# Regulation 61-107.4

# **Solid Waste Management:**

# Compost and Mulch Production from Landclearing Debris, Yard Trimmings, and Organic Residuals

#### Disclaimer

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#### Part I. General Provisions.

# A. Applicability.

- 1. The purpose of this regulation is to establish minimum standards for the proper management of yard trimmings, land-clearing debris and other organic material; to encourage composting and establish standards for the production of compost; and to ensure that operations are performed in a manner that is protective of public health and the environment.
- 2. The requirements of this regulation are not applicable to the grinding of pallets, packaging or other industrial sources of wood residuals.
- 3. The requirements of this regulation are not applicable to sewage sludge or industrial sludge generated and managed on site of a wastewater treatment facility permitted under the authority of R.61-9, Water Pollution Control Permits, including sludges mixed with Category One feedstocks generated off-site of the facility.

#### **B.** Definitions.

For the purposes of this regulation, the following terms are defined as follows:

"Aerated Static Pile" means a composting process that uses a controlled air distribution system to either blow or draw air through the composting mass. No agitation or turning of the composting mass is performed.

"Aerobic" means the biological decomposition of organic substances in the presence of at least five percent oxygen by volume.

"Best management practices" (BMP) means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of Waters of the State.

"Buffer" means the regulatory minimum separation distance required for wood-grinding equipment, operational areas, storage areas, or boundaries of a wood-grinding or composting site to structures.

"Carbon-to-Nitrogen ratio" ("C:N Ratio") means the quantity of total carbon (C) in relation to the quantity of total nitrogen (N) in an organic material or composting mass.

"Composite sampling" means a single sample for laboratory analysis composed of multiple, well-blended point- or sub-samples uniformly distributed throughout the entire volume that, after mixing, accurately represents an average or median value of the property or trait of interest for a batch or general mass of compost.

"Compost" means the humus-like product of the process of composting.

"Compost stability" refers to a specific stage or state of organic matter during composting as characterized by the inverse measure of the potential for a material to rapidly decompose.

"Compostable" means the capability of being decomposed by natural biological processes.

"Compostable products" means manufactured items such as cups, plates, and flatware for food service or bags and packaging intended for singular use that undergoes degradation by biological processes. Only

the materials that meet the relevant specifications of American Society for Testing Materials (ASTM) D6400 (plastics) or ASTM D6868 (coated papers and natural materials) shall be considered compostable products.

"Composting" means the aerobic biological decomposition of organic residuals under managed conditions and minimum time-temperature relationships resulting in compost.

"Composting mass" means the result of combining feedstocks in a formulaic recipe to achieve a Carbon-to-Nitrogen ratio, moisture content, and porosity within the mixture that facilitates rapid aerobic decomposition of the materials; the mixture of feedstocks is considered a composting mass until it meets the stability requirements of this regulation.

"Control" means having access to a property through part ownership, rental, lease, easement or other access agreement.

"Curing" means the process that follows composting in which the compost is matured to meet market conditions.

"Department" means the South Carolina Department of Health and Environmental Control (SCDHEC).

"Domestic septage" means either liquid or solid material removed from a septic tank, cesspool, portable toilet, Type III marine sanitation device, or similar treatment works that receives only domestic sewage. Domestic septage does not include liquid or solid material removed from a septic tank, cesspool, or similar treatment works that receives either commercial wastewater or industrial wastewater and does not include grease removed from a grease trap at a restaurant.

"Domestic sewage" means waste and wastewater from humans or household operations that is discharged to or otherwise enters a treatment works.

"Feedstock" means source separated, recovered organic material approved by the Department or listed in the Appendix of R.61-107.4 to be used in the production of compost, mulch, or other product.

"Finished compost" means the product of a composting mass that has met the minimum time and temperature requirements for the composting method chosen and satisfies the stability requirements and applicable quality assurance and testing requirements for finished compost found in Part III.H of this regulation.

"Generated on site" means residuals produced on the same single tax map parcel or multiple tax parcels under the same ownership or control, upon which it is managed.

"Grinding" means the act of mechanically reducing the size of organic materials.

"Hearing" means a Department proceeding that is conducted after notice by mail has been given to the permittee of facts or conduct that warrant a permit revocation and is a proceeding where the permittee is given an opportunity to show compliance with all lawful requirements for the retention of the permit.

"Industrial sludge" means the solid, semi-solid, or liquid residue generated during the treatment of industrial wastewater in a treatment works. Industrial sludge includes, but is not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment processes, and a material derived from industrial sludge. Industrial sludge does not include ash generated during the firing of industrial sludge in an industrial sludge incinerator or grit and screenings generated during preliminary treatment of industrial

wastewater in a treatment works. Industrial sludge by definition does not include sludge covered under 40 CFR 503 or R.61-9.503, Standards for the Use or Disposal of Sewage Sludge.

"Industrial solid waste" means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under subtitle C of the Resource Conservation and Recovery Act (RCRA). The term does not include employee kitchen or cafeteria residuals, packaging waste or yard-trimmings generated on site of an industrial property.

"In-process material" means ground organics that have been incorporated into a composting mass and other material that is in the process of being cured, but has not yet achieved the status of finished compost.

"In-vessel composting" means a process in which decomposing organic material is enclosed in a drum, silo, bin, tunnel, or other container for the purpose of producing compost; and in which temperature, moisture and air-borne emissions are controlled, vectors are excluded, and nuisance and odor generation minimized.

"Land-clearing debris" means material generated solely from land-clearing activities, including brush, limbs, and stumps, but does not include solid waste from agricultural or silvicultural operations.

"Manure" means the fecal and urinary excreta of livestock, poultry, or fish and may also contain bedding, spilled feed, water, soil and other substances incidental to its collection. This definition does not include excreta from household animals such as dogs and cats.

"Mulch" means the organic, non-composted product rendered by grinding Category One feedstocks.

"Municipal solid waste" means discards from residential, commercial, institutional, and industrial sources that have not been separated at the source for recycling. Industrial process waste is excluded from the wastes that comprise municipal solid waste.

"On-site" means activities performed on property under the same ownership or control where the feedstocks were grown, produced, or otherwise generated for recycling.

"Open burning" is defined to have the same meaning as used in Air Pollution Control Regulations and Standards R.61-62.1, Definitions and General Requirements, or any future amendments, and currently means any fire or smoke-producing process that is not conducted in any boiler plant, furnace, high temperature processing unit, incinerator or flare, or in any other such equipment primarily designed for the combustion of fuel or waste material.

"Open dumping" means any unpermitted disposal or landfilling activity except as specifically exempted by regulation.

"Operational Area" means the area of a wood-grinding or composting facility where equipment maintenance, material storage, material processing, composting or curing activities are performed, or as otherwise specified by permit.

"Operator" means the person responsible for the overall operation of a wood-grinding or composting facility.

"Organic" means a substance derived from living organisms.

"Pathogen" means a disease-causing organism, such as fecal coliform, Salmonella bacteria, Ascaris parasite eggs, etc.

"Person" means an individual, corporation, company, association, partnership, unit of local government, state agency, federal agency, or other legal entity.

"Porosity" means the fraction of a material or mass that is void space.

"Putrescible" means material that contains organic matter capable of decomposition by microorganisms and of such a character and proportion that it causes obnoxious odors and the capability of attracting or providing food for birds and other animals.

"Residence" means any existing structure, all or part of which is designed or used for human habitation, that has received a final permit for electricity, permanent potable water supply, permanent sewage disposal, and, if required by the local government, a certificate of occupancy.

"Residuals" means materials that have served their original, intended use and have been source separated and diverted for recycling, grinding or composting.

"Run-off" means any rainwater not absorbed by soil, that flows over land from any part of a facility.

"Sewage sludge" means the solid, semi-solid, or liquid residue generated during the treatment of municipal wastewater or domestic sewage in a treatment works. Sewage sludge includes, but is not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment processes; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screenings generated during preliminary treatment of domestic or industrial sewage in a treatment works.

"Silvicultural" means produced from or pertaining to the care and cultivation of forest trees and timber, including bark and woodchips.

"Solid waste" means any garbage, refuse, or sludge from a waste treatment facility, water supply plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities. This term does not include solid or dissolved material in domestic sewage, recovered materials, or solid or dissolved materials in irrigation return flows or industrial discharges which are point sources subject to NPDES permits under the Federal Water Pollution Control Act, as amended, or the Pollution Control Act of South Carolina, as amended, or source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended. Also excluded from this definition are application of fertilizer and animal manure during normal agricultural operations or refuse as defined and regulated pursuant to the South Carolina Mining Act, including processed mineral waste, which will not have a significant adverse impact on the environment.

"Source separated" means segregated from solid waste at the point of generation to facilitate recycling.

"Thermophilic" means a biological stage in the composting process during which microorganisms break down proteins, fats, and complex carbohydrates such as cellulose at relatively high temperatures (ranging from 113 degrees Fahrenheit to 167 degrees Fahrenheit or 45 degrees Celsius to 75 degrees Celsius).

"Turn" means to physically manipulate the compost mass in order to aerate, decrease temperatures, and increase evaporation rates.

"Unauthorized material" means any feedstock or waste material that due to its feedstock category, characteristics, or volume, causes an exempt, conditionally exempt site, or permitted facility to be in violation of this regulation or the permit conditions approved by the Department.

"Untreated wood" means raw wood or lumber that has not been chemically treated or painted.

"Vector" means a carrier that is capable of transmitting a pathogen from one organism to another including, but not limited to, flies and other insects, rodents, birds, and vermin.

"Waters of the State" means lakes, bays, sounds, ponds, impounding reservoirs, springs, artesian wells, rivers, perennial and navigable streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within the territorial limits of the State, and all other bodies of water, natural or artificial, public or private, inland or coastal, fresh or salt, which are wholly or partially within or bordering the State or within its jurisdiction. This definition does not include ephemeral or intermittent streams. This definition includes wetlands as defined in this Part.

"Wetlands" means lands that have a predominance of hydric soil, are inundated or saturated by water or groundwater at a frequency and duration sufficient to support a prevalence of hydrophytic vegetation typically adapted for life in saturated soil conditions, and, under normal circumstances, do support a prevalence of hydrophytic vegetation. Normal circumstances refer to the soil and hydrologic conditions that are normally present without regard to whether the vegetation has been removed. Wetlands shall be identified through the confirmation of the three wetlands criteria: hydric soil, hydrology, and hydrophytic vegetation. All three criteria shall be met for an area to be identified as wetlands. Wetlands generally include swamps, marshes, and bogs.

"Yard trimmings" means residuals consisting solely of vegetative matter resulting from maintenance or alteration of public, commercial, institutional, or residential landscapes and tends to include grass clippings, leaves, discarded plants and weeds, which have been source separated and diverted for recycling.

#### C. Variances.

Any request for a change to the adherence to a provision or provisions of this regulation, or to a permit issued pursuant to or in accordance with this regulation, shall be made in writing to the Department. The Department shall provide a written response to such a request.

#### D. Prohibitions.

- 1. Open dumping of land-clearing debris, yard trimmings, and other organics is prohibited.
- 2. Open burning of land-clearing debris, yard trimmings, and other organics is prohibited except as approved by the Department for emergency storm debris management or as allowed by Air Pollution Control Regulations and Standards R.61-62.2, Prohibition of Open Burning.

#### E. Violations and Penalties.

A violation of this regulation, or any permit or order issued pursuant to or in accordance with this regulation, subjects a violator to the issuance of a Department order, a civil enforcement action, or to a criminal enforcement action in accordance with S.C. Code Ann., Section 44-96-100, as amended.

# F. Severability.

If, for any reason, any provision, paragraph, sentence, clause, phrase, or part of this regulation or application thereof, is declared by a court of competent jurisdiction as invalid, or unconstitutional, such judgment shall not affect, impair, or invalidate the remainder of this regulation or its application.

# Part II. Exempted and Conditionally Exempted Activities.

The feedstock categories referenced in this part of the regulation are listed and characterized in the Appendix of R.61-107.4. For the purposes of this Part, a "site" shall mean one tax map parcel or multiple contiguous tax parcels under the same ownership.

### A. Exempted Activities.

The activities below are exempted from the requirements of this regulation, but shall be performed in a manner to not cause harm to human health or to the environment as determined by the Department:

- 1. Backyard composting, when feedstocks generated on residential property by the property owner or occupants are composted primarily for use on the same property;
- 2. Grinding or composting of Category One feedstocks by a person on property under their ownership or control, when the feedstocks are generated on site;
- 3. Acceptance, storage, grinding, or composting of only Category One feedstocks by a person on property under their ownership or control, when the combined total of unground feedstocks and in-process material on site at any given time is less than 80 cubic yards;
- 4. Wood grinding activities for maintenance and land-clearing activities by public agencies, public utilities, railroads, or their representatives, upon land owned or controlled by the public agency, public utility, or railroad;
- 5. Composting activities using only Category One and Category Two vegetative feedstocks by a person on property under their ownership or control, when the combined total of feedstocks and in-process material on site, at any given time, is less than five cubic yards;
- 6. Storage, grinding, and composting activities approved by the Department for emergency storm debris management at sites designated by state, county, or municipal government;
- 7. Composting activities or other organics management activities associated with farming operations when the material managed is produced from crops grown on a farm, and when the compost is produced primarily for use on property under the same ownership or control;
- 8. Limited duration events that involve processing or storage of organic residuals for distribution to the public, to include "Grinding of the Greens" and, as approved by the Department, other programs of a similar nature; and
- 9. Composting activities by a participant transitioning to or enrolled in the U.S. Department of Agriculture (USDA) National Organic Program, or other programs of a similar nature as approved by the Department, and the compost produced is primarily for use on property under control of the participant.

# **B.** Conditionally Exempt Activities.

- 1. The following activities are exempt from the permitting requirements of this regulation, but shall comply with all requirements of this Part:
- a. Management of only source separated Category One feedstocks by a person on property under their ownership or control, when the combined total of feedstocks and in-process material on site at any given time is less than 400 cubic yards.
- b. Management of only source separated Category Two feedstocks or mixtures of Category One and Category Two feedstocks by a person on property under their ownership or control, when the combined total of feedstocks and in-process material on site at any given time is less than 40 cubic yards.
- c. Management of only source separated Category Two feedstocks or mixtures of Category One and Category Two feedstocks generated on site of commercial, industrial, or institutional properties under the same ownership, when the combined total of feedstocks and in-process material on site at any given time is less than 400 cubic yards.
- 2. All materials shall be managed in a manner to not cause harm to human health or to the environment as determined by the Department.
- 3. A facility choosing to operate under a conditional exemption shall submit a written notice to the Department stating that it will operate under the conditional exemption requirements. Once submitted, the Department will respond to the notice in writing, either stating concurrence that the facility operation meets the conditional exemption requirements or that it does not.
- a. The notice to the Department shall include completion of a Department-issued form and a site map of the facility that demonstrates compliance with required buffers and include information that will allow the Department to confirm that the proposed facility conforms to all other exemption conditions of this Part.
  - b. The Department shall respond in writing within fifteen (15) calendar days of receiving the notice.
- c. Facilities operating prior to the effective date of the most recent amendment to this regulation shall notify the Department within ninety (90) calendar days of that effective date.
- 4. Conditionally exempt activities shall be performed in accordance with the minimum buffers listed below as measured from the operational area to the listed entities:
- a. A minimum 200-foot buffer shall be required from the operational area to residences, schools, day-care centers, churches, hospitals, and publicly owned recreational park areas unless otherwise waived with documented consent of all property owners within the buffer and made available to the Department upon request;
- b. A minimum 50-foot buffer shall be required from property lines unless otherwise waived with documented consent of all property owners within the buffer and made available to the Department upon request;
  - c. A minimum 100-foot buffer shall be required from public and private drinking water wells.

- 5. The Department may issue a variance to operate with less restrictive buffers when it determines that the technology and practices of the operation justify the reduction. The request shall be made in writing to the Department and the Department shall respond in writing.
- 6. All putrescible feedstocks shall be managed to prevent the escape of liquids and to suppress odors by incorporating the feedstocks into the compost mass, an in-vessel composting unit, an air-tight container, or an enclosed building.
- 7. Best Management Practices shall be utilized to manage stormwater and to prevent impact to Waters of the State.
  - 8. No feedstocks or other material piles may be placed or stored in standing water.
- 9. All feedstocks and other material piles onsite of the facility shall be monitored and managed to prevent fire.
- 10. Unauthorized and unrecyclable material shall be removed from the facility for proper disposal no less than every seven (7) calendar days, except that putrescible waste shall be placed in a covered container and removed from the facility within seventy-two (72) hours.
- 11. Compost produced by conditionally exempt facilities using Category Two feedstocks shall not be offered for sale to the public unless it can be demonstrated to meet all applicable standards for compost quality under Part III.H of this regulation.
- 12. All feedstocks shall be ground and/or incorporated into a composting mass not less than once per year. Conditionally exempt facilities operating prior to the effective date of this regulation shall have one year from the effective date of this regulation revision to comply with this requirement.

#### Part III. Permitted Facilities.

The feedstock categories referenced in this part of the regulation are listed and characterized in the Appendix of R.61-107.4.

# A. Facility Types.

Facilities described below shall not operate without a permit, except as specifically exempted in this regulation:

- 1. Type One facilities. Type One facilities are facilities that grind or compost only source separated organic residuals described as Category One feedstocks.
- 2. Type Two facilities. Type Two facilities are facilities that compost only source separated compostable materials described as Category Two feedstocks or mixtures of Category One and Category Two feedstocks, or any similar items specifically approved in writing by the Department.
  - 3. Type Three facilities. Type Three facilities are facilities that:
- a. Compost Category Three feedstocks or mixtures of Category Three feedstocks with other feedstock categories listed in the Appendix of R.61-107.4;

- b. Compost feedstocks not listed in the Appendix of R.61-107.4, that pose a level of risk greater than Category Two feedstocks as determined and allowed, on a case-by-case basis, by permit from the Department; or
- c. Produce compost using methods not specified in this regulation and as allowed on a case-by-case basis by permit from the Department.

#### B. General Criteria.

- 1. The siting, design, construction, operation, and closure activities for facilities shall conform to the standards set forth in this regulation, unless otherwise approved by the Department.
- 2. Facilities shall obtain the appropriate permit or permits from the Department in accordance with this regulation, prior to the construction, operation, expansion, or modification of a facility.
- 3. The Department may approve a variance from the general, location, design, or operating criteria, based upon the technology and practices of the operation.
- 4. All facilities shall be subject to inspections and evaluations of operations by a representative of the Department.

#### C. Location Criteria.

- 1. All facilities shall comply with the minimum buffers, listed below, from the operational area of the facility to the listed entities, as they exist at the time the permit application is received by the Department, except that an entity listed here shall be exempt from the buffer requirement to its own buildings.
- a. For Type One facilities, for Type Two facilities performing in-vessel composting, or for Type Two facilities performing composting in an enclosed building, a minimum 200-foot buffer shall be required from the operational area to residences, schools, day-care centers, churches, hospitals, and publicly owned recreational park areas; for all other Type Two or for all Type Three facilities, a minimum 1,000-foot buffer shall be required.
- b. For Type One facilities, a minimum 50-foot buffer shall be required from the operational area to property lines; for Type Two or Type Three facilities, the buffer shall be at least 100 feet;
  - c. A minimum 100-foot buffer shall be required from the operational area to any Waters of the State;
- d. A minimum 100-foot buffer shall be required from the operational area to public or private drinking water wells; and
- e. For Type Two or Type Three facilities, a minimum 10,000-foot buffer shall be required from the operational area to any airport runway used by turbojet aircraft and a minimum 5,000-foot buffer from any airport runway used only by piston-type aircraft, unless composting is in an enclosed building.
- 2. The Department may approve, with documented consent of all property owners within the buffer, less stringent buffers than those listed to residences, schools, day-care centers, churches, hospitals, publicly owned recreational park areas, and property lines.
- 3. The Department reserves the right to require more stringent buffers if it is determined, based on the site, feedstocks, or operations, that more stringent buffers are necessary to protect health and the environment.

- 4. The Department's permit decision does not supersede, affect, or prevent the enforcement of a zoning regulation or ordinance within the jurisdiction of an incorporated municipality or county, or by an agency or department of this state.
- 5. Local governments may require siting criteria and buffer distances that are more stringent than the state regulations.

# D. Design Criteria.

- 1. All facilities shall be designed to divert stormwater from running onto the operational areas of a facility.
- 2. The operational area of all permitted Type One facilities shall have at least one foot of separation to groundwater.
- 3. The operational area of all permitted Type Two and Type Three facilities shall be a hard-packed all-weather surface able to withstand various temperatures and be conducive to heavy equipment operation, without damage or failure. The working surface shall be:
- a. A naturally occurring or engineered soil mixture with at least two feet separation to the seasonal high-water table; or
- b. A surface such as concrete or asphalt pad on an appropriate sub-base intended to support and prevent failure of the surface layer with at least one foot of separation to the seasonal high-water table from the sub-base of the constructed surface; or
  - c. As otherwise approved by the Department.
  - 4. Facilities may use borings or test pits to determine separation from the seasonal high-water table.
- 5. The Department may impose more protective design criteria for the operational areas of Type Three facilities to ensure compatibility with the feedstocks in use and the structural integrity needed for the equipment used at the site.
- 6. Facility design shall be structured so that each composting mass can be managed in accordance with the operational requirements of this regulation.
- 7. Access to all permitted facilities shall be controlled through the use of fences, gates, berms, natural barriers, or other means to prevent unauthorized dumping and access.

# E. General Operating Criteria.

- 1. Site Control and Sign Requirements shall be as follows:
- a. No incoming waste shall be accepted by the facility unless facility personnel are present to receive the incoming waste.
- b. All permitted facilities shall post signs in conspicuous places that are resistant to weather and fading of color that:
  - (1) Identify the owner, operator, or a contact person and telephone number in case of emergencies;

- (2) Provide the hours during which the facility is open; and
- (3) List the valid SCDHEC Facility I.D. number(s) for the facility.
- c. Facilities may accept only those materials allowed by facility type and category as listed in the Appendix of R.61-107.4 or approved in writing by the Department.
- d. No material, including feedstocks or in-process material, may be stored at the permitted facility in excess of the maximum capacity allowed by permit.
- e. No facility shall accept deliveries of feedstocks or other materials that will result in materials being stored in excess of the maximum capacity allowed by permit.
  - 2. All wood-grinding activities shall assure that no debris is ejected onto neighboring properties.
- 3. Facilities shall use Best Management Practices to control run-on and run-off. An appropriate permit may be required prior to the discharge of any stormwater.
- 4. Unauthorized feedstocks, unrecyclable materials, and waste shall be removed from the facility for proper disposal no less than every seven (7) calendar days unless otherwise approved by the Department. Unauthorized putrescibles shall immediately be placed in a covered container and removed from the facility within seventy-two (72) hours of receipt. The area designated for temporary storage of unauthorized waste at the facility shall be identified in the facility operational plan. The Department may require more frequent removal based on the nature or quantity of other unacceptable waste.
  - 5. Reporting and Records Retention shall be in accordance with the following:
- a. Not less than once each month, facilities shall measure and record the amounts, in cubic yards, of feedstocks, in-process material, finished compost, and mulch, and waste material on site at that time.
- b. No later than September 1 of each year, all permitted facilities shall submit to the Department an annual report on a form approved by the Department for the prior fiscal year beginning on July 1 and ending June 30. The report shall include the following information:
- (1) The total amount in tons of in-coming feedstock received yearly for each type of feedstock and the source for each;
  - (2) The total amount in tons of mulch, compost, or other material that on a yearly basis is:
    - (a) Produced;
    - (b) Transferred off-site as products such as mulch, compost, or soil amendment;
    - (c) Transferred off-site for further processing; or
    - (d) Disposed in a landfill and the reason for disposal.
- c. Records of weekly temperature readings of mulch piles shall be maintained by all facilities for a period of no less than three (3) years and be made available at all reasonable times for inspection by the Department.

- d. Changes to telephone numbers, names of responsible parties, addresses, etc. for a permitted facility shall be submitted to the Department within ten (10) business days of the change.
- e. Records shall be maintained by all facilities for a period of no less than three (3) years and shall be furnished upon request to the Department or be made available during for inspections by the Department.

# 6. Operational Plans.

All facilities shall be operated in accordance with this regulation and an operational plan developed specifically for the facility and approved by the Department in writing.

- a. Facilities shall maintain an operational plan on site of the facility and it shall be made available for inspection upon request by the Department.
- b. Facilities requiring permits shall submit their operational plan to the Department along with the permit application. The Department may require changes to an operational plan when the Department has determined that the operation requires additional measures to protect human health and safety and the environment.
- c. Facilities shall address all requirements of this part in their operational plan, including at a minimum:
  - (1) A description of the anticipated source and composition of the incoming feedstocks;
- (2) A description of the processes and methods that will be used to grind, compost, cure, store, and otherwise manage material, including a description of production capabilities and equipment to be used;
- (3) A description of the procedure for inspecting, measuring, and managing incoming feedstock and unacceptable waste;
- (4) A description of the procedures for prevention and control of vector, odor, dust, and litter specific to their geographic location and the types and amounts of feedstocks used in their operation;
  - (5) A description of the anticipated markets for end products;
  - (6) A quality assurance and testing plan for finished compost that describes:
- (a) All of the parameters and protocols for obtaining, preserving, storing, and transporting samples to a South Carolina certified laboratory;
  - (b) The frequency of monitoring to assess temperature profiles during composting;
  - (c) The methods and processes used to determine stability of the compost; and
  - (d) Other protocols used to achieve quality assurance standards required in this regulation;
  - (7) A fire prevention and response plan which includes:
- (a) A description of the processes used to prevent fire, specific to their site design and operating criteria;

- (b) A description of the procedures for responding to a fire specific to their site location, feedstock types, and operating criteria;
  - (c) The location of emergency equipment and fire suppressant materials; and
  - (d) The emergency contact information for the local fire protection agency.
  - (8) A contingency plan describing facility operations in the event of equipment failure;
- (9) A detailed closure plan to meet the requirements of this regulation, including final closure cost estimate pursuant to this part; and
- (10) Any additional procedures implemented as a requirement of the Department as described in this regulation.
  - 7. In the event of a fire at a facility, the facility must:
- a. Verbally notify the appropriate regional office of the Department within twenty-four (24) hours. A written notification must be sent within seven (7) calendar days;
- b. Cease accepting incoming waste or divert it to another area of the facility. If waste is diverted to another area of the facility, notification must be included as described in (a) above; and
- c. Use the methods and equipment outlined in the fire prevention and response plan that is included in the operations plan approved by the Department.

# F. Material Management for Permitted Facilities.

- 1. All piles of mulch and ground material shall be monitored and managed to prevent fire as described in the facility operational plan:
- a. The temperature of each pile shall be measured weekly or as otherwise approved in the operational plan;
- b. Temperature readings shall be taken every 50 feet along the length or around the circumference of a pile, at a depth of three to six feet;
- c. Intervals and methods for monitoring temperatures and any alternatives not stated in this regulation must be included in the operational plan and approved in writing by the Department; and
- d. A record of all temperature measurements taken shall be maintained and readily available to the Department upon request.
- 2. All land-clearing debris shall be ground at least once per fiscal year. Stumps or large debris that cannot be ground shall be removed from the facility for disposal or other management at least once per fiscal year.
  - 3. All materials shall be maintained to:
    - a. Have sufficient space around piles of material to allow access of emergency fire-fighting equipment;

- b. Have sufficient space around piles of material to allow loading or other activities described in the approved operational plan;
  - c. Allow monitoring of internal temperatures; and
  - d. Provide a safe working environment.
- 4. Within one (1) year of being ground, mulch and ground material must be bagged, added to a managed compost mass, transferred from the facility, or disposed of in accordance with a Department permit.
- 5. The working surface of the operational area of all permitted facilities shall be maintained to prevent standing water or uncontrolled releases.

### G. Additional Operating Requirements for Type Two and Type Three Facilities.

- 1. The operation of all composting facilities shall follow acceptable management practices for composting methods that result in the aerobic, thermophilic decomposition of the solid organic constituents of the feedstock. The following composting methods will be allowed:
- a. Passive leaf composting, in which composting leaves collected by local government programs are managed with little manipulation after they are mixed and piled; turning shall be performed at least quarterly or as needed to prevent odors;
- b. The windrow composting method, in which the following requirements apply: Aerobic conditions at 131 degrees Fahrenheit or 55 degrees Celsius or greater shall be maintained in the composting mass for at least fifteen (15) consecutive days. During the high temperature period, the composting mass shall be turned at least five (5) times. The composting mass shall be turned before the internal temperature exceeds 160 degrees Fahrenheit or 71 degrees Celsius;
- c. The aerated static pile composting method, in which the following requirements apply: Aerobic conditions shall be maintained during the composting process. The temperature of the composting mass shall be maintained at 131 degrees Fahrenheit or 55 degrees Celsius for at least three (3) consecutive days; or
- d. The in-vessel composting method, in which the temperature of the composting mass shall be maintained at a minimum temperature of 131 degrees Fahrenheit or 55 degrees Celsius for at least three (3) consecutive days.
  - e. The use of other composting methods shall require written Department approval.
  - 2. Temperature measurements shall be as follows:
- a. The temperature of each composting mass shall be measured daily during the first week of active composting, and not less than weekly thereafter;
- b. Temperature readings shall be taken every 50 feet along the length of a composting mass and from within the center of the mass;
- c. In-vessel composting systems shall follow the manufacturer's recommendations for monitoring temperatures during active composting;

- d. Intervals and methods for monitoring temperatures and any alternatives not stated in this regulation must be included in the operational plan and approved in writing by the Department; and
- e. A record of all temperature measurements taken shall be maintained and readily available to the Department upon request.
- 3. The moisture content in the composting mass shall be monitored regularly and managed to achieve desired results.
  - 4. Pile sizes and spacing. All materials shall be maintained to:
    - a. Allow the measurement of internal-pile temperatures of the compost mass as required;
- b. Enable the compost mass to be turned as needed to result in the aerobic, thermophilic decomposition of the solid organic constituents of the feedstock;
- c. Have sufficient space around the composting mass to allow loading and other activities described in the approved operational plan;
- d. Have sufficient space around the composting mass to allow access of emergency fire-fighting equipment and procedures as described and approved in the facility operational plan; and,
  - e. Provide a safe working environment.
  - 5. Material Management shall occur as follows:
- a. Grass clippings shall be incorporated into the composting mass within twenty-four (24) hours of arrival at a ratio of no more than one part grass to three parts chipped or ground carbon-rich material by volume;
- b. Food residuals and other putrescible, nitrogen-rich feedstocks shall be incorporated into the compost mass the same day of receipt or stored not more than seventy-two (72) hours in closed, air-tight, and leak-proof containers;
- c. If manure is stored more than three (3) calendar days, the manure shall be stored on a concrete pad or other impervious surface and covered with an acceptable cover to prevent odors, vector attraction, and runoff. The cover should be vented properly with screen wire to let the gases escape. The edges of the cover should be properly anchored;
- d. Category Three feedstocks shall be incorporated into the compost mass upon receipt or stored in a manner that is described in the operational plan and approved by the Department;
- e. Source separated feedstocks shall not be combined until incorporated into the compost mass, except as described in the operational plan and approved by the Department;
- f. Feedstocks shall be thoroughly mixed into the compost mass in accordance with a formulaic recipe that optimizes Carbon-to-Nitrogen ratios, moisture content, and porosity. Feedstocks with excessive moisture content shall be delivered onto a bed of woodchips or sawdust or otherwise managed to prevent escape of the liquids from the compost mass; and

- g. All operations shall be performed to prevent the re-introduction of pathogens into materials that have undergone, or are in the process of, pathogen reduction.
- 6. Facilities shall identify any chemical changes to a feedstock, or changes to the chemical ratios of a feedstock, significant enough to alter the composting process or the quality of the compost produced, and shall request appropriate permit modifications from the Department for any operational plan changes required as a result of those changes.
- 7. The following information shall be maintained at all facilities that produce compost for sale or distribution to the public and made available to the Department upon request unless otherwise approved by the Department:
- a. Daily and weekly temperature readings and moisture observations of each composting mass that is formulated:
- b. Start-up dates for each composting mass that is formulated and the date for each time a composting mass is remixed or turned while composting;
  - c. Number of days required to produce the end product, by type; and
- d. The results of all testing performed in accordance with the quality assurance requirements of this regulation and any corrective action taken to improve product quality to the standards in this regulation.
- 8. Any compost produced with Category Two or Category Three feedstocks and offered for sale or distribution to the public is required to meet the physical and biological standards listed in this regulation.
  - 9. Compost Program Manager Certification shall be secured and maintained as follows:
- a. Unless otherwise approved by the Department, within eighteen (18) months of the effective date of this regulation, all permitted Type Two and Type Three facilities are required to have an operator or one or more employees classified as a manager or supervisor who is duly certified as a compost program manager.
- b. Persons who have achieved and maintain compost manager certification by the U.S. Composting Council (USCC), the Solid Waste Association of North America (SWANA), or another Department-approved training program shall be deemed certified by the Department.
- c. Documentation of Compost Program Manager Certification shall be maintained at all permitted Type Two and Type Three facilities and made available to the Department upon request unless otherwise approved by the Department.

# H. Quality Assurance and Testing Requirements for Finished Compost.

1. Any compost produced from Category Two or Category Three feedstocks and offered for sale or distribution to the public is required to meet the physical and biological standards listed in this section. Composite samples shall be collected, stored and analyzed in accordance with the procedures found in the U.S. Department of Agriculture publication "Test Methods for the Examination of Composting and Compost" (TMECC), or equivalent methodology recommended by the U.S. Environmental Protection Agency publication SW-846, "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods."

- 2. Compost from Type One facilities or compost made solely from Category One feedstocks with compliant records of time and temperature monitoring are presumed to meet the standard for biological contaminants and are not required to perform laboratory testing as described in this section.
- 3. All compost for sale or distribution to the public and produced from feedstocks other than Category One must be tested and meet the designation of Class A Exceptional Quality Compost or be designated for legal disposal, additional processing, or other use as approved by state or federal agencies having appropriate jurisdiction.
  - 4. Class A exceptional quality compost:
    - a. Contains less than two (2%) percent physical contaminants by dry weight analysis;
    - b. Has a stability index rating of stable or very stable;
    - c. Meets Class A pollutant limits found in Table 1; and
    - d. Meets standards of this regulation for pathogen reduction.

Table 1. Pollutant Standards: Maximum Allowable Concentration (milligrams per kilogram dry weight)

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

- 5. The distribution and use of exceptional quality compost is unrestricted and the consumer shall be advised to apply the product at agronomic rates based on product analysis, except that the use and distribution of compost produced from feedstocks generated by facilities permitted pursuant to R.61-67, Standards for Wastewater Facility Construction, shall be subject to all applicable requirements of R.61-9.
- 6. Compost Testing Frequency. The frequency of laboratory testing for pollutants, biological contaminants, and physical contaminants shall be based on the volume of compost produced annually by the facility as indicated in Table 2:

Table 2. Compost Testing Frequency

Compost Quantity	Frequency
1-2500 tons	1 per quarter (or less as approved)
2501-6250 tons	1 per quarter
6251-17500 tons	1 per 2 months
17501 tons and above	1 per month

- 7. The composted product shall be analyzed for stability using methods as set forth in the USDA TMECC Section 05.08-A through Section 05.08-F and the Compost Stability Index Table 05.08-1.
- 8. All compost produced for sale or distribution is required by this regulation to meet the physical and biological contaminant standards in Table 3 by a testing method referenced in this regulation or an equivalent method allowed by the Department:

Table 3. Physical and Biological Contaminants Limits for Compost

Physical contaminants	Less than 2 percent dry weight basis
(man-made inerts)	
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

- a. All product quality assurance testing for pollutant standards and biological contaminants required by this regulation or as requested by the Department shall be performed by a South Carolina certified laboratory and reported in a format acceptable to the Department.
- b. All products marketed in South Carolina as a soil amendment or fertilizer shall be registered by the product manufacturer with the Clemson University Department of Plant Industry or as otherwise required by law.

## I. Additional Requirements for Permitted Facilities.

- 1. The Department may impose more stringent requirements than those outlined herein when additional measures are necessary, on a case-by-case basis, to protect public health and the environment from any potentially adverse effects. These requirements include, but are not limited to:
- a. Analysis of individual feedstocks to identify any characteristics that may require special management or permit conditions;
- b. Feedstock selection; the Department may determine on a case-by-case basis that a material shall not be used as feedstock due to its pollutant content or concentration, the material variability from the source, or its potential for creating adverse environmental effects;
  - c. Testing frequency and parameters;
  - d. Location, design, and operating criteria;
- e. Monitoring and reporting, including but not limited to, monitoring of groundwater, surface water, soil, plant tissue, feedstocks and/or finished products;
  - f. Surface or pad requirements; or
- g. Other requirements as necessary such as site assessments, groundwater sampling, and corrective action when environmental contamination from a permitted facility is suspected or confirmed.

2. The permittee may request that the Department remove from the permit the additional requirements described in this part if, after two (2) years, those processes are proven to the Department to be effective, as determined by the Department. In all cases, the Department shall retain the authority to determine the effectiveness of the process and/or feedstock mixture for the protection of human health, surface water standards, and groundwater standards.

#### J. Financial Assurance.

- 1. The requirements of this section apply to all permitted facilities except those owned and operated by a local government, by a region comprised of local governments, or by state or federal government entities whose debts and liabilities are the debts and liabilities of the state or the U.S.
- 2. Prior to receiving a permit, applicants shall fund a financial assurance mechanism as described in R.61-107.19, SWM: Solid Waste Landfills and Structural Fill Part I.E, and approved by the Department to ensure the satisfactory closure of the facility as required by this regulation.
- 3. The permittee shall calculate and declare in the permit application the maximum amount in cubic yards of feedstocks, in-process material, and waste material that could be stored at the facility. A final closure cost estimate is required to provide funding for the third party costs to properly dispose of the maximum amount of material that the facility can store at any given time and perform any corrective action for soils and groundwater that the Department may require. The cost estimate shall account for tipping fees, material hauling costs, grading and seeding the site, labor, and the cost for soliciting third party bids to complete closure and restore the site to conditions acceptable to the Department.
- a. The maximum capacity of a site shall be calculated in cubic yards assuming compliance with all buffers and spacing requirements. The Department shall use an average cost of disposal per ton of material in Class II landfills, as reported in the most recent Solid Waste Management Annual Report, when calculating the amount of financial assurance necessary for a site.
- b. During the active life of the facility, the permittee shall annually adjust the closure cost estimate when the disposal cost estimate increases substantially based on information published in the Solid Waste Management Annual Report.
- c. The permittee shall increase the closure cost estimate and the amount of financial assurance provided if changes to the closure plan disposal costs, site conditions, or other factors increase the maximum cost of closure at any time during the site's remaining active life.
- d. The permittee shall increase the closure cost estimate and the amount of financial assurance provided if a release to the environment occurs to include cost of groundwater monitoring, assessment, and corrective action if the Department determines that these measures are necessary at any time during the active life of the facility. Financial assurance shall be maintained and adjusted annually until the Department agrees that environmental conditions meet applicable standards.
- e. At any time during the remaining life of the facility, the permittee may reduce the closure cost estimate and the amount of financial assurance provided for proper closure if the cost estimate exceeds the maximum cost of closure. The permittee shall submit justification for the reduction of the closure cost estimate and the amount of financial assurance to the Department for review and approval.
- 4. The permittee shall provide continuous coverage for closure until released from financial assurance requirements.

5. The Department may take possession of a financial assurance fund for failure to complete closure in accordance with Part III.K or failure to renew or provide an alternate acceptable financial assurance mechanism.

#### K. Closure.

All facilities shall conduct final closure in accordance with the operational plan submitted to the Department and with the following requirements:

- 1. Operators of permitted facilities shall provide to the Department written notice of intent to close and their proposed closure date;
  - 2. Upon closing, permitted facilities shall immediately post closure signs at the facility;
- 3. Unless otherwise approved by the Department, within ninety (90) calendar days after closing, operators shall:
- a. Remove all feedstocks, finished product, and wastes, except that mulch or Class A compost may be spread on the site to a maximum thickness of four inches if tilled into the soil prior to site stabilization;
  - b. As appropriate, grade land to promote positive drainage and stabilize the site to prevent erosion;
  - c. Appropriately manage all water collected in containment structures or ponds; and
- d. Submit an annual report for the portion of the year during which the facility was operational, using the annual report form provided by the Department.
- 4. Permitted facilities with confirmed contamination shall amend its closure plan to include post-closure corrective action requirements for approval by the Department when a facility's remediation activities continue beyond a facility's closure.
- 5. Permitted facilities shall request that the Department inspect and approve closure. Upon Department approval of proper closure, the permittee shall be released from financial assurance requirements.

# L. Permit Suspension or Revocation.

- 1. Whenever the Department finds that material or substantial violations demonstrate a disregard for, or inability to comply with, applicable laws or requirements, and these violations would make the continuation of the permit not in the best interest of human health and safety or the environment, the Department may, after a hearing, amend or revoke the permit as appropriate and necessary.
- a. The Department shall give notice by certified mail to the permittee of facts or conduct that warrant the intended action, and
- b. The permittee shall be given an opportunity to show compliance with all lawful requirements for the retention of the permit.
- 2. If the Department finds that public health, safety, or welfare imperatively requires emergency action, suspension of a permit may be ordered pending proceedings for revocation or other action.
- 3. If a suspension is issued to a permittee, it shall be issued per an order from the Department, which will direct a facility to cease operating or to cease accepting all types of feedstocks.

- a. The suspension order will also include instructions for how the permitted facility can obtain compliance and a deadline by which the facility shall become compliant. Cited violations that may result in a suspension order include, but are not limited to, the following examples:
  - (1) A Department determination that a facility has exceeded its permitted capacity;
- (2) A Department determination that a facility has not submitted to the Department the required amount of financial assurance, or the financial assurance that was submitted is no longer valid, has been cancelled, and not replaced for the facility site;
- (3) A Department determination that a facility was issued a written directive or order with a deadline to become compliant but failed to do so by the communicated deadline;
- (4) A Department determination that a materially false statement has been made by the facility in the application for a permit; or
- (5) A Department determination that the facility has falsified or altered records that are required by this regulation.
- b. The suspension shall last until the Department has determined that the facility is in compliance with its permit, applicable statutes or regulations, and/or a prior order, unless the Department designates a time that the facility's suspension will be rescinded.
- c. The Department may decline to lift the permit suspension if a facility is cited for any additional violations during the initial suspension period. If a facility is cited for additional violations during the initial suspension period, the Department may only rescind the suspension after the facility achieves compliance with all violations cited by the Department.
  - d. All rescissions of a suspension shall be communicated to the facility by the Department in writing.
- 4. If, after a hearing, the Department determines that permit revocation is warranted, an administrative order revoking the permit will be issued.

# Part IV. Permit Application.

- **A. Permit Application Process.** The applicant shall submit a permit application to the Department. The permit application shall include one hard copy and one electronic copy of the following:
  - 1. A completed and signed application form provided by the Department;
  - 2. Tax map number for the site;
  - 3. Proof of ownership or control of the property;
- 4. For Type Two or Type Three facilities, a signed statement, on a Department-provided form, from a South Carolina licensed professional engineer, certifying that the site design is compliant with the requirements of this regulation;
- 5. A vicinity map that shows the location of the facility and the area that is within one mile of the property boundary;

- 6. A site plan on a scale of not greater than 100 feet per inch that shall, at a minimum, identify the following:
  - a. The facility perimeter, the operational area, and all storage areas with measurements in feet;
  - b. Compliance with required buffers as outlined in this regulation;
- c. Property lines, access roads, gates, fences, natural barriers, or other Department-approved means of preventing unauthorized access and dumping;
- d. A topographical survey of the site depicting two-foot contours at a minimum, and six-inch contours for sites evaluated for consistency with the South Carolina Coastal Zone Management Plan;
  - e. A description of any Best Management Practices (BMPs) used for the management of storm water;
- f. The location of, and distance to, any Waters of the State on site of the facility or within the buffer areas described in Part III.C;
  - 7. An operational plan that shall contain all items as required under this regulation;
  - 8. Any request for a variance as allowed by this regulation; and
  - 9. A final closure cost estimate pursuant to this regulation.

#### B. Notice.

- 1. Within fifteen (15) days of submitting an application to the Department, an applicant for a prospective Type Two and/or Type Three facility shall give notice of the proposed activity. Notice shall be sent, via certified mail that a permit to operate has been applied for, to the county administrator, the county planning office, and all owners of real property as they appear on the county tax maps, as contiguous landowners of the proposed permit area, including properties that are across a road or any other right-of-way that may separate the parcels. This notice shall contain:
  - a. The name and address of the applicant;
  - b. The type of facility and what it will produce, for example, mulch, compost;
- c. A detailed description of the location of the facility, using road numbers, street names, and landmarks, as appropriate;
  - d. A description of the feedstocks the facility will utilize;
- e. Department locations (Central Office and appropriate Regional Office) where a copy of the permit application will be available for review during normal working hours; and
  - f. The Department address and contact name for submittal of comments and inquires.
  - 2. The applicant shall provide evidence of noticing as required in this regulation to the Department.
- 3. A comment period of not less than thirty (30) calendar days from the date of Noticing will be provided before issuance of a Department Decision.

4. Notice of the Department Decision regarding the permit application will be sent to the applicant, affected persons or interested persons who have asked to be notified, all persons who commented in writing to the Department, and the facility's host county. The use of certified mail to send Notice of the Department's Decision shall be at the discretion of the Department unless specifically requested in writing by an interested person.

# C. Application Review and Permit Decision.

- 1. If an applicant submits an incomplete application, the Department shall notify the applicant in writing. If the requested information is not provided within one hundred eighty (180) calendar days of receipt of the notification, the application may be considered withdrawn. The Department will notify the applicant in writing when an application is considered withdrawn.
- 2. The Department shall deny a permit for a facility that it determines does not meet the requirements of this regulation.
- 3. The Department may include additional conditions in a permit when the Department determines that the operation requires safeguards to protect human health and safety or the environment.

#### D. Permit Modifications.

Permit modifications must be requested in writing and may not be implemented without prior written consent from the Department. The Department may require Noticing as described in this regulation for modifications that impact the allowable feedstock categories, that impact buffers, or that the Department determines may otherwise impact adjoining properties.

# E. Transfer of Ownership.

- 1. The Department may, upon written request, transfer a permit, as appropriate, to a new permittee where no other change in the permit is necessary.
- 2. The proposed new owner of a permitted facility shall, prior to the scheduled change in ownership, submit to the Department:
  - a. A completed and signed application form provided by the Department;
- b. A written agreement signed by both parties indicating the intent to change ownership or operating responsibility of the facility;
- c. A disclosure statement in accordance with S.C. Code Section 44-96-300, except that local government and regions comprised of local governments are exempt from this requirement; and
  - d. Documentation of financial assurance as required.
  - 3. The Department may approve transfer of the permit to the new owner provided:
    - a. The facility is in compliance with all permit requirements and with this regulation;
- b. The new owner has agreed in writing to assume full responsibility in accordance with this regulation, the facility permit, and the approved operational plan; and

- c. The new owner has funded an adequate financial assurance mechanism in accordance with the requirements of this regulation.
- 4. The previous owner shall maintain the existing financial assurance mechanism until the new owner can demonstrate financial responsibility in accordance with this regulation.
- 5. The new owner shall submit legal documentation of the transfer of ownership of the facility within fifteen (15) days of the actual transfer.

#### Part V. General Permits.

- **A. General Permit Issuance**. The Department may issue one or more general permits for facilities described as Type One and Type Two facilities.
  - 1. A general permit shall, at a minimum, outline the following:
    - a. Noticing requirements, including Intent to Operate and public Noticing;
    - b. Location, siting, and design criteria;
    - c. Operating, monitoring, and reporting criteria;
    - d. Financial assurance requirements; and
    - e. Closure requirements.
- 2. A general permit pursuant to this Section may be issued, modified, or terminated in accordance with applicable requirements, terms, and conditions of this regulation.
  - 3. The Department shall publish a notice of any general permit issued, modified, or terminated.

# B. Application for Coverage under a General Permit.

- 1. An operator seeking coverage under a General Permit shall request approval from the Department with a completed Notice of Intent form provided by the Department.
- 2. A Notice of Intent shall include signatures of the permit applicant and of the landowner, a signed certification that operations will be conducted in accordance with the General Permit, and evidence that the applicant has secured a financial assurance mechanism in accordance with the requirements of this regulation.
  - 3. The applicant shall also provide a copy of the Notice of Intent to the appropriate local government.
- 4. A facility may begin operating under a General Permit after a written approval from the Department has been received by the facility operator. Written approval shall not be issued less than thirty (30) days of the date of submission of the Notice of Intent.

#### C. Corrective Measures and General Permit Revocation.

1. Upon a determination by the Department and written notification that the facility operating under a general permit poses an actual or potential threat to human health or the environment, the Department may require the permittee to implement corrective measures as appropriate.

- 2. Approval to operate under a General Permit may be revoked for failure to comply with the conditions of the General Permit or this regulation.
- a. Whenever the Department finds that material or substantial violations demonstrate a disregard for, or inability to comply with a general permit, and that these violations would make continuation of the approval to operate under a general permit not in the best interest of human health and safety or the environment, the Department may, after a hearing, revoke the approval to operate as appropriate and necessary.
- b. For the purposes of this regulation, "hearing" means a conference between the Department and a permittee, during which the permittee is given opportunity to respond to a written notice of alleged violation, and may be accompanied by legal and/or technical counsel, at the conference.
- c. If, after a hearing, the Department determines that approval to operate under authority of a general permit should be revoked, an administrative order revoking the approval will be issued.

# 61-107.4 Appendix: Feedstock Categories

# A. Feedstock Categories.

This Appendix defines categories of common organic feedstocks for composting. The feedstock characteristics of Carbon-to-Nitrogen ratio, moisture, pathogen content, source variability, non-compostable contaminants, trace metals, and toxic metals content are considered when assessing appropriate facility design features and quality assurance monitoring necessary to produce beneficial products in an environmentally protective process. The Department will use these characteristics to assign the category and level of risk posed for any feedstock not listed here. Any mixture of feedstocks for composting shall assume the level of risk for the most problematic feedstock in the mixture.

1. Feedstock Category One.

Category One feedstocks have a high Carbon-to-Nitrogen ratio and pose limited risk of contamination from pathogens, trace metals, hazardous constituents, or physical contaminants that are not compostable. These feedstocks also have low moisture content. Grass clippings have a lower Carbon-to-Nitrogen ratio than other Category One feedstocks, but are included in this category because they are commonly collected with leaf and limb debris. This category includes only:

- a. Yard trimmings, leaves, and grass clippings;
- b. Land-clearing debris;
- c. Wood, woodchips, and sawdust, from untreated and unpainted wood that has not been in direct contact with hazardous constituents;
  - d. Agricultural crop field residuals;
- e. Compostable bags commonly used for collecting and transporting yard trimmings, leaves, and grass clippings; and
  - f. Similar materials as specifically approved in writing by the Department.
  - 2. Feedstock Category Two.

Category Two feedstocks have a lower Carbon-to-Nitrogen ratio than Category One feedstocks, have a high moisture content, and are more likely to contain pathogens, trace metals or physical contaminants that are not compostable. This category includes only the following source-separated materials:

- a. Non-meat food processing wastes, including marine shells and dairy processing wastes;
- b. Produce and non-meat food preparation residuals generated by wholesale or retail sales establishments or food service establishments;
  - c. Plate scrapings including cooked meats generated by food service establishments;
- d. Manufactured compostable products and waste paper products that are otherwise unsuitable for recycling;
  - e. Animal manures and materials incidental to its collection as defined in this regulation;
- f. Residual organics from anaerobic digesters or other waste-to-energy conversion processes utilizing only Category One or Category Two feedstocks; and
- g. Industrial wastes/sludges that meet the waste characterization requirements found in R.61-107.19, Part IV, Section A for disposal into a Class II Landfill; and
  - h. Similar materials as specifically approved in writing by the Department.
  - 3. Feedstock Category Three.

This category includes feedstocks that have the most risk from trace metals, source variability, physical contaminants, pathogens, and other properties that may be detrimental to plants, soils, or living organisms in high concentrations. These feedstocks require more intensive analysis and monitoring prior to being incorporated into the active composting area and require approval for composting by the Department on a case-by-case basis. This category includes:

- a. Sewage sludge;
- b. Industrial sludges, except as specifically identified in Section A.2. of this Appendix;
- c. Drinking water treatment sludge;
- d. Fats, oils, and greases (FOG);
- e. Animal-derived residuals except as specifically identified in Section A.2 of this Appendix;
- f. Residual organics from anaerobic digesters or other waste-to-energy conversion processes utilizing Category Three feedstocks;
- g. Other industrially produced non-hazardous organic residuals not previously categorized in this Appendix; and
  - h. Other organic materials not prohibited below, as approved by the Department.

- **B. Prohibited Feedstocks**. Composting of materials containing the following items is not allowable under this regulation:
- 1. Municipal solid waste, except those activities under which after a two-year period of operation in compliance with a permit issued under authority of R.61-107.10, SWM: Research, Development, and Demonstration Permit Criteria, have been determined by the Department to have adequately achieved their objectives and satisfactorily protected public health, safety, and the environment;
- 2. Friable and non-friable asbestos as defined by R.61-86.1, Standards Of Performance For Asbestos Projects;
  - 3. Biomedical or infectious wastes as defined by R.61-105, Infectious Waste Management;
- 4. Hazardous waste as defined by Resources Conservation and Recovery Act (RCRA), Public Law 94-580, and R.61-79, Hazardous Waste Management Regulations, promulgated pursuant to the South Carolina Hazardous Waste Management Act (SCHWMA), as amended, S.C. Code Ann. Sections 44-56-10 et seq.;
- 5. Materials for compost or mulch production that contain or are contaminated with Polychlorinated biphenyl (PCB) where concentrations are greater than quantifiable detection limits;
- 6. Source, special nuclear, or by-product material as defined by the Atomic Energy Act of 1954, as amended;
  - 7. Radioactive material managed pursuant to R.61-63, Radiological Materials (Title A); and
- 8. Materials resulting from coal combustion, including but not limited to, fly ash, bottom ash, boiler slag and flue gas desulfurization materials.