

1 15A NCAC 02D .1701 is proposed for amendment as follows:

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3

SECTION .1700 - MUNICIPAL SOLID WASTE LANDFILLS

4

15A NCAC 02D .1701 DEFINITIONS

6 The definitions in 40 CFR ~~60.754~~60.41f apply to this Section.

7

8 *History Note: Authority G.S. 143-215.3(a)(1);*

9

Eff. July 1, 1998;

10

Readopted Eff. October 1, ~~2020-2020~~;

11

Amended eff. _____.

1 15A NCAC 02D .1702 is proposed for amendment as follows:

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3 **15A NCAC 02D .1702 APPLICABILITY**

4 (a) This Section applies to each existing MSW landfill that accepted waste since November 8, 1987 and that
5 commenced construction, reconstruction, or modification on or before July 17, 2014.

6 ~~All existing MSW landfills that meet the following conditions are subject to this Section:~~

7 (1) ~~The landfill has accepted waste at any time since November 8, 1987, or has additional permitted~~
8 ~~capacity available for future waste deposition and has not been documented by the Division as being~~
9 ~~permanently closed; and~~

10 (2) ~~The landfill was in operation, or construction, reconstruction, or modification was commenced~~
11 ~~before July 17, 2014.~~

12 (b) Physical or operational changes made to an existing MSW landfill solely to comply with an emission standard
13 under this Section are not considered a modification or reconstruction, and do not subject an existing MSW landfill to
14 the requirements of 40 CFR 60, Subpart XXX or 15A NCAC 02D .0524.

15 (c) For purposes of obtaining an operating permit pursuant to Title V of the Clean Air Act, the owner or operator of
16 an MSW landfill subject to 40 CFR Part 60, Subpart Cf with a design capacity less than 2.5 million mega grams or 2.5
17 million cubic meters shall not subject to the requirement to obtain an operating permit for the landfill pursuant to 40
18 CFR Part 70 or 71 unless the landfill is otherwise subject to either 40 CFR Part 70 or 71. For purposes of submitting
19 a timely application for an operating permit pursuant to 40 CFR Part 70 or 71, the owner or operator of an MSW
20 landfill subject to 40 CFR Part 60, Subpart Cf with a design capacity greater than or equal to 2.5 million mega grams
21 and 2.5 million cubic meters on the effective date of EPA approval of the state's program pursuant to Section 111(d)
22 of the Clean Air Act, and not otherwise subject to either 40 CFR Part 70 or 71, becomes subject to the requirements
23 of 40 CFR 70.5(a)(1)(i) or 40 CFR 71.5(a)(1)(i) within 90 days after the effective date of such Section 111(d) program
24 approval, even if the design capacity report is submitted earlier.

25 (d) When an MSW landfill subject to 40 CFR 60, Subpart Cf is closed as defined in this Section, the owner or operator
26 shall no longer be subject to the requirement to maintain an operating permit pursuant to 40 CFR Part 70 or 71 for the
27 landfill if the landfill is not otherwise subject to the requirements of either 40 CFR Part 70 or 71 and if either of the
28 following conditions are met:

29 (1) The landfill was never subject to the requirement to install and operate a gas collection and control
30 system pursuant to 40 CFR 60.33f(f); or

31 (2) The landfill meets the conditions for control system removal specified in 40 CFR 60.33f(f).

32 (e) When an MSW landfill subject to 40 CFR Part 60, Subpart Cf is in the closed landfill subcategory, the owner or
33 operator shall not subject to the reports of 40 CFR Part 60, Subpart Cf, provided the owner or operator submitted these
34 reports pursuant to the provisions of 40 CFR Part 60, Subpart WWW, 40 CFR Part 62, Subpart GGG, or this Section
35 on or before July 17, 2014, as follows:

36 (1) Initial design capacity report specified in 40 CFR 60.38f(a);

- 1 (2) Initial or subsequent NMOC emission rate report specified in 40 CFR 60.38f(c), provided that the
- 2 most recent NMOC emission rate report indicated the NMOC emissions were below 50 mega grams
- 3 per year;
- 4 (3) Collection and control system design plan specified in 40 CFR 60.38f(d);
- 5 (4) Closure report specified in 40 CFR 60.38f(f);
- 6 (5) Equipment removal report specified in 40 CFR 60.38f(g);
- 7 (6) Initial annual report specified in 40 CFR 60.38f(h); and
- 8 (7) Initial performance test report in 40 CFR 60.38f(i).

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10 *History Note: Authority 143-215.3(a)(1); 143-215.107(a)(5); 143-215.107(a)(10);*

11 *Eff. July 1, 1998;*

12 *Readopted Eff. October 1, ~~2020-2020~~;*

13 *Amended Eff. _____.*

1 15A NCAC 02D .1703 is proposed for amendment as follows:

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3 **15A NCAC 02D .1703 EMISSION STANDARDS**

4 a) ~~Any MSW landfill subject to this Section and meeting the following two conditions shall meet the gas collection~~
5 ~~and control requirements of Paragraph (b) of this Rule: Any MSW landfill subject to this Section and having a design~~
6 ~~capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume shall be~~
7 ~~required to collect and control MSW landfill emissions if the following conditions apply:~~

8 (1) ~~The landfill has a design capacity greater than or equal to 2.75 million tons and 2.5 million cubic~~
9 ~~meters. The owner or operator of the landfill may calculate the design capacity in either tons or~~
10 ~~cubic meters for comparison with the exemption values. Any density conversion shall be~~
11 ~~documented and submitted along with the initial reporting requirements of 15A NCAC 02D~~
12 ~~.1708(a); and The landfill has accepted waste at any time since November 8, 1987, or has additional~~
13 ~~design capacity available for future waste deposition;~~

14 (2) ~~The landfill has a non-methane organic compound (NMOC) emission rate of 55 tons per year or~~
15 ~~more. The NMOC emission rate shall be calculated by following the procedures outlined in 40 CFR~~
16 ~~60.754. The landfill commenced construction, reconstruction, or modification on or before July 17,~~
17 ~~2014;~~

18 (3) ~~The landfill has an NMOC emission rate greater than or equal to 34 megagrams per year or Tier 4~~
19 ~~surface emissions monitoring shows a surface emission concentration of 500 parts per million~~
20 ~~methane or greater, and~~

21 (4) ~~The landfill is in the closed landfill subcategory and has an NMOC emission rate greater than or~~
22 ~~equal to 50 megagrams per year or Tier 4 surface emissions monitoring shows a surface emission~~
23 ~~concentration of 500 parts per million methane or greater.~~

24 (b) ~~Each owner or operator of a MSW landfill meeting the conditions of Paragraph (a) of this Rule shall~~ shall install
25 and start up a collection and control system that captures the gas within the landfill within 30 months after:

26 (1) ~~submit to the Director a site-specific design plan for the gas collection and control system that meets~~
27 ~~the requirements of 40 CFR 60.752(b)(2)(i);~~

28 (2) ~~install a gas collection system that meets the requirements of 40 CFR 60.752(b)(2)(ii); and~~

29 (3) ~~control the collected emissions of MSW landfill gas through the use of one or more of the following~~
30 ~~control options:~~

31 (A) ~~An open flare designed and operated in accordance with the parameters established in 40~~
32 ~~CFR 60.18;~~

33 (B) ~~A control system designed and operated to reduce NMOC by 98 weight percent;~~

34 (C) ~~An enclosed combustor designed and operated to reduce the outlet NMOC concentration~~
35 ~~to 20 parts per million as hexane by volume, on a dry basis at three percent oxygen, or less;~~

36 ~~or~~

1 ~~(D) — A treatment system that processes the collected gas for subsequent sale or use in~~
2 ~~accordance with 40 CFR 60.752(b)(2)(iii)(C).~~

3 (1) the first annual report in which the NMOC emission rate equals or exceeds 34 mega grams per year,
4 unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34
5 mega grams per year, as specified in 40 CFR 60.38f(d)(4); or

6 (2) the first annual NMOC emission rate report for a landfill in the closed landfill subcategory in which
7 the NMOC emission rate equals or exceeds 50 mega grams per year, unless Tier 2 or Tier 3 sampling
8 demonstrates that the NMOC emission rate is less than 50 mega grams per year, as specified in 40
9 CFR 60.38f(d)(4); or

10 (3) the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds
11 34 mega grams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface
12 methane emission concentration of 500 parts per million methane or greater as specified in 40 CFR
13 60.38f(d)(4)(iii).

14 ~~(e) The gas collection and control system required by this Rule may be capped or removed provided that all the~~
15 ~~conditions of 40 CFR 60.752(b)(2)(v)(A), (B), and (C) are met.~~

16 (c) Each owner or operator of a MSW landfill meeting the conditions of Paragraph (a) of this Rule shall control the
17 gas collected from within the landfill through the use of control devices meeting the following requirements, except
18 as provided in 40 CFR 60.24:

19 (1) A non-enclosed flare designed and operated in accordance with the parameters established in 40
20 CFR 60.18 except as noted in 40 CFR 60.37f(d); or

21 (2) A control system designed and operated to reduce NMOC by 98 weight percent; or when an enclosed
22 combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the
23 outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at three
24 percent oxygen or less. The reduction efficiency or concentration in parts per million by volume
25 shall be established by an initial performance test to be completed no later than 180 days after the
26 initial startup of the approved control system using the test methods specified in 40 CFR 60.35f(d).
27 The performance test is not required for boilers and process heaters with design heat input capacities
28 equal to or greater than 44 mega watts that burn landfill gas for compliance with this Rule.

29 (A) If a boiler or process heater is used as the control device, the landfill gas stream shall be
30 introduced into the flame zone;

31 (B) The control device shall be operated within the parameter ranges established during the
32 initial or most recent performance test. The operating parameters to be monitored shall be
33 specified in 40 CFR 60.37f;

34 (C) For the closed landfill subcategory, the initial or most recent performance test conducted
35 to comply with 40 CFR Part 60, Subpart WWW; 40 CFR Part 62, Subpart GGG; or 40
36 CFR Part 60, Subpart Cc on or before July 17, 2014; shall be sufficient for compliance
37 with this 40 CFR Part, Subpart Cf;

1 (3) Route the collected gas to a treatment system that processes the collected gas for subsequent sale
2 or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas
3 for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of
4 treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for
5 subsequent sale or beneficial use, then the treated landfill gas shall be controlled pursuant to either
6 Subparagraph (c)(1) or (2) of this Rule;

7 (4) All emissions from any atmospheric vent from the gas treatment system are subject to the
8 requirements of Paragraph (b) or (c) of this Rule. For purposes of this Subparagraph, atmospheric
9 vents located on the condensate storage tank are not part of the treatment system and are exempt
10 from the requirements of Paragraph (b) or (c) of this Rule.

11 (d) Each owner or operator of a MSW landfill having a design capacity less than 2.5 million megagrams by mass or
12 2.5 million cubic meters by volume shall submit an initial design capacity report to the Division as provided in 40
13 CFR 60.38f(a). The landfill may calculate design capacity in either megagrams or cubic meters for comparison with
14 the exemption values. Any density conversions shall be documented and submitted with the report. Submittal of the
15 initial design capacity report fulfills the requirements of this Rule, except as provided in Subparagraphs (d)(1) and (2)
16 of this Rule, as follows:

17 (1) The owner or operator shall submit an amended design capacity report as provided in 40 CFR
18 60.38f(b). If the design capacity increase is the result of a modification, as defined in 15A NCAC
19 02D .1701, that was commenced after July 17, 2014, then the landfill becomes subject to 40 CFR
20 Part 60 Subpart XXX instead of 40 CFR Part 60 Subpart Cf. If the design capacity increase is the
21 result of a change in operating practices, density, or some other change that is not a modification as
22 defined in this subpart, then the landfill remains subject to Subpart Cf; and

23 (2) When an increase in the maximum design capacity of a landfill with an initial design capacity less
24 than 2.5 million megagrams or 2.5 million cubic meters results in a revised maximum design
25 capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters, the owner or
26 operator shall comply with Paragraph (e) of this Rule.

27 (e) Each owner or operator of an MSW landfill having a design capacity equal to or greater than 2.5 million megagrams
28 and 2.5 million cubic meters shall either install a collection and control system as provided in Paragraphs (b) and (c)
29 of this Rule or calculate an initial NMOC emission rate for the landfill using the procedures specified in 40 CFR
30 60.35f(a). The NMOC emission rate shall be recalculated annually, except as provided in 40 CFR 60.38f(c)(3), as
31 follows:

32 (1) If the calculated NMOC emission rate is less than 34 megagrams per year, the owner or operator
33 shall submit an annual NMOC emission rate report according to 40 CFR 60.38f(c), and recalculate
34 the NMOC emission rate annually using the procedures specified in 40 CFR 60.35f(a) until such
35 time as the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, or
36 the landfill is closed. This annual NMOC emission rate reporting requirement shall not apply to the
37 facilities that elected to submit their reports as provided in 40 CFR 60.38f(c)(3);

1 (A) if the calculated NMOC emission rate, upon initial calculation or annual recalculation
2 required in Subparagraph (e)(1) of this Rule, is equal to or greater than 34 megagrams per
3 year, the owner or operator shall either: Comply with Paragraphs (b) and (c) of this Rule;
4 calculate NMOC emissions using the next higher tier in 40 CFR 60.35f; or conduct a
5 surface emission monitoring demonstration using the procedures specified in 40 CFR
6 60.35f(a)(6);

7 (B) if the landfill is permanently closed, a closure report shall be submitted to the Division as
8 provided in 40 CFR 60.38f(f), except for exemption allowed pursuant to 40 CFR
9 60.31f(e)(4); and

10 (C) for the closed landfill subcategory, if the most recently calculated NMOC emission rate is
11 equal to or greater than 50 megagrams per year, the owner or operator shall either: submit
12 a gas collection and control system design plan as specified in 40 CFR 60.38f(d), except
13 for exemptions allowed pursuant to 40 CFR 60.31f(e)(3), and install a collection and
14 control system as provided in Paragraphs (b) and (c) of this Rule; calculate NMOC
15 emissions using the next higher tier in 40 CFR 60.35f; or conduct a surface emission
16 monitoring demonstration using the procedures specified in 40 CFR 60.35f(a)(6);

17 (2) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier
18 1, 2, or 3 procedures, the owner or operator shall either: submit a collection and control system
19 design plan prepared by a professional engineer to the Division within one year as specified in 40
20 CFR 60.38f(d), except for exemptions allowed in 40 CFR 60.31f(e)(3); calculate NMOC emissions
21 using a higher tier in 40 CFR 60.35f; or conduct a surface emission monitoring demonstration using
22 the procedures specified in 40 CFR 60.35f(a)(6); and

23 (3) For the closed landfill subcategory, if the calculated NMOC emission rate is equal to or greater than
24 50 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator shall either: submit
25 a collection and control system design plan as specified in 40 CFR 60.38f(d), except for exemptions
26 allowed pursuant to 40 CFR 60.31f(e)(3); calculate NMOC emissions using a higher tier in 40 CFR
27 60.35f; or conduct a surface emission monitoring demonstration using the procedures specified in
28 40 CFR 60.35f(a)(6).

29 (f) The collection and control system may be capped, removed, or decommissioned if the following criteria are met:

30 (1) The landfill is a closed landfill as defined in 40 CFR 60.41f. A closure report shall be submitted to
31 the Division as provided in 15A NCAC 02D .1708(f);

32 (2) The collection and control system has been in operation a minimum of 15 years or the landfill owner
33 or operator demonstrates that the GCCS will be unable to operate for 15 years due to declining gas
34 flow;

35 (3) Following the procedures specified in 40 CFR 60.35f(b), the calculated NMOC emission rate at the
36 landfill is less than 34 megagrams per year on three successive test dates. The test dates shall be no
37 less than 90 days apart, and no more than 180 days apart; and

1 (4) For the closed landfill subcategory as defined in 40 CFR 60.41f, following the procedures specified
2 in 40 CFR 60.35f(b), the calculated NMOC emission rate at the landfill is less than 50 megagrams
3 per year on three successive test dates. The test dates shall be no less than 90 days apart, and no
4 more than 180 days apart.

5
6 *History Note:* *Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 143-215.107(a)(10);*
7 *Eff. July 1, 1998;*
8 *Amended Eff. July 1, 2000;*
9 *Readopted Eff. October 1, ~~2020-2020~~;*
10 *Amended Eff. _____.*

1 15A NCAC 02D .1704 is proposed for amendment as follows:

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3 **15A NCAC 02D .1704 TEST METHODS AND PROCEDURES**

4 The MSW landfill NMOC emission rate shall be ~~calculated~~ calculated, or a surface emission monitoring demonstration
5 be conducted, by following the procedures in 40 CFR ~~60.754, 60.35f~~, as applicable, ~~in order~~ to determine whether the
6 landfill meets the conditions of 15A NCAC 02D ~~1703(a)(2), 1703(a)(3) or (4)~~.

7

8 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10);*

9 *Eff. July 1, 1998;*

10 *Readopted Eff. October 1, ~~2020-2020~~;*

11 *Amended Eff. _____.*

1 15A NCAC 02D .1705 is proposed for amendment as follows::

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3 **15A NCAC 02D .1705 OPERATIONAL STANDARDS**

4 The owner and operator of a MSW landfill required to install a landfill gas collection and control system to comply
5 with 15A NCAC 02D .1703(b) and (c) shall:

- 6 (1) operate the collection system ~~in accordance with 40 CFR 60.753(a)~~; such that gas is collected from
7 each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
8 (a) five years or more if active; or
9 (b) two years or more if closed or at final grade;
- 10 (2) operate the collection system with negative pressure at each wellhead ~~in accordance with 40 CFR~~
11 60.753(b); except under the following conditions:
12 (a) for a fire or increased well temperature, the owner or operator shall record instances when
13 positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the
14 annual reports as provided in 40 CFR 60.38f(h)(1);
15 (b) for the use of a geomembrane or synthetic cover, the owner or operator shall develop
16 acceptable pressure limits in the design plan; and
17 (c) for a decommissioned well, a well may experience a static positive pressure after shut down
18 to accommodate for declining flows. All design changes shall be approved by the Division
19 as specified in 40 CFR 60.38f(d);
- 20 (3) operate each interior wellhead in the collection system ~~in accordance with 40 CFR 60.753(e)~~; with
21 a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit). The owner or
22 operator may establish a higher operating temperature value at a particular well. A higher operating
23 value demonstration shall be submitted to the Division for approval and shall include supporting
24 data demonstrating that the elevated parameter neither causes fires nor significantly inhibits
25 anaerobic decomposition by killing methanogens. The demonstration shall satisfy both criteria listed
26 above in order to be approved;
- 27 (4) operate the collection system so that the methane concentration is less than 500 parts per million
28 above background at the surface of the landfill. To determine if this level is exceeded, the owner
29 and operator ~~shall follow the procedures given in 40 CFR 60.753(d)~~; shall conduct surface testing
30 using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the
31 specifications provided in 40 CFR 60.36f(d). The owner or operator shall conduct surface testing
32 around the perimeter of the collection area and along a pattern that traverses the landfill at no more
33 than 30-meter intervals and where visual observations indicate elevated concentrations of landfill
34 gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. The
35 owner or operator shall monitor any openings that are within an area of the landfill where waste has
36 been placed and a gas collection system is required. The owner or operator may establish an
37 alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan

1 shall be developed that includes a topographical map with the monitoring route and the rationale for
2 any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous
3 areas may be excluded from the surface testing;

4 (5) operate the collection system such that all collected gases are vented to a control system designed
5 and operated in compliance with ~~15A NCAC 02D .1703(b)(3),~~ 40 CFR 60.33f(c). In the event that
6 the gas collection and control system is ~~inoperable,~~ measures shall be taken as outlined in 40 CFR
7 60.753(e); not operating, the gas mover system shall be shut down and all valves in the collection
8 and control system contributing to venting of the gas to the atmosphere shall be closed within one
9 hour of the collection or control system not operating;

10 (6) operate the control system at all times when the collected gas is routed to the ~~control~~ system;

11 (7) ~~take corrective action as specified in 40 CFR 60.755(e) if monitoring demonstrates that the operation~~
12 ~~standards and requirements of Items (2), (3), and (4) of this Rule are not met. If the required~~
13 ~~corrective actions are taken, the emissions monitored shall not be considered a violation of the~~
14 ~~operational standards of this Rule. if monitoring demonstrates that the operational requirements in~~
15 Item (2), (3), or (4) of this Rule are not met, corrective action shall be taken as specified in 40 CFR
16 60.36f(a)(3) and (a)(5) or (c). If corrective actions are taken as specified in 40 CFR 60.36f, the
17 monitored exceedance shall not be a violation of the operational requirements in this Rule; and

18 ~~(8)~~ The owner or operator may choose to comply with the provisions of 40 CFR 63.1958 in lieu of
19 Items(1) through (7) of this Rule. Once the owner or operator begins to comply with the provisions
20 of 40 CFR 63.1958, the owner or operator shall continue to operate the collection and control device
21 according to those provisions and cannot return to the provisions of this Rule.

22
23 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 143-215.107(a)(10);
24 Eff. July 1, 1998;
25 Readopted Eff. October 1, 2020-2020;
26 Amended Eff. _____.
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1 15A NCAC 02D .1706 is proposed for amendment as follows:

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3 **15A NCAC 02D .1706 COMPLIANCE PROVISIONS**

4 (a) Compliance with 15A NCAC 02D .1703(b) shall be determined using the gas collection system compliance
5 provisions of 40 CFR ~~60.755(a)~~, 60.36f(a).

6 (b) Compliance with 15A NCAC 02D .1705(1) shall be determined using the controlled landfill gas well and design
7 component provisions of 40 CFR ~~60.755(a)~~, 60.36f(b).

8 (c) Compliance with the surface methane operational standards of 15A NCAC 02D .1705(4) shall be ~~achieved~~
9 determined using the procedures of 40 CFR ~~60.755(e) and (d)~~, 60.36f(c).

10 (d) To comply with the provisions in Paragraph (c) of this Rule or 40 CFR 60.35f(a)(6), the owner or operator shall
11 comply with the instrumentation specifications and procedures for surface emission monitoring devices provisions of
12 40 CFR 60.36f(d).

13 ~~(e)(d) The provisions of this Rule apply at all times, apply, except during periods of start-up, shutdown, or malfunction,~~
14 ~~malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed five days for collection~~
15 ~~systems and shall not exceed one hour for treatment or control devices. During periods of startup, shutdown, and~~
16 ~~malfunction, the owner or operator shall comply with the work practice specified in 40 CFR 60.34f(e) in lieu of the~~
17 ~~compliance provisions in 40 CFR 60.36f.~~

18 (f) The owner or operator may choose to comply with the provisions of 40 CFR 63.1960 in lieu of Paragraphs (a)
19 through (e) of this Rule. Once the owner or operator begins to comply with the provisions of 40 CFR 63.1960, the
20 owner or operator shall continue to operate the collection and control device according to those provisions and cannot
21 return to the provisions of this Rule.

22 (g) Compliance with the specifications for active collection systems in 15A NCAC 02D .1703(b) shall be determined
23 using the provisions of 40 CFR 60.40f(a) and (b).

24 (h) Compliance with the specifications for active collection systems in 15A NCAC 02D .1703(c) shall be determined
25 using the provisions of 40 CFR 60.40f(c).

26
27 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10);*

28 *Eff. July 1, 1998;*

29 *Readopted Eff. October 1, 2020-2020;*

30 *Amended Eff. _____.*

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1 15A NCAC 02D .1707 is proposed for amendment as follows:

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3 **15A NCAC 02D.1707 MONITORING PROVISIONS**

4 (a) The owner or operator of a MSW landfill who is required to comply with 15A NCAC 02D ~~.1703(b)(2)~~, 1703(b)
5 for an active gas collection system shall perform the monitoring requirements as outlined in 40 CFR ~~60.756(a)~~,
6 60.37f(a).

7 (b) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D
8 ~~.1703(b)(3)(C)~~, 1703(c) using an enclosed combustor shall perform the monitoring requirements as outlined in 40 CFR
9 ~~60.756(a)~~, 60.37f(b).

10 (c) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D
11 ~~.1703(b)(3)(A)~~, 1703(c) using ~~an open~~ a non-enclosed flare shall perform the monitoring requirements as outlined in
12 40 CFR ~~60.756(e)~~, 60.37f(d).

13 (d) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D
14 ~~.1703(b)(3)~~, 1703(c) using a device other than an open ~~flare or flare~~, an enclosed combustor or treatment system shall
15 comply with the provisions of 40 CFR ~~60.756(d)~~, 60.37f(d).

16 (e) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D
17 ~~.1703(b)(3)(B)~~, 1703(b) ~~using an active~~ by installing a collection system that does not meet the specifications of 40
18 CFR 60.40f, or seeking to monitor alternative parameters to those required by 15A NCAC 02D .1704 through .1707
19 shall comply with the provisions of 40 CFR ~~60.756(e)~~, 60.37f(e).

20 (f) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D ~~.1706(e)~~
21 .1705(4) for demonstrating compliance with the 500 parts per million surface methane operational standard shall do
22 so in accordance with 40 CFR ~~60.756(f)~~, 60.37(f).

23 (g) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D .1703(c)
24 shall do so in accordance with the provisions of 40 CFR 60.37f(g).

25 (h) The monitoring requirements of Paragraphs (b), (c), (d), and (g) of this Rule apply at all times the affected source
26 is operating, except for periods of monitoring system malfunctions, repairs associated with the monitoring system
27 malfunctions, and required monitoring system quality assurance or quality control activities. A monitoring system
28 malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid
29 data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not
30 malfunctions. Monitoring system repairs to return the monitoring system to operation in response to malfunctions
31 shall be completed as expeditiously as practicable.

32 (i) The owner or operator may choose to comply with the provisions of 40 CFR 63.19561 in lieu of Paragraphs (a)
33 through (h) of this Rule. Once the owner or operator begins to comply with the provisions of 40 CFR 63.1961, the
34 owner or operator shall continue to operate the collection and control device according to those provisions and cannot
35 return to the provisions of this Rule.

36
37 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10);*

- 1 *Eff. July 1, 1998;*
- 2 *Readopted Eff. October 1, ~~2020-2020~~;*
- 3 *Amended Eff. _____.*

1 15A NCAC 02D .1708 is proposed for amendment as follows:

2
3 **15A NCAC 02D .1708 REPORTING REQUIREMENTS**

4 (a) The owner or operator of ~~a~~ an existing MSW landfill subject to this Rule according to 15A NCAC 02D .1702 shall
5 submit a design capacity report to the Director ~~in accordance with the following:~~ as follows:

6 (1) The initial design capacity report shall ~~fulfill the requirements of the notification of the date~~
7 ~~construction is commenced as required under 40 CFR 60.7(a)(1) and shall be submitted no later than~~
8 ~~the earliest of the day from the dates given in 40 CFR 60.757(a)(1)(i) and 40 CFR 60.757(a)(1)(ii);~~
9 be submitted no later than 90 days after the effective date of the EPA approval of the State Plan
10 pursuant to Section 111(d) of the Clean Air Act;

11 (2) The initial design capacity report shall contain the information given in 40 CFR ~~60.757(a)(2)(i)~~
12 ~~60.38f(a)(1) and 40 CFR 60.757(a)(2)(ii); and 60.38f(a)(2) as follows:~~

13 (A) a map or plot of the landfill, providing the size and location of the landfill, and identifying
14 all areas where solid waste may be landfilled according to the permit issued by the state,
15 local, or tribal agency responsible for regulating the landfill; and

16 (B) the maximum design capacity of the landfill as given in 40 CFR 60.38f(a)(2).

17 ~~(3) An amended design capacity report shall be submitted to the Director in accordance with 40 CFR~~
18 ~~60.757(a)(3) whenever an increase in the design capacity of the landfill results in the design capacity~~
19 ~~of the landfill to exceed 2.5 million cubic meters and 2.75 million tons.~~

20 (b) The owner or operator of an existing MSW landfill subject to this Section shall submit an amended design capacity
21 report providing notification of an increase in the design capacity of the landfill, within 90 days of an increase in the
22 maximum design capacity of the landfill to meet or exceed 2.5 million mega grams and 2.5 million cubic meters. An
23 increase in design capacity may result from an increase in the permitted volume of the landfill or an increase in the
24 density as documented in the annual recalculation required in 15A NCAC 02D .1709(j).

25 ~~(c)(b) The owner or operator of a~~ an existing MSW landfill subject to this Rule shall submit a NMOC emission report
26 to the Director ~~initially~~ no later than 90 days after the effective date of EPA approval of the state plan pursuant to
27 Section 111(d) of the Clean Air Act and annually thereafter, except as provided for in 40 CFR 60.757(b)(1)(ii)
28 60.38f(c), or (b)(3). The initial NMOC emission rate report shall be submitted within 90 days of the day waste
29 acceptance commences and may be combined with the initial design capacity report required in Paragraph (a) of this
30 Rule. The NMOC emission rate report shall:

31 (1) contain an annual or five-year estimate of the NMOC emission rate calculated using the formula
32 and procedures provided in 40 CFR ~~60.754(a)~~ 60.35f(a) or (b), as applicable; ~~and~~

33 (2) include all the data, calculations, sample reports, and measurements used to estimate the annual or
34 five-year ~~emissions.~~ emissions; and

35 (3) if the estimated NMOC emission rate as reported in the annual report is less than 34 mega grams per
36 year in each of the next five consecutive years, the owner or operator may elect to submit an estimate
37 of the NMOC emission rate for the next five-year period in lieu of the annual report. This estimate

1 shall include the current amount of solid waste-in-place and the estimate waste acceptance rate for
2 each year of the five years for which an NMOC emission rate is estimated. All data and calculations
3 shall be provided. This estimate shall be revised at least once every five years. If the actual waste
4 acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five-year
5 estimate, a revised five-year estimate shall be submitted. The revised estimate shall cover the five-
6 year period beginning with the year in which the actual waste acceptance rate exceeded the estimated
7 waste acceptance rate.

8 (4) each owner and operator subject to the requirements of this Rule shall be exempted from the
9 requirements to submit an NMOC emission rate report, after installing a compliant collection and
10 control system, during such time as the collection and control system is in operation and in
11 compliance with 15A NCAC 02D .1705 and .1706.

12 ~~(d)(e)~~ The owner or operator of an existing MSW landfill subject to 15A NCAC 02D .1703, 1703(b) shall submit a
13 collection and control system design plan to the Director within one year of the first NMOC emission rate report,
14 required under Paragraph (b)(c) of this Rule, in which the emission rate equals or exceeds 55 tons 34 mega grams per
15 year, except as provided for in 40 CFR 60.757(e)(1) and (e)(2), 60.38f(d)(4). The collection and control system design
16 plan shall include:

17 (1) a description of the collection and control system;

18 (2) a description of any alternatives to the operational standards, test methods, procedures, compliance
19 measures, monitoring, recordkeeping, or reporting provisions provided in this Rule; and

20 (3) a description indicating how the plan conforms to specifications for active collection systems or
21 provide a demonstration of sufficient alternative provisions as given in 40 CFR 60.40f.

22 (e) The owner or operator of an existing MSW landfill who has already submitted a design plan pursuant to Paragraph
23 (d) of this Rule, pursuant to 40 CFR Part 60, Subpart WWW, or a state plan implementing 40 CFR Part 60, Subpart
24 Cc, shall submit a revised design plan to the Director for approval as follows:

25 (1) at least 90 days before expanding operations to an area no covered by the previously approved
26 design plan; and

27 (2) prior to installing or expanding the gas collection system in a way that is not consistent with the
28 design plan that was submitted to the Director in Paragraph (d) of this Rule.

29 ~~(f)(d)~~ The owner or operator of a controlled landfill shall submit a closure report to the Director within 30 days of
30 cessation of waste acceptance. If a closure report has been submitted to the Director, no additional waste shall be
31 placed into the landfill without first filing a notification of modification as described under pursuant to 40 CFR
32 60.7(a)(4). The Director may request such additional information as may be necessary to verify that permanent closure
33 of the MSW landfill has taken place in accordance with pursuant to the requirements of 40 CFR 258.60.

34 ~~(g)(e)~~ The owner or operator of a controlled MSW landfill shall submit an equipment removal report 30 days prior to
35 removal or cessation of operation of the control equipment according to 15A NCAC 02D .1703(e), 1703(f). The
36 report shall contain the items listed in 40 CFR 60.757(e)(1), 60.38f(g). The Director may request such additional

1 information as may be necessary to verify that all the conditions for removal in 40 CFR ~~60.752(b)(2)(v)~~60.33f(f) have
2 been met.

3 ~~(h)(f)~~ The owner or operator of a MSW landfill seeking to comply with 15A NCAC 02D ~~.1703(b)(2)~~.1703(b) using
4 an active collection system designed in accordance with 40 CFR ~~60.752(b)(2)(ii)~~60.333f(b) shall submit annual reports
5 of the recorded information in 40 CFR ~~60.757(f)(1)~~60.38f(h)(1) through ~~(f)(6), (h)(7)~~. The initial annual report shall
6 be submitted within 180 days of installation and start-up of the collection and control system, and shall include the
7 initial performance test report required under 40 CFR 60.8. Each owner or operator that chooses to comply with the
8 operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706 and
9 .1707, the owner or operator must follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of this
10 Paragraph.

11 ~~(g) The owner or operator of a MSW landfill seeking to comply with 15A NCAC 02D .1703(b)(3) using an enclosed~~
12 ~~combustion device or flare shall report the excess as defined in 40 CFR 60.758(e)(1).~~

13 ~~(i)(h)~~ The owner or operator of ~~a~~ an existing MSW landfill required to comply with 15A NCAC 02D
14 ~~.1703(b)(1), .1703(b)~~ shall include the information given in 40 CFR ~~60.757(e)(1)~~60.38f(i)(1) through ~~(g)(6), (i)(6)~~ with
15 the initial performance test report required ~~under~~ pursuant to 40 CFR 60.8.

16 (j) The owner or operator of an existing MSW landfill shall submit a report within 60 days after the date of completing
17 each performance test. This report may be submitted as a hard copy or electronically as applicable.

18 (k) The owner or operator of an existing MSW landfill required to implement corrective active, shall submit reports
19 to the Director pursuant to 40 CFR 60.38f(k)(1) and (k)(2). Each owner or operator that chooses to comply with the
20 operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706 and
21 .1707, the owner or operator shall follow the corrective action and the corresponding timeline reporting requirements
22 in 40 CFR 63.1981(j) in lieu of this Paragraph.

23 (l) The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million mega grams
24 and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research,
25 Development, and Demonstration permit within the last 10 years shall submit an annual report to the Director that
26 includes the information pursuant to 40 CFR 60.38f(l)(1) through (l)(10).

27 (m) The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million mega grams
28 and 2.5 million cubic meters that intends to demonstrate site-specific surface methane emissions are below 500 parts
29 per million methane, based on Tier 4 provisions of 40 CFR 60.35f(a)(6), shall provide notifications to the Director in
30 accordance with 40 CFR 60.38f(m)(1) and (m)(2).

31 (n) Each owner or operator that chooses to comply with the operational provisions of 40 CFR 63.1958, 63.1960, and
32 63.1961, as allowed by 15A NCAC 02D .1705, .1706 and .1707, shall submit the 24-hour high temperature report
33 according to 40 CFR 63.1981(k).

34
35 *History Note:* Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10);
36 Eff. July 1, 1998;
37 Amended Eff. July 1, 2000;

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Readopted Eff. October 1, ~~2020-2020~~:
Amended Eff. _____.

1 15A NCAC 02D .1709 is proposed for amendment as follows:

2
3 **15A NCAC 02D .1709 RECORDKEEPING REQUIREMENTS**

4 (a) The owner or operator of a MSW landfill subject to this Section ~~and shall keep on-site~~ on-site, accessible, for at
5 least five years ~~records of the information listed in 40 CFR 60.758(a), a copy of the design capacity report that triggered~~
6 40 CFR 60.33f(e), the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site
7 records may be maintained if they are retrievable within four hours. Either paper copy or electronic formats of the
8 records shall be acceptable.

9 (b) The owner or operator of a controlled landfill shall keep up-to-date records pursuant to 40 CFR 60.768(b) for the
10 life of the control equipment of the data listed in 40 CFR ~~60.758(b)(1), 60.39f(b)(1)~~ through ~~(b)(4)~~ (b)(5) as measured
11 during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be
12 maintained for a minimum of five years. Records of the control device vendor specifications shall be maintained until
13 removal.

14 (c) Each owner or operator of a controlled MSW landfill subject to this Section shall keep for five years up-to-date
15 records pursuant to 40 CFR 60.768(c) of the equipment operating parameters specified to be monitored in 15A NCAC
16 02D .1707 and records for periods of operation during which the parameter boundaries established during the most
17 recent performance test are exceeded. The parameter boundaries considered in excess of those established during the
18 performance test are defined in 40 CFR ~~60.758(e)(1)(i) - 60.39f(c)(1)(i)~~ and (ii) and are also required to be reported
19 pursuant to 15A NCAC 02D ~~.1708(g), .1708(j).~~

20 (d) The owner or operator of a MSW landfill subject to this Section shall keep up-to-date, readily accessible
21 continuous records of the indication of flow to the control system and the indication of bypass flow or records of
22 monthly inspections of car-seals or lock-and-key configuration used to seal bypass lines as specified in 40 CFR 60.37f.

23 (e) The owner or operator of a MSW landfill subject to this Section who uses a boiler or process heater with a design
24 heat input capacity of 44 megawatts or greater to comply with 40 CFR 60.33f(c) shall keep an up-to-date, readily
25 accessible record of all periods of operation of the boiler or process heater.

26 (f) The owner or operator of a MSW landfill seeking to comply with the provisions of 15A NCAC 02D .1703(c) by
27 use of a non-enclosed flare shall keep up-to-date, readily accessible records of all periods of operation in which the
28 flame or flare pilot flame is absent.

29 (g) The owner or operator of a MSW landfill seeking to comply with the provisions of 15A NCAC 02D .1703(b)
30 using an active collection system designed pursuant to 40 CFR 60.33f(b) shall keep records of periods of when the
31 collection system or control device is not operating.

32 (h)(4) The owner or operator of a MSW landfill subject to 15A NCAC 02D .1703(b) shall keep for the life of the
33 collection system an up-to-date plot map pursuant to 40 CFR 60.768(d) showing existing and planned collectors in
34 the system and provide unique identification location labels for each collector. Records of newly installed collectors
35 shall be maintained in accordance with pursuant to 40 CFR 60.758(d)(1) 60.36f(b) and documentation of asbestos-
36 containing or nondegradable waste excluded from collection shall be kept in accordance with pursuant to 40 CFR

1 ~~60.758(d)(2), 60.40(a)(3)(i) and records of any nonproductive areas excluded from collection shall be kept pursuant~~
2 ~~to 40 CFR 60.40f(a)(3)(ii).~~

3 ~~(i)(e) The owner or operator of a MSW landfill subject to 15A NCAC 02D .1703(b) shall keep for at least five years~~
4 ~~records of emissions from the collection and control system exceeding the emission standards in accordance with 40~~
5 ~~CFR 60.758(e), accessible records of the following:~~

6 ~~(1) each owner or operator that chooses to comply with the operational provisions of 40 CFR 63.1958,~~
7 ~~63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706 and .1707, shall keep records~~
8 ~~of the date upon which the owner or operator started complying with the provisions in 40 CFR~~
9 ~~63.1958, 63.1960, and 63.1961, and shall keep records according to 40 CFR 63.1983(e)(1) through~~
10 ~~(e)(5) in lieu of Subparagraphs (2) through (4) of this Paragraph;~~

11 ~~(2) records of emissions from the collection and control system exceeding the operational standards~~
12 ~~pursuant to 40 CFR 60.34f, including the reading in the subsequent month whether or not the second~~
13 ~~reading is an exceedance, and the location of each exceedance;~~

14 ~~(3) records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees~~
15 ~~Fahrenheit) or above, each well head nitrogen level at or above 20 percent, and each wellhead~~
16 ~~oxygen level at or above five percent; and~~

17 ~~(4) records for any root cause analysis as provided in 40 CFR 60.39f(e)(3) through (e)(5).~~

18 ~~(f) The owner or operator of MSW landfill subject to 15A NCAC 02D .1703(b) shall keep up to date records pursuant~~
19 ~~to 40 CFR 60.758(e)(2) of the indication of flow to the control device or the indication of bypass flow or records of~~
20 ~~monthly inspections of car seals or lock and key configurations used to seal bypass lines, specified pursuant to 40~~
21 ~~CFR 60.756.~~

22 ~~(g) The owner or operator of MSW landfill subject to 15A NCAC 02D .1703(b) who uses a boiler or process heater~~
23 ~~with a design heat input capacity of 44 megawatts or greater to comply with 40 CFR 60.752(b)(2)(iii) shall keep an~~
24 ~~up to date record pursuant to 40 CFR 60.758(e)(3) of all periods of operation of the boiler or process heater.~~

25 ~~(h) The owner or operator of MSW landfill seeking to comply with the provisions of 15A NCAC 02D .1703(b) by~~
26 ~~use of an open flare shall keep up to date records of the flame or flare pilot flame monitoring specified pursuant to 40~~
27 ~~CFR 60.756(e), and up to date records of all periods of operation in which the flame or flare pilot flame is absent.~~

28 ~~(j) The owner or operator of a MSW landfill who converts design capacity from volume to mass or mass to volume~~
29 ~~to demonstrate that landfill design capacity is less than 2.5 million megagrams or 2.5 million cubic meters, as provided~~
30 ~~in the definition of "design capacity", shall keep readily accessible, on-site records of the annual recalculation of site~~
31 ~~specific density, design capacity, and the supporting documentation. Off-site records may be maintained if they are~~
32 ~~retrievable within four hours. Either paper copy or electronic formats are acceptable.~~

33 ~~(k) The owner or operator of a MSW landfill seeking to demonstrate that site-specific surface methane emissions are~~
34 ~~below 500 parts per million by conducting surface emissions monitoring under the Tier 4 procedures shall follow the~~
35 ~~recordkeeping provisions provided in 40 CFR 39f(g).~~

36 ~~(l) The owner or operator of a MSW landfill subject to the provisions of this Section shall keep for at least five years~~

1 up-to-date, readily accessible records of all collection and control system monitoring data for the parameters measured
2 in 40 CFR 60.37f(a)(1) through (a)(3).
3 (m) The owner or operator of a MSW landfill reporting leachate or other liquids addition pursuant to 15A NCAC
4 02D .1708(k) shall keep records of any engineering calculations or company records used to estimate the quantities
5 or leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of
6 annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

7
8 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.65; 143-215.66; 143-215.107(a)(4), 143-215.107(a)(5),*
9 *143-215.107(a)(10);*
10 *Eff. July 1, 1998;*
11 *Amended Eff. July 1, 2000;*
12 *Readopted Eff. October 1, ~~2020~~ 2020;*
13 *Amended Eff. _____.*

1 15A NCAC 02D .1710 is proposed for amendment as follows:

2

3 **15A NCAC 02D .1710 COMPLIANCE SCHEDULES**

4 For each existing MSW landfill subject to this Section as specified in 15A NCAC 02D .1702 and meeting the design
5 capacity condition of 15A NCAC 02D ~~.1703(a)(1)~~ .1703(a) whose NMOC emission rate is less than ~~55 tons~~ 34
6 megagrams per year on or after ~~July 1, 1998~~, the most recent effective date of this Rule, shall:

7 (1) submit a site-specific design plan for the gas collection and control system to the Director within 12
8 months of first exceeding the NMOC emission rate of ~~55 tons~~ 34 megagrams per year; year and 50
9 megagrams per year for the closed landfill subcategory; and

10 (2) plan, award contracts, and install MSW landfill air emission collection and control system capable
11 of meeting the emission standards established pursuant to 15A NCAC 02D .1703 within 30 months
12 of the date when the conditions in 15A NCAC 02D .1703 ~~(a)(2)~~ (a)(3) are met.

13

14 *History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(4); 143-215.107(a)(5);*

15 *Eff. July 1, 1998;*

16 *Readopted Eff. October 1, ~~2020~~ 2020;*

17 *Amended Eff. _____.*