North Carolina Department of Environmental Quality
Division of Waste Management
Solid Waste Section

4-7-2020

# COMPOST FACILITY
# LARGE TYPE 1
# PERMIT APPLICATION GUIDANCE

The N.C. Compost Rules are located in 15A NCAC 13B .1400 et seq., and can be viewed online on our compost webpage: http://deq.nc.gov/about/divisions/waste-management/solid-waste-section/composting.

A Large Type 1 compost facility is one that receives yard and garden waste, land clearing debris, and untreated and unpainted wood waste for composting, with an operations area of 2 or more acres, and may have more than 6,000 cubic yards of material onsite at any given time.

For Small Type 1 facilities (see Rule .1402 (g)(1)) producing mulch or compost, a permit is not required but a notification form must be submitted annually, instead of an application: http://deq.nc.gov/about/divisions/waste-management/waste-management-permit-guidance/solid-waste-section/yard-waste.

There are three types of permit actions:

A "new permit" means an application for a permit for a facility that has not been previously permitted by the Department. A significant expansion, change in the boundaries of a permitted facility, or change in the facility type may be considered a new permit for permit fee purposes.

A "permit amendment" means (1) an application for the ten-year renewal of a permit for a permitted facility, or (2) an application that proposes a change in ownership or corporate structure of a permitted facility.

A "permit modification" means an application for a change to the plans approved in a permit for a compost facility.

One paper copy and one electronic (pdf) copy of the application report should be submitted. The electronic copy can be sent by email, on a CD, or by online file share. The drawings must be included in the electronic copy. Applications should be sent or brought to the following address:

By Mail or Delivery Service:
NC DENR, Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, NC 27699-1646

In Person:
NC DENR, Division of Waste Management
Solid Waste Section
217 West Jones St.
Raleigh, NC 2760

An annual fee of $500 is required for large compost facilities. An application for a new permit is $50.

For a new permit application or permit amendment/renewal application, a compliance history review will be required of the owner and operator of the facility, in accordance with State statutes. After the application is submitted, the owner and operator will be sent a letter requesting compliance history

information, and parent, subsidiary, or other affiliate information, which is required in order to complete the application.

Questions regarding an application should be directed to the Solid Waste Section, Phone 919-707-8200.

Please note that **new compost operator training requirements** became effective on November 1, 2019, that apply to Large Type 1 facility operators. Compost facilities that were permitted before that date are required to meet the operator training requirement by no later than November 1, 2022. Operators of new sites permitted after November 1, 2019, are required to meet the rule within 18 months of permit issuance. See Rule .1406 (19) for more information.

An application for a new permit should address all Sections as listed below.

An application for a permit amendment (permit renewal) should address Sections 1, 3, 4, and 6 (site plan drawing only).

An application for a permit modification should address Sections 1, 3, 4; and Sections 2 and 6, if the proposed site changes affect siting requirements.

## Compost Facility Application Report Format and Contents

Cover letter, which states desired Department action (including whether the request is for a new permit, permit amendment, or permit modification)

Title page

Table of Contents

Section 1 – General Information - Provide a narrative discussion, including the following:

1. The name of the facility or proposed facility. Street address of the facility. Include a statement that the facility is or will be Large Type 1.
2. Name, address, telephone number, and email address of the applicant/owner and contact person.
3. Name, address, telephone number, and email address of the landowner, if not the applicant. A landowner authorization form must be signed and notarized if the facility owner/operator is not the landowner (see attached form).

Section 2 – Siting Requirements – Provide a narrative discussion that includes the following items:

1. Location of the facility. Include the county location, and proximity to nearest town or city. If the property was previously used for solid waste management activities, provide a description of the operation including permit information and a map with boundaries. Describe the history of any solid waste permits and approvals issued.
2. Provide a map showing the property parcel boundaries and parcel ID information (this can usually be obtained from the County's GIS website). Describe any other commercial or industrial use of the property.
3. Total acreage of the property and the size of the actual compost operations area. The operations area includes unloading areas, mixing/processing areas, composting and curing areas, and feedstock storage areas.

4. In an appendix, provide a legal description of the property and a complete copy of the current land deed. Also provide a copy of any available current plats or survey drawings of the property. Reference these items in the text of this section.
5. In an appendix, provide a letter from the appropriate City or County official confirming that the siting of the facility will be in conformance with all zoning and local laws, regulations, and ordinances, or that no such zoning, laws, regulations, or ordinances are applicable. Reference the letter in the text of this section.
6. Provide a copy of the FEMA Flood Insurance floodplains map for the area, with the site property marked on the map (appendix or within the section). Discuss compliance with Rule .1404 (a)(1).
7. For sites that potentially contain wetlands, provide a letter from the Army Corps of Engineers that addresses the wetlands determination for the property, and compliance with requirements, if applicable. Include letter in an appendix and reference the letter in the text of the section.
8. Discuss compliance with the following buffer requirements: 50-foot buffer to the property line, 200-foot buffer to residences, 100-foot buffer to wells, 50-foot buffer to perennial streams/rivers, and a 25-foot buffer to ditches and berms. Buffer requirements apply to unloading areas, composting and curing areas, processing areas, and feedstock storage areas. Finished compost may be stored within the buffer.
9. Address compliance with Rule .1404 (a)(7), concerning sites located over a closed out disposal area.
10. Address compliance with the soil texture requirements or pad requirements of Rule .1404 (a)(10)(B). Provide 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. Include the report in an appendix, and reference the report in the text of the Section.

Section 3 - Design and Operation Plan – Provide a narrative discussion, broken into appropriate sections, that includes the following items:

1. Name and contact information for the person responsible for the operation of the facility.
2. List the types of feedstocks to be accepted (for example, yard waste, land clearing debris, etc.). For each material, list the sources and indicate whether it will be accepted from the general public.
3. Provide an estimate of the total amount of materials to be received at the facility per day, week, or month, in tons or cubic yards. Provide an approximate amount for each type of feedstock to be received, per day, week, or month. Describe any seasonal variation for any of the materials.
4. Estimated design capacity of the facility. The site capacity is the incoming volume, or throughput, per year, and is based on the compost method, duration of the process, and the size of the facility.
5. Provide a description and sizing of the storage areas for feedstocks, amendment, finished compost, and waste.
6. Methods used for grinding, mixing, and proportioning materials, as applicable. Plan for balancing the carbon and nitrogen ratio (“browns” and “greens”).

7. A process flow diagram of the entire facility, including the type, size, and location of all major equipment, and feedstock flow streams. Also include plans and specifications for the facility, including manufacturer's performance data for all equipment selected.
8. Provide the anticipated process duration for each stage of the process, including receiving, preparation, composting, curing, and distribution.
9. Description of the compost method (turned windrow, static aerated pile, etc.).
10. Describe compliance with the requirement that temperatures of at least 131$^{o}$F be maintained and measured in the compost piles for 3 consecutive days, and the piles aerated to maintain elevated temperatures. Describe location and spacing of monitoring points, probe depth (at least 24 to 36 inches), monitoring frequency, and recordkeeping.
11. Describe the probe thermometer to be used. Describe calibration of the thermometer at least once per year, to include written documentation of the calibration. Onsite calibration using ice water is an acceptable method.
12. The method of aeration provided, and frequency, for both composting and curing piles.
13. A narrative description of the compost process, from beginning to end, to include arrival of materials, unloading, storing, grinding, mixing, composting, curing, final product storage, and removal from site. Identify the location that each of the activities takes place. Provide the anticipated process duration for each stage of the process, including receiving, preparation, composting, curing, and distribution.
14. Describe distribution and ultimate use of the finished compost.
15. If the site will have a separate mulching operation, provide a narrative description from beginning to end, to include unloading of materials, material storage, grinding, mulch storage, and removal from site. Identify the location that the activities take place. Provide the estimated length of time for storage onsite. Describe distribution and ultimate use of the mulch.
16. Pile sizes for feedstock, composting, curing, and final product storage (width and height). Length is unlimited within the permitted boundary of each area. Describe distance between rows, to provide vehicular access in the event of a fire. Storage of wood debris, mulch, and finished compost should be in rows no larger than 50 feet wide and 30 feet high.
17. Surface water control features, including run-on and run-off. Grading and sloping of site surface to prevent ponding of water. Surface water must be diverted from the operational, compost curing, and storage areas.
18. Method for screening loads for unacceptable waste. Describe plan for handling incoming loads that contain unacceptable waste. Describe storage of the unacceptable waste, the frequency of removal of the waste (at least weekly), and final disposition.
19. Site security and access control. The site must be secured by gates, chains, berms, fences, or other measures to prevent unauthorized entry. Include whether the site will receive materials from the general public.
20. List of personnel required and the responsibilities of each position.
21. Describe compliance with the personnel training requirements described in Rule .1406 (19)(a) and (b), and .1406 (c). Existing facilities permitted before Nov. 1, 2019 are required to meet the requirements of .1406 (19)(a) by no later than Nov. 1, 2022. Operators of new sites

permitted after November 1, 2019, are required to meet the rule within 18 months of permit issuance.

22. Confirm that an operator will be on duty at the site at all times while the facility is open for public use to ensure compliance with operational requirements.
23. Confirm that access roads will be of all-weather construction and maintained in good condition.
24. A list and description of the equipment, scales, structures, and any other compost management devices. Also describe equipment maintenance.
25. Signs to be posted at the entrance. Signs must provide a description of the types of materials received, the types of waste prohibited, operating hours, permit number, and emergency contact phone numbers. The sign should state that no hazardous waste, asbestos containing waste, or medical waste can be received at the site.
26. Permanent boundary markers may be required, depending on the layout of the site, to maintain the operation's required setbacks to the property line or to other nearby residences, wells, floodplains, etc. If natural or existing benchmarks don't exist, include a description of the boundary markers, installed at intervals to allow for line of sight from one marker to the next.
27. Describe recordkeeping and annual reporting in accordance with Rule .1406 (1)(b), Rule .1406 (19)(c), and Rule .1408. Provide a copy of the temperature log forms.
28. For sites in which construction will disturb natural soils, a copy of the sedimentation and erosion control plan and permit if required by local governments and/or the DEMLR, Erosion and Sediment Control.
29. Provide documentation that the local fire protection agency has been notified of the site use as a compost facility.
30. Plan for fire prevention and actions to be taken in the event of an accidental fire. Describe equipment provided to control accidental fires. It should be stated that any fire will be reported to the Solid Waste Section within 24 hours, followed by a written notification of the details of the fire within 15 days of the incident.
31. Plan for maintaining facility property in a sanitary condition and actions to be taken to minimize noise, vectors, litter, and dust. Describe procedures to prevent dust from leaving the property boundary.
32. Contingency plans for wind, heavy rain, snow, freezing weather, equipment breakdown, spills, and other adverse conditions.
33. Site safety procedures concerning onsite equipment (especially grinders), safety during unloading and loading of materials, and any other possible site hazards to workers or the public.

<u>Section 4 – Signature Pages</u>

Place signature page(s) at the end of the application text, before the appendices.

1. Applicant signature page (see attached).
2. If the landowner of the property is not the applicant, the attached certification form by the land owner is required.

<u>Section 5 – Stormwater Discharge and Sedimentation and Erosion Control Plan</u>

For new facilities or existing facilities with proposed construction modifications, provide:

1. A copy of the sedimentation and erosion control plan and permit as required by local governments and/or NC DEMLR, Erosion and Sediment Control. Calculation pages are not necessary.
2. A copy of the DEMLR stormwater/process discharge application and permit.

Section 6 –Drawings

Drawings should be drawn to scale and include:

1. An aerial photograph, 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. It may be included in the Siting Requirements Section, if it can be appropriately sized 11x17. The following should be drawn or labeled on the photograph:
    a. Boundaries of entire property owned or leased by the person proposing the facility;
    b. Location of all homes, wells, industrial buildings, public or private utilities, roads, streams, water bodies, intermittent streams/ditches, and other applicable information regarding the general topography within 500 feet of the facility.
2. Site plan drawing where one inch is less than or equal to 100 feet that delineates the following:
    a. Existing and proposed contours, at intervals appropriate to the topography.
    b. Setbacks from the compost operations area to property lines, residences, wells, and perennial streams/rivers and water bodies. The operations area includes unloading, mixing, storage, composting, grinding, and curing areas.
    c. Access roads, existing and proposed, and gates/fences or other access control features.
    d. Streams, water bodies, floodplains and wetlands located on the property.
    e. Existing and proposed location and elevations of berms, ditches, basins, and other water control features for the diversion and management of surface water and sedimentation and erosion control.
    f. Labeled areas for unloading, storage, grinding, composting, curing, and final product storage. Illustrate the location of all piles and windrows onsite, including storage, active compost, curing, and finished compost. Drawings should show that all sides of storage areas for flammable feedstocks and compost will be clear and drivable, to provide vehicular access in the event of a fire. Identify areas for mulch operations, if applicable.
    g. Utilities and structures/buildings, existing and proposed.
    h. Other physical characteristics of the site, as applicable.

Signature page of applicant –

Name of facility _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision and that the information provided in this application is true, accurate, and complete to the best of my knowledge.

I understand that North Carolina General Statute 130A-22 provides for administrative penalties of up to fifteen thousand dollars ($15,000.00) per day per each violation of the Solid Waste Management Rules. I further understand that the Solid Waste Management Rules may be revised or amended in the future and that the facility siting and operations of this solid waste management facility will be required to comply with all such revisions or amendments.

_____ _____ _____

Signature Print Name Date

_____

Title

_____

Business or organization name

**Certification by Land Owner (if different from Applicant):**

I hereby certify that I have read and understand the application submitted by

_____ for a permit to operate a compost facility on land owned by the

undersigned located at (address) _____; (city)

_____, NC, in _____ County, and described in Deed Book and

Page(s) _____.

I specifically grant permission for the proposed compost facility planned for operation within the confines of the land, as indicated in the permit application. I understand that any permit will be issued in the names of both the operator and the owner of the facility/property. I acknowledge that ownership of land on which a solid waste management facility is located may subject me to cleanup of said property in the event that the operator defaults as well as to liability under the federal Comprehensive Environmental Responsibility, Compensation and Liability Act ("CERCLA"). Without accepting any fault or liability, I recognize that ownership of land on which a solid waste management facility is located may subject me to claims from persons who may be harmed in their persons or property caused by the solid waste management facility.

I am informed that North Carolina General Statute 130A-22 provides for administrative penalties of up to fifteen thousand dollars ($15,000) per day per each violation of the Solid Waste Management Rules. I understand that the Solid Waste Management Rules may be revised or amended in the future, and that the siting and operation of the facility will be required to comply with any such revisions or amendments.

_____ _____

Signature Date

_____

Print name

NORTH CAROLINA

_____ County

I, _____, Notary Public for said County and State, do hereby certify that _____ personally appeared before me this day and acknowledged the due execution of the foregoing instrument.

Witness my hand and official seal, this the _____ day of _____, 20__.

(Official Seal)

_____

Notary Public

My commission expires _____.