

SECTION .1700 - MUNICIPAL SOLID WASTE LANDFILLS

15A NCAC 02D .1701 DEFINITIONS

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

History Note: *Authority G.S. 143-215.3(a)(1);*
 Eff. July 1, 1998;
 Readopted Eff. October 1, 2020;
 Amended Eff. July 1, 2021.

15A NCAC 02D .1702 APPLICABILITY

- (a) This Section applies to each existing Municipal Solid Waste (MSW) landfill that accepted waste since November 8, 1987 and that commenced construction, reconstruction, or modification on or before July 17, 2014.
- (b) Physical or operational changes made to an existing MSW landfill solely to comply with an emission standard under this Section are not considered a modification or reconstruction, and do not subject an existing MSW landfill to the requirements of 40 CFR 60, Subpart XXX or 15A NCAC 02D .0524.
- (c) An MSW landfill shall follow the permitting and reporting requirements of 40 CFR 60.31f(c) through (e).

History Note: Authority 143-215.3(a)(1); 143-215.107(a)(5); 143-215.107(a)(10);
Eff. July 1, 1998;
Readopted Eff. October 1, 2020;
Amended Eff. July 1, 2021.

15A NCAC 02D .1703 EMISSION STANDARDS

(a) Any MSW landfill subject to this Section and having a design capacity greater than or equal to 2.5 million megagrams by mass and 2.5 million cubic meters by volume shall be required to collect and control MSW landfill emissions if the following conditions apply:

- (1) The landfill has accepted waste at any time since November 8, 1987 or has additional design capacity available for future waste deposition.
- (2) The landfill commenced construction, reconstruction, or modification on or before July 17, 2014.
- (3) The landfill has an NMOC emission rate greater than or equal to 34 megagrams per year or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 parts per million methane or greater.
- (4) The landfill is in the closed landfill subcategory and has an NMOC emission rate greater than or equal to 50 megagrams per year or Tier 4 surface emissions monitoring shows a surface emission concentration of 500 parts per million methane or greater.

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

- (1) the first annual report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 34 megagrams per year, as specified in 40 CFR 60.38f(d)(4);
- (2) the first annual NMOC emission rate report for a landfill in the closed landfill subcategory in which the NMOC emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the NMOC emission rate is less than 50 megagrams per year, as specified in 40 CFR 60.38f(d)(4); or
- (3) the most recent NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year based on Tier 2, if the Tier 4 surface emissions monitoring shows a surface methane emission concentration of 500 parts per million methane or greater as specified in 40 CFR 60.38f(d)(4)(iii).

(c) Each owner or operator of a MSW landfill meeting the conditions of Paragraph (a) of this Rule shall collect and control the gas from the landfill through the use of control devices where the following applies, except as provided in 40 CFR 60.24:

- (1) a non-enclosed flare designed and operated in accordance with the parameters established in 40 CFR 60.18 except as noted in 40 CFR 60.37f(d);
- (2) a control system designed and operated to reduce NMOC by 98 weight percent; or when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at three percent oxygen or less. The reduction efficiency or concentration in parts per million by volume shall be established by an initial performance test to be completed no later than 180 days after the initial startup of the approved control system using the test methods specified in 40 CFR 60.35f(d). The performance test is not required for boilers and process heaters with design heat input capacities equal to or greater than 44 megawatts that burn landfill gas for compliance with this Rule.
 - (A) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
 - (B) The control device shall be operated within the parameter ranges established during the initial or most recent performance test. The operating parameters to be monitored shall be those specified in 40 CFR 60.37f.
 - (C) For the closed landfill subcategory, the initial or most recent performance test conducted by the facility to comply with 40 CFR Part 60, Subpart WWW; 40 CFR Part 62, Subpart GGG; or 40 CFR Part 60, Subpart Cc on or before July 17, 2014; shall be used for compliance with 40 CFR Part, Subpart Cf; or
- (3) route the collected gas to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion, production of vehicle fuel, production of high-Btu gas for pipeline injection, or use as a raw material in a chemical manufacturing process. Venting of treated landfill gas to the ambient air is not allowed. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas shall be controlled pursuant to either Subparagraph (c)(1) or (2) of this Rule. All emissions from any atmospheric vent from the gas treatment system are subject to the requirements of Paragraph (b) or (c) of this Rule. For purposes

of this Subparagraph, atmospheric vents located on the condensate storage tank are not part of the treatment system and are exempt from the requirements of Paragraph (b) or (c) of this Rule.

(d) Each owner or operator of a MSW landfill having a design capacity less than 2.5 million megagrams by mass or 2.5 million cubic meters by volume shall submit to the Division a design capacity report as defined in 40 CFR 60.38f(a). Submittal of the initial design capacity report fulfills the requirements of this Rule, except as provided in Subparagraphs (d)(1) and (2) of this Rule, as follows:

(1) The owner or operator shall submit an amended design capacity report as provided in 40 CFR 60.38f(b). If the design capacity increase is the result of a modification, as defined in 15A NCAC 02D .1701, that was commenced after July 17, 2014, then the landfill becomes subject to 40 CFR Part 60 Subpart XXX instead of 40 CFR Part 60 Subpart Cf. If the design capacity increase is the result of a change in operating practices, density, or some other change that is not a modification as defined in 40 CFR 60.41f, then the landfill remains subject to Subpart Cf.

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

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

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

(A) if the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, the owner or operator shall either: comply with Paragraphs (b) and (c) of this Rule; calculate NMOC emissions using the next higher tier in 40 CFR 60.35f; or conduct a surface emission monitoring demonstration using the procedures specified in 40 CFR 60.35f(a)(6);

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

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

(2) If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator shall either: submit a collection and control system design plan prepared by a professional engineer to the Division within one year as specified in 40 CFR 60.38f(d), except for exemptions allowed in 40 CFR 60.31f(e)(3); calculate NMOC emissions using a higher tier in 40 CFR 60.35f; or conduct a surface emission monitoring demonstration using the procedures specified in 40 CFR 60.35f(a)(6). Submitted design plans shall be reviewed by the Division pursuant to the procedures in 40 CFR 60.38f(d)(5) and (6).

(3) For the closed landfill subcategory, if the calculated NMOC emission rate is equal to or greater than 50 megagrams per year using Tier 1, 2, or 3 procedures, the owner or operator shall either: submit a collection and control system design plan as specified in 40 CFR 60.38f(d), except for exemptions allowed pursuant to 40 CFR 60.31f(e)(3); calculate NMOC emissions using a higher tier in 40 CFR 60.35f; or conduct a surface emission monitoring demonstration using the procedures specified in 40 CFR 60.35f(a)(6). Submitted design plans shall be reviewed by the Division pursuant to the procedures in 40 CFR 60.38f(d)(5) and (6).

- (f) The collection and control system may be capped, removed, or decommissioned if the following criteria are met:
- (1) The landfill is a closed landfill as defined in 40 CFR 60.41f. A closure report shall be submitted to the Division as provided in 15A NCAC 02D .1708(f).
 - (2) The collection and control system has been in operation a minimum of 15 years or the landfill owner or operator demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flow.
 - (3) Following the procedures specified in 40 CFR 60.35f(b), the calculated NMOC emission rate at the landfill is less than 34 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.
 - (4) For the closed landfill subcategory as defined in 40 CFR 60.41f, following the procedures specified in 40 CFR 60.35f(b), the calculated NMOC emission rate at the landfill is less than 50 megagrams per year on three successive test dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 143-215.107(a)(10);
Eff. July 1, 1998;
Amended Eff. July 1, 2000;
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15A NCAC 02D .1704 TEST METHODS AND PROCEDURES

The MSW landfill NMOC emission rate shall be calculated, or a surface emission monitoring demonstration be conducted, by following the procedures in 40 CFR 60.35f, as applicable, to determine whether the landfill meets the conditions of 15A NCAC 02D .1703(a)(3) or (4). The owner or operator shall submit reports following the procedures pursuant to 60.38f(j).

History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10);
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Amended Eff. July 1, 2021.

15A NCAC 02D .1705 OPERATIONAL STANDARDS

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

- (1) operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for:
 - (a) five years or more if active; or
 - (b) two years or more if closed or at final grade;
- (2) operate the collection system with negative pressure at each wellhead except under the following conditions:
 - (a) for a fire or increased well temperature, the owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in 40 CFR 60.38f(h)(1);
 - (b) for the use of a geomembrane or synthetic cover, the owner or operator shall develop acceptable pressure limits in the design plan; and
 - (c) for a decommissioned well, a well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be approved by the Division as specified in 40 CFR 60.38f(d);
- (3) operate each interior wellhead in the collection system with a landfill gas temperature less than 55 degrees Celsius (131 degrees Fahrenheit). The owner or operator may establish a higher operating temperature value at a particular well. A higher operating value demonstration shall be submitted to the Division for approval and shall include supporting data demonstrating that the elevated parameter neither causes fires nor inhibits anaerobic decomposition by killing methanogens;
- (4) operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner and operator shall conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in 40 CFR 60.36f(d). The owner or operator shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at no more than 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover and all cover penetrations. The owner or operator shall monitor any openings that are within an area of the landfill where waste has been placed and a gas collection system is required. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded upon request of the owner or operator from the surface testing;
- (5) operate the collection system such that all collected gases are vented to a control system designed and operated in compliance with 40 CFR 60.33f(c). In the event that the gas collection and control system is not operating, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within one hour of the collection or control system not operating;
- (6) operate the control system at all times when the collected gas is routed to the system; and
- (7) if monitoring demonstrates that the operational requirements in Item (2), (3), or (4) of this Rule are not met, corrective action shall be taken as specified in 40 CFR 60.36f(a)(3) and (a)(5) or (c). If corrective actions are taken as specified in 40 CFR 60.36f, the monitored exceedance shall not be a violation of the operational requirements in this Rule.

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

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(5); 143-215.107(a)(10);
Eff. July 1, 1998;
Readopted Eff. October 1, 2020;
Amended Eff. July 1, 2021.*

15A NCAC 02D .1706 COMPLIANCE PROVISIONS

- (a) Compliance with 15A NCAC 02D .1703(b) shall be determined using the gas collection system compliance provisions of 40 CFR 60.36f(a).
- (b) Compliance with 15A NCAC 02D .1705(1) shall be determined using the controlled landfill gas well and design component provisions of 40 CFR 60.36f(b).
- (c) Compliance with the surface methane operational standards of 15A NCAC 02D .1705(4) shall be determined using the procedures of 40 CFR 60.36f(c).
- (d) To comply with the provisions in Paragraph (c) of this Rule or 40 CFR 60.35f(a)(6), the owner or operator shall comply with the instrumentation specifications and procedures for surface emission monitoring devices provisions of 40 CFR 60.36f(d).
- (e) The provisions of this Rule apply, except during periods of start-up, shutdown, or malfunction. During periods of startup, shutdown, and malfunction, the owner or operator shall comply with the work practice specified in 40 CFR 60.34f(e) in lieu of the compliance provisions in 40 CFR 60.36f.
- (f) The owner or operator may choose to comply with the provisions of 40 CFR 63.1960 in lieu of Paragraphs (a) through (e) of this Rule. Once the owner or operator begins to comply with the provisions of 40 CFR 63.1960, the owner or operator shall continue to operate the collection and control device according to those provisions and shall not return to the provisions of this Rule.
- (g) Compliance with the specifications for active collection systems in 15A NCAC 02D .1703(b) shall be determined using the provisions of 40 CFR 60.40f(a) and (b).
- (h) Compliance with the specifications for active collection systems in 15A NCAC 02D .1703(c) shall be determined using the provisions of 40 CFR 60.40f(c).

History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10);
Eff. July 1, 1998;
Readopted Eff. October 1, 2020;
Amended Eff. July 1, 2021.

15A NCAC 02D .1707 MONITORING PROVISIONS

- (a) The owner or operator of a MSW landfill who is required to comply with 15A NCAC 02D .1703(b) for an active gas collection system shall perform the monitoring requirements as outlined in 40 CFR 60.37f(a).
- (b) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D .1703(c) using an enclosed combustor shall perform the monitoring requirements as outlined in 40 CFR 60.37f(b).
- (c) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D .1703(c) using a non-enclosed flare shall perform the monitoring requirements as outlined in 40 CFR 60.37f(c).
- (d) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D .1703(c) using a device other than a non-enclosed flare, an enclosed combustor, or treatment system shall comply with the provisions of 40 CFR 60.37f(d).
- (e) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D .1703(b) by installing a collection system that does not meet the specifications of 40 CFR 60.40f, or seeking to monitor alternative parameters to those required by 15A NCAC 02D .1704 through .1707 shall comply with the provisions of 40 CFR 60.37f(e).
- (f) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D .1705(4) for demonstrating compliance with the 500 parts per million surface methane operational standard shall do so in accordance with 40 CFR 60.37f(f).
- (g) The owner or operator of an MSW landfill seeking to comply with the provisions of 15A NCAC 02D .1703(c) shall do so in accordance with the provisions of 40 CFR 60.37f(g).
- (h) The monitoring requirements of Paragraphs (b), (c), (d), and (g) of this Rule apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with the monitoring system malfunctions, and required monitoring system quality assurance or quality control activities. A "monitoring system malfunction" is defined in 60.37f(h). Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions. Monitoring system repairs to return the monitoring system to operation in response to malfunctions shall be completed in accordance with 60.37f(h).
- (i) The owner or operator may choose to comply with the provisions of 40 CFR 63.19561 in lieu of Paragraphs (a) through (h) of this Rule. Once the owner or operator begins to comply with the provisions of 40 CFR 63.1961, the owner or operator shall continue to operate the collection and control device according to those provisions and shall not return to the provisions of this Rule.

History Note: Authority G.S. 143-215.3(a)(1); 143-215.66; 143-215.107(a)(5); 143-215.107(a)(10);
Eff. July 1, 1998;
Readopted Eff. October 1, 2020;
Amended Eff. July 1, 2021.

15A NCAC 02D .1708 REPORTING REQUIREMENTS

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

- (1) The initial design capacity report shall be submitted no later than 90 days after the effective date of the EPA approval of the State Plan pursuant to Section 111(d) of the Clean Air Act.
- (2) The initial design capacity report shall contain the information given in 40 CFR 60.38f(a)(1) and 40 CFR 60.38f(a)(2).

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

(c) The owner or operator of an existing MSW landfill subject to this Rule shall submit a NMOC emission report to the Director no later than 90 days after the effective date of EPA approval of the State plan pursuant to Section 111(d) of the Clean Air Act and annually thereafter, except as provided for in 40 CFR 60.38f(c). The NMOC emission rate report shall:

- (1) contain an annual or five-year estimate of the NMOC emission rate calculated using the formula and procedures provided in 40 CFR 60.35f(a) or (b), as applicable;
- (2) include all the data, calculations, sample reports, and measurements used to estimate the annual or five-year emissions; and
- (3) if the estimated NMOC emission rate as reported in the annual report is less than 34 megagrams per year in each of the next five consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next five-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimate waste acceptance rate for each year of the five years for which an NMOC emission rate is estimated. All data and calculations shall be provided. This estimate shall be revised at least once every five years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the five-year estimate, a revised five-year estimate shall be submitted. The revised estimate shall cover the five-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

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

(d) The owner or operator of an existing MSW landfill subject to 15A NCAC 02D .1703(b) shall submit a collection and control system design plan to the Director within one year of the first NMOC emission rate report, required under Paragraph (c) of this Rule, in which the emission rate equals or exceeds 34 megagrams per year, except as provided for in 40 CFR 60.38f(d)(4)(i), 60.38f(d)(4)(ii), and 60.38f(d)(4)(iii). The collection and control system design plan shall include:

- (1) a description of the collection and control system;
- (2) a description of any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions provided in this Rule; and
- (3) a description indicating how the plan conforms to specifications for active collection systems or a demonstration of sufficient alternative provisions as given in 40 CFR 60.40f.

(e) The owner or operator of an existing MSW landfill who has already submitted a design plan pursuant to Paragraph

(d) of this Rule, pursuant to 40 CFR Part 60, Subpart WWW, or a State plan implementing 40 CFR Part 60, Subpart Cc, shall submit a revised design plan that includes the information in Subparagraphs (d)(1) through (d)(3). The revised design plan shall be submitted to the Director as follows:

- (1) at least 90 days before expanding operations to an area not covered by the previously approved design plan; and
- (2) prior to installing or expanding the gas collection system in a way that is not consistent with the design plan that was submitted to the Director in Paragraph (d) of this Rule.

(f) The owner or operator of a controlled landfill shall submit a closure report to the Director within 30 days of cessation of waste acceptance. If a closure report has been submitted to the Director, no additional waste shall be placed into the landfill without first filing a notification of modification as described pursuant to 40 CFR 60.7(a)(4).

The Director may request such additional information to verify that permanent closure of the MSW landfill has taken place pursuant to the requirements of 40 CFR 258.60.

(g) The owner or operator of a controlled MSW landfill shall submit an equipment removal report 30 days prior to removal or cessation of operation of the control equipment according to 15A NCAC 02D .1703(f). The report shall contain the items listed in 40 CFR 60.38f(g). The Director may request such additional information to verify that all the conditions for removal in 40 CFR 60.33f(f) have been met.

(h) The owner or operator of a MSW landfill seeking to comply with 15A NCAC 02D .1703(b) using an active collection system designed in accordance with 40 CFR 60.33f(b) shall submit, following the procedures pursuant to 60.38f(j)(2), annual reports of the recorded information in 40 CFR 60.38f(h)(1) through (h)(7). The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. The initial performance test report shall be submitted by following the procedures pursuant to 60.38f(j)(1). Each owner or operator that chooses to comply with the operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706, and .1707 the owner or operator shall follow the semi-annual reporting requirements in 40 CFR 63.1981(h) in lieu of this Paragraph.

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

(j) The owner or operator of an existing MSW landfill shall submit a report within 60 days after the date of completing each performance test pursuant to 40 CFR 60.38f(j).

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

(l) The owner or operator of an affected landfill with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that has employed leachate recirculation or added liquids based on a Research, Development, and Demonstration permit within the last 10 years shall submit an annual report to the Director that includes the information pursuant to 40 CFR 60.38f(l)(1) through (l)(10). The annual report shall be submitted by following the procedures pursuant to 60.38f(j)(2).

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

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

*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); Eff. July 1, 1998;
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15A NCAC 02D .1709 RECORDKEEPING REQUIREMENTS

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

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

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

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

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

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

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

(h) The owner or operator of a MSW landfill subject to 15A NCAC 02D .1703(b) shall keep for the life of the collection system an up-to-date plot map pursuant to 40 CFR 60.768(d) showing existing and planned collectors in the system and provide unique identification location labels for each collector. Records of newly installed collectors shall be maintained pursuant to 40 CFR 60.36f(b) and documentation of asbestos-containing or nondegradable waste excluded from collection shall be kept pursuant to 40 CFR 60.40(a)(3)(i) and records of any nonproductive areas excluded from collection shall be kept pursuant to 40 CFR 60.40f(a)(3)(ii).

(i) The owner or operator of a MSW landfill subject to 15A NCAC 02D .1703(b) shall keep for at least five years accessible records of the following:

- (1) for each owner or operator that chooses to comply with the operational provisions of 40 CFR 63.1958, 63.1960, and 63.1961, as allowed by 15A NCAC 02D .1705, .1706, and .1707, the date upon which the owner or operator started complying with the provisions in 40 CFR 63.1958, 63.1960, and 63.1961, and records according to 40 CFR 63.1983(e)(1) through (e)(5) in lieu of Subparagraphs (2) through (4) of this Paragraph;
- (2) records of emissions from the collection and control system exceeding the operational standards pursuant to 40 CFR 60.34f, including the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance;
- (3) records of each wellhead temperature monitoring value of 55 degrees Celsius (131 degrees Fahrenheit) or above, each well head nitrogen level at or above 20 percent, and each wellhead oxygen level at or above five percent; and
- (4) records for any root cause analysis as provided in 40 CFR 60.39f(e)(3) through (e)(5).

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

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

(l) The owner or operator of a MSW landfill subject to the provisions of this Section shall keep for at least five years up-to-date, readily accessible records of all collection and control system monitoring data for the parameters measured in 40 CFR 60.37f(a)(1) through (a)(3).

(m) The owner or operator of a MSW landfill reporting leachate or other liquids addition pursuant to 15A NCAC 02D .1708(k) shall keep records of any engineering calculations or company records used to estimate the quantities or leachate or liquids added, the surface areas for which the leachate or liquids were applied, and the estimates of annual waste acceptance or total waste in place in the areas where leachate or liquids were applied.

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); 143-215.107(a)(10);
Eff. July 1, 1998;
Amended Eff. July 1, 2000;
Readopted Eff. October 1, 2020;
Amended Eff. July 1, 2021.

15A NCAC 02D .1710 COMPLIANCE SCHEDULES

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

- (1) submit a site-specific design plan for the gas collection and control system to the Director within 12 months of first exceeding the NMOC emission rate of 34 megagrams per year and 50 megagrams per year for the closed landfill subcategory; and
- (2) plan, award contracts, and install MSW landfill air emission collection and control system capable of meeting the emission standards established pursuant to 15A NCAC 02D .1703 within 30 months of the date when the conditions in 15A NCAC 02D .1703 (a)(3) are met.

*History Note: Authority G.S. 143-215.3(a)(1); 143-215.107(a)(4); 143-215.107(a)(5);
Eff. July 1, 1998;
Readopted Eff. October 1, 2020;
Amended Eff. July 1, 2021.*