

General Permit WMGR025

Residual and Municipal Waste Composting

**Department of Environmental Protection
Bureau of Waste Management
Division of Municipal and Residual Waste**

February, 9 2008

General Permit WMGR025 Residual and Municipal Waste Composting

A. Description:

This general permit authorizes the composting and beneficial use of the following categories of source-separated wastes: agricultural waste other than mortalities, butcher waste other than whole carcass, food processing waste, pre-consumer and post-consumer food residuals, yard waste, land clearing and grubbing material, untreated wood waste, gypsum wallboard, paper, cardboard, waxed cardboard, virgin paper mill sludge and spent mushroom substrate. The beneficial uses of the finished compost approved in this permit are for use, marketing or distribution as a soil conditioner, soil amendment, fertilizer, mulch or for erosion control. The finished compost is not considered a waste when it has satisfied the conditions of this permit and is ready for use, marketing or distribution as a soil conditioner, soil amendment, fertilizer, mulch or for erosion control.

B. Registration Requirements:

Persons or municipalities that propose to operate under the terms and conditions of this general permit after the date of permit issuance must obtain a registration from the appropriate Department Regional Office (see attached list) that has jurisdiction for waste-related activities in the county where the facility will be located. A completed registration application on forms required by the Department, along with the application fee as specified in the residual waste regulations, must be submitted to the Waste Management Program at the Department's appropriate Regional Office. No activities shall commence unless registration is authorized, in writing, by the Department.

C. Facility Construction and Management:

1. The facility shall not be located:
 - a) In the 100-year floodplain of waters of this Commonwealth;
 - 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 owner has provided a written waiver consenting to the facility being closer than 50 feet;
 - g) Within 100 feet of a perennial stream;

General Permit WMGR025 Residual and Municipal Waste Composting

- h) Within 300 feet of a water source unless the owner has provided a written waiver consenting to the facility being closer than 300 feet;
 - i) Within 900 feet of the following, if existing prior to the date the Department received an administratively complete application, unless a written waiver is obtained from the current property owner of:
 - A. A building owned by a school district or parochial school and used for instructional purposes;
 - B. A park;
 - C. A playground.
 - j) In an area where the facility would adversely affect a habitat of a known endangered or threatened species.
2. The composting pad shall be constructed a minimum of four (4) feet above the seasonal high water table. The composting pad shall be constructed of concrete, asphalt or remolded asphalt. Composting pads constructed of earthen materials are also permitted provided they are no more permeable than 1×10^{-6} cm/sec in the upper most six (6) inches as confirmed by on-site testing. The composting pad shall be sloped to prevent the ponding of liquids.
 3. The composting pad shall be capable of maintaining structural integrity under normal operating conditions, collecting all liquids and solids generated by the composting process and be capable of supporting vehicular traffic on the pad. The composting pad shall be inspected for uniformity, damage and imperfections during construction, installation and operation.
 4. Structures or tanks used for enclosed (within) vessel methods of composting shall be constructed in accordance with 25 Pa. Code § 299.122 (relating to storage tanks) and shall be maintained as per the manufacturer's requirements.
 5. The access road to the facility shall be paved or surfaced with asphalt, gravel, cinder or equivalent material and be capable of withstanding the vehicular traffic. The access road shall be compacted and maintained in order to control dust and to prevent or minimize the tracking of mud onsite or offsite. A gate or other barrier shall be maintained at potential vehicular access points to block unauthorized access to the site when the facility is not operating.
 6. Leachate generated at the facility shall be stored in a tank, container or impoundment designed in accordance with 25 Pa. Code Chapter 299 prior to

General Permit WMGR025
Residual and Municipal Waste Composting

treatment or reuse on-site, discharge to a POTW or hauling off-site for treatment and/or disposal. The leachate shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder. All necessary permits for the management of leachate at the facility must be obtained prior to beginning composting operations.

7. Best Management Practices shall be implemented to divert storm water run-on from the facility. Storm water runoff shall be managed in accordance with The Clean Streams Law and regulations promulgated thereunder. Prior to beginning construction at the facility, the operator must obtain all the necessary storm water management permits.
8. All waste stored at the facility shall be managed in accordance with Chapter 299 of the residual waste regulations. Materials no longer considered waste stored at the facility shall be stored in a manner that prevents harborage or breeding of vectors or creation of odor, litter and other nuisances that may be harmful to public health, safety, welfare, or the environment and shall not be accumulated speculatively.
9. All incoming waste, excluding land clearing and grubbing material and leaf waste, must be incorporated into the composting processes within 72 hours or within the time period prescribed in Conditions 10, 11, and 12.
10. Pre- and post-consumer food residual waste must be stored in closed, leak-proof containers. This waste may not be held in closed containers for more than 72 hours prior to being incorporated into the composting process.
11. Liquid manure used off the farm and liquid food processing waste must be stored in tanks that are built in accordance with 25 Pa. Code § 299.122 (relating to storage tanks). This material may not be stored for more than seven days before it is incorporated into the compost mixture.
12. Butcher waste, which is the residual material generated from the processing or butchering of animals, must be stored in containers that are built in accordance with 25 Pa. Code § 299.121 (relating to containers). This material may not be stored for more than 24 hours before it is incorporated into the compost mixture. The butcher waste must be free from any diseases.
13. The operator of the facility must develop and maintain a plan for the alternative management of materials during periods when the facility is not in operation. Waste may not be stored for more than one year at the permitted facility.
14. The operator of the facility must develop and implement a nuisance minimization plan that will manage any circumstances that are harmful to the environment or public health. The operator shall control and minimize conditions that will attract,

General Permit WMGR025

Residual and Municipal Waste Composting

harbor, or breed vectors, create safety hazards, odors, dust, noise, or unsightliness and other public nuisances.

D. Operating Conditions:

1. The authorized beneficial uses of the compost, as listed in Section A (Description), are contingent upon compliance with this permit and, if the compost is sold, the *Pennsylvania Fertilizer Act* and the *Pennsylvania Soil and Plant Amendment Act*. Information related to these laws and the necessary registration, labeling, marketing, and other related requirements can be obtained from the Department of Agriculture by writing to the *Bureau of Plant Industry, Division of Agronomic Services, 2301 North Cameron Street, Harrisburg, PA 17110-9408*.
2. This permit requires the use of windrows, aerated piles, or enclosed (within) vessel methods of composting for pathogen control.
 - a) For the windrow method, the temperature of the compost during the composting phase of the operation shall be maintained at a minimum of 55 degrees Celsius (131°F) or greater for at least 15 days, and the windrows shall be turned a minimum of five times.
 - b) For the aerated or enclosed (within) vessel method, the temperature of the compost during the composting phase of the operation shall be maintained at a minimum of 55 degrees Celsius (131°F) for at least 72 consecutive hours.
 - c) The minimum curing time for the compost shall be at least 30 days after the composting processing is finished.
3. The operator shall maintain records to demonstrate that all compost produced by the facility meets the time/temperature standards of Condition D.2. These records shall be provided to the Department upon request, and shall be maintained onsite for a minimum of five years.
4. Approval to operate under this permit is limited to composting facilities that do not exceed (15) acres. The composting facility shall include waste material storage areas, the composting and curing areas, and the finished compost storage area (other than areas storing bagged product for retail sale).
5. A financial bond, which guarantees the removal and proper management of any feedstocks, compost, and finished products, is required for facilities larger than five acres and for facilities less than five acres if the total volume managed at the facility exceeds 6,000 cubic yards per acre. The amount of the bond shall be based upon the total estimated cost to the Commonwealth for removal and proper management of the wastes found at the facility. The Department may require additional bonding

General Permit WMGR025
Residual and Municipal Waste Composting

for any other necessary measures to prevent adverse impacts upon public health, safety, welfare, and the environment.

6. The finished compost produced for beneficial use may not exceed the limits for metals listed in Table 1, below. This determination may be based on the 95 percent upper confidence level for each metal. For each metal, the test shall be based on the "total" analysis conducted using the *Test Methods for the Evaluation of Solid Waste* (EPA SW-846). The facility is responsible for notifying the Department of any additional chemical constituents that may be found in any of the final compost the facility produces.

TABLE 1

Parameters	Total (mg/kg)
Cadmium	3.4
Chromium (Total)	87
Copper	290
Lead	160
Nickel	26

7. The finished compost shall contain no more than 1% of synthetic (i.e. man-made) inert material, and no more than 0.5% of plastic material, as measured using a four-millimeter (4 mm) sieve.
8. An analysis of a composite compost sample must be performed, at a minimum, using the following testing frequency:
 - a) Once per quarter for a facility with an annual compost production of 1 to 6,250 tons.
 - b) Once per two months for a facility with an annual compost production of 6,251 to 17,500 tons.
 - c) Once per month for a facility with an annual compost production of 17,500 tons or greater.

E. Special Wastes:

1. Pre-consumer and post-consumer food residuals, food processing waste and manure are the only waste streams that may be accepted at the facility in liquid form. The liquid food waste and manure may be added during composting to achieve the appropriate moisture content and should not be used to the extent that these liquids will discharge from the bottom of the compost pile.

General Permit WMGR025 Residual and Municipal Waste Composting

2. Gypsum wallboard may be added at a rate not to exceed 10% by volume.
3. Virgin paper mill sludge is defined as the accumulated solids resulting solely from the treatment of wastewater in the production of paper and pulp from virgin wood.

This definition does not include waste sources from coating operations or sludge mixed with sanitary waste.

4. If spent mushroom substrate was used to produce finished compost, then a leachability evaluation shall be conducted on the compost using the Synthetic Precipitation Leaching Procedure (EPA method 1312) for chlorides and sulfates. The finished compost may not contain chloride levels in excess of 250 mg/l or sulfate levels in excess of 500 mg/l.

F. Record Keeping:

1. Persons operating under this general permit shall record and maintain the following information at the composting facility. All records shall be maintained for a minimum of 5 years and shall be made available to the Department upon request.
 - a) Daily records that identify the weight or volume and origin of incoming waste.
 - b) Daily records that identify the weight or volume of outgoing finished compost and the name and address of persons taking the finished compost from the facility.
 - c) A copy of the required analytical data.
2. Persons operating under the provisions of this general permit must submit an annual operating report to the appropriate Department regional waste management program (see attached list), if requested. The annual report shall include a summary of the waste received at the facility, a copy of any required analytical data, and a summary of the weight or volume of compost generated at, and distributed from, the facility for the previous year. The reporting year ends on June 30, and the report is due on August 1 for each year the permit remains in effect.

G. Standard Operating Conditions:

1. Nothing in this permit shall be construed to supersede, amend, or authorize a violation of any of the provisions of any valid and applicable local law, ordinance, or regulation, providing that said local law, ordinance, or regulation is not preempted by the Solid Waste Management Act, 35 P.S. §§ 6018.101 -6018.1003; the Municipal Waste Planning, Recycling and Waste Reduction Act, 53 P.S. §§ 4000.101-4000.1904; Air Pollution Control Act, 35 P.S. §§ 4001 - 4015; or The Clean Stream Law, 35 P.S. §§ 691.1 – 691.1001 or any other applicable environmental laws or regulations promulgated thereunder.

General Permit WMGR025 Residual and Municipal Waste Composting

2. As a condition of this permit and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or search warrant, upon presentation of appropriate credentials and without delay, to have access to and to inspect all areas on which solid waste management activities are being, will be, or have been conducted. This authorization and consent shall include consent to collect samples of waste, soils, water, or gases; to take photographs; to perform measurements, surveys, and other tests; to inspect any monitoring equipment; to inspect the methods of operation; and to inspect and/or copy documents, books, and papers required by the Department to be maintained. This permit condition is referenced in accordance with Sections 608 and 610(7) of the Solid Waste Management Act, 35 P.S. §§ 6018.608 and 6018.610(7). This condition in no way limits any other powers granted under the Solid Waste Management Act.
3. Failure of the measures herein approved to be performed as intended, or as designed, or in compliance with the applicable laws, rules and regulations, and terms and conditions of this permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this permit.
4. The activities authorized by this permit shall not harm or present a threat of harm to the health, safety, or welfare of the people or environment of this Commonwealth. The Department may modify, suspend, revoke or reissue the authorization granted in this permit if it deems necessary to prevent harm or the threat of harm to the public health, the environment, or if the activities cannot be adequately regulated under the conditions of this permit.
5. Any person operating under the provisions of this permit must notify the Department, in writing, if the composting facility is relocated or if new location(s) are to be included under this permit by submitting information in accordance with Section B (Registration Requirements). At least 30 days prior to operating at an additional location(s), a completed copy of the Registration must be supplied to the Waste Management Program at the appropriate Department Regional Office. There is no application fee for existing permittees to operate at a new location.
6. Any person who operates under the provisions of this permit shall notify within 30 days, in writing, the Solid Waste Manager of the appropriate regional office of the Department (address in attached list) of any changes in: the name, address, owners, operators and/or responsible officials of the company; the physical or chemical characteristics of the waste; the process that generates the waste; the status of any permit issued by the state or federal government under the environmental protection acts; any change in the facility's bond or insurance; and the land ownership and the right to enter and operate on the land where the facility is located.

General Permit WMGR025
Residual and Municipal Waste Composting

7. A Preparedness, Prevention and Contingency (PPC) plan that is consistent with the Department's most recent PPC planning guidelines shall be maintained at each composting facility and updated at least every five years. The permittee shall immediately implement the applicable provisions of the Department approved PPC plan for any emergency that affects or threatens public health, safety, welfare, or the environment.
8. Upon cessation of operations at the composting facilities, the operator shall clean or remove any residual and municipal waste and structures or other materials that contain or have been contaminated with residual and municipal waste and shall provide for the processing and disposal of the waste or material in accordance with the Solid Waste Management Act, other environmental protection acts and the regulations promulgated thereunder.
9. Any waste generated from the composting process shall be managed in accordance with the Solid Waste Management Act, 35 P.S. §§ 6018.101 -6018.1003 and the regulations promulgated thereunder.
10. All activities conducted under the authorization granted in this permit shall be conducted in accordance with the permittee's application, except to the extent that the application conflicts with the regulations or governing statutes.

**Department of Environmental Protection
Regional Offices
(and Counties Served)**

I. Bucks, Chester, Delaware, Montgomery, Philadelphia

Southeast Regional Office
2 East Main Street
Norristown, PA 19401
Phone: 484-250-5960
Fax: 484-250-5961

II. Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming

Northeast Regional Office
2 Public Square
Phone: 570-826-2516
Fax: 570-826-5448

III. Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York

Southcentral Regional Office
909 Elmerton Avenue
Harrisburg, PA 17110-8200
Phone: 717-705-4706
Fax: 717-705-4930

IV. Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union

Northcentral Regional Office
208 West 3rd Street, Suite 101
Williamsport, PA 17701
Phone: 570-327-3653
Fax: 570-327-3420

V. Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland

Southwest Regional Office
400 Waterfront Drive
Pittsburgh, PA 15222-4745
Phone: 412-442-4000
Fax: 412-442-4194

VI. Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren

Northwest Regional Office
230 Chestnut Street
Meadville, PA 16335-3481
Phone: 814-332-6848
Fax: 814-332-6117