

1 15A NCAC 13B .1401 is proposed for readoption with substantive changes as follows:

2
3 **SECTION .1400 - SOLID WASTE COMPOST FACILITIES**

4
5 **15A NCAC 13B .1401 REQUIREMENT FOR PERMIT**

6 (a) ~~All persons whose purpose is or includes the production of compost from solid waste or solid waste co-composted~~
7 ~~with other wastes shall not construct, operate, expand or modify a facility until a currently valid permit for a solid~~
8 ~~waste compost facility is issued by the Division. No person shall construct, operate, expand, or modify a facility that~~
9 ~~produces compost from solid waste or solid waste co-composted with other wastes unless it has been issues a currently~~
10 ~~valid permit for a solid waste compost facility by the Division, except as provided for in Rules .1402(f) and (g) of this~~
11 ~~Section. This provision also applies to facilities that accept, store, or produce compost or mulch from yard waste or~~
12 ~~from residues from agricultural products and processing. General Provisions, Siting, provisions, siting, design,~~
13 ~~application, operational, distribution, and reporting requirements shall be in accordance with Rules .1402, .1403,~~
14 ~~.1404, .1405, .1406, .1407, and .1402 through .1408 of this Section.~~

15 (b) Plans for a Large Type 3 or Type 4 Solid Waste Compost Facility Permit, or a permit for any facility located over
16 a closed-out disposal ~~area~~ area, shall be submitted with the permit application in accordance with Rule ~~.0201(a)(3)~~
17 ~~.0202(a)(3)~~ of this Subchapter. ~~A minimum of four sets of plans shall be submitted within each application.~~

18 (c) Compost permits shall be issued for a period of not more than 10 years. An application for renewal of a permit
19 shall be submitted no less than four months prior to expiration of the existing permit.

20 (d) Permit modifications.

21 (1) A major modification shall be required for any of the following: a change in either property or
22 facility operator or ownership, a change in facility type as defined in Rule .1402 of this Section, an
23 expansion or relocation of the approved operations area, or a substantial change to the operations or
24 design plan. A major modification requires an application submitted to the Division in accordance
25 with Rule .1405 of this Section, including revised design and operational plans and drawings.

26 (2) A minor modification shall include a change in the design or operational plan that does not require
27 a substantial change to the design and operations plan and drawings. A minor modification that is
28 approved by the Division shall be approved by written notification. The approval shall be added as
29 an addendum to the approved plan.

30 (3) An approved major modification shall result in the issuance of a new permit with an expiration no
31 more than 10 years from the time of issuance in accordance with Paragraph (c) of this Rule if the
32 modification application meets the criteria for a permit renewal.

33 (e) For purposes of this Section, “operations area” means the total area used for mixing, grinding, processing,
34 composting, curing, and wood waste and feedstock unloading and storage. Operations area shall not include buffer
35 areas.

36 (f) For purposes of the Section, “material onsite” means wood wastes, feedstocks, mixtures, and active and curing
37 compost, but shall not include finished product.

1 *History Note: Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*
2 *Eff. December 1, 1991;*
3 *Amended Eff. May 1, ~~1996~~1996;*
4 *Readopted Eff. November 1, 2019.*

1 15A NCAC 13B .1402 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 13B .1402 GENERAL PROVISIONS FOR SOLID WASTE COMPOST FACILITIES**

4 (a) Applicability. The provisions of this Rule shall apply to the following facilities:

5 (1) facilities that produce compost or mulch from yard waste or from residues from agricultural products
6 and processing;

7 (2) vermicomposting facilities;

8 (3) anaerobic digestion facilities; and

9 (4) compost facilities that compost solid waste or co-compost solid waste with sludges that are not
10 classified as a solid waste, functioning as a nutrient source.

11 (b) Facilities that co-compost with sewage sludge shall comply with all applicable Federal-federal regulations
12 regarding sludge management at in 40 CFR 501 and 503. 40 CFR 503, subpart B is hereby-incorporated by reference,
13 reference including subsequent amendments or additions, and editions. Copies of the Code of Federal Regulations
14 may be obtained from the U.S. Government Publishing Office website at www.gpo.gov Solid Waste Section at 401
15 Oberlin Road, Suite 150, Raleigh, NC 27605 at no cost.

16 (c)(b) The provisions of this Section do shall not apply to compost facilities that compost only wastewater treatment
17 sludge with municipal-solid waste functioning only as a bulking agent.

18 (e) ~~Solid Waste Compost Facilities that have been permitted prior to the effective date of this Rule shall meet the~~
19 ~~requirements of this Section within one year of the effective date of this Rule, or, within two years if more than one~~
20 ~~hundred thousand dollars (\$100,000) of capital investment is necessary to comply with changes.~~

21 (d) Solid waste compost produced outside the State of North Carolina and imported into the state shall comply with
22 the requirements specified in Rule .1407 of this Section.

23 (e) ~~Compost that is disposed shall not count toward waste reduction goals.~~

24 (e)(f) Solid waste compost facilities shall be classified based on the types and amounts of materials to be composted.

25 (1) Type 1 facilities may receive yard and garden waste, silvicultural waste, and untreated and unpainted
26 wood waste-waste, or any combination thereof.

27 (2) Type 2 facilities may receive pre-consumer meat-free food processing waste, vegetative agricultural
28 waste, source separated paper-paper, or and other source separated specialty wastes, which wastes
29 that are low in pathogens and physical contaminants. Waste acceptable for a Type 1 facility may
30 be composted at a Type 2 facility.

31 (3) Type 3 facilities may receive manures and other agricultural waste, meat, ~~post consumer source~~
32 separated post-consumer source-separated food wastes-wastes, and other ~~source separated~~ specialty
33 source-separated specialty wastes or any combination thereof that are ~~relatively~~ low in physical
34 contaminants, contaminants but may have high levels of pathogens. Waste acceptable for a Type 1
35 or 2 facility may be composted at a Type 3 facility.

36 (4) Type 4 facilities may receive ~~mixed municipal solid waste, post collection separated or processed~~
37 waste, industrial solid waste, non-solid non-solid waste sludges functioning as a nutrient source or

1 other similar compostable organic ~~wastes-wastes~~ or any combination thereof. Waste acceptable for
 2 a Type 1, ~~2-2~~ or 3 facility may be composted at a Type 4 facility.

- 3 (5) The listed waste types in Subparagraph ~~(f)(2)-(e)(2)~~ of this Rule shall be considered to be low in
 4 pathogens and physical contaminants if handled so as to prevent development of contaminants or
 5 exposure to physical contamination. The listed waste types in Subparagraph ~~(f)(3)-(e)(3)~~ of this
 6 Rule are likely to have high pathogens and low physical contamination. In determining whether a
 7 specific waste stream shall be is-acceptable for composting in a Type 2 or Type 3 facility, the
 8 Division shall consider the method of handling the waste prior to delivery to the facility as well as
 9 the physical characteristics of the waste. Testing for pathogens and physical contaminants ~~may shall~~
 10 be required ~~where-if~~ a determination cannot be made based upon prior knowledge of the waste. Test
 11 methods and constituents tested shall be in accord-comply with Rules .1407(b)(2), (b)(3), and (b)(5)
 12 of this Section. Appendices A and B to Table 3.

13 (6) Small facilities.

14 (A) Small Type 1 facilities shall have an operations area less than two acres in size and shall
 15 be limited to no more than 6,000 cubic yards material onsite at any given time, including
 16 finished product.

17 (B) Small Type 2, 3, and 4 facilities shall have an operations area less than two acres in size
 18 and shall be limited to no more than 1,000 cubic yards material onsite at any given time.

19 ~~Small facilities are those that receive less than 1000 cubic yards of material for composting per~~
 20 ~~quarter, and occupy less than two acres of land, except that a Small Type 1 facility shall process or~~
 21 ~~store less than 6,000 cubic yards of material per quarter.~~

22 (7) Large facilities.

23 (A) Large Type 1 facilities shall have an operations area of two or more acres in size or have
 24 more than 6,000 cubic yards material onsite at any given time.

25 (B) Large Type 2, 3, and 4 facilities shall have an operations area of two or more acres in size
 26 or have more than 1,000 cubic yards material onsite at any given time.

27 ~~Large facilities are those that receive 1000 cubic yards or more of material for composting per~~
 28 ~~quarter or occupy two acres or more of land, except that a Large Type 1 facility shall process or~~
 29 ~~store more than 6,000 cubic yards of material per quarter.~~

30 ~~(f)(g) A permit is not required for the following operations:~~ The following operations shall be exempt from the
 31 requirements of this Section:

32 (1) ~~Backyard Composting.~~ backyard composting;

33 (2) ~~Farming~~ farming operations and silvicultural operations ~~where-if~~ the compost is produced from
 34 materials grown on the owner's land and re-used on the owner's land or ~~in his~~-associated farming
 35 operations and not offered to the ~~public.~~ public and;

36 (3) ~~persons receiving no more than 30 cubic yards of leaves from an offsite source on an annual basis.~~

37 (3) ~~Small Type 1 Facilities meeting the following conditions:~~

38 (A) ~~Notification of the Solid Waste Section prior to operation and on an annual basis as to:~~

- 1 (i) ~~Facility location;~~
- 2 (ii) ~~Name, address and phone number of owner and operator;~~
- 3 (iii) ~~Type and amount of wastes received;~~
- 4 (iv) ~~Composting process to be used; and~~
- 5 (v) ~~Intended distribution of the finished product.~~
- 6 (B) ~~Agreement to operate in accordance with operational requirements as set forth in Rule and~~
- 7 ~~the setbacks in Rule .1404(a)(1) – (9) of this Section.~~
- 8 (C) ~~Facility operates in accordance with all other state or local laws, ordinances, rules,~~
- 9 ~~regulations or orders.~~
- 10 (D) ~~Facility is not located over closed out disposal site.~~
- 11 (E) ~~Safety measures are taken to prevent fires and access to fire equipment or fire fighting~~
- 12 ~~services is provided.~~

13 (g) The following operations shall be exempt from the permitting requirements in Rule .1405 of this Section:

- 14 (1) Small Type I Facilities meeting the following conditions:
- 15 (A) notification of the Division prior to operation and on an annual basis as to:
- 16 (i) the facility location;
- 17 (ii) the name(s) and contact information of the owner and operator;
- 18 (iii) type and amount of wastes received;
- 19 (iv) the composting process to be used;
- 20 (v) the intended distribution of the finished product; and
- 21 (vi) for new facilities only, a letter from the unit of government having zoning
- 22 jurisdiction over the site that states that the proposed use is allowed within the
- 23 existing zoning, if any, and that any necessary zoning approval or permit has been
- 24 obtained;
- 25 (B) the facility operates in accordance with the operational requirements as set forth in Rule
- 26 .1406(1) through (11) and (16) of this Section and the setbacks in Rule .1404(a)(1) through
- 27 (a)(10) of this Section;
- 28 (C) the facility operates in accordance with all other state or local laws, ordinances, rules,
- 29 regulations or orders;
- 30 (D) the facility shall not be located over a closed-out disposal site; and
- 31 (E) the safety measures shall be taken to prevent fires and access to fire equipment or fire-
- 32 fighting services shall be provided.
- 33 (2) Compost facilities meeting the following conditions:
- 34 (A) the site may receive for composting pre- and post-consumer food waste, manure, vegetative
- 35 agricultural waste, yard and garden waste, land-clearing debris, untreated and unpainted
- 36 wood waste, and source separated paper;
- 37 (B) material onsite, not including finished compost, shall not exceed 100 cubic yards at any
- 38 time;

- 1 (C) the operations area shall be less than 1.0 acres total;
- 2 (D) the site operates in accordance with operational requirements as set forth in Rule .1406 of
- 3 this Section and the setbacks in Rule .1404(a)(1) through (a)(10) of this Section, except
- 4 that the buffer between property line and operations area shall be at least 50 feet and the
- 5 buffer between the operations area and residences or dwellings not owned and occupied by
- 6 the operator shall be at least 200 feet;
- 7 (E) the site operates in such a manner that dust and odors do not constitute a public nuisance;
- 8 (F) for facilities producing compost that is distributed to the public or used in public areas,
- 9 compost produced from the facility shall meet the pathogen testing and record keeping
- 10 requirements per Rule .1407(b) and Rule .1408(a) of this Section; and
- 11 (G) the site operates in accordance with all applicable State or local laws, ordinances, rules,
- 12 regulations, or orders.

13
14 *History Note:* Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;
15 Eff. December 1, 1991;
16 Amended Eff. May 1, ~~1996~~-1996;
17 Readopted Eff. November 1, 2019.

1 15A NCAC 13B .1403 is proposed for readoption as follows:

2

3 **15A NCAC 13B .1403 GENERAL PROHIBITIONS FOR SOLID WASTE COMPOST FACILITIES**

4 (a) Neither hazardous waste nor ~~asbestos-containing~~asbestos-containing waste shall be accepted at a facility or
5 processed into compost.

6 (b) Household hazardous waste shall not be accepted by a facility, except in an area designated by facility site plans
7 for storage, and shall not be processed into compost.

8 (c) ~~Any compost~~Compost made from solid waste ~~which that~~ cannot be used pursuant to the requirements of this Rule
9 shall be reprocessed or disposed of pursuant to the requirements of 15A NCAC 13B.

10

11 *History Note: Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*

12 *Eff. December 1, 1991;*

13 *Amended Eff. May 1, ~~1996~~1996;*

14 *Readopted Eff. November 1, 2019.*

1 15A NCAC 13B .1404 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 13B .1404 SITING/DESIGN REQUIREMENTS FOR SOLID WASTE COMPOST**
4 **FACILITIES**

5 (a) A site shall meet the ~~following~~ requirements of this Rule at the time of initial permitting and shall continue to
6 meet these requirements throughout the life of the permit only on the site property owned or controlled by the applicant
7 or by the landowner(s) at the time of ~~permitting~~; permitting.

8 (1) A site located in a floodplain shall not restrict the flow of the 100-year ~~flood~~; flood, reduce the
9 temporary storage capacity of the ~~floodplain~~; floodplain, or result in washout of solid ~~waste~~ waste,
10 so as to pose a hazard to human life, wildlife, ~~land~~ land, or water ~~resources~~; resources.

11 (2) A 100-foot ~~minimum~~ buffer ~~is~~ shall be maintained ~~required~~ between all property lines and compost
12 areas for Type 3 and 4 facilities, 50-foot for Type 1 or 2 ~~facilities~~; facilities.

13 (3) A 500-foot ~~minimum~~ buffer ~~is~~ shall be maintained ~~required~~ between compost areas and residences
14 or dwellings not owned and occupied by the permittee, except that Type 1 and Small Type 2 and 3
15 facilities shall ~~have~~ maintain a 200-foot ~~minimum~~ buffer; buffer.

16 (4) A 100-foot ~~minimum~~ buffer ~~is~~ shall be maintained ~~required~~ between all wells and compost areas,
17 except monitoring ~~wells~~; wells.

18 (5) A 50-foot ~~minimum~~ buffer ~~is~~ shall be maintained ~~required~~ between perennial ~~streams/rivers~~ streams
19 and rivers and compost ~~areas~~; areas.

20 (6) A compost facility shall be located in accordance with 15A NCAC 2B .0200, Classification and
21 Water Quality Standards Applicable to Surface Waters in North ~~Carolina~~; Carolina.

22 (7) All portions of ~~any~~ a compost facility located over a closed-out disposal area shall be designed with
23 a pad adequate to protect the disposal area cap from being disturbed, as defined in Part (a)(10)(E)
24 of this Rule, and there shall be no runoff from the pad onto the cap or side slopes of the closed out
25 ~~area~~; area.

26 (8) A 25-foot minimum distance ~~is~~ shall be maintained ~~required~~ between compost areas and swales or
27 ~~berms~~; berms to allow for adequate access of fire fighting equipment;

28 (9) A site shall meet the following surface water requirements:

29 (A) ~~A~~ a site shall not cause a discharge of materials or fill materials into waters or wetlands of
30 the state that is in violation of Section 404 of the Clean Water Act;

31 (B) ~~A~~ a site shall not cause a discharge of pollutants into waters of the state that is in violation
32 of the requirements of the National Pollutant Discharge Elimination System (NPDES),
33 ~~under~~ pursuant to Section 402 of the Clean Water Act; and

34 (C) ~~A~~ a site shall not cause non-point source pollution of waters of the state that violates
35 assigned water quality ~~standards~~; standards.

36 (10) A site shall meet the following groundwater and operations area pad requirements:

37 (A) ~~A~~ a site shall not contravene groundwater standards as established ~~under~~ pursuant to 15A
38 NCAC 02L; ~~2L~~;

1 (B) the operations area of Type 1, 2, and 3 facilities shall have one of the following:

2 (i) a soil pad with a soil texture finer than loamy sand. For a Type 1 or 2 facility, the
 3 depth to the seasonal high water table shall be maintained at least 12 inches. For
 4 a Type 3 facility, the depth to the seasonal high water table shall be maintained at
 5 least 24 inches; or

6 (ii) a pad in accordance with Part (C) of this Subparagraph:

7 ~~Portions of a site used for waste receipt and storage, active composting, and curing shall~~
 8 ~~have a soil texture finer than loamy sand and the depth to the seasonal high water table~~
 9 ~~shall be maintained at least 12 inches for a Type 1 or 2 facility and 24 inches for a Type 3~~
 10 ~~facility, unless a pad is provided;~~

11 (C) the operations area of a Type 4 facility shall have a pad with a linear coefficient of
 12 permeability no greater than 1×10^{-7} cm/sec. The pad shall consist of one of the following:

13 (i) a non-soil pad, such as concrete and asphalt, designed and constructed to meet the
 14 weight requirements of the compost operation and to prevent infiltration of liquids
 15 to groundwater; or

16 (ii) a soil pad of at least 18 inches constructed in accordance with Rule .1624(a)(8)
 17 and Rule .1621 of this Subchapter. A 12-inch soil layer shall be maintained over
 18 the pad to protect it from damage and desiccation; and

19 ~~A pad shall be provided for portions of a Type 4 facility used for waste receiving and~~
 20 ~~storage, active composting, and curing;~~

21 (D) ~~A pad is not required for storage of finished product that is dried so as to pass the Paint~~
 22 ~~Filter Liquids Test (EPA Method 9095), and for which the storage area is prepared in such~~
 23 ~~a manner that water does not collect around the base of the stored material, and finished~~
 24 ~~product shall be stored where the depth to the seasonal high water table is maintained at~~
 25 ~~least 12 inches below ground surface. inches; and~~

26 (E) ~~The linear coefficient of permeability of pads required in accordance with this Rule shall~~
 27 ~~not be greater than 1×10^{-7} centimeters per second. If natural soils are used, the liner~~
 28 ~~must be at least 18 inches thick.~~

29 ~~(b) For Subparagraphs (a)(2) through (a)(4) and Part (a)(10)(B) of this Rule, (dependent upon waste type, facility~~
 30 ~~design, and regional topography) alternative minimum buffers or requirements may be increased if deemed necessary~~
 31 ~~by the Division in order to protect public health and the environment or to prevent the creation of a nuisance.~~

32 (b) For Subparagraphs (a)(2) through (a)(4) and Part (a)(10)(B) of this Rule, alternative minimum buffers or
 33 requirements may be increased, based on the waste type, facility design, and regional topography, if necessary to
 34 protect public health and the environment or to prevent the creation of a nuisance.

35 (c) A site shall meet the following design requirements:

36 (1) ~~A~~a site shall not allow uncontrolled public access;

37 (2) ~~A~~a site shall meet the requirements of ~~the Sedimentation Pollution Control Law (15A NCAC 04);4);~~

- 1 (3) ~~A~~a site shall meet the requirements of the Air Pollution Control Requirements (15A NCAC ~~2D~~)
- 2 02D) to minimize fugitive emissions and odors; and
- 3 (4) ~~A~~a site shall be designed to minimize odors at the property boundary.
- 4

5 *History Note:* *Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*
6 *Eff. December 1, 1991;*
7 *Amended Eff. May 1, ~~1996-1996~~;*
8 *Readopted Eff. November 1, 2019.*

1 15A NCAC 13B .1405 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 13B .1405 APPLICATION REQUIREMENTS FOR SOLID WASTE COMPOST**
4 **FACILITIES**

5 ~~(a) One paper copy and one electronic copy of a solid waste compost facility permit application shall be submitted to~~
6 ~~the Division. The following information is shall be required for an application for a permit to construct and operate a~~
7 ~~proposed Type 1, or a Small Type 2 or 3 solid waste compost facility; Large Type 1, Small or Large Type 2 or 3 or~~
8 ~~all Type 4 solid waste compost facilities unless the permitting requirements are exempted by Paragraph (g) of Rule~~
9 ~~.1402 Rule .1402(g) or (h) of this Section:~~

10 (1) the name and contact information of the facility owner and operator;

11 (2) documentation of property ownership, including:

12 (a) the property owners;

13 (b) a current property deed; and

14 (c) a notarized acknowledgement letter from the landowner of use of the property as a solid
15 waste facility if landowner is not the facility owner or operator.

16 (3)(1) ~~An an~~ an aerial photograph or scaled drawing, where one inch is at a scale of one inch to less than or
17 equal to 400 feet, accurately showing the area within one-fourth mile of the proposed site's
18 boundaries with the following specifically identified:

19 (a)(A) ~~Entire the entire~~ property owned or leased by the person proposing the facility;

20 (b)(B) ~~Location the location~~ of all homes, wells, industrial buildings, public or private utilities;
21 roads; watercourses; dry runs; utilities, roads, watercourses, and other applicable
22 information regarding the general topography within 500 feet of the proposed facility; and

23 (c)(C) ~~Land the land~~ use zoning of the proposed site.

24 (4)(2) ~~A for all new sites, a~~ letter from the unit of government having zoning jurisdiction over the site
25 which that states that the proposed use is allowed within the existing zoning, if any, and that any
26 necessary zoning approval or permit has been obtained. approvals or permits have been obtained;

27 (5)(3) ~~An an~~ an explanation of how the site complies with siting and design standards in required by Rule
28 .1404 of this Section. Section;

29 (6)(4) ~~A a~~ detailed report indicating the following:

30 (a)(A) ~~Waste type(s); the waste types, the~~ source and estimated quantity of the solid waste to be
31 composted, composted including the source and expected quantity of any bulking agent or
32 amendment (if applicable), any expected recycle-recycling of bulking agent or compost,
33 and any seasonal variations in the solid waste type or quantity; and

34 (b)(B) ~~For for~~ facilities that utilize-use natural soils as a pad, a soil evaluation of the site conducted
35 by a licensed soil scientist down to a depth of four feet, feet or to bedrock or evidence of a
36 seasonal high water table, to evaluate-evaluating all chemical-and physical soil properties
37 and depth of the seasonal high water table. table;

- 1 ~~(7)(5)~~ Site a site plan at a scale where of one inch is to less than or equal to 100 feet to the inch that
2 delineates the following:
- 3 ~~(a)(A)~~ Existing the existing and proposed contours, at intervals appropriate to the topography;
- 4 ~~(b)(B)~~ Location the location and elevations of dikes, trenches, and other water control devices and
5 structures for the diversion and controlled removal of surface water;
- 6 ~~(c)(C)~~ Designated the designated setbacks and property lines;
- 7 ~~(d)(D)~~ Proposed the proposed utilities and structures; ~~and~~
- 8 ~~(e)(E)~~ Areas the areas for unloading, processing, active composting, curing, and storing of
9 ~~material-material~~;
- 10 ~~(f)~~ the access roads and details on traffic patterns;
- 11 ~~(g)~~ the wetlands, streams, and 100-year floodplains; and
- 12 ~~(h)~~ the proposed surface and groundwater monitoring locations, if required.
- 13 ~~(8)(6)~~ A description of the operation of the facility, which must include at a minimum: an operations plan
14 that includes the following:
- 15 ~~(a)(A)~~ Name, address and phone number the name and contact information for the person
16 responsible for the operation of the facility;
- 17 ~~(b)(B)~~ List a list of personnel required and the responsibilities of each position;
- 18 ~~(c)(C)~~ Operation plan for the facility; a schedule for operations, including days and hours that the
19 facility will be open, preparations before opening, and procedures to be followed after
20 closing for the day;
- 21 ~~(d)(D)~~ Special special precautions or procedures for operating during wind, heavy rain, snow,
22 freezing or other adverse conditions;
- 23 ~~(e)(E)~~ A a description of actions to be taken to minimize noise, vectors, and air borne particulates,
24 particulates; and odors; and
- 25 ~~(f)(F)~~ A a description of the ultimate use for the finished compost, the method for removal from
26 the site, and a contingency plan for disposal or alternative ~~usage-use~~ of residues or finished
27 compost that cannot be used in the expected manner due to poor quality or change in market
28 ~~conditions-conditions~~;
- 29 ~~(g)~~ contingency plan describing actions to be taken for equipment breakdown, unauthorized
30 waste arriving at the facility, spills, and fires;
- 31 ~~(h)~~ a discussion of compliance with the operational requirements listed in Rule .1406 of this
32 Section; and
- 33 ~~(i)~~ for Large Type 2 and Type 3 and all Type 4 facilities, include the following:
- 34 ~~(i)~~ a description of procedures for incoming material inspections;
- 35 ~~(ii)~~ a description of procedures to meet the final product sampling and analyses
36 requirements specified in in Rule .1407 of this Section;
- 37 ~~(iii)~~ a description of procedures to meet the record keeping requirements specified in
38 Rule .1408 of this Section; and

- 1 (iv) a copy of all applicable local, state, and federal permits and approvals necessary
2 for the operation of the facility.
- 3 ~~(9)(7)~~ A a report on the design of the facility, including:
- 4 ~~(a)(A)~~ Design the design capacity of the facility;
- 5 ~~(b)(B)~~ A a process flow diagram of the entire facility, including the type, size, and location of all
6 major ~~equipment,~~ equipment and feedstock flow streams. The flow streams shall indicate
7 the quantity of materials by on a wet-weight and volume; volumetric basis;
- 8 ~~(c)~~ a description and sizing of the storage facilities for feedstocks, amendments, and finished
9 compost;
- 10 ~~(d)(C)~~ The the means for measuring, shredding, mixing, and proportioning input materials;
- 11 ~~(e)(D)~~ Anticipated the anticipated process duration, including receiving, preparation, composting,
12 curing, and distribution;
- 13 ~~(f)(E)~~ A a description of the location of all temperature, ~~air~~ air, and any other type of monitoring
14 ~~points,~~ points and the frequency of monitoring;
- 15 ~~(g)(F)~~ A a description of how the temperature control and monitoring equipment will demonstrate
16 that the facility meets the requirements in Rule ~~.1406(11), (12), or (13)~~ .1406 Items (10),
17 (11), or (12) of this Section, as appropriate for the feedstock;
- 18 ~~(h)(G)~~ The the method of aeration provided and the capacity of aeration equipment; ~~and~~
- 19 ~~(i)(H)~~ A a description of the method to control surface water run-on and ~~run-off;~~ run-off and the
20 method to control, collect, treat, and dispose of leachate ~~generated;~~ generated;
- 21 ~~(j)~~ the separation, processing, storage, and ultimate disposal of non-compostable materials, if
22 applicable;
- 23 ~~(k)~~ a description of dust control and other air emission control measures; and
- 24 ~~(l)~~ a description of recycling or other material handling processes used at the facility.
- 25 ~~(10)~~ Odor Control Plan. Operators of Large Type 2, Large Type 3, and all Type 4 facilities shall prepare,
26 submit to the Division, and implement an odor control plan that details site specific conditions to
27 meet the design requirement in Rule .1404(c)(4) of this Section. Existing facilities permitted prior
28 to the readopted effective date of this Rule shall meet these requirements at the time of permit
29 renewal. The plan shall contain the following:
- 30 ~~(a)~~ an identification of all onsite potential odor sources;
- 31 ~~(b)~~ a description of onsite weather conditions that would affect odor migration, such as
32 prevailing wind direction, topography, and seasonal variations;
- 33 ~~(c)~~ plan to monitor onsite odor and record odor data for the odor sources with the potential to
34 migrate offsite. Data shall include date, time, site specific conditions, weather conditions,
35 and characteristics and intensity of odor;
- 36 ~~(d)~~ a description of the facility's odor complaint protocol, including forms used, odor
37 verification by operator both onsite and offsite, what the response will be, and who will be
38 contacted;

- 1 (e) a description of complaint record keeping; and
- 2 (f) a description of odor control design and operating best management practices to be used
- 3 onsite, including:
- 4 (i) personnel training;
- 5 (ii) feedstock characteristics;
- 6 (iii) the initial mixing of feedstocks to reach targeted carbon to nitrogen (C:N) ratios,
- 7 moisture levels;
- 8 (iv) maintenance of compost piles for moisture;
- 9 (v) aeration methods, frequency, and protocol;
- 10 (vi) leachate and liquids management;
- 11 (vii) weather monitoring and protocol;
- 12 (viii) management of airborne emissions; and
- 13 (ix) windrow covering.
- 14 ~~(8) — A description of the label or other information source that meets the requirements of Rule .1407(k)~~
- 15 ~~of this Section.~~
- 16 ~~(11)(9) Plans engineering plans and specifications for the facility, including manufacturer's performance~~
- 17 ~~data for all equipment selected. ~~selected;~~ and~~
- 18 ~~(12) a description of procedures for permanent closure of the facility, in accordance with Rule .1410 of~~
- 19 ~~this Section, should the facility close.~~
- 20 ~~(10) — A detailed operation and maintenance manual outlining:~~
- 21 (A) ~~— A quality assurance plan for the process and final product which lists the procedures used~~
- 22 ~~in inspecting incoming material; monitoring, sampling and analyzing the compost process~~
- 23 ~~and final product, testing schedule, and recordkeeping requirements;~~
- 24 (B) ~~— Contingency plans detailing corrective or remedial action to be taken in the event of~~
- 25 ~~equipment breakdown; non conforming waste delivered to the facility; spills, and~~
- 26 ~~undesirable conditions such as fires, vectors and odors; and~~
- 27 (C) ~~— An explanation of how the facility will comply with operational requirements as outlined~~
- 28 ~~in Rule .1406 of this Section, detailed operational information and instruction, an outline~~
- 29 ~~of reports to be submitted in compliance with this Section, and safety instructions.~~
- 30 ~~(11) — As built drawings where applicable.~~
- 31 ~~(b) The following information is required for an application for a permit to construct a proposed Large 2 or 3 or a~~
- 32 ~~Type 4 solid waste compost facility:~~
- 33 (1) ~~— An aerial photograph or scaled drawing, where one inch is less than or equal to 400 feet, accurately~~
- 34 ~~showing the area within one fourth of the mile of the proposed site's boundaries with the following~~
- 35 ~~specifically identified:~~
- 36 (A) ~~— Entire property owned or leased by the person proposing the site;~~

- 1 ~~(B) — Location of all homes, wells, industrial buildings, public or private utilities and roads,~~
2 ~~watereourses, dry runs, and other applicable information regarding the general topography~~
3 ~~within one fourth mile; and~~
- 4 ~~(C) — Land use and zoning of the proposed site.~~
- 5 (2) — A letter from the unit of government having zoning jurisdiction over the site which states that the
6 proposed use is allowed within the existing zoning, if any, and that any necessary zoning approval
7 or permit has been obtained.
- 8 ~~(3) — An explanation of how the site complies with siting and design standards in Rule .1404 of this~~
9 ~~Section.~~
- 10 (4) — A detailed report indicating the following:
- 11 (A) — Waste type(s), source and quantity of the solid waste to be composted, including the source
12 and expected quantity of any bulking agent or amendment (if applicable), any expected
13 recycle of bulking agent or compost, and any seasonal variations in the solid waste type or
14 quantity;
- 15 (B) — For facilities which utilize natural soils as a pad, a soil evaluation of the site conducted by
16 a soil scientist down to a depth of four feet or to bedrock or evidence of a seasonal high
17 water table, to evaluate all chemical and physical soil properties and depth of the seasonal
18 high water table.
- 19 (5) — Site plans at a scale where one inch is less than or equal to 100 feet to the inch that delineates the
20 following:
- 21 (A) — Existing and proposed contours, at intervals appropriate to the topography;
- 22 (B) — Location and elevations of dikes, trenches, and other water control devices and structures
23 for the diversion and controlled removal of surface water;
- 24 (C) — Designated setbacks, buffer zones and property lines;
- 25 (D) — Proposed utilities and structures;
- 26 (E) — Access roads, details on traffic patterns;
- 27 (F) — Areas for unloading, processing, active composting, curing, and storage of material;
- 28 (G) — Areas for unloading, processing, and storing recyclables, household hazardous waste, and
29 other materials, where applicable;
- 30 (H) — Proposed surface and groundwater monitoring locations;
- 31 (I) — Flood plains and wetlands; and
- 32 (J) — Benchmarks.
- 33 (6) — A description of the operation of the facility, which must include at a minimum:
- 34 (A) — Name, address and phone number for the person responsible for the operation of the
35 facility;
- 36 (B) — Operation plan for the facility;
- 37 (C) — List of personnel required and the responsibilities of each position;

- 1 (D) — ~~A schedule for operation, including days and hours that the facility will be open,~~
2 ~~preparations before opening, and procedures to be followed after closing for the day;~~
- 3 (E) — ~~For mixed waste processing facilities, plan for removing and disposal of household~~
4 ~~hazardous waste from the waste stream;~~
- 5 (F) — ~~Special precautions or procedures for operating during wind, heavy rain, snow, freezing or~~
6 ~~other adverse conditions;~~
- 7 (G) — ~~A description of actions to be taken to minimize noise, vectors, air borne particulates, and~~
8 ~~odors; and~~
- 9 (H) — ~~A description of the ultimate use for the finished compost, method for removal from the~~
10 ~~site, and a contingency plan for disposal or alternative usage of residues or finished~~
11 ~~compost that cannot be used in the expected manner due to poor quality or change in market~~
12 ~~conditions.~~
- 13 (7) — ~~A report on the design of the facility, including:~~
- 14 (A) — ~~Design capacity of the facility;~~
- 15 (B) — ~~A process flow diagram of the entire facility, including the type, size, and location of all~~
16 ~~major equipment, and feed stock flow streams. The flow streams shall indicate the quantity~~
17 ~~of material on a wet weight and volumetric basis;~~
- 18 (C) — ~~A description and sizing of the storage facilities for amendment, bulking agent, solid waste,~~
19 ~~recyclables, household hazardous waste and finished compost;~~
- 20 (D) — ~~The means for measuring, shredding, mixing, and proportioning input materials;~~
- 21 (E) — ~~Anticipated process duration, including receiving, preparation, composting, curing, and~~
22 ~~distribution;~~
- 23 (F) — ~~The separation, processing, storage, and ultimate disposal of non-compostable materials,~~
24 ~~if applicable;~~
- 25 (G) — ~~A description of the location of all temperature, air and any other type of monitoring points,~~
26 ~~and the frequency of monitoring;~~
- 27 (H) — ~~A description of how the temperature control and monitoring equipment will demonstrate~~
28 ~~that the facility meets the requirements in Rule .1406 Items (10), (11), or (12) of this~~
29 ~~Section, as appropriate for the feedstock;~~
- 30 (I) — ~~The method of aeration, including turning frequency or mechanical aeration equipment and~~
31 ~~aeration capacity;~~
- 32 (J) — ~~A description of the air emission and control technologies;~~
- 33 (K) — ~~A description of the method to control surface water run off; and the method to control,~~
34 ~~collect, treat, and dispose of leachate generated; and~~
- 35 (L) — ~~A description of any recycling or other material handling processes used at the facility.~~
- 36 (8) — ~~A description of the label or other information source that meets the requirements of Rule .1407(k)~~
37 ~~of this Section.~~

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

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

5 ~~(1) — Contingency plans detailing corrective or remedial action to be taken in the event of equipment~~
 6 ~~breakdown; air pollution; non conforming waste delivered to the facility; spills, and undesirable~~
 7 ~~conditions such as fires, particulates, noise, vectors, odors, and unusual traffic conditions;~~

8 ~~(2) — A detailed operation and maintenance manual. The manual must contain general design~~
 9 ~~information, a discussion of compliance with operational requirements as outlined in Rule .1406 of~~
 10 ~~this Section, detailed operational information and instruction, equipment maintenance, list of~~
 11 ~~personnel, required personnel training, outline of reports to be submitted in compliance with this~~
 12 ~~Section, and safety instructions;~~

13 ~~(3) — A quality assurance plan for the process and final product which lists the procedures used in~~
 14 ~~inspecting incoming materials; monitoring, sampling and analyzing the compost process and final~~
 15 ~~product, testing schedule, and record keeping requirements;~~

16 ~~(4) — A fact sheet and process flow diagram that summarizes actual equipment sizing, aeration capacity,~~
 17 ~~detention times, storage capacity, and flow rates (wet weight and volumetric) for the system and~~
 18 ~~equipment chosen;~~

19 ~~(5) — As built drawings;~~

20 ~~(6) — A copy of all applicable local, state, and Federal permits and approvals necessary for the proper~~
 21 ~~operation of the facility; and~~

22 ~~(7) — Product marketing and distribution plan.~~

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

26 ~~History Note: Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;~~

27 ~~Eff. December 1, 1991;~~

28 ~~Amended Eff. May 1, ~~1996~~1996;~~

29 ~~Readopted Eff. November 1, 2019.~~

1 15A NCAC 13B .1406 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 13B .1406 OPERATIONAL REQUIREMENTS FOR SOLID WASTE COMPOST**
4 **FACILITIES**

5 ~~Any~~ A person who maintains or operates a solid waste compost facility shall maintain and operate the site to conform
6 with the ~~following practices:~~ practices and operational requirements of this Rule.

- 7 (1) Plan and Permit ~~Requirements:~~ Requirements.
- 8 (A) ~~Approved Construction~~ plans and conditions of the permit shall be ~~followed, followed, and~~
9 (B) A copy of the permit, plans, and operational reports shall be maintained on site at all times.
- 10 (2) ~~Adequate erosion-~~ Erosion control measures shall be practiced to prevent on-site erosion and to
11 control the movement of silt or contaminants from the site.
- 12 (3) ~~Stormwater Surface water~~ shall be diverted from the operations area. ~~operational, compost curing,~~
13 ~~and storage areas.~~
- 14 (4) Leachate shall be contained on site and treated to meet the standards of the applicable off-site
15 disposal method.
- 16 (5) Access and Security ~~Requirements:~~ Requirements.
- 17 (A) Large sites shall be secured by means of gates, chains, berms, fences, or other security
18 measures demonstrated to provide equivalent protection and be approved by the ~~Division,~~
19 Division. ~~to prevent unauthorized entry.~~
- 20 (B) An operator shall be on duty at the site at all times while the facility is open for public ~~use~~
21 use. ~~to ensure compliance with operational requirements~~ and access to such facilities shall
22 be controlled.
- 23 (C) The access road to the site shall be of all-weather construction and maintained. ~~maintained~~
24 ~~in good condition.~~
- 25 (6) A site shall only accept those solid wastes that it is permitted to receive.
- 26 (7) Safety ~~Requirements:~~ Requirements.
- 27 (A) Open burning of solid waste ~~is~~ shall be prohibited.
- 28 (B) Equipment shall be provided to control accidental fires and arrangements made with the
29 local fire protection agency to ~~immediately~~ provide fire-fighting services when needed.
- 30 (C) Personnel training shall be provided to ~~insure~~ ensure that all employees are trained in site
31 specific safety, remedial, and corrective action procedures.
- 32 (8) Reporting Fires. Fires shall be reported to the Division orally within 24 hours of the incident and in
33 writing within 15 days of the incident.
- 34 (9)(8) Sign Requirements: ~~Requirements.~~
- 35 (A) Signs providing information on waste that ~~can~~ may be received, dumping procedures, the
36 hours during which the site is open for public use, the permit number and other pertinent
37 information shall be posted at the site entrance.

1 (B) ~~Traffic signs/markers signs and markers shall be provided as necessary to promote an~~
 2 ~~orderly traffic pattern to direct traffic~~ to and from the discharge area and to maintain
 3 efficient operating conditions.

4 (C) Signs shall be posted stating that no hazardous waste, asbestos containing waste, or medical
 5 waste ~~can~~ may be received at the site.

6 ~~(10)(9)~~ Monitoring Requirements: Requirements.

7 (A) ~~Specified monitoring and reporting requirements shall be met.~~ Temperature monitoring
 8 shall meet the record-keeping requirements in Rule .1408 of this Section.

9 (B) The temperature of all compost produced shall be monitored sufficiently to ensure that the
 10 pathogen reduction criteria ~~is~~ are met. Onsite thermometers shall be calibrated annually
 11 and records of calibration shall be maintained.

12 ~~(11)(10)~~ Compost process at Type 1 facilities shall be maintained at or above 55 degrees Celsius (131 degrees
 13 F) ~~3~~ for three days and aerated to maintain elevated temperatures.

14 ~~(12)(11)~~ Vector Attraction Reduction (VAR). Types 2, 3 and 4 facilities shall maintain the compost process
 15 at a temperature above 40 degrees Celsius (104 degrees F) for 14 days or longer and the average
 16 temperature for that time shall be higher than 45 degrees Celsius (113 degrees F). ~~(113 degrees F)~~
 17 ~~or, Types 2, 3 and 4 facilities shall meet the vector attraction reduction requirements in 40 CFR~~
 18 ~~503.33(b)(4) or (7). Requirements of 40 CFR 503.33(b)(4) and (7) are hereby incorporated by~~
 19 ~~reference, including any subsequent amendments or additions.~~

20 ~~(13)(12)~~ Process to Further Reduce Pathogens (PFRP). The composting process shall qualify as a process to
 21 further reduce pathogens for all Type 3 and Type 4 facilities. The following ~~are~~ shall be acceptable
 22 methods:

23 (A) ~~The the~~ the windrow composting method, in which the following requirements apply: ~~Aerobic~~
 24 ~~conditions shall be maintained during the compost process. A temperature of 131 degrees~~
 25 ~~F (55 degrees Celsius) or greater shall be maintained in the windrow for at least 15 days.~~
 26 ~~During the high temperature period, the windrow shall be turned at least five times.~~

27 (i) aerobic conditions shall be maintained during the composting process;

28 (ii) a temperature of 131 degrees F (55 degrees Celsius) or greater shall be maintained
 29 in the windrow for at least 15 days; and

30 (iii) during the high temperature period, the windrow shall be turned at least five times.

31 (B) ~~The the~~ the static aerated pile composting method, in which the following requirements apply:
 32 ~~Aerobic conditions shall be maintained during the compost process. The temperature of~~
 33 ~~the compost pile shall be maintained at 131 degrees F (55 degrees Celsius) or greater for~~
 34 ~~at least three days.~~

35 (i) aerobic conditions shall be maintained during the composting process; and

36 (ii) the temperature of the compost pile shall be maintained at 131 degrees F (55
 37 degrees Celsius) or greater for at least three days.

1 (C) ~~The~~ the within-vessel composting method, in which the temperature in the compost piles
 2 shall be maintained at a minimal temperature of 131 degrees F (55 degrees Celsius) for
 3 three days.

4 ~~(14)(13) Nitrogen bearing wastes shall be incorporated as necessary to minimize odor and the migration of~~
 5 ~~nutrients.~~ Putrescible feedstocks added to the compost process shall be incorporated in such a
 6 manner to control odor.

7 (15) The finished compost shall meet the classification, testing, and distribution requirements in Rule
 8 .1407 of this Section.

9 (16) The amount of compost stored at the facility shall not exceed the designed storage capacity.

10 (17) The site shall be operated to minimize odors at the property boundary.

11 (18) Odor Corrective Action.

12 (A) If the Odor Control Plan prepared in accordance with Rule .1405(10) of this Section has
 13 been followed and offsite odors are not being minimized, the owner or operator shall
 14 submit for approval by the Division an Odor Corrective Action Report. The report shall
 15 contain the following:

16 (i) a summary of the actions taken in the Odor Control Plan;

17 (ii) an identification of onsite odor sources, in order of severity;

18 (iii) an evaluation and identification of odorous feedstocks as they relate to odor
 19 complaints;

20 (iv) an evaluation of current operation process indicators including carbon to nitrogen
 21 (C:N) ratio, pH, moisture content, oxygen levels, temperature, porosity, and
 22 particle size;

23 (v) an evaluation of the compost recipe calculation with C:N ratio testing that is
 24 performed by an independent laboratory for each feedstock;

25 (vi) an identification of potential offsite odor receptors based on their proximity to the
 26 odor sources and on weather patterns;

27 (vii) a description of new odor reduction methods, if proposed, and an evaluation of
 28 their feasibility, in terms of effectiveness, cost, and equipment needs;

29 (ix) an evaluation of the elimination of specific odorous feedstocks; and

30 (x) recommendations for implementing new odor minimization practices, including
 31 a schedule.

32 (B) The Division may require the elimination of specific odorous feedstocks if a facility fails
 33 to meet the odor minimization criteria required by Item (17) of this Rule.

34 (C) Additional corrective action measures shall be developed and implemented as necessary to
 35 meet the requirements of Item (17) of this Rule to minimize odors at the property boundary.

36 (19) Compost Facility Training Requirements.

1 (A) Facilities permitted as Large Type 1, Large Type 2, all Type 3, and all Type 4 shall have an
 2 operator, supervisor, or manager trained in accordance with the requirements in G.S. 130A-
 3 309.25.

4 (i) Training from a Division-approved training course shall be required every five
 5 years. Approval of other training to meet this requirement may be requested by
 6 the facility. The Division shall approve other training in cases where the facility
 7 can demonstrate other training is at least equivalent to the Division-approved
 8 training courses.

9 (ii) Persons who have achieved and maintain compost manager certification by a
 10 Division-approved compost manager certification program shall be considered as
 11 having met these training requirements for the permitted facility.

12 (B) Facilities shall be required to provide annual training for facility staff, including a review
 13 of the operations plan and permit documents.

14 (C) Documentation of training required in Parts (A) and (B) of this Item shall be maintained at
 15 the facility and made available to the Division upon request unless otherwise approved by
 16 the Division.

17 (D) Facilities permitted before the readopted effective date of this Rule shall meet the
 18 requirements of Part (A) of this Item within three years of the readopted effective date of
 19 this Rule. Facilities permitted after the readopted effective date of this Rule shall meet the
 20 requirements of Parts (A) of this Item within 18 months of permit issuance.

21 ~~(14) — Miscellaneous Requirements:~~

22 ~~(A) — The finished compost shall meet the classification and distribution requirements outlined~~
 23 ~~in Rule .1407 of this Section.~~

24 ~~(B) — The quality of the final product shall determine the allowable uses as outlined in Rule .1407~~
 25 ~~of this Section.~~

26 ~~(C) — The final product shall be approved by the Solid Waste Section as outlined in Rule .1407~~
 27 ~~Subparagraph (6)(b) of this Section.~~

28 ~~(i) — Non compostable solid waste and unacceptable compost shall be disposed in a~~
 29 ~~solid waste management facility permitted to receive the particular type of waste~~
 30 ~~under 15A NCAC 13B.~~

31 ~~(ii) — The amount of compost stored at the facility shall not exceed the designed storage~~
 32 ~~capacity.~~

34 *History Note: Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29*
 35 *Eff. December 1, 1991;*
 36 *RRC objection Eff. April 18, 1996 due to lack of statutory authority;*
 37 *Amended Eff. June 1, 1996; 1996;*
 38 *Readopted Eff. November 1, 2019.*

1 15A NCAC 13B .1407 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 13B .1407 ~~CLASSIFICATION/DISTRIBUTION~~ CLASSIFICATION, TESTING, AND**
 4 **DISTRIBUTION OF SOLID WASTE COMPOST PRODUCTS**

5 ~~(a) Compost shall not be applied to the land or sold or given away if the concentration of any metal exceeds the~~
 6 ~~concentration in 40 CFR 502.13(b)(3) [See Table 1 below], unless the concentration of all metals are less than the~~
 7 ~~values in 40 CFR 503.13(b)(1) and records are maintained to show compliance with the cumulative and annual metal~~
 8 ~~levels in 40 CFR 503.13(b)(2) and (4).~~

9

10 ~~Table 1~~

11

| Metals | Concentration mg per kg |
|----------|----------------------------|
| Arsenic | 41 |
| Cadmium | 39 |
| Copper | 1500 |
| Lead | 300 |
| Mercury | 17 |
| Nickel | 420 |
| Selenium | 36 |
| Zinc | 2800 |

12

13 ~~(b) Solid Waste shall be classified based on Table 2:~~

14

15 ~~Table 2~~

16

| Grade | Manmade Inerts % dry wt. | Pathogen Reduction | Metal Concentration |
|-------|-----------------------------|--------------------|---------------------|
| | of inerts | | |
| A | ≤6 | PFRP | Table 1 |
| B | >6 | NA | 40 CFR 503.13(b)(1) |

17

18 ~~(c) Man made inerts shall not exceed 1 inch in size.~~

19 ~~(d) Distribution of the defined grades shall be as follows:~~

20 ~~(1) Grade A compost shall have unlimited, unrestricted distribution. This product may be distributed~~
 21 ~~directly to the public;~~

1 ~~(2) — Grade B compost shall be restricted to distribution for land and mine reclamation, silviculture, and~~
 2 ~~agriculture (on non-food chain crops) projects; and~~

3 ~~(3) — Compost or mulch that is produced at a Type 1 facility and that contains minimal pathogenic~~
 4 ~~organisms, is free from offensive odor, and contains no sharp particles that would cause injury to~~
 5 ~~persons handling the compost, shall have unrestricted applications and distributions if directions are~~
 6 ~~provided with the compost product.~~

7 ~~(e) Solid waste compost products may not be distributed or marketed until the permittee has provided adequate test~~
 8 ~~data to the Division as outlined in Rule .1408 of this Section. Within 30 days of receipt of the test data, the Division~~
 9 ~~shall approve or deny the distribution and marketing of the product based upon the compost classification and~~
 10 ~~distribution scheme. As long as the test data required in Rule .1408 of this Section continues to verify that compost~~
 11 ~~is produced to the specifications of this Rule, the Division's approval to distribute the compost shall be ongoing.~~

12 ~~(f) The applicant is responsible for meeting any applicable requirements of the North Carolina Department of~~
 13 ~~Agriculture, Fertilizer Section concerning the distribution of this product.~~

14 ~~(g) If the owner intends to distribute the product, the owner shall provide instructions to the user on any restrictions~~
 15 ~~on use and recommended safe uses and application rates. The following information shall be provided on a label or~~
 16 ~~an information sheet and a copy of the label or information sheet shall be submitted to the Solid Waste Section:~~

17 ~~(1) — Classification grade as outlined in Paragraph (d) of this Rule;~~

18 ~~(2) — Recommended uses;~~

19 ~~(3) — Application rates;~~

20 ~~(4) — Restrictions on usage; and~~

21 ~~(5) — Total N (for products containing sludge).~~

22 ~~(a) Compost or mulch that is produced at a Type 1 facility and that contains minimal pathogenic organisms, is free~~
 23 ~~from offensive odor, and contains no sharp particles, shall have unrestricted application and distribution. Compost~~
 24 ~~analytical testing shall not be required for Type 1 compost if temperature requirements in Rule .1406(11) of this~~
 25 ~~Section have been met and documented.~~

26 ~~(b) Compost produced from Type 2, 3, and 4 facilities shall be sampled and analyzed as follows:~~

27 ~~(1) a composite sample of the compost produced at each compost facility shall be analyzed at intervals~~
 28 ~~of every 20,000 tons of compost produced or every six months, whichever comes first, for metals~~
 29 ~~and pathogens;~~

30 ~~(2) compost samples shall be analyzed for the metals listed in 40 CFR 503.13(b)(3), except that analysis~~
 31 ~~for mercury shall not be required for Type 2 and 3 facilities, and analysis for arsenic and selenium~~
 32 ~~shall not be required for Type 2 facilities. The concentration of metals in compost offered for sale~~
 33 ~~or distribution to the public shall not exceed the pollutant concentration limits listed in 40 CFR~~
 34 ~~503.13(b)(3). 40 CFR 503.13 and 40 CFR 503.32 are incorporated by reference including~~
 35 ~~subsequent amendments and editions. Copies of the Code of Federal Regulations may be obtained~~
 36 ~~from the U.S. Government Publishing Office website at www.gpo.gov at no cost;~~

- 1 (3) compost samples shall be analyzed for pathogens, either for fecal coliform or salmonella bacteria.
 2 The concentration of pathogens in compost offered for sale or distribution to the public shall not
 3 exceed the concentration limits listed in 40 CFR 503.32(a)(3);
- 4 (4) sample collection, preservation, and analysis shall assure valid and representative results. At least
 5 three individual samples of equal volume shall be taken from each batch produced in separate areas
 6 along the side of the batch. Each sampling point shall be sampled from a depth of two to six feet
 7 into the pile from the outside surface of the pile as follows:
- 8 (i) metals samples shall be composited and accumulated over a six-month period or at
 9 intervals of every 20,000 tons of product produced, whichever comes first; and
- 10 (ii) pathogens samples shall be a representative composite sample of the compost and shall be
 11 processed within a period of time required by the testing procedure;
- 12 (5) analytical testing methods shall be in accordance with the procedures of one of the following:
- 13 (i) EPA publication SW-846, "Test Methods for Evaluating Solid Waste: Physical/Chemical
 14 Methods." This document is incorporated by reference, including subsequent amendments
 15 and editions, and may be obtained free of charge at <https://www.epa.gov/hw-sw846>;
- 16 (ii) the U.S. Department of Agriculture/U.S. Compost Council publication "Test Methods for
 17 the Examination of Composting and Compost" (TMECC). This document is incorporated
 18 by reference including subsequent amendments and editions, and may be obtained for a fee
 19 of two hundred fifty dollars (\$250.00) at <https://compostingcouncil.org/tmecc/> or a copy
 20 may be reviewed at the Division of Waste Management, Solid Waste Section office at 217
 21 West Jones Street, Raleigh, N.C. 27603; or
- 22 (iii) other applicable standards approved by the Division; and
- 23 (6) the Division may decrease or increase the parameters to be analyzed or the frequency of analysis
 24 based upon monitoring data, changes in the waste stream or processing, or information regarding
 25 the potential for the presence of contaminants that are not required to be analyzed in this Paragraph.
- 26 (c) Compost produced from Types 2, 3, and 4 facilities that meet the requirements of Subparagraphs (b)(2) and (b)(3)
 27 of this Rule shall be classified Grade A compost and shall have unlimited, unrestricted distribution.
- 28 (d) The facility operator shall be responsible for meeting the requirements of the North Carolina Department of
 29 Agriculture and Consumer Services Plant Industry Division Seed and Fertilizer Section concerning the distribution of
 30 this product.

31

32 *History Note: Authority G.S. 130A-309.11;*
 33 *Eff. December 1, 1991;*
 34 *RRC objection Eff. April 18, 1996 due to lack of statutory authority;*
 35 *Amended Eff. June 1, 1996, 1996;*
 36 *Readopted Eff. November 1, 2019.*

1 15A NCAC 13B .1408 is proposed for readoption with substantive changes as follows:

2

3 **15A NCAC 13B .1408 METHODS FOR TESTING RECORDKEEPING AND REPORTING**
 4 **REQUIREMENTS**

5 (a) ~~The compost product from Type 2, 3, and 4 facilities shall be sampled and analyzed as follows:~~

6 (1) ~~—A composite sample of the compost produced at each compost facility shall be analyzed at intervals~~
 7 ~~of every 20,000 tons of compost produced or every six months, whichever comes first, for test~~
 8 ~~parameters for each Type of facility as designated in Table 3 of this Rule. Standard methods~~
 9 ~~equivalent to those in Table 3 may be approved by the Division.~~

10

11 Table 3

12

| Parameter | Unit | Facility | Test Method |
|----------------|----------------|----------|-----------------------------------|
| Foreign Matter | % | all | see Subparagraph (d) of this Rule |
| Arsenic | mg/kg dry wt. | Type 4 | See Appendix A |
| Cadmium | mg/kg dry wt. | all | |
| Chromium | mg/kg dry wt. | Type 4 | |
| Copper | mg/kg dry wt. | all | |
| Lead | mg/kg dry wt. | all | |
| Mercury | mg/kg dry wt. | Type 4 | |
| Nickel | mg/kg dry wt. | all | |
| Selenium | mg/kg dry wt. | Type 4 | |
| Zinc | mg/kg dry wt. | all | |
| Pathogens | See Appendix B | all | See Appendix B |
| Total N | % | see* | Kjeldahl |

13

14 * Total N required for products containing sludge subject to 40 CFR 503.

15 The parameters listed in Table 3 of this Rule may also be determined by methods accepted by the
 16 North Carolina Department of Agriculture.

17 (2) ~~—Sample collection, preservation, and analysis shall assure valid and representative results pursuant~~
 18 ~~to a Division approved quality assurance plan. At least three individual samples (of equal volume)~~
 19 ~~shall be taken from each batch produced in separate areas along the side of the batch. Each sampling~~
 20 ~~point shall be at a depth of two to six feet into the pile from the outside surface of the pile. Samples~~
 21 ~~that have been analyzed for metals shall be composited and accumulated over a six-month period or~~
 22 ~~at intervals of every 20,000 tons of product produced, whichever comes first. Any sample collected~~
 23 ~~for testing for pathogens and nutrients shall be a representative composite sample of the compost~~
 24 ~~and shall be processed within a period of time required by the testing procedure.~~

25 (3) ~~—Compost containing sewage sludge shall be tested in accordance with 40 CFR 503, Subpart B.~~

1 ~~(4) The Division may decrease or increase the parameters to be analyzed or the frequency of analysis~~
 2 ~~based upon monitoring date, changes in the waste stream or processing, or information regarding~~
 3 ~~the potential for presence of toxic substances that are not on the list of monitoring parameters.~~

4 ~~(5) Foreign matter content shall be determined by passing a dried, weighed sample of the compost~~
 5 ~~product through a one quarter inch screen. EPA Method 160.3 shall be used to dry the sample. The~~
 6 ~~material remaining on the screen shall be visually inspected, and the foreign matter that can be~~
 7 ~~clearly identified shall be separated and weighed. The weight of the separated foreign matter~~
 8 ~~divided by the weight of the total sample shall be determined and multiplied by 100. This shall be~~
 9 ~~the percent dry weight of the foreign matter content.~~

10 ~~(a)(b) Record Keeping: All facility-Facility owners or operators shall record and maintain records for a minimum of~~
 11 ~~no less than five years. Records-The following records~~ shall be available for inspection by Division personnel during
 12 normal business hours and shall be sent to the Division upon request:

- 13 (1) ~~Daily~~ daily operational records ~~must be maintained, which include, at a minimum, that include~~
 14 temperature data (length of the composting period) and quantity of material processed;
- 15 (2) ~~Analytical~~ analytical results ~~on~~ of compost testing;
- 16 (3) ~~The~~ the quantity, ~~type~~ type, and source of waste received;
- 17 (4) ~~The~~ the quantity ~~and type~~ of waste processed into compost;
- 18 (5) ~~The quantity and type of compost produced by product classification; and the odor management~~
 19 ~~records required by Rule .1405(10) of this Section; and~~
- 20 (6) ~~The~~ the quantity ~~and type~~ of compost removed for use or ~~disposal, by product classification, disposal~~
 21 ~~and the market or permitted disposal facility.~~

22 ~~(b)(e) Annual Reporting: An annual report for the period July 1 to June 30 shall be submitted by all facility owners~~
 23 ~~or operators to the Division by August 1, 1996 and every by August 1 of each year thereafter~~ and shall contain:

- 24 (1) ~~The~~ the facility name, address, and permit number;
- 25 (2) ~~The~~ the total quantity in tons, with sludge values expressed in dry weight, and the type of waste
 26 received at the facility during the year covered by the report, including tons of waste received from
 27 local governments of origin;
- 28 ~~(3) The total quantity in tons, with sludge values expressed in dry weight, and type of waste processed~~
 29 ~~into compost during the year covered by the report;~~
- 30 ~~(3)(4) The~~ the total quantity in tons ~~and type~~ of compost produced at the facility, ~~by product classification,~~
 31 facility during the year covered by the report;
- 32 ~~(4)(5) The~~ the total quantity in tons ~~and type~~ of compost removed for use or disposal from the facility, ~~by~~
 33 ~~product classification, along with a general description of the market if for use~~ facility during the
 34 year covered by the report;
- 35 ~~(5)(6) Monthly~~ monthly temperature monitoring to support Rule .1406 of this Section; and
- 36 ~~(6)(7) Results of tests required in Table 3 of this Rule. the results of analytical testing required by Rule~~
 37 .1407 of this Section.

1 ~~(c)(4)~~ Yearly totals of solid waste received and composted shall be reported back to the local government of origin
2 for annual recycling reporting.

3

4 *History Note: Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*

5 *Eff. December 1, 1991;*

6 *RRC objection Eff. April 18, 1996 due to lack of statutory authority;*

7 *Amended Eff. June 1, ~~1996~~, 1996;*

8 *Readopted Eff. November 1, 2019.*

1 15A NCAC 13B .1409 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 13B .1409 ~~APPROVAL OF ALTERNATIVE PROCEDURES AND PROCEDURES,~~**
4 **VERMICOMPOSTING, AND ANAEROBIC DIGESTION REQUIREMENTS**

5 (a) An owner or operator of a composting ~~facility,~~ facility subject to the provisions of this ~~Rule,~~ Section may request
6 in writing the approval of an alternative procedure for the facility or the compost that is produced. The following
7 information shall be submitted to the Solid Waste Section:

- 8 (1) ~~The~~ the specific facility for which the exception is requested;
9 (2) ~~The~~ the specific provisions of this Section for which the exception is requested;
10 (3) ~~The~~ the basis for the exception;
11 (4) ~~The~~ the alternate procedure or requirement for which the approval is sought and a demonstration
12 that the alternate procedure or requirement provides equivalent protection of the public health and
13 the environment; and
14 (5) ~~A~~ a demonstration of the effectiveness of the proposed alternate procedure.

15 (b) Vermicompost Facilities. This Paragraph shall be applicable to vermicompost facilities that receive solid waste
16 as defined in G.S. 130A-290. Facilities that receive only animal manure or only municipal wastewater treatment
17 sludge, or both, shall not be subject to this Paragraph.

18 (1) The following operations shall be exempt from the requirements of this Section:

19 (A) backyard vermicomposting; and

20 (B) farming operations where the vermicompost is produced from materials grown on the
21 owner's land and re-used on the owner's land.

22 (2) Vermicompost facilities meeting the following conditions shall be exempt from the permitting
23 requirements in Rule .1405 of this Section:

24 (A) the site receives pre- and post-consumer food waste, manure, vegetative agricultural waste,
25 yard and garden waste, untreated, unpainted, and uncontaminated wood material, source
26 separated paper, or any combination thereof;

27 (B) no more than 100 cubic yards of material shall be onsite at any time. This volume shall
28 include feedstock storage, processing, pre-composting, and active vermicomposting, but
29 shall not include finished vermicompost;

30 (C) outdoor areas of the site used for feedstock storage, processing, pre-composting, or
31 vermicomposting in open areas or open containers or bins shall meet the siting criteria and
32 setback requirements of Rule .1404(a)(1) through (a)(10) of this Section, except that the
33 minimum setback to the property line shall be at least 50 feet and the minimum setback to
34 residences or dwellings not owned and occupied by the owner or operator shall be at least
35 200 feet;

36 (E) outdoor feedstock storage, processing, pre-composting, and vermicomposting operations
37 areas, that are enclosed on all sides in containers or bins shall maintain a minimum setback
38 to the property line of at least 25 feet;

1 (F) the site operates in such a manner that dust and odors do not constitute a public nuisance;

2 (G) surface water shall be diverted from the operational and storage areas. Leachate shall be
 3 contained onsite and treated to meet the standards of the applicable off-site disposal
 4 method;

5 (H) for facilities producing vermicompost that is distributed to the public or used in public
 6 areas, the owner meets the pathogen testing and record keeping requirements of Rule
 7 .1407(b) and .1408(a) of this Section for a Type 3 facility; and

8 (I) the site operates in accordance with all applicable State or local laws, ordinances, rules,
 9 regulations, or orders.

10 (3) A permit shall be required for vermicompost facilities that do not meet the conditions of
 11 Subparagraphs (1) or (2) of this Paragraph. A permit application for a vermicomposting facility
 12 shall include the information required by Rules .1404 and .1405 of this Section, except that Rules
 13 .1405(9)(f) through (9)(h) of this Section do not apply. Operations or parts of operations that are
 14 indoors shall be exempt from the siting requirements of Rule .1404 of this Section. Permitted
 15 vermicomposting facilities shall be subject to:

16 (A) the operational requirements of Rule .1406(1) through (9), (14), and (16) of this Section;

17 (B) the sampling and testing requirements of Rule .1407 of this Section;

18 (C) the reporting and recordkeeping requirements of Rule .1408 of this Section; and

19 (D) the closure requirements of Rule .1410 of this Section.

20 (c) Anaerobic Digestion Facilities. This Paragraph shall be applicable to anaerobic digestion facilities that receive
 21 solid waste as defined in G.S. 130A-290. Facilities that receive only animal manure or only municipal wastewater
 22 treatment sludge, or both, shall not be subject to this Paragraph.

23 (1) A solid waste management permit shall be required for the areas of the facility that manage solid
 24 waste. These areas shall include the incoming waste receiving area, the digestate handling area, and
 25 the digestate final disposition and any other areas of the operation where solid waste is exposed to
 26 the environment.

27 (2) A permit application shall contain:

28 (A) the information required by Rule .1404 and .1405 of this Section, except that Rules
 29 .1405(9)(f) through (9)(h) shall not apply. Operations or parts of operations that are in
 30 buildings enclosed on all sides shall be exempt from the siting requirements of Rule .1404
 31 of this Section; and

32 (B) detailed drawings of the following within the waste management areas:

33 (i) hoppers, bays, or vessels, and all other site-specific features related to solid waste
 34 management activities; and

35 (ii) for indoor operations, plan and profile drawings of the buildings with areas and
 36 features labeled.

37 (3) Permitted anaerobic digestion facilities shall be subject to:

38 (A) the operational requirements of Rule .1406(1) through (9), (14), and (16) of this Section;

1 (B) the sampling and testing requirements of Rule .1407 of this Section for the digestate;

2 (C) the reporting and recordkeeping requirements of Rule .1408 of this Section; and

3 (D) the closure requirements of Rule .1410 of this Section.

4 ~~(b) An individual may request in writing the approval of a solid waste composting pilot or demonstration project for~~
 5 ~~the purpose of evaluating the feasibility of such a project. The following information shall be submitted to the Solid~~
 6 ~~Waste Section:~~

7 (1) ~~— The owner, operator, location, and contact numbers for the project;~~

8 (2) ~~— The specific primary waste stream for which the project is to be evaluated;~~

9 (3) ~~— The specific time frame for the project;~~

10 (4) ~~— The estimated amount of each type of waste or bulking material to be composted;~~

11 (5) ~~— The basis for running the pilot or demonstration project;~~

12 (6) ~~— A description of all testing procedures to be used;~~

13 (7) ~~— A description of the process to be used, including the method of composting and details of the~~
 14 ~~method of aeration;~~

15 (8) ~~— The expected final usage or disposal of the final product; and~~

16 (9) ~~— An outline of the final report to be submitted to the Solid Waste Section upon completion of the~~
 17 ~~project.~~

18 ~~(c) For Paragraph (a) of this Rule, the Division will review alternative procedures only to the extent that adequate~~
 19 ~~staffing is available.~~

20 ~~(d) Permits shall not be required for primary and secondary school educational projects that take place on the school~~
 21 ~~grounds and that receive less than one cubic yard of material per week.~~

23 *History Note: Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;*

24 *Eff. December 1, 1991;*

25 *RRC objection due to lack of statutory authority Eff. April 18, 1996;*

26 *Amended Eff. June 1, 1996, 1996;*

27 *Readopted Eff. November 1, 2019.*

1 15A NCAC 13B .1410 is proposed for adoption as follows:
2

3 **15A NCAC 13B .1410 CLOSURE REQUIREMENTS**

4 (a) When the permitted compost facility ceases operations, the owner or operator shall meet the following conditions:

5 (1) all feedstock and unfinished compost materials shall be removed from the site and taken to a
6 permitted solid waste facility within 180 days, unless otherwise approved by the Division;

7 (2) finished compost materials left onsite shall comply with G.S. 130A-309.05; and

8 (3) the owner or operator shall notify the Division in writing upon completion of the requirements of
9 Subparagraph (1) of this Paragraph.

10 (b) When a permitted compost facility has been closed in accordance with the requirements of the Division, the permit
11 shall be terminated. Future compost operations at the site shall require a new permit pursuant to this Section.

12

13 History Note: Authority G.S. 130A-294; 130A-309.03; 130A-309.11; 130A-309.29;

14 Eff. November 1, 2019.