

DEPARTMENT OF ENVIRONMENTAL PROTECTION
Bureau of Waste Management

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TITLE: Guidelines for Yard Waste Composting Facilities

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AUTHORITY: Solid Waste Management Act (35 P.S. §§ 6018.101 et seq.) and regulations at 25 Pa. Code Chapters 271, 281, and 285 (the “municipal waste regulations”).

POLICY: It is the Department’s policy to provide a person, municipality, or county with the information necessary to operate a yard waste compost facility.

PURPOSE: The purpose of this document is to provide instructions and operating procedures for the operation of a yard waste composting facility operating under permit-by-rule.

APPLICABILITY: This guidance applies to all persons, municipalities, and counties who own or operate a yard waste composting facility operating under 25 Pa. Code Section 271.103(h) Permit-By-Rule.

DISCLAIMER: The policies and procedures outlined in this guidance are intended to supplement existing requirements. Nothing in the policies or procedures shall affect regulatory requirements.

The policies and procedures herein are not an adjudication or a regulation. There is no intent on the part of DEP to give the rules in these policies that weight or deference. This document establishes the framework within which DEP will exercise its administrative discretion in the future. DEP reserves the discretion to deviate from this policy statement if circumstances warrant.

PAGE LENGTH: 19 pages

LOCATION: Volume 6 Tab 27

DEFINITIONS: The definitions listed below are found in 25 Pa. Code Section 271.1.

“Yard Waste”: Leaves, grass clippings, garden residue, tree trimmings, chipped shrubbery, and other vegetative material.

“Yard Waste Composting Facility”: A facility that is used to compost leaf waste, or leaf waste and grass clippings, garden residue, tree trimmings, chipped shrubbery, and other vegetative material. The term includes land affected during the lifetime of the operation, including, but

not limited to, areas where composting actually occurs, support facilities, borrow areas, offices, equipment sheds, air and water pollution control and treatment systems, access roads, associated on-site or contiguous collection and transportation activities, and other activities in which the natural surface has been disturbed as a result of or incidental to operation of the facility.

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INTRODUCTION

Composting has been demonstrated to be an effective waste management technique that can produce a useful end-product while diverting a portion of the wastestream from disposal. It has been estimated that yard wastes--including leaves, trimmings, grass, and related yard debris--can comprise up to 18 percent of the municipal waste stream, with a greater percentage realized in some municipalities on a seasonal basis.

Certain yard waste composting facilities are eligible for permit-by-rule under Section 271.103(h) of the municipal waste regulations if they comply with these guidelines. Section 271.103(h) provides that a person, municipality, or county that operates a yard waste composting facility that is less than 5 acres, other than an individual backyard composting facility, shall be deemed to have a municipal waste processing permit-by-rule if the person, municipality, or county meets the requirements of Subsections 271.103(a)-(c)(relating to storage, PPC plan, daily records, financial assurances, and inappropriate activity), and the facility is operated in accordance with these guidelines on yard waste composting.

These guidelines have been established to promote yard waste composting and reuse in the Commonwealth while providing protection to human health and the environment. Health or environmental problems, resulting from the improper operation of a yard waste composting facility operated under Section 271.103(h), will be treated in the same manner as health or environmental problems at other solid waste management facilities.

More than 450 municipalities and counties in the Commonwealth are conducting yard waste collection and composting programs. In an effort to increase awareness of the benefits of composting and to promote the proper environmental and technical practices involved, the Department has designated several of these facilities as yard waste composting demonstration sites. Many of the other sites also present backyard composting demonstrations for homeowners. The Department has developed a reference manual, brochures, and educational videos to provide further information. To learn more about these and other related resources, contact your DEP regional office or the Web site at www.depweb.state.pa.us.

Yard waste composting operations must comply with these guidelines to comply with Section 271.103(h) of the municipal waste regulations. Please contact your DEP regional office for further information.

DEP REGIONAL OFFICES

REGION 1:	DEP SOUTHEAST REGION 2 East Main Street Norristown, PA 19401 Telephone: 484-250-5960	Counties Served: Bucks, Chester, Delaware, Montgomery and Philadelphia
REGION 2:	DEP NORTHEAST REGION 2 Public Square Wilkes-Barre, PA 18711-0790 Telephone: 717-826-2516	Counties Served: Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming
REGION 3:	DEP SOUTHCENTRAL REGION 909 Elmerton Avenue Harrisburg, PA 17110-8200 Telephone: 717-705-4706	Counties Served: Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York
REGION 4:	DEP NORTHCENTRAL REGION 208 West 3rd Street, Suite 101 Williamsport, PA 17701 Telephone: 717-327-3653	Counties Served: Bradford, Cameron, Center, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union
REGION 5:	DEP SOUTHWEST REGION 400 Waterfront Drive Pittsburgh, PA 15222-4745 Telephone: 412-442-4000	Counties Served: Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland
REGION 6:	DEP NORTHWEST REGION 230 Chestnut Street Meadville, PA 16335-3481 Telephone: 814-332-6848	Counties Served: Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren

TECHNICAL GUIDANCE FOR THE OPERATION OF A YARD WASTE COMPOSTING FACILITY UNDER PERMIT-BY-RULE

A person, municipality, or county that operates a yard waste composting facility under permit-by-rule shall comply with these guidelines, as required by 25 Pa. Code Section 271.103(h).

General Requirements

The following operational information must be submitted to the Department on the attached Yard Waste Composting Facility Application Form:

- a. The name, address, and telephone number of the operator of the facility.
- b. The sponsoring municipality or county (where applicable).
- c. The location of the facility, including identification of the site by outlying perimeter site boundaries on a United States Geological Survey 7.5 minute topographic map.
- d. Proof that the operator has the legal right to enter the land and perform the approved activities.
- e. A general site plan drawn to scale for the facility indicating the following:
 - i. The location of access roads and gates in relation to public and private roads, wells, and property lines.
 - ii. The location of the tipping area.
 - iii. The location of the processing area, including compost piles and windrows.
 - iv. The location of storage and curing areas.
 - v. Surface water controls.
- f. The operational narrative describing:
 - i. The yard waste collection methods that will be employed by the facility.
 - ii. The methods that will be utilized at the facility to construct compost piles.
 - iii. The proposed dimensions of compost piles and windrows at the facility.
 - iv. The source of supplemental water that will be used to maintain an optimal 50 percent moisture content of compost piles or windrows at the facility.
 - v. The proposed method of turning windrows, the turning frequency for composting at the facility and the method for determining that frequency.

- vi. The proposed duration of the composting process, including curing time, storage time, and the proposed term of compost distribution.
 - vii. A plan for the marketing and distribution of the finished compost.
 - viii. A residue disposal plan, including the location of disposal sites.
 - ix. Provisions for emergency response.
 - x. A public information and education program.
- g. The projected volume of material that will be processed by the facility during the calendar year.

Siting Restrictions

Yard waste composting operations, including storage, composting, and curing, shall not occur in the following areas or the following distances, unless the operator takes special precautions and receives written authorization from the Department:

- a. In a 100-year flood plain.
- b. In or within 300 feet of an exceptional value wetland.
- c. In or within 100 feet of a wetland other than an exceptional value wetland.
- d. Within 100 feet of a sinkhole or area draining into a sinkhole.
- e. Within 300 feet measured horizontally from an occupied dwelling unless the owner has provided a written waiver consenting to the facility being closer than 300 feet.
- f. Within 50 feet of a property line, unless the operator demonstrates that only curing of compost is occurring within that distance.
- g. Within 300 feet of a water source.
- h. Within 3.3 feet of a regional groundwater water table.
- i. Within 100 feet of a perennial stream.

Access Control

- 1. A gate or other barrier shall be maintained at all potential vehicular access points to block unauthorized access to the site.
- 2. Access to the site shall be limited to those times when an attendant is on duty.

Operational Requirements

1. No person, municipality, or county shall bring to or receive any material at a yard waste composting facility other than shrubbery and tree trimmings that have been shredded or chipped, unless shredding or chipping is provided at the facility, leaves, grass, and similar related yard debris.
2. The Department may prohibit the use of grass clippings at a yard waste composting facility if the grass clippings cause or contribute to nuisances, or if the site is adversely affecting, or has potential to adversely affect, the citizens or environment of the Commonwealth. Grass clippings shall not be brought to or received at a yard waste composting facility unless:
 - a. Grass clippings delivered to the yard waste composting facility in bulk, bags or other collection containers are emptied of all grass clippings within 24 hours of delivery to the facility.
 - b. Grass clippings are incorporated into the windrows of partially composted leaves or other yard waste within twenty-four (24) hours of delivery to the facility.
 - c. Grass clippings are incorporated into the partially composted windrows of partially composted leaves or other yard waste at a ratio not to exceed one part grass clippings to three parts yard waste, by volume.
3. No more than 3,000 cubic yards of yard waste shall be placed, stored, or processed on any acre of a facility where composting activity occurs or is planned to occur.
4. A person, municipality, or county operating a yard waste composting facility shall, for the duration of yard waste composting activities, identify the operation by posting and maintaining signs that are clearly visible at the junction of each access road and public road. The signs shall be easily seen and read. They should be constructed of a durable, weather-resistant material. The sign wording shall include the name, address, and telephone number of the person(s), municipality(ies), or county(ies) operating the facility, the operating hours, and the materials that can be received by the facility.
5. Each yard waste composting facility shall be operated in a manner which results in the active biological decomposition of the vegetative material received.
6. Yard waste compost piles or windrows shall be constructed and maintained as follows:
 - a. The compost area shall be constructed in a well drained area with a workable surface and slope of 2-4 percent to prevent ponding and control surface water.
 - b. The size of the compost piles or windrows should not exceed eight feet in height or sixteen feet in width unless the composting technology can adequately manage the compost piles, and is approved by the Department.
 - c. Compost piles or windrows shall be constructed within one week following receipt of compostable material at the facility.

- d. During the active composting process, the optimal moisture content of the windrows or compost piles shall range from 40 to 60 percent to promote decomposition.
 - e. All surface water shall be diverted away from tipping, processing, composting, curing and storage areas. Surface water controls shall be based on a 24-hour precipitation event to be expected once every 25 years. Proper drainage must be maintained to prevent ponding and excessive moisture.
 - f. To promote decomposition, compost piles and windrows shall be turned and reconstructed at least once every three (3) months. A higher turning frequency may be required, depending on the composting technology unless the composting technology requires more intensive management.
7. The operator shall maintain sufficient distance between windrows or piles to allow the proper use of equipment during the deposit, removal, and turning of the compost.
 8. The operator shall establish an adequate frequency for inspecting the facility to detect hot spots in any composting, curing or storage areas, dust or litter accumulation, surface water accumulation, erosion or sedimentation, vectors, odors, and other problems. The operator shall take prompt, necessary corrective actions.
 9. The operator shall not allow compostable materials or residues to be blown or otherwise deposited offsite.

Residue Disposal

1. The operator shall not allow non-compostable residues or solid waste other than yard waste to accumulate at the facility, and shall provide for proper disposal or processing.
2. Yard waste and other municipal waste received at the facility that are not suitable for composting shall be removed weekly and disposed or processed at a permitted municipal waste facility.

Nuisance Control

1. The operator shall not cause or allow the attraction, harborage, or breeding of vectors.
2. The operator shall not cause or allow conditions that are harmful to the environment or public health, or which create safety hazards, odors, noise, or other public nuisances.

Emergency Response

1. Adequate space shall be maintained to allow the unobstructed movement of emergency personnel and equipment.
2. The operator of each yard waste composting facility shall immediately contact local police or fire departments or other appropriate state or local emergency response agencies in the event of fire, spill, or other hazards that threaten public health, safety, and welfare, or the environment, and whenever necessary in the event of personal injury.

Air Resources Protection

1. The operator shall implement fugitive dust control measures.
2. No person, municipality, or county shall cause or allow open burning at the facility.

Water Quality Protection

1. The operator shall manage surface water and control erosion and sedimentation in accordance with the requirements of 25 Pa. Code Chapter 102, Erosion Control.
2. The operator shall not cause or allow a point or non-point source pollution discharge from or on the facility to any surface waters of the Commonwealth.



YARD WASTE COMPOSTING FACILITY APPLICATION FORM

Please familiarize yourself with the Pennsylvania Department of Environmental Protection GUIDELINES FOR YARD WASTE COMPOSTING FACILITIES prior to filling out this form.

1. Operator (Name and Mailing Address) _____ Telephone Number _____

2. Name of Facility _____ Contact Telephone Number _____
 Contact Person _____
 Property Owner's Name _____
 Address of Facility _____

(include Access Road Name and Legislative Route Number)

State _____ Zip _____
 City-Borough-Township _____
 County _____
 Sponsoring Municipality (where applicable) _____

Attach a United States Geological Survey 7.5 minute topographic map identifying the yard waste composting facility site boundaries outlined on it.

Provide proof the operator has the legal right to enter the land and perform the approved activities.

3. The proposed composting method _____
 Total Acres of the composting facility _____

The maximum quantity of yard waste and composted materials to be on the site at any one time:

Yard waste in cubic yards _____
 Finished compost in cubic yards _____

4. Prepare and include in this application a general site plan* for the facility which illustrates the location of the following items:

- Access roads in relation to the nearest public road and private roads, wells, and property lines
- Tipping area
- Gate location
- Surface water controls, erosion and sedimentation controls
- Processing area including location, orientation, and size of compost piles or windrows
- Curing or storage areas
- North arrow scale of drawing

*Please note that a hand drawn sketch that includes site dimensions is acceptable. An engineer's drawing is not required.

5. Please address the following items: (attach additional sheet(s) if necessary)

- Provide a complete list of source(s) of yard waste to be received.

- Describe how the yard waste will be collected and received at the facility.

- Describe the method for inspecting incoming yard waste and for removing unacceptable material.

- Describe the windrow construction methods including equipment to be used.

- Describe the windrow size: Initial dimensions will be _____ wide x _____ high x _____ long.

- Describe the source of supplemental water which will be used to maintain an optimal 40 to 60% moisture content of compost piles or windrows.

- Indicate the frequency of windrow turning. _____
Indicate the temperature range to be maintained. _____
Indicate the method of windrow turning. _____

- Describe method for determining turning frequency.

- Describe the approximate duration of the composting cycle (in days). _____
Describe the composting process. _____
Describe the curing period for compost. _____
Indicate the time required for storage and distribution. _____
Indicate the total time required for the composting operation. _____

- Describe the marketing and distribution plan for the finished compost product.

- Describe the residue disposal plan and identify the disposal or processing site(s) to be used.

- Describe the plan for emergency response (fire, police, etc.).

- Outline the public information and education program (attach samples of literature if available).

LAND APPLICATION OF YARD WASTE

A municipality or county that collects yard waste and delivers it to any person to land apply as part of a normal farming operation, shall comply with the following guidelines in order to comply with the permit-by-rule requirements of 25 Pa. Code Section 271.103(h).

General Requirements

1. A municipality or county must notify the Department with the following information:
 - a. Sponsoring municipality or county.
 - b. Responsible official/contact person, including name, address, and telephone number.
 - c. Location, including identification of the site on a U.S.G.S. 7.5' topographic map.
 - d. Operational plan:
 - i. A general site plan must be included which contains the following information for land application sites:
 - A. Access road
 - B. Tipping area
 - C. Surface water controls (tipping area only)
 - D. Farm soil conservation plan and nutrient management plan.
 - ii. The operational narrative must include a description of each of the following:
 - A. Operational hours for receiving yard waste
 - B. Land application and incorporation frequency
 - C. Plan for removal of yard waste from bags
 - D. Spreading and incorporation methods and frequency
 - E. Source of leaves and grass clippings.
 - iii. Volume of yard waste processed during the previous year or expected to be processed during the first year of operation.

Operational Requirements

1. All surface water shall be diverted away from the tipping or storage area. Proper drainage must be maintained to prevent ponding.

2. Yard waste should be delivered to the farm in bulk. Where bags or other containers are used for collection, the bags or containers must be emptied of all yard waste delivered to the farm by the end of each day.
3. The Department may prohibit the use of grass clippings at the farm if the grass clippings cause or contribute to nuisances, or if the site has the potential to adversely affect the citizens or environment of the Commonwealth. Grass clippings shall not be brought to or received at a farm unless:
 - a. The grass clippings are delivered to the farm in bulk. Where bags or other containers are used for collection, the bags and containers must be emptied of the grass clippings delivered to the farm by the end of each day.
 - b. The grass clippings are to be spread in layers not to exceed six (6) inches in depth within one (1) week of delivery to the site.
 - c. Grass clippings mixed with manure and stored in an acceptable manure storage facility may be stored for up to 120 days, provided the storage of the material does not create a nuisance or environmental impact.
4. The operator shall not allow compostable materials or residues to be blown or otherwise deposited offsite.
5. No yard waste may be disposed of in waters of the Commonwealth.

Residue Disposal

1. The operator shall not allow non-compostable residues or solid waste other than yard waste to accumulate at the farm, and shall provide for proper disposal or processing.
2. Yard waste and other municipal waste that is received at the farm, that is not suitable for land application, shall be removed weekly and disposed or processed at a permitted municipal waste facility.

Nuisance Control

1. The operator shall not cause or allow the attraction, harborage, or breeding of vectors.
2. The operator shall not cause or allow conditions that are harmful to the environment or public health, or that create safety hazards, odors, noise, and other public nuisances.

Air Resources Protection

1. The operator shall implement fugitive dust control measures when necessary.
2. No person, municipality, or county shall cause or allow open burning at the facility.

Water Quality Protection

1. The operator shall manage surface water and control erosion and sedimentation in accordance with the requirements of 25 Pa. Code Chapter 102, Erosion Control.
2. The operator shall not cause or allow a point or non-point source pollution discharge from or on the facility to any surface waters of the Commonwealth.



LAND APPLICATION OF YARD WASTE APPLICATION FORM

Please familiarize yourself with the Pennsylvania Department of Environmental Protection GUIDELINES FOR LAND APPLICATION OF YARD WASTE prior to filling out this form.

1. Sponsoring Municipality or County (Name and Mailing Address) _____ Telephone Number _____

2. Name of Farm _____ Contact Telephone Number _____
 Contact Person at Farm _____
 Property Owner's Name _____
 Address of Facility _____

(include Access Road Name and Legislative Route Number)
 _____ Zip _____
 City-Borough-Township _____
 County _____

Attach a U.S.G.S. 7.5" map identifying the farm and the yard waste site boundaries.

3. Total acres for farm land application area: _____

4. Volume of yard waste to be received annually in cubic yards: _____

5. Prepare and include in this application a general site plan* for the facility which illustrates the location of the following items:

- Access roads in relation to the nearest public road
- Tipping area
- Surface water controls (tipping area only)
- Fields proposed for land application.

* Please note that a hand drawn sketch that includes site dimensions is acceptable. An engineer's drawing is not required.

6. Please address the following items:

- A complete list of source(s) of yard waste to be received.

- Describe the method for inspecting incoming yard waste.

- Describe the plan for rejecting or disposing of unacceptable materials and residuals.

- Provide the name and location of the disposal or processing site for unacceptable materials and residuals.

- Attach the farm soil conservation plan and nutrient management plan.
- Describe the volume of yard waste processed during the previous year or expected to be processed during the first year of operation.

- Please provide an operational narrative which includes a description of each of the following:

- Operational hours for receiving yard waste
- Land application and incorporation frequency
- Plan for removal of yard waste from bags
- Spreading and incorporation methods and frequency
- Source of leaves and grass clippings.