i.e. “residuals” vs. “waste”  
“contact water” vs. “leachate”

Tiers

PFRP for all Tiers

Testing

Animal mortalities

## Expand Feedstocks

- Plate scrapings/ Produce residuals
- Fats, oil, greases
- Manures

## Expand Exemptions

- E or C/E based on size or feedstocks
- On-site

## Establish Testing/Distribution Standards

- Metals                      Stability
- Pathogens                  Physical contaminants

## Allow General Permit(s)

- Based on size limits
- Based on feedstock categories



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# FEEDSTOCK CATEGORIES

**Yard trimmings, leaves grass clippings**

**Land-clearing debris**

**Woodchips and sawdust**

**Crop residuals**

**Compostable yard bags**

**Similar items as approved**



**CATEGORY ONE**

**HIGH C:N**

Facility Types	Feedstocks	Sub-types	Permit
<b>Type One Facility</b>	Yard trimmings LCD Woodchips Sawdust Crop residuals Compostable bags	Type 1 wood-grinding/composting at source	E
		Public Utilities Maintenance	E
		Seasonal-Grinding/Green	E
		Crop Farms	E
		Emergency Storm Debris Management	E
		Very Small Type 1 Chipper/Composter (<80 CY )	E
		Small Type 1 Chipper/Composter (<400 CY )	CE
		Large Type 1 Chipper/Composter	P



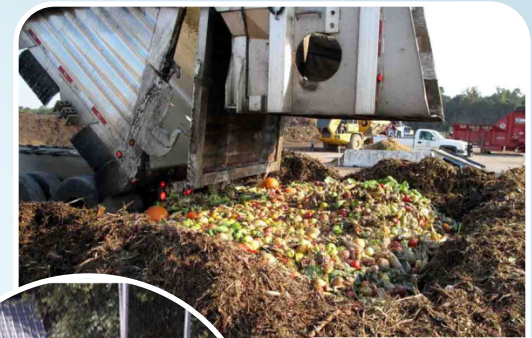


- NON-MEAT FOOD PREP/PROCESSING RESIDUALS**
- RESTAURANT PLATE SCRAPINGS**
- WASTE PAPER PRODUCTS**
- ANIMAL MANURES**
- SIMILAR ITEMS AS APPROVED**

## **CATEGORY TWO**

Lower C:N

High Moisture Content



Facility Types	Feedstocks	Sub-types	Permit Requirements
<b>Type Two Facility</b>		Off-site Very Small (< 5CY )	E
	Non-meat food residuals	USDA "certified organic" farm programs	E
	Produce Plate scrapings	Backyard Composting	E
	Compostable products	Small at source (<400 CY unfinished material)	CE
	Waste paper Animal manures	Small (<40 CY unfinished material)	CE
		Large Type 2 composter	P



# CATEGORY THREE

Source Variability

Trace Metals

Physical Contaminants

Pathogens

Items requiring more intensive analysis or monitoring

Sludges

Fats, Oils, Greases

Meat/Animals

Material not classified as [Category 1 or 2](#)

**May also require BOW permits**

Facility Types	Feedstocks	Permit Requirements
<b>Type Three Facility</b>	<p>Sludges off-site of treatment facility</p> <p>Sludges mixed w. SW</p> <p>FOG</p> <p>Animal/meat residuals</p> <p>Other</p> <p>MSW conditional upon 2 yr. RDD</p>	<p>Permit required; may also require other permits</p>



Mixed MSW (except under RD&D Permit)

Friable/non-friable asbestos

Biomedical/infectious waste

Hazardous waste

PCBs

Nuclear/Radioactive

Coal Combustion Residue

**PROHIBITED FEEDSTOCKS**





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# EXEMPTIONS

# Exemptions

Residential “backyard” composting

Unlimited Category One at source

<80 CY Category 1 from off site

Public utility and ROW maintenance

< 5 CY Category 2 from off site

Emergency storm debris

On-farm composting

“Grinding of the Greens”

USDA National Organic



**Permit Exemption**  
**80 Cubic Yards Unground Cat. One feedstocks from off site**





**Permit exemption  
5 CY Category 1&2  
from off site**

09/18/2013



- <400 CY Cat 1 and 2 (on-site generation)
- <400 CY Category 1 (off-site generation)
- <40 CY Category 2 (off-site generation)

## **CONDITIONAL EXEMPTIONS**





**Conditional exemption  
40 CY Cat. 1 & 2 from off site**

09/26/2013





**Conditional exemption 400 CY**

**Cat. 1 generated off site**

**Cat. 1 & 2 generated on site**

09/26/2013



## Conditions for CE Facilities

### Buffers:

- property lines: 50 ft.
- wells: 100 ft.
- residences: 200 ft.

Handle material to manage liquids/odors

Use stormwater BMP

No material in standing water

Fire prevention measures

QA testing for sale of Category 2





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## Location Criteria

buffers to property lines, waters, wells, airports

## Design Criteria

stormwater, groundwater, surface requirements

## Operating Criteria

material management, time/temp, reporting, op. plan, certification

## Quality Assurance

pollutants, biologicals, stability, frequency

# PERMIT REQUIREMENTS



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Contains <2% physical contaminants  
Stability rating of stable or very stable  
Meets Class A pollutant limits  
Meets pathogen reduction standards

## **CATEGORY 2 & 3 TESTING REQUIREMENTS**





## **Pollutant Standards:**

### **Maximum Allowable Concentration (mg/kg dry weight)**

Arsenic	41
Cadmium	39
Copper	1500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2800

**TESTING  
STANDARDS**



## **Physical Contaminants (man-made inerts)**

Less than 2 percent dry weight basis

## **Biological Contaminants (pathogens)**

### **Fecal coliform**

Less than 1,000 Most Probable Number (MPN) per gram, dry weight basis

### **Salmonella**

Less than 3 MPN per 4 grams, dry weight basis

**CONTAMINANTS LIMITS**



## Annual Production

<2,500 tons	1 per quarter
<6,250 tons	1 per quarter
<17,500 tons	1 per 2 months
>17,500 tons	1 per month

**TESTING  
FREQUENCY**



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Feedstocks

Testing

General Permit

Variances

**FLEXIBILITY**



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## **Possible Examples:**

Food Residuals Composting < XX cubic yards

Category 1 Composting < XX cubic yards

Category 2 < 1 acre

## **GENERAL PERMITS**

**ABLE TO DEVELOP MULTIPLE GPS FOR SPECIFIC ACTIVITIES**



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## **R.61-107.4**

**SWM:**

**COMPOST AND MULCH PRODUCTION  
FROM LAND-CLEARING DEBRIS, YARD  
TRIMMINGS AND ORGANIC RESIDUALS**

**EFFECTIVE JUNE 27, 2014**





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**Atlas Organics, Greenville (Twin Chimneys Landfill)**

**Re-Soil Compost, Elgin**

**Horry County Solid Waste Authority**

**City of Rock Hill Community Garden**

**Medical University of South Carolina**

**Glen Raven Custom Fabrics**

**BMW**

**St. Francis Hospital System Community Garden**

**Milliken Spartanburg**

**Charleston County:**

**Boeing**

**N. Charleston Coliseum (1.5 million visitors)**

**Fruit of the Loom Palmetto Distribution Center**



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# CONTACT US

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