Healthy People. Healthy Communities.

Regulation 61-107.4

SWM: Compost and Mulch Production from Land-clearing Debris, Yard Trimmings and Organic Residuals

Effective Date June 27, 2014

Division of Mining & Solid Waste Management
2600 Bull Street, Columbia, SC 29201

www.scdhec.gov

PREAMBLE

The South Carolina Solid Waste Policy and Management Act (Act), Section 44-96-10 et seq., S.C. Code of Laws, 1976, as amended, requires the Department to promulgate regulations establishing requirements for composting facilities using yard trash and land-clearing debris, and wood chipping facilities that chip untreated wood waste. In 1993, to satisfy the requirements of the Act, the Department promulgated R.61-107.4 SWM: Yard Trash and Land-Clearing Debris; and Compost. In 2015, an amendment to R.61-107.4 SWM: Compost and Mulch Production from Land-clearing Debris, Yard Trimmings, and Organic Residuals came into effect.

Regulation History

Promulgated pursuant to 1976 S.C. Code Section 44-96-10 et seq. as amended and originally published in S.C. State Register 17-4, effective April 23, 1993.

And last amended by Document No. 4432 in S.C. State Register 38-6, effective June 27, 2014.

Table of Contents **Page #**

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. Registered wood-grinding or composting facilities operating on the effective date of this regulation are subject to the following:

a. Registered facilities operating on the effective date of this amendment shall be subject to all provisions of the amended regulation with the exception of the location criteria outlined in Part III.C. Such an exception shall not apply to facilities that relocate or modify their permit or registration to include feedstocks other than Category One feedstocks, after the effective date of this amendment.

b. Within 90 days of the effective date of this amended regulation, operators of registered facilities shall send written notification to the Department of their intent to operate in compliance with the regulation or of their intent to cease and close their operations.

(1) Facilities intending to continue to operate as an exempt or conditionally exempt facility shall include in its notice a statement identifying its eligibility to operate as either an exempt facility or a conditionally exempt facility, a signed certification that activities will be conducted in accordance with this regulation, a request that its registration be terminated and, as appropriate, a request that its financial assurance mechanism be canceled.

(2) Facilities intending to operate as a permitted facility shall include in its notice a request that its registration, including any modifications approved in writing by the Department prior to the effective date of this amendment, be converted to a permit, and a certification that activities will be conducted in accordance with the regulation.

(3) Facilities intending to cease wood-grinding or composting activities shall provide written notice of intent to close in accordance with Part III.I of this regulation, and a proposed closure date.

c. Facilities shall achieve compliance with all provisions of this amendment within 270 days of its effective date, or close in accordance with the closure requirements of this regulation, unless otherwise approved by the Department.

d. In addition to the notice described above, a facility may be required to provide additional information to the Department to determine compliance with this regulation or to facilitate conversion of the registration to a permit.

3. The requirements of this regulation are not applicable to the grinding of pallets, packaging or other industrial sources of wood residuals.

4. 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 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:

1. “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.

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

3. “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, Waters of the United States or wetlands.

4. “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 as listed in the regulation.

5. “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.

6. “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.

7. ”Compost” means the humus-like product of the process of composting.

8. “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.

9. “Compostable” means the capability of being decomposed by natural biological processes, and is approved by the Department as an acceptable feedstock.

10. “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 at a rate consistent with other known compostable materials and leaves no visually distinguishable or toxic residue. 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.

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

12. “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.

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

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

15. “Department” means the South Carolina Department of Health and Environmental Control (SCDHEC).

16. “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.

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

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

19. “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.F of this regulation.

20. “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.

21. “Grinding” means the act of mechanically reducing the size of organic materials.

22. “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, Water Pollution Control Permits.

23. “Industrial solid waste” means solid waste generated by manufacturing or industrial processes that is not a hazardous waste regulated under subtitle C of the Resources 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.

24. “In-process material” means ground organics which 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.

25. “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.

26. "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.

27. "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.

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

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

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

31. "Organic" means a substance derived from living organisms.

32. "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 which 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.

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

34. "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.

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

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

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

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

39. "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.

40. “Residence” means any 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 a certificate of occupancy, if required by the local government.

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

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

43. “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.

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

45. “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.

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

47. “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).

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

49. “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.

50. “Untreated wood” means raw wood or lumber that has not been chemically treated or painted.

51. “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.

52. “Waters of the State” means lakes, bays, sounds, ponds, impounding reservoirs, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within the territorial limits of the State, and all other bodies of surface or underground 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.

53. “Waters of the United States” means:

a. All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;

b. All interstate waters, including interstate wetlands;

c. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:

(1) Which are or could be used by interstate or foreign travelers for recreational or other purposes;

(2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or

(3) Which are used or could be used for industrial purposes by industries in interstate commerce;

d. All impoundments of waters otherwise defined as Waters of the United States under this definition;

e. Tributaries of waters identified in paragraph a through paragraph f of this definition;

f. The territorial sea; and

g. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraph a through paragraph f of this definition.

h. Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act, are not waters of the United States.

54. “Wetlands” means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs, and similar areas.

55. “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. 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.

E. 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 to R.61-107.4. For the purposes of Part II, 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:

1. Backyard composting, when feedstocks generated on residential property by the property 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, when the feedstocks are generated at that site;

3. Acceptance, storage, grinding or composting of only Category One feedstocks by a person on property under their ownership, 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 they own or control;

5. Composting activities using only Category One and Category Two vegetative feedstocks by a person on property under their ownership, 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 required for emergency storm debris management at sites designated by state, county, and 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 Part II.B:

a. Management of only source separated Category One feedstocks by a person on property under their ownership, 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, 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. 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 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.

3. The Department may issue a variance to operate with less restrictive buffers when the technology and practices of the operation justify the reduction. The request shall be made in writing to the Department.

4. All putrescible feedstocks shall be managed to prevent the escape of liquids and to suppress odors by immediately incorporating the feedstocks into the compost mass, an in-vessel composting unit, an air-tight container, or an enclosed building.

5. Best Management Practices shall be utilized to manage stormwater and to prevent impact to Waters of the State.

6. No feedstocks or other material piles may be placed or stored in standing water.

7. All feedstocks and other material piles onsite of the facility shall be monitored and managed to prevent fire.

8. Unauthorized material shall be removed from the facility for proper disposal no less than every seven days, except that putrescible waste shall be placed in an air-tight container immediately and removed from the facility within 72 hours.

9. 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.F of this regulation.

Part III. Permitted Facilities.

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

A. Facility Types.

Facilities described below may not be operated without a permit, except as specifically exempted in Part II of 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 those 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 those facilities that:

a. Compost Category Three feedstocks or mixtures of Category Three feedstocks with other feedstock categories from the Appendix to R.61-107.4;

b. Compost feedstocks not listed in the Appendix to 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 Part III.E.6 of 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 Part IV or Part V of 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 in-vessel composting or for composting performed in an enclosed building, a minimum 200-foot buffer shall be required from residences, schools, day-care centers, churches, hospitals and publicly owned recreational park areas; for all other Type Two or Three facilities, a minimum 1000-foot buffer shall be required.

b. For Type One facilities, a minimum 50-foot buffer shall be required from property lines; for Type Two or Three facilities, the buffer shall be at least 100 feet;

c. A minimum 100-foot buffer shall be required from any Waters of the U.S.;

d. A minimum 100-foot buffer shall be required from public or private drinking water wells;

e. A minimum 100-foot buffer shall be required from isolated wetlands; and

f. For Type Two or Type Three facilities, a minimum 10,000-foot buffer shall be required from any airport runway used by turbojet aircraft and a minimum 5,000-foot buffer from any airport runway used only by piston-type aircraft.

2. The Department may approve, with documented consent of all property owners within the buffer, less stringent buffers than those listed in Part III.C.1.a and Part III.C.1.b of this regulation.

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 storm water from running onto the operational areas of a facility.

2. The operational area of all permitted Type One facilities shall ensure 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 allow for 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 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 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 ensure 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. Operating Criteria

1. Site Control and Sign Requirements shall be as follows:

a. All permitted facilities shall control receipt of all materials.

b. All permitted facilities shall post signs in conspicuous places that are resistant to weather and fading of color in direct sunlight 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 for use; and,

(3) List the valid SCDHEC Facility I.D. numbers for the facility.

c. Facilities may accept only those materials as allowed by facility type and category as described in Appendix to R.61-107.4 or as otherwise specified in their permit application and 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. Open burning is prohibited except in accordance with Part VI. B of this regulation.

5. Pile sizes and spacing. All materials shall be maintained in such a way as 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 piles of material to allow access of emergency fire-fighting equipment and procedures as described and approved in the facility operational plan,

d. Provide a safe working environment.

6. 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 of the materials 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 15 days. During the high temperature period, the composting mass shall be turned at least five 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 consecutive days; or

d. The in-vessel composting method, in which the temperature of the composting mass shall be maintained at a minimal temperature of 131 degrees Fahrenheit or 55 degrees Celsius for at least three consecutive days.

e. The use of other composting methods shall require written Department approval.

7. 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.

e. A record of all temperature measurements taken shall be maintained and readily available to the Department upon request.

8. The moisture content in the composting mass shall be monitored regularly and managed to achieve desired results.

9. The working surface of the operational area of all permitted facilities shall be maintained to prevent standing water or uncontrolled releases.

10. Material Management shall occur as follows:

a. Grass clippings shall be incorporated into the composting mass within 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 72 hours in closed, air-tight, and leak-proof containers.

c If manure is stored more than three 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 which 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.

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.

h. Unauthorized feedstocks and waste shall be removed from the facility for proper disposal no less than every seven days unless otherwise approved by the Department. Unauthorized putrescibles shall be placed in an air-tight container immediately and removed from the facility within 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.

11. All material piles shall be monitored and managed to prevent fire as described in the facility operational plan.

12. 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.

13. 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 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 ending June 30. The report shall include the following information:

(1) The total amount in tons, either actual or estimated weight, of in-coming feedstock received yearly for each type of feedstock and the source for each;

(2) The total amount in tons, either actual or estimated weight, 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; and,

(d) Disposed in a landfill and the reason for disposal.

c. 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:

(1) Daily and weekly temperature readings and moisture observations of each composting mass that is formulated;

(2) 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;

(3) Number of days required to produce the end product, by type; and

(4) 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 Part III.F.

d. Any changes in telephone numbers, names of responsible parties, addresses, etc. for a permitted facility shall be submitted to the Department within10 working days of the change.

e. Records shall be maintained by all facilities for a period of no less than three years and shall be furnished upon request to the Department or be made available at all reasonable times for inspection by the Department.

14. 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 Part III.F.

15. 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 onsite 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 Part III.E and Part F 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 Part III.F;

(7) A fire prevention and preparedness document 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 control of fire specific to their site location, feedstock types, and operating criteria;

(c) The location of emergency equipment and fire suppressant materials;

(d) The emergency contact information for the local fire protection agency, and

(e) Documentation of arrangements with the local fire protection agency to provide fire-fighting services.

(8) A contingency plan describing facility operations in the event of equipment failure;

(9) A detailed closure plan to meet the requirements of Part III.I, including final closure cost estimate pursuant to Part III.H.2 of this regulation; and

(10) Any additional procedures implemented as a requirement of the Department as described in Part III.G.

16. Compost Program Manager Certification shall be secured and maintained as follows:

a. Unless otherwise approved by the Department, within 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.

F. 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.

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 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 Section III.F.1 or an equivalent method allowed by the Department:

Table 3. Physical and Biological Contaminants Limits for Compost

Physical contaminants (man-made inerts)	Less than 2 percent dry weight basis
Biological Contaminants (pathogens)	
Fecal coliform	Less than 1,000 Most Probable Number (MPN) per gram, dry weight basis

Salmonella	Less than 3 MPN per 4 grams, dry weight basis

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 or regulation.

G. 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 the additional requirements described in Part III.G.1 from a permit if, after two years, those processes are proven to the Department to be effective and those mixtures of feedstocks that are proven compatible for composting, 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 to ensure it is protective of human health, surface water standards, and groundwater standards.

H. Financial Assurance.

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.

1. Prior to accepting feedstocks, permitted facilities shall fund a financial responsibility 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.

2. The permittee shall calculate and declare the maximum amount in cubic yards of feedstocks, in-process material, and waste material that could be stored at the facility in their application for a permit. A final closure cost estimate is 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. The closure cost estimate shall be three times the cost to dispose the maximum capacity of the site in a Class II landfill.

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 or site conditions 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. 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 at any time during the remaining life of the facility. 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.

3. The registrant or permittee shall provide continuous coverage for closure until released from financial assurance requirements, pursuant to this regulation.

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

I. Closure.

All facilities will 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 written notice of intent to close and their proposed closure date to the Department;

2. Upon closing, permitted facilities shall immediately post closure signs at the facility;

3. Unless otherwise approved by the Department, within 90 days after closing date, operators shall:

a. As appropriate, grade land to promote positive drainage and stabilize the site to prevent erosion,

b. 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, and

c. Appropriately manage all water collected in containment structures or ponds.

4. Permitted facilities with confirmed contamination shall amend their closure plan with post-closure corrective action requirements for approval by the Department when remediation activities at the facility continue beyond closure of the facility.

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.

J. Permit Violations.

The Department may take civil or criminal action or issue penalties in accordance with Part I.D of this regulation for a violation of a permit issued pursuant to or in accordance with this regulation.

K. Permit Revocation.

1. Whenever the Department finds that material or substantial violations demonstrate a disregard for, or inability to comply with, applicable laws, regulations, or requirements, and that these violations would make 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.

2. For the purposes of Part III.K, "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.

3. 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 and one electronic copy of the following in a format approved by the Department:

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 from a South Carolina licensed professional engineer, on the form provided by the Department, certifying that the site design is compliant with the requirements of 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 Part III.C of 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 South Carolina Coastal Zone Management Plan;

e. A description of any BMPs used for the management of storm water;

f. The location of, and distance to, any Waters of the U.S. 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 Part III.E.15.

8. Any request for a variance as allowed by this regulation.

9. A final closure cost estimate pursuant to Part III.H.2 of this regulation, and documentation that the applicant has secured appropriate financial assurance.

B. Notice.

1. Within 15 days of submitting an application to the Department, the applicant shall give notice that he/she has requested a permit to operate 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. 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 Part IV.B.1 to the Department.

3. A comment period of not less than 30 days from the date of Noticing will be provided prior to issuance of a Department Decision.

4. Notice of the Department Decision regarding the permit application will be sent to the applicant, to affected persons or interested persons who have asked to be notified, to all persons who commented in writing to the Department, and to 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. All information submitted to the Department shall be complete and accurate.

2. Whenever the applicant submits an incomplete application, the Department shall notify the applicant in writing. If the requested information is not provided within 180 days of receipt of the notification, the application may be denied.

3. The Department shall deny a permit for a facility that it has determined does not meet the requirements of this regulation.

4. The Department may attach additional conditions to a permit when the Department has determined 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 Part IV.B of 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.

The Department may, upon written request, transfer a permit, as appropriate, to a new permittee where no other change in the permit is necessary.

1. The proposed new owner of a permitted or registered facility shall, prior to the scheduled change in ownership, submit to the Department:

a. A one hard copy and one electronic copy of a completed permit application in a format approved by the Department.

b. A written agreement signed by both parties indicating the intent to change ownership or operating responsibility of the facility.

c. Documentation of financial assurance as required. The previous owner shall maintain financial assurance responsibilities until the new owner can demonstrate satisfactory compliance with Part III.H of this regulation.

2. The new owner shall submit legal documentation of the transfer of ownership of the facility within 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

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 Part III.H.

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 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 Part V.C, "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.

Part VI. Prohibitions.

A. Open dumping of land-clearing debris, yard trimmings and other organics is prohibited.

B. 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.

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. 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 Part I.B of 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. 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,

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. Mixed 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. Section 44-56-10 et seq.;

5. Materials for compost or mulch production with Polychlorinated biphenyl (PCB) concentrations 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.