

.1405 APPLICATION REQUIREMENTS FOR SOLID WASTE COMPOST FACILITIES

(a) The following information is required for an application for a permit to construct and operate a proposed Type 1, or a Small Type 2 or 3 solid waste compost facility; unless the permitting requirements are exempted by Paragraph (g) of Rule .1402 of this Section:

- (1) An aerial photograph or scaled drawing, where one inch is less than or equal to 400 feet, accurately showing the area within one-fourth mile of the proposed site's boundaries with the following specifically identified:
 - (A) Entire property owned or leased by the person proposing the facility;
 - (B) Location of all homes, wells, industrial buildings, public or private utilities, roads, watercourses, dry runs, and other applicable information regarding the general topography within 500 feet of the proposed facility; and
 - (C) Land use zoning of the proposed site.
- (2) A letter from the unit of government having zoning jurisdiction over the site which states that the proposed use is allowed within the existing zoning, if any, and that any necessary zoning approval or permit has been obtained.
- (3) An explanation of how the site complies with siting and design standards in Rule .1404 of this Section.
- (4) A detailed report indicating the following:
 - (A) Waste type(s), source and estimated quantity of the solid waste to be composted, including the source and expected quantity of any bulking agent or amendment (if applicable), any expected recycle of bulking agent or compost, and any seasonal variations in the solid waste type or quantity; and
 - (B) For facilities that utilize natural soils as a pad, a soil evaluation of the site conducted by a soil scientist down to a depth of four feet, or to bedrock or evidence of a seasonal high watertable, to evaluate all chemical and physical soil properties and depth of the seasonal high water table.
- (5) Site plan at a scale where one inch is less than or equal to 100 feet to the inch that delineates the following:
 - (A) Existing and proposed contours, at intervals appropriate to the topography;
 - (B) Location and elevations of dikes, trenches, and other water control devices and structures for the diversion and controlled removal of surface water;
 - (C) Designated setbacks and property lines;
 - (D) Proposed utilities and structures; and
 - (E) Areas for unloading, processing, active composting, curing, and storing of material.
- (6) A description of the operation of the facility, which must include at a minimum:
 - (A) Name, address and phone number for the person responsible for the operation of the facility;
 - (B) List of personnel required and the responsibilities of each position;
 - (C) Operation plan for the facility;
 - (D) Special precautions or procedures for operating during wind,

- heavy rain, snow, freezing or other adverse conditions;
 - (E) A description of actions to be taken to minimize noise, vectors, air borne particulates, and odors; and
 - (F) A description of the ultimate use for the finished compost, method for removal from the site, and a contingency plan for disposal or alternative usage of residues or finished compost that cannot be used in the expected manner due to poor quality or change in market conditions.
 - (7) A report on the design of the facility, including:
 - (A) Design capacity of the facility;
 - (B) A process flow diagram of the entire facility, including the type, size, and location of all major equipment, and feedstock flow streams. The flow streams shall indicate the quantity of materials on a wet weight and volumetric basis;
 - (C) The means for measuring, shredding, mixing, and proportioning input materials;
 - (D) Anticipated process duration, including receiving, preparation, composting, curing, and distribution;
 - (E) A description of the location of all temperature, air and any other type of monitoring points, and the frequency of monitoring;
 - (F) A description of how the temperature control and monitoring equipment will demonstrate that the facility meets the requirements in Rule .1406 Items (10), (11), or (12) of this Section, as appropriate for the feedstock;
 - (G) The method of aeration provided and the capacity of aeration equipment; and
 - (H) A description of the method to control surface water run-on and run-off; and the method to control, collect, treat, and dispose of leachate generated.
 - (8) A description of the label or other information source that meets the requirements of Rule .1407(g) of this Section.
 - (9) Plans and specifications for the facility, including manufacturer's performance data for all equipment selected.
 - (10) A detailed operation and maintenance manual outlining:
 - (A) A quality assurance plan for the process and final product which lists the procedures used in inspecting incoming material, monitoring, sampling and analyzing the compost process and final product, testing schedule, and recordkeeping requirements;
 - (B) Contingency plans detailing corrective or remedial action to be taken in the event of equipment breakdown; non-conforming waste delivered to the facility; spills, and undesirable conditions such as fires, vectors and odors; and
 - (C) An explanation of how the facility will comply with operational requirements as outlined in Rule .1406 of this Section, detailed operational information and instruction, an outline of reports to be submitted in compliance with this Section, and safety instructions.

(11) As built drawings where applicable.

(b) The following information is required for an application for a permit to construct a proposed Large Type 2 or 3 or a Type 4 solid waste compost facility:

- (1) An aerial photograph or scaled drawing, where one inch is less than or equal to 400 feet, accurately showing the area within one-fourth of the mile of the proposed site's boundaries with the following specifically identified:
 - (A) Entire property owned or leased by the person proposing the site;
 - (B) Location of all homes, wells, industrial buildings, public or private utilities and roads, watercourses, dry runs, and other applicable information regarding the general topography within one-fourth mile; and
 - (C) Land use and zoning of the proposed site.
- (2) A letter from the unit of government having zoning jurisdiction over the site which states that the proposed use is allowed within the existing zoning, if any, and that any necessary zoning approval or permit has been obtained.
- (3) An explanation of how the site complies with siting and design standards in Rule .1404 of this Section.
- (4) A detailed report indicating the following:
 - (A) Waste type(s), source and quantity of the solid waste to be composted, including the source and expected quantity of any bulking agent or amendment (if applicable), any expected recycle of bulking agent or compost, and any seasonal variations in the solid waste type or quantity;
 - (B) For facilities which utilize natural soils as a pad, a soil evaluation of the site conducted by a soil scientist down to a depth of four feet or to bedrock or evidence of a seasonal high water table, to evaluate all chemical and physical soil properties and depth of the seasonal high water table.
- (5) Site plans at a scale where one inch is less than or equal to 100 feet to the inch that delineates the following:
 - (A) Existing and proposed contours, at intervals appropriate to the topography;
 - (B) Location and elevations of dikes, trenches, and other water control devices and structures for the diversion and controlled removal of surface water;
 - (C) Designated setbacks, buffer zones and property lines;
 - (D) Proposed utilities and structures;
 - (E) Access roads, details on traffic patterns;
 - (F) Areas for unloading, processing, active composting, curing, and storage of material;
 - (G) Areas for unloading, processing, and storing recyclables, household hazardous waste, and other materials, where applicable;
 - (H) Proposed surface and groundwater monitoring locations;
 - (I) Flood plains and wetlands; and
 - (J) Benchmarks.
- (6) A description of the operation of the facility, which must include at a minimum:
 - (A) Name, address and phone number for the person responsible

- for the operation of the facility;
 - (B) Operation plan for the facility;
 - (C) List of personnel required and the responsibilities of each position;
 - (D) A schedule for operation, including days and hours that the facility will be open, preparations before opening, and procedures to be followed after closing for the day;
 - (E) For mixed waste processing facilities, a plan for removal and disposal of household hazardous waste from the waste stream;
 - (F) Special precautions or procedures for operating during wind, heavy rain, snow, freezing or other adverse conditions;
 - (G) A description of actions to be taken to minimize noise, vectors, air borne particulates, and odors; and
 - (H) A description of the ultimate use for the finished compost, method for removal from the site, and a contingency plan for disposal or alternative usage of residues or finished compost that cannot be used in the expected manner due to poor quality or change in market conditions.
- (7) A report on the design of the facility, including:
- (A) Design capacity of the facility;
 - (B) A process flow diagram of the entire facility, including the type, size, and location of all major equipment, and feed stock flow streams. The flow streams shall indicate the quantity of material on a wet weight and volumetric basis;
 - (C) A description and sizing of the storage facilities for amendment, bulking agent, solid waste, recyclables, household hazardous waste and finished compost;
 - (D) The means for measuring, shredding, mixing, and proportioning input materials;
 - (E) Anticipated process duration, including receiving, preparation, composting, curing, and distribution;
 - (F) The separation, processing, storage, and ultimate disposal of non-compostable materials, if applicable;
 - (G) A description of the location of all temperature, air and any other type of monitoring points, and the frequency of monitoring;
 - (H) A description of how the temperature control and monitoring equipment will demonstrate that the facility meets the requirements in Rule .1406 Items (10), (11), or (12) of this Section, as appropriate for the feedstock;
 - (I) The method of aeration, including turning frequency or mechanical aeration equipment and aeration capacity;
 - (J) A description of the air emission and control technologies;
 - (K) A description of the method to control surface water run-off; and the method to control, collect, treat, and dispose of leachate generated; and
 - (L) A description of any recycling or other material handling processes used at the facility.
- (8) A description of the label or other information source that meets the

requirements of Rule .1407(g) of this Section.

- (9) Engineering plans and specifications for the facility, including manufacturer's performance data for all equipment selected.

(c) The following information is required for reviewing an application for a permit to operate a Type 4 or Large Type 2 or 3 solid waste composting facility:

- (1) Contingency plans detailing corrective or remedial action to be taken in the event of equipment breakdown; air pollution; non-conforming waste delivered to the facility; spills, and undesirable conditions such as fires, particulates, noise, vectors, odors, and unusual traffic conditions;
- (2) A detailed operation and maintenance manual. The manual must contain general design information, a discussion of compliance with operational requirements as outlined in Rule .1406 of this Section, detailed operational information and instruction, equipment maintenance, list of personnel, required personnel training, outline of reports to be submitted in compliance with this Section, and safety instructions;
- (3) A quality assurance plan for the process and final product which lists the procedures used in inspecting incoming materials; monitoring, sampling and analyzing the compost process and final product, testing schedule, and record keeping requirements;
- (4) A fact sheet and process flow diagram that summarizes actual equipment sizing, aeration capacity, detention times, storage capacity, and flow rates (wet weight and volumetric) for the system and equipment chosen;
- (5) As-built drawings;
- (6) A copy of all applicable local, state, and federal permits and approvals necessary for the proper operation of the facility; and
- (7) Product marketing and distribution plan.

(d) An application for a permit modification shall be required for changes in facility ownership, an increase in facility capacity, or the addition of new feedstock materials.

History Note: Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29; Eff. December 1, 1991; Amended Eff. May 1, 1996.