

1 15A NCAC 02D .1801 is proposed for readoption without substantive changes as follows:
2

3 **SECTION .1800 - CONTROL OF ODORS**
4

5 **15A NCAC 02D .1801 DEFINITIONS**

6 For the purpose of this Section, the following definitions apply:

- 7 (1) "Animal operation" means animal operation as defined in G.S. 143-215.10B.
8 (2) "Child care center" means child care centers as defined in G.S. 110-86 and licensed under pursuant
9 to G.S. 110, Article 7.
10 (3) "Construction" means any physical change (including fabrication, erection, installation,
11 replacement, demolition, excavation, or other modification) at any contiguous area ~~under~~-in
12 common control.
13 (4) "Control technology" means economically feasible control devices installed to ~~effectively~~ reduce
14 objectionable odors from animal operations.
15 (5) "Existing animal operation" means an animal operation that is in operation or commences
16 construction on or before February 28, 1999.
17 (6) "Historic properties" means historic properties acquired by the State pursuant to G.S. 121-9 or listed
18 in the North Carolina Register of Historic Places pursuant to G.S. 121-4.1.
19 (7) "Modified animal operation" means an animal operation that commences construction after
20 February 28, 1999, to increase the steady state live weight that can be housed at that animal
21 operation. Modified animal operation does not include renovating existing barns, relocating barns,
22 or replacing existing lagoons or barns if the new barn or lagoon is no closer to the nearest property
23 and if the new barn or lagoon does not increase the steady state live weight that can be housed at
24 that animal operation.
25 (8) "New animal operation" means an animal operation that commences construction after February 28,
26 1999.
27 (9) "Objectionable odor" means any odor present in the ambient air that by itself, or in combination
28 with other odors, is or may be harmful or injurious to human health or welfare, or may unreasonably
29 interfere with the comfortable use and enjoyment of life or property. Odors are harmful or injurious
30 to human health if they tend to lessen human food and water intake, interfere with sleep, upset
31 appetite, produce irritation of the upper respiratory tract, ~~or~~ cause symptoms of nausea, or if their
32 chemical or physical nature is, or may be, detrimental or dangerous to human health.
33 (10) "Occupied residence" means occupied residence as defined in G.S. 106-802.
34 (11) "State Parks" means State Parks System as defined in G.S. ~~113-44.9, 143B-135.44.~~
35 (12) "Technologically feasible" means that an odor control device or a proposed solution to an odor
36 problem has previously been demonstrated to accomplish its intended objective, and is generally
37 accepted within the technical community. It is possible for technologically feasible solutions to

1 have demonstrated their suitability on similar, but not identical, sources for which they are proposed
2 to control.

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4 *History Note:* *Authority G.S. ~~143-213~~; 143-215.3(a)(1); 143-215.107(a)(11);*

5 *Temporary Adoption Eff. April 27, 1999; March 1, 1999;*

6 *Eff. July 1, ~~2000~~, 2000;*

7 *Readopted Eff. _____.*

1 15A NCAC 02D .1802 is proposed for readoption with substantive changes as follows:

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3 **15A NCAC 02D .1802 CONTROL OF ODORS FROM ANIMAL OPERATIONS USING LIQUID**
4 **ANIMAL WASTE MANAGEMENT SYSTEMS**

5 (a) Purpose. The purpose of this Rule is to control objectionable odors from animal operations beyond the boundaries
6 of animal operations.

7 (b) Applicability. This Rule shall apply to all animal ~~operations.~~ operations using liquid animal waste management
8 systems.

9 (c) Required management practices. All animal operations shall be required to implement applicable management
10 practices for the control of odors as follows:

11 (1) ~~The the~~ carcasses of dead animals shall be disposed of within 24 hours after becoming aware of the
12 death of the animal according to the methods approved by the State Veterinarian for disposal of
13 dead domesticated animals ~~under pursuant to G.S. 106-403; G.S. 106-403 and 02 NCAC 52C .0102.~~
14 02 NCAC 52C .0102 is hereby incorporated by reference and includes subsequent amendments or
15 editions;

16 (2) ~~Waste waste~~ from animal wastewater application spray systems shall be applied in such a manner
17 and ~~under pursuant to~~ such conditions to prevent drift from the irrigation field of the wastewater
18 spray beyond the boundary of the animal operation, except waste from application spray systems
19 may be applied in an emergency to maintain safe lagoon freeboard if the owner or operator notifies
20 the Department and resolves the emergency with the Department as written in Section ~~HL-6~~ III.13 of
21 the Swine Waste Operation General Permit;

22 (3) ~~Animal animal~~ wastewater application spray system intakes shall be located near the liquid surface
23 of the animal wastewater lagoon;

24 (4) ~~Ventilation ventilation~~ fans shall be maintained according to the ~~manufacturer=s~~ manufacturer's
25 specifications; and

26 (5) ~~Animal animal~~ feed storage containers located outside of animal containment buildings shall be
27 covered except when ~~necessary to remove or add feed; removing or adding feed.~~ this ~~this~~
28 Subparagraph ~~does shall~~ not apply to the storage of silage or hay or to commodity boxes with ~~roofs;~~
29 and roofs.

30 ~~All animal operations shall be in compliance with this Paragraph by June 1, 1999.~~

31 (d) Odor management plan (OMP) for existing animal operations for swine. Animal operations for swine that meet
32 the criteria in the table in this Paragraph shall submit an odor management plan to the ~~Director according to the~~
33 ~~schedule in the table in this Paragraph.~~ Director. The odor management plan shall describe how odors are currently
34 being controlled and how these odors will be controlled in the future. ~~The odor management plan shall contain the~~
35 ~~elements described in Rule .1803(a) of this Section.~~ The animal operation shall be required to submit its odor
36 management plan only once. The odor management plan shall:

37 (1) identify the name, location, and owner of the animal operation;

- 1 (2) identify the name, title, address, and telephone number of the person filing the plan;
- 2 (3) identify the sources of odor within the animal operation;
- 3 (4) describe how odor will be controlled from:
 - 4 (A) the animal houses;
 - 5 (B) the animal wastewater lagoon, if used;
 - 6 (C) the animal wastewater application lands, if used;
 - 7 (D) waste conveyances and temporary accumulation points; and
 - 8 (E) other possible sources of odor within the animal operation;
- 9 (5) contain a diagram showing all structures and lagoons at the animal operation, forced air directions,
10 and approximate distances to structures or groups of structures within 3,000 feet of the property line
11 of the animal operation; a recent or updated aerial photograph instead of a diagram provided the
12 items required by this Subparagraph are shown;
- 13 (6) for existing animal operations, contain a schedule not to exceed six months by which the plan will
14 be implemented;
- 15 (7) describe how the plan will be implemented, including training of personnel;
- 16 (8) describe inspection and maintenance procedures; and
- 17 (9) describe methods of monitoring and recordkeeping to verify compliance with the plan.

100 pounds steady state live weight of swine		Distance in feet to the boundary of the nearest neighboring occupied property with an inhabitable structure, business, school, hospital, church, outdoor recreational facility, national park, State Park-parks , historic property, or child care center	Date by when the odor management plan is to be submitted
at least	but less than		
10,000	20,000	less than or equal to 3,000	January 15, 2002
20,000	40,000	less than or equal to 4,000	July 15, 2001
40,000		less than or equal to 5,000	January 15, 2001

19

20 For the purposes of this Rule, the distance shall be measured from the edge of the barn or lagoon, whichever is closer,

21 to the boundary of the neighboring occupied property with an inhabitable structure, business, school, hospital, church,

22 outdoor recreational facility, national park, State ~~Park-parks~~, historic property, or child care center. All animal

23 operations for swine that are of the capacity size in the table in this Paragraph shall submit ~~by the date specified in this~~

24 ~~table~~ either an odor management plan or documentation that no neighboring occupied property with an inhabitable

25 structure, business, school, hospital, church, outdoor recreational facility, national park, State ~~Park-parks~~, historic

26 property, or child care center is within the distances specified in the ~~table as of the date that the submittal is due.~~ table.

27 ~~After July 15, 2002, the~~ The Director may require existing animal operations for swine with a steady state live weight

28 of swine between ~~1,000~~ 100,000 to ~~40,000~~ 1,000,000 pounds steady state live weight ~~hundredweights~~ to submit an odor

29 management plan if the Director determines pursuant to Paragraph (g) of this Rule that these animal operations ~~may~~

30 cause or contribute to an objectionable odor. The Director may require an existing animal operation to submit a best

1 management plan (BMP) pursuant to 15A NCAC 02D .1803, ~~under~~ then submit the BMP pursuant to Paragraph (h)
2 of this Rule if the existing animal operation fails to submit an odor management ~~plan by the schedule in this Paragraph~~
3 ~~of this Rule. plan.~~

4 (e) Location of objectionable odor determinations.

5 (1) For an existing animal operation that does not meet the following siting requirements:

6 (A) at least ~~1500~~ 1,500 feet from any occupied residence not owned by the owner of the animal
7 operation;

8 (B) at least ~~2500~~ 2,500 feet from any school, hospital, church, outdoor recreation ~~facility.~~
9 Facility, national ~~park;~~ parks, State ~~Park;~~ parks, historic property, or child care center; and

10 (C) at least 500 feet from any property boundary;

11 objectionable odors shall be determined at neighboring occupied property not owned by the owner
12 of the animal operation, such as businesses, schools, hospitals, churches, outdoor recreation
13 facilities, national parks, State ~~Parks;~~ parks, historic properties, or child care centers that are
14 affected.

15 (2) For a new animal operation or existing animal operation that meets the siting requirements in
16 Subparagraph (1) of this Paragraph, objectionable odors shall be determined beyond the boundary
17 of the animal operation.

18 (f) Complaints. The Director shall respond to complaints about objectionable odors from animal operations as follows:

19 (1) Complaints shall be ~~investigated to the extent practicable.~~ investigated;

20 (2) Complaints may be used to assist in determination of a best management plan failure or a control
21 technology ~~failure.~~ failure;

22 (3) The Director shall respond to complaints within 30 ~~days.~~ days of receipt of the complaint;

23 (4) Complaint response shall ~~at least include a written response of~~ the Director's evaluation of the
24 ~~complaint.~~ complaint;

25 (5) The investigation of a complaint shall be completed as expeditiously as possible considering the
26 meteorology, activities at the animal operation, and other conditions occurring at the time of the
27 ~~complain.~~ complaint.

28 (g) Determination of the existence of an objectionable odor. In ~~deciding~~ determining if an animal operation is causing
29 or contributing to an objectionable odor, the factors the Director may consider ~~one or more of the following;~~ include:

30 (1) the nature, intensity, frequency, pervasiveness, and duration of the odors from the animal operation;

31 (2) complaints received about objectionable odors from the animal operation;

32 (3) emissions from the animal operation of known odor causing compounds, such as ammonia, total
33 volatile organics, hydrogen ~~sulfide~~ sulfide, or other sulfur compounds at levels that could cause or
34 contribute to an objectionable odor;

35 (4) any epidemiological studies associating health problems with odors from the animal operation or
36 documented health problems associated with odors from the animal operation provided by the State
37 Health Director; or

1 (5) any other evidence, including records maintained by neighbors, that show that the animal operation
2 is causing or contributing to an objectionable odor.

3 (h) ~~Requirement~~ Requirements for a best management plan for ~~controlling~~ control of odors from existing animal
4 operations. If the Director ~~finds~~ determines that an existing animal operation is causing or contributing to an
5 objectionable odor, the owner or operator of the animal operation shall:

6 (1) submit to the Director as soon as practical, but not to exceed 90 days after receipt of written
7 notification from the Director that the animal operation is causing or contributing to an objectionable
8 odor, a best management plan for odor control as described in 15A NCAC 02D .1803; Rule .1803
9 ~~of this Section;~~ and

10 (2) be in compliance with the terms of the best management plan within 30 days after the Director
11 approves the best management ~~plan~~ plan, or an approved compliance schedule by the Director
12 (approved compliance schedule is an alternate schedule to 30 days). ~~(compliance with an approved~~
13 ~~compliance schedule in the best management plan is deemed to be in compliance with the plan).~~

14 (i) Requirement for amendment to the best management plan. No later than 60 days from completion of a compliance
15 schedule in an approved best management plan or if the best management plan contains no compliance schedule, no
16 later than 60 days from the implementation date of the best management plan, the Director shall determine whether
17 the plan has been properly implemented. If the Director determines at any time that a plan submitted ~~under~~ pursuant
18 to Paragraph (h) of this Rule does not control objectionable odors from the animal operation, the Director shall require
19 the owner or operator of the animal operation to amend the plan to incorporate additional or alternative measures to
20 control objectionable odors from the animal operation. The owner or operator shall:

21 (1) submit a revised best management plan to the Director as soon as practical but not later than 60 days
22 after receipt of written notification from the Director that the plan is inadequate; and

23 (2) be in compliance with the revised best management plan within 30 days after the Director approves
24 the revisions to the best management ~~plan~~ plan (approved compliance schedule is an alternate
25 schedule to 30 days). ~~(compliance with an approved compliance schedule in the best management~~
26 ~~plan is deemed to be in compliance with the plan).~~

27 ~~(j) Plan failure. Any of the following conditions shall constitute failure of a best management plan:~~

28 (1) ~~failing to submit the initial best management plan required under Paragraph (h) of this Rule within~~
29 ~~90 days of receipt of written notification from the Director that the animal operation is causing or~~
30 ~~contributing to an objectionable odor;~~

31 (2) ~~failing to submit a revised best management plan required under Paragraph (i) of this Rule within~~
32 ~~60 days of receipt of written notification from the Director that the animal operation is causing or~~
33 ~~contributing to an objectionable odor;~~

34 (3) ~~failing to correct all deficiencies in a submitted best management plan under Rule .1803(c) of this~~
35 ~~Section within 30 days of receipt of written notification from the Director to correct these~~
36 ~~deficiencies;~~

37 (4) ~~failing to implement the best management plan after it has been approved; or~~

1 (5) ~~finding by the Director, using the criteria under Paragraph (g) of this Rule, that, after the best~~
2 ~~management plan has been implemented and revised no more than one time (voluntary revisions~~
3 ~~and revisions made pursuant to 15A NCAC 2D .1803(c) shall not be counted as revisions under this~~
4 ~~Subparagraph); the best management plan does not adequately control objectionable odors from the~~
5 ~~animal operation and will not adequately control objectionable odors even with further amendments.~~
6 (j)(4) Requirements for control technology. After the best management plan has been implemented and revised no
7 more than one time excluding voluntary revisions and revisions made pursuant to 15A NCAC 02D .1803(c). If a A
8 plan failure occurs, shall constitute a finding by the Director, using the criteria pursuant to Paragraph (g) of this Rule.
9 If a plan failure occurs, the Director shall require the owner or operator of the animal operation to install control
10 technology to control odor from the animal operation. ~~The owner or operator shall submit within~~ Within 90 days from
11 receipt of written notification from the Director of a plan failure, ~~the owner or operator shall submit~~ a permit
12 application for control technology and an installation schedule. If the owner or operator demonstrates to the Director
13 that a permit application cannot be submitted within 90 days, the Director ~~may shall~~ extend the time for submittal up
14 to an additional ~~90 days.~~ days if the owner or operator demonstrates the delay in submitting the application was beyond
15 his or her control. Control technology shall be determined according to Subparagraph (1) of this Paragraph. The
16 installation schedule shall contain the increments of progress described in Subparagraph (2) of this Paragraph. The
17 owner or operator may at any time request adjustments in the installation schedule and shall in his or her request
18 explain why the schedule cannot be met. If the Director finds ~~that the request reason for not meeting the schedule is~~
19 ~~valid, to be accurate,~~ the Director shall revise the installation schedule as requested; however, the Director shall not
20 extend the final compliance date beyond 24 months from the date that the permit was first issued for the control
21 technology. The owner or operator shall certify to the Director within five days after the deadline for each increment
22 of progress described in Subparagraph (2) of this Paragraph whether the required increment of progress has been met.

23 (1) Control technology. The owner or operator of an animal operation shall identify control technologies
24 that are technologically feasible for his or her animal operation and shall select the control
25 technology or control technologies that results in the greatest reduction of odors considering human
26 health, energy, environmental, and economic impacts and other costs. The owner or operator shall
27 explain the reasons for selecting the control technology or control technologies. If the Director finds
28 that the selected control technology or control technologies will effectively control odors following
29 the procedures in 15A NCAC ~~2Q 02Q~~ .0300 or .0500, he or she shall approve the installation of the
30 control technology or control technologies for this animal operation upon permit issuance. The
31 owner or operator of the animal operation shall comply with all terms and conditions in the permit.

32 (2) Installation schedule. The installation schedule for control technology shall contain the following
33 increments of progress:

34 (A) a date by which contracts for odor control technology shall be awarded or orders shall be
35 issued for purchase of component ~~parts;~~ parts or materials;

36 (B) a date by which on-site construction or installation of the odor control technology shall
37 begin;

1 (C) a date by which on-site construction or installation of the odor control technology shall be
2 completed; and

3 (D) a date by which final compliance shall be achieved.

4 Control technology shall be in place and operating as soon as practical but not to exceed 12 months
5 from the date that the permit is issued for control technology.

6 ~~(k)(1) New or modified animal operations. This Paragraph does not apply to activities exempted from the moratorium~~
7 ~~on construction or expansion of swine farms in S.L. 1997, c. 458, s. 1.1 provided that the owner or operator~~
8 ~~demonstrates to the Director that the activity will not result in an objectionable odor. The following requirements~~
9 shall apply to new or modified animal operations:

10 (1) Before beginning construction, the owner or operator of a new or modified animal operation raising
11 or producing swine shall submit and have an approved best management plan and shall meet the
12 ~~following:~~ following setbacks. A house or lagoon that is a component of an animal operation shall
13 be constructed:

14 (A) at least ~~1500~~ 1,500 feet from any occupied residence not owned by the owner of the animal
15 operation;

16 (B) at least ~~2500~~ 2,500 feet from any school, hospital, church, outdoor recreation facility,
17 national park, State ~~Park,~~ parks, historic property, or child care center; and

18 (C) at least 500 feet from any property boundary;

19 (2) Before beginning construction, the owner or operator of a new or modified animal operation other
20 than swine shall submit and have an approved best management plan.

21 (3) For new or modified animal operations raising or producing swine, the outer perimeter of the land
22 area onto which waste is applied that is a component of an animal operation shall be:

23 (A) at least 75 feet from any boundary of property on which an occupied residence not owned
24 by the owner of the animal operation is ~~located,~~ located; and

25 (B) at least 200 feet from any occupied residence not owned by the owner of the animal
26 operation.

27 (4) The Director shall either approve or disapprove the best management plan submitted ~~under~~ pursuant
28 to this Paragraph within 90 days after receipt of the plan. If the Director disapproves the plan, he or
29 she shall identify the ~~plan's~~ plan's deficiency.

31 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(11); 143-215.108(a); 150B-21.6;*

32 *Temporary Adoption Eff. April 27, 1999; March 1, 1999;*

33 *Eff. July 1, ~~2000,~~ 2000;*

34 *Readopted Eff.*

1 15A NCAC 02D .1803 is proposed for readoption without substantive changes as follows:

2
3 **15A NCAC 02D .1803 BEST MANAGEMENT PLANS FOR ANIMAL OPERATIONS**

4 (a) Contents of a best management plan. The best management plan for animal operations shall:

- 5 (1) identify the name, location, and owner of the animal operation;
- 6 (2) identify the name, title, address, and telephone number of the person filing the plan;
- 7 (3) identify the sources of odor within the animal operation;
- 8 (4) describe how odor will be controlled from:
 - 9 (A) the animal houses;
 - 10 (B) the animal wastewater lagoon, if used;
 - 11 (C) the animal wastewater application lands, if used;
 - 12 (D) waste conveyances and temporary accumulation points; and
 - 13 (E) other possible sources of odor within the animal operation;
- 14 (5) contain a diagram showing all structures and lagoons at the animal operation, forced air directions,
15 and approximate distances to structures or groups of structures within 3000 feet of the property line
16 of the animal operation; a recent or updated aerial photograph may be submitted in place of a
17 diagram provided the items required ~~under~~ in accordance with this Subparagraph of this Rule are
18 shown;
- 19 (6) for existing animal operations, contain a schedule not to exceed six months by which the plan will
20 be ~~implemented~~ implemented. ~~(A new animal operation is to have shall~~ and be in compliance with
21 its best management plan when it begins ~~operation~~; operations. ~~for~~ For an amended best
22 management plan, the implementation schedule shall not exceed six months;
- 23 (7) describe how the plan will be implemented, including training of personnel;
- 24 (8) describe inspection and maintenance procedures; and
- 25 (9) describe methods of monitoring and recordkeeping to verify compliance with the plan.

26 (b) The Division shall review all best management plan submittals within 30 days of receipt of the submittal to
27 determine if the submittal is complete or incomplete for processing purposes. To be complete, the submittal shall
28 contain all the elements listed in Paragraph (a) of this Rule. The Division shall notify the person submitting the plan
29 by letter stating that:

- 30 (1) the submittal is ~~complete~~, complete;
- 31 (2) the submittal is partially incomplete and identifying the missing elements and a date by which the
32 missing elements need to be submitted to the ~~Division~~, Division; or
- 33 (3) the best management plan is incomplete and requesting that the person rewrite and resubmit the
34 plan.

35 (c) Approval of the best management plan. The Director shall approve the plan if he or she finds that:

- 36 (1) the plan contains all the required elements in Paragraph (a) of this Rule;
- 37 (2) the proposed schedule contained in the plan will reduce objectionable odors in a timely manner;

1 (3) the methods used to control objectionable odors are likely to prevent objectionable odors beyond
2 the property lines of the animal ~~operation~~ operation. ~~(the~~ The Director shall not consider impacts of
3 objectionable odors on neighboring property if the owner of the neighboring property agrees in
4 writing that he or she does not object to objectionable odors on his or her property and this written
5 statement is included with the proposed best management ~~plan;~~ plan. ~~this~~ This agreement becomes
6 void if the neighboring property changes ownership. If the neighboring property changes
7 ownership, the plan shall be revised, if necessary, to prevent objectionable odors on this property
8 unless the new owner agrees in writing that he or she does not object to objectionable odors on his
9 property); and

10 (4) the described compliance verification methods are sufficient to verify compliance with the plan.

11 Within 90 days after receipt of a plan, the Director shall determine whether the proposed plan meets the requirements
12 of this Paragraph of this ~~Rule.~~ Paragraph. If the Director finds that the proposed plan does not meet the requirements
13 of this Paragraph, he or she shall notify the owner or operator of the animal operation in writing of the deficiencies in
14 the proposed ~~plan.~~ plan was approved. The owner or operator shall have 30 days after receiving written notification
15 from the Director to correct the deficiencies. If the Director finds that the proposed plan is acceptable, he or she shall
16 notify the owner or operator in writing that the proposed plan has been approved.

17
18 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(11);
19 Temporary Adoption Eff. April 27, 1999; March 1, 1999;
20 Eff. July 1, ~~2000~~, 2000;
21 Readopted Eff. _____.
22

1 15A NCAC 02D .1804 is proposed for reoption without substantive changes as follows:

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3 **15A NCAC 02D .1804 REPORTING REQUIREMENTS FOR ANIMAL OPERATIONS**

4 If the Department receives an odor complaint about an animal operation, the Department may require the owner or
5 operator of the animal operation to submit the following ~~information:~~ information if necessary to investigate the odor
6 compliant:

- 7 (1) the name and location of the animal operation;
- 8 (2) the name, title, address, and telephone number of the person reporting: ~~filing the report;~~
- 9 (3) the type and number of animals at the animal operation;
- 10 (4) potential sources of odors, such as animal housing structures, lagoons, collection and handling
11 devices, and storage containers, with a physical description of these sources;
- 12 (5) waste water land application procedures; and
- 13 (6) measures taken to reduce odors.

14 The owner or operator shall submit this ~~This information shall be submitted~~ to the Division within 15 days after
15 receipt of the request.

16

17 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; ~~143-215-215.107(a)(11); 143-~~*
18 *215.107(a)(11)*
19 *Temporary Adoption Eff. March 1, 1999;*
20 *Eff. July 1, ~~2000~~, 2000;*
21 *Readopted Eff. _____.*

22

1 15A NCAC 02D .1806 is proposed for readoption with substantive changes as follows:

2
3 **15A NCAC 02D .1806 CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

4 (a) Purpose. The purpose of this Rule is to provide for the control and prohibition of objectionable odorous emissions.

5 (b) Definitions. For the purpose of this ~~Rule~~ Rule, the following definitions shall apply:

6 (1) "Commercial purposes" means activities that require a ~~state~~State or local business license to operate.

7 (2) "Temporary activities or operations" means activities or operations that are less than 30 days in
8 duration during the course of a calendar year and do not require an air quality permit.

9 (c) Applicability. With the ~~exceptions~~ exemptions in Paragraph (d) of this Rule, this Rule shall apply to all operations
10 that ~~may~~ produce odorous emissions that can cause or contribute to objectionable odors beyond the facility's
11 boundaries.

12 (d) Exemptions. The requirements of this Rule do not apply to:

13 (1) processes at kraft pulp mills identified in 15A NCAC 02D Rule .0528 of this Section, and ~~covered~~
14 ~~under~~ subject to Rule 15A NCAC 02D .0524 or .0528 of this Section; .0528;

15 (2) processes at facilities that produce feed-grade animal proteins or feed-grade animal fats and oils
16 identified in ~~and covered under Rule .0539;~~ 15A NCAC 02D .0539;

17 (3) motor vehicles and transportation facilities;

18 (4) all on-farm animal and agricultural operations, including dry litter operations and operations ~~covered~~
19 ~~under Rule .1804 of this Section;~~ subject to 15A NCAC 02D .1804;

20 (5) municipal wastewater treatment plants and municipal wastewater handling systems;

21 (6) restaurants and food preparation facilities that prepare and serve food on site;

22 (7) single family dwellings not used for commercial purposes;

23 (8) materials odorized for safety purposes;

24 (9) painting and coating operations that do not require a business license; ~~or~~

25 (10) all temporary activities or ~~operations.~~ operations; or

26 (11) any facility that stores products that are grown, produced, or generated on one or more agricultural
27 operations and that are "renewable energy resources," as defined in G.S. 62-133.8(a)(8) if the facility
28 identifies the sources of potential odor emissions and specifies odor management practices in their
29 permit pursuant to 15A NCAC 02Q .0300 or .0500 to minimize objectionable odor beyond the
30 property lines.

31 (e) Control Requirements. The owner or operator of a facility subject to this Rule shall not operate the facility without
32 implementing management practices or installing and operating odor control equipment sufficient to prevent odorous
33 emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

34 (f) Odor management plan. If the Director determines, pursuant to Paragraph (i) of this Rule, that a source or facility
35 subject to this Rule is causing or contributing to objectionable odors beyond its property boundary by the procedures
36 described in Paragraph (i) of this Rule, the owner or operator shall develop and submit an odor management plan

1 within 60 days of receipt of written notification from the Director of an objectionable odor determination. The odor
2 management plan shall:

- 3 (1) identify the sources of odorous emissions;
- 4 (2) describe how odorous emissions will be controlled from each identified source;
- 5 (3) describe how the plan will be implemented; and
- 6 (4) contain a schedule by which the plan will be implemented.

7 Upon receipt of an approval letter from the Director for the odor management plan, the source or facility shall
8 implement the approved plan within 30 days, unless an alternative schedule of implementation is approved as part of
9 the odor management plan submittal. If the Director finds that the odor management plan does not meet the
10 requirements of this Paragraph or that the plan is insufficient to address the specific odor concerns, he or she shall
11 notify the owner or operator of any deficiencies in the proposed plan. The owner or operator shall have 30 days after
12 receipt of written notification from the Director to resubmit the odor management plan correcting the stated
13 deficiencies with the plan or the schedule of implementation. If the owner or operator fails to correct the plan
14 deficiencies with the second draft plan submittal or repeatedly fails to meet the deadlines set forth in this Paragraph
15 or Paragraph (g) of this Rule, the Director shall notify the owner or operator in writing that they are required to comply
16 with the maximum feasible control requirements in Paragraph (h) of this Rule.

17 (g) Odor management plan revision. If after the odor management plan has been implemented, the Director determines
18 that the plan fails to eliminate objectionable odor emissions from a source or facility using the procedures described
19 in Paragraph (i) of this Rule, he or she shall require the owner or operator of the facility to submit a revised plan.
20 Within 60 days after receiving written notification from the Director of a new objectionable odor determination, the
21 owner or operator of the facility shall submit a revision to their odor management plan following the procedures and
22 timelines in Paragraph (f) of this Rule. If the revised plan, once implemented, fails to eliminate objectionable odors,
23 then the source or facility shall comply with requirements in Paragraph (h) of this Rule.

24 (h)(f) Maximum feasible controls. If an amended odor management plan does not prevent objectionable odors beyond
25 the facility's boundary, If the Director determines that a source or facility subject to this Rule is emitting an
26 objectionable odor by the procedures described in Paragraph (g) of this Rule, the Director shall require the owner or
27 operator to implement maximum feasible controls for the control of odorous emissions. (Maximum Maximum feasible
28 controls shall be determined according to the procedures in Rule .1807 of this Section.)15A NCAC 02D .1807. The
29 owner or operator shall:

- 30 (1) within 180 days of receipt of written notification from the Director of the requirement to implement
31 maximum feasible controls, complete the determination process outlined in 15A NCAC 2D .1807
32 and submit the completed maximum feasible control determination process along with a permit
33 application for maximum feasible controls and a compliance schedule to the Division of Air Quality;
34 the compliance schedule shall contain the following increments of progress: complete the process
35 outlined in 15A NCAC 02D .1807 and submit a complete permit application according to 15A
36 NCAC 02Q .0300 or 15A NCAC 02Q .0500, as applicable, within 180 days of receipt of written

1 notice from the Director requiring implementation of maximum feasible controls. The application
2 shall include a compliance schedule containing the following increments of progress:

- 3 (A) a date by which contracts for the odorous emission control systems and equipment shall be
4 awarded or orders shall be issued for purchase of component parts;
- 5 (B) a date by which on-site construction or installation of the odorous emission control systems
6 and equipment shall begin;
- 7 (C) a date by which on-site construction or installation of the odorous emission control systems
8 and equipment shall be completed; and
- 9 (D) a date by which final compliance shall be achieved.

- 10 (2) install and begin operating maximum feasible controls within 18 months after receiving written
11 notification from the Director of the requirement to implement maximum feasible ~~controls, have~~
12 ~~installed and begun operating maximum feasible controls.~~ controls. The owner or operator may
13 request an extension to implement maximum feasible controls. The Director shall approve an
14 extension request if he or she finds that the extension request is the result of circumstances beyond
15 the control of the owner or operator.

16 The owner or operator shall certify to the Director within five days after the deadline for each increment of progress
17 in this Paragraph whether the required increment of progress has been met.

18 ~~(i)(g)~~ Determination of the existence of an objectionable odor. A source or facility is causing or contributing to an
19 objectionable odor when:

- 20 (1) ~~A~~ a member of the Division staff determines by field investigation that an objectionable odor is
21 present by taking into account the nature, intensity, pervasiveness, duration, and source of the odor
22 and other pertinent factors;
- 23 (2) ~~The~~ the source or facility emits known ~~odor-causing~~ odor-causing compounds such as ammonia,
24 total volatile organics, hydrogen sulfide, or other sulfur compounds at levels that cause objectionable
25 odors beyond the property line of that source or facility; or
- 26 (3) ~~The~~ the Division receives from the State Health Director epidemiological studies associating health
27 problems with odors from the source or ~~facility~~ facility. ~~or evidence of documented health problems~~
28 ~~associated with odors from the source or facility provided by the State Health Director.~~

29
30 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);*

31 *Eff. April 1, 2001-2001;*

32 *Readopted Eff.*

33

1 15A NCAC 02D .1807 is proposed for reoption without substantive changes as follows:

2
3 **15A NCAC 02D .1807 DETERMINATION OF MAXIMUM FEASIBLE CONTROLS FOR ODOROUS**
4 **EMISSIONS**

5 (a) Scope. This Rule sets out procedures for determining maximum feasible controls for odorous emissions. The
6 owner or operator of the facility shall be responsible for providing the maximum feasible control determination.

7 (b) Process for maximum feasible control determinations. The following sequential process shall be used on a case-
8 by-case basis to determine maximum feasible controls:

9 (1) Identify all available control technologies. In the first step, all available options for the control of
10 odorous emissions shall be listed. Available options include all possible control technologies or
11 techniques with a practical potential to control, reduce, or minimize odorous emissions. For the
12 purposes of this document, in some specific cases a comprehensive, effective odor control plan ~~can~~
13 may be listed among the possible odor control technologies as a viable and satisfactory maximum
14 feasible control technology option. All available control technologies shall be included on this list
15 regardless of their technical feasibility or potential energy, human health, economic, or
16 environmental impacts.

17 (2) Eliminate technically infeasible options. In the second step, the technical feasibility of all the control
18 options identified ~~under-pursuant to~~ Subparagraph (b)(1) of this Rule shall be evaluated with respect
19 to source specific factors. A demonstration of technical infeasibility shall be clearly documented
20 and shall show, based on physical, chemical, or engineering principles, that technical difficulties
21 preclude the successful use of the control option under review. Technically infeasible control
22 options shall then be eliminated from further consideration as maximum feasible controls.

23 (3) Rank remaining control technologies by control effectiveness. All the remaining control
24 technologies, which have not been eliminated ~~under-pursuant to~~ Subparagraph (b)(2) of this Rule,
25 shall be ranked and then listed in order of their ability to control odorous emissions, with the most
26 effective control option at the top of the list. The list shall present all the control technologies that
27 have not been previously eliminated and shall include the following information:

28 (A) control effectiveness;

29 (B) economic impacts (cost effectiveness);

30 (C) environmental impacts: this shall include any significant ~~or unusual other~~ media impacts
31 (for example, water or solid waste), ~~and~~, at a ~~minimum,~~ minimum the impact of each
32 control alternative on emissions of toxic or hazardous air pollutants;

33 (D) human health impacts; and

34 (E) energy impacts.

35 However, an owner or operator proposing to implement the most stringent alternative, in terms of
36 control effectiveness, need not provide detailed information concerning the other control options.

37 In such cases, the owner or operator shall ~~only document, to the satisfaction of the Director,~~ provide

1 documentation to the Director ~~that~~ the proposed control option is ~~indeed~~ the most efficient, in terms
2 of control effectiveness, and provide a review of collateral environmental impacts.

3 (4) Evaluate most effective controls and document results. Following the delineation of all available
4 and technically feasible control technology options ~~under-pursuant to~~ Subparagraph (b)(3) of this
5 Rule, the energy, human health, environmental, and economic impacts shall be considered in order
6 to arrive at the maximum feasible controls. An analysis of the predicted and associated impacts for
7 each option shall be conducted. The owner or operator shall present an objective evaluation of the
8 impacts of each alternative. Beneficial and adverse impacts shall be analyzed and, if possible,
9 quantified. If the owner or operator ~~has~~ proposed to select the most stringent alternative, in terms
10 of control effectiveness, as maximum feasible controls, he or she shall evaluate whether impacts of
11 unregulated air pollutants or environmental impacts in other media would justify selection of an
12 alternative control technology. If there are no concerns regarding collateral environmental impacts,
13 the analysis is ended and this proposed option is selected as maximum feasible controls. In the event
14 the most stringent alternative is inappropriate, due to energy, human health, environmental, or
15 economic impacts, the justification for this conclusion shall be fully ~~documented; documented, and~~
16 ~~the~~ The next most stringent option, in terms of control effectiveness, ~~becomes the primary~~
17 ~~alternative and is similarly evaluated,~~ shall become the primary alternatively and be similarly
18 evaluated. This process shall continue until the control technology evaluated ~~can not~~ cannot
19 be eliminated due to source-specific environmental, human health, energy, or economic impacts.

20 (5) Select maximum feasible controls. The most stringent option, in terms of control ~~effectiveness,~~
21 effectiveness, that is not eliminated ~~under-pursuant to~~ Subparagraph (b)(4) of this Rule shall be
22 selected as maximum feasible controls.

23
24 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5);
25 Eff. April 1, 2001-2001;
26 Readopted Eff. _____.
27

1 15A NCAC 02D .1808 is proposed for reoption without substantive changes as follows:

2

3 **15A NCAC 02D .1808 EVALUATION OF NEW OR MODIFIED SWINE FARMS**

4 (a) Purpose. The purpose of this Rule is to specify the methods for evaluating new or modified swine farms for
5 compliance with the performance standard in G.S. 143-215.10I (b)(3).

6 (b) Applicability. This Rule applies to new or modified swine farms required by G.S. 143-215.10I to meet the
7 performance standard in G.S. 143-215.10I (b)(3).

8 (c) Requirements. New or modified swine farms subject to this ~~rule~~ Rule shall comply with the requirements in this
9 Section.

10 (d) Evaluation of new or modified swine farms. For the purpose of evaluating odor at new or modified swine farms
11 for compliance with the performance standard in G.S. 143-215.10I (b)(3), the following shall apply:

12 (1) When a field olfactometry method and instrumentation is used to determine odor intensity at the
13 designated evaluation location, as specified in ~~Rule .1802(e) of this Section~~ 15A NCAC 02D
14 .1802(e), the measured dilution-to-threshold ratio shall be less than or equal to 7:1 as determined
15 using the manufacturer's instrument procedures and instructions; or

16 (2) When odor intensity is determined using an Odor Intensity Referencing Scale (OIRS) as specified
17 in ASTM 544-99, the instantaneous observed level shall be less than the equivalent of 225 parts per
18 million n-butanol in air. In addition, the average of 30 consecutive observations conducted over a
19 minimum of 30-minutes at designated evaluation locations shall be less than the equivalent of 75
20 parts per million n-butanol in air and a minimum of ~~four~~ 4 readings out of the minimum 30 readings
21 shall be less than or equal to the equivalent 25 parts per million n-butanol in air.

22

23 *History Note: Authority G.S. 143-215.10I; 143-215.3(a)(1); 143-215.107(a)(11); 143-215.108(a);*

24 *Eff. January 1, ~~2009~~ 2009;*

25 *Readopted Eff.*

26