ROY COOPER
Governor
MARY PENNY KELLEY
Secretary
MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

XXXXX xx, 2025

Amanda Lee
County Solid Waste Director
Cumberland County
698 Ann Street
Fayetteville, North Carolina 28301

SUBJECT: Air Quality Permit No. 08846T11
Facility ID: 2600161
Cumberland Co – Ann Street Landfill
Fayetteville
Cumberland County
Fee Class: Title V
PSD Class: Minor

Dear Ms. Lee:

In accordance with your completed Air Quality Permit Application for Renewal of your Title V permit, we are forwarding, herewith, Air Quality Permit No. 08846T11 authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been identified as such in the permit. Please note the requirements for the annual compliance certification are contained in General Condition P in Section 4. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official, it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to file a petition for contested case hearing in the North Carolina Office of Administrative Hearings. Information regarding the right, procedure, and time limit for permittees and other persons aggrieved to file such a petition is contained in the attached "Notice Regarding the Right to Contest a Division of Air Quality Permit Decision."

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to existing emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS

143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Cumberland County has triggered increment tracking under PM-10 and SO_2. However, this permit renewal does not consume or expand increments for any pollutants.

This Air Quality Permit shall be effective from XXXXXX, 2025, until XXXXXXX, 2030, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Massoud M. Eslambolchi at 919-707-8728, or massoud.eslambolchi@deq.nc.gov.

Sincerely yours,

Mark J. Cuilla, EIT, CPM, Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Brad Akers, EPA Region 4 (Permit and Review)
Laserfiche (2600161)

NOTICE REGARDING THE RIGHT TO CONTEST A DIVISION OF AIR QUALITY PERMIT DECISION

Right of the Permit Applicant or Permittee to File a Contested Case: Pursuant to NCGS 143-215.108(e), a permit applicant or permittee who is dissatisfied with the Division of Air Quality's decision on a permit application may commence a contested case by filing a petition under NCGS 150B-23 in the Office of Administrative Hearings within 30 days after the Division notifies the applicant or permittee of its decision. If the applicant or permittee does not file a petition within the required time, the Division's decision on the application is final and is not subject to review. The filing of a petition will stay the Division's decision until resolution of the contested case.

Right of Other Persons Aggrieved to File a Contested Case: Pursuant to NCGS 143-215.108(e1), a person other than an applicant or permittee who is a person aggrieved by the Division's decision on a permit application may commence a contested case by filing a petition under NCGS 150B-23 within 30 days after the Division provides notice of its decision on a permit application, as provided in NCGS 150B-23(f), or by posting the decision on a publicly available Web site. The filing of a petition under this subsection does not stay the Division's decision except as ordered by the administrative law judge under NCGS 150B-33(b).

General Filing Instructions: A petition for contested case hearing must be in the form of a written petition, conforming to NCGS 150B-23, and filed with the Office of Administrative Hearings, 1711 New Hope Church Road, Raleigh NC, 27609, along with a fee in an amount provided in NCGS 150B-23.2. A petition for contested case hearing form may be obtained upon request from the Office of Administrative Hearings or on its website at https://www.oah.nc.gov/hearings-division/filing/hearing-forms. Additional specific instructions for filing a petition are set forth at 26 NCAC Chapter 03.

Service Instructions: A party filing a contested case is required to serve a copy of the petition, by any means authorized under 26 NCAC 03 .0102, on the process agent for the Department of Environmental Quality:

William F. Lane, General Counsel
North Carolina Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

If the party filing the petition is a person aggrieved other than the permittee or permit applicant, the party **must also** serve the permittee in accordance with NCGS 150B-23(a).

* * *

Additional information is available at https://www.oah.nc.gov/hearings-division/hearing-process/filing-contested-case. Please contact the OAH at 984-236-1850 or oah.postmaster@oah.nc.gov with all questions regarding the filing fee and/or the details of the filing process.

Summary of Changes to Permit

The following changes were made to Air Permit No. 08846T10:*

Pages	Section	Description of Changes
--	Cover page and throughout permit	Updated all dates and permit revision numbers. Updated responsible official last name.
Pg. 3 of cover letter	Cover page	Added "Notice Regarding the Right To Contest A Division Of Air Quality Permit Decision" page.
Pg. 3 of cover letter	Summary of Changes to Permit Page	Added summary of changes made to the permit according to the most recent requirements of the renewed Title V permit.
Pg. 1 of Permit	Cover page of permit	Updated all dates, application numbers and permit revision numbers.
Pg. 2 of Permit	Table of Contents	• Added Section 3.0 as "Insignificant Activities List". • Added Section 4.0 as "General Permit Conditions".
Pg. 3 of Permit	Body of Permit	Added "List of Acronyms".
Pg. 6	Section 2.1 A.3	Updated the NSPS XXX conditions with the regulatory revisions.
Pg. 17	Section 2.1 A.5	Updated MACT AAAA conditions with the regulatory revisions.
Pg. 29	Section 2.1 A.7	Added the condition for "Disclosure of Information Relating to Emissions of Fluorinated Chemicals".
Pg. 30	Section 3	Moved Insignificant Activities List to Section 3.
Pg. 31	Section 4	Updated General Condition to most current (version 8.0, 7/10/2024) – Moved to New Section 4.

* This list is not intended to be a detailed record of every change made to the permit but a summary of those changes.

State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
08846T11	08846T10	XXXXX, 2025	XXXXX 2030

NOTE: Per General Condition K, a permit application for the renewal of this Title V permit shall be submitted no later than (six month prior to expiration).

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee:	**Cumberland Co. - Ann Street Landfill**
Facility ID:	**2600161**
Primary SIC Code:	**4953**
NAICS Code:	**562212**
Facility Site Location:	**698 Ann Street**
City, County, State, Zip:	**Fayetteville, Cumberland County, NC 28301**
Mailing Address:	**698 Ann Street**
City, State, Zip:	**Fayetteville, NC 28301**
Application Number(s):	**2600161.21A**
Complete Application Date(s):	**June 09, 2021**
Division of Air Quality, Regional Office Address:	**Fayetteville Regional Office Systel Building 225 Green Street, Suite 714 Fayetteville, NC 28301**

Permit issued this the XX day of XXXXX, 2025.

Mark J. Cuilla, EIT, CPM, Chief, Air Permitting Section
By Authority of the Environmental Management Commission

Table of Contents

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CEDRI	Compliance and Emissions Data Reporting Interface
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
CSAPR	Cross-State Air Pollution Rule
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
GHGs	Greenhouse Gases
HAP	Hazardous Air Pollutant
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
OAH	Office of Administrative Hearings
PAE	Projected Actual Emissions
PAL	Plantwide Applicability Limitation
PM	Particulate Matter
$PM_{2.5}$	Particulate Matter with Nominal Aerodynamic Diameter of 2.5 Micrometers or Less
PM_{10}	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	Tons Per Year
VOC	Volatile Organic Compound

SECTION 1 - PERMITTED EMISSION SOURCE(S) AND ASSOCIATED AIR POLLUTION CONTROL DEVICE(S) AND APPURTENANCES

The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-1 **NSPS XXX** **NESHAP M** **MACT AAAA**	Municipal Solid Waste Landfill (closed portion)	CD-GCCS1	One landfill gas collection and control system
		CD-2	One landfill gas-fired candlestick-type flare (2,500 scfm gas flow rate)
ES-3 **NSPS XXX** **NESHAP M** **MACT AAAA**	Municipal Solid Waste Landfill (active portion)	CD-GasTreatment	One landfill gas treatment system that compresses, filters, dewaters (refrigeration) the landfill gas prior to offsite sale

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1 Emission Source(s) and Control Devices(s) Specific Limitations and Conditions

The emission source(s) and associated air pollution control device(s) and appurtenances listed below are subject to the following specific terms, conditions, and limitations, including the testing, monitoring, recordkeeping, and reporting requirements as specified herein:

A. Municipal solid waste landfill (ID Nos. ES-1 and ES-3) with associated landfill gas collection system (ID No. CD-GCCS1) including one gas treatment system (ID No. CD-GasTreatment), and one candlestick-type flare (ID No. CD-2)

The following table provides a summary of limits and standards for the emission source(s) described above:

Pollutant	Limits/Standards	Applicable Regulation
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Non-Methane Organic Compounds (NMOC)	As Applicable: Route landfill gas to a flare designed in accordance with 40 CFR Part 60, §60.18, or Route landfill gas to an enclosed combustion device that reduces the outlet NMOC emissions by 98 weight percent to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen, or Route the collected landfill gas to a landfill gas treatment system that processes the collected gas for subsequent sale or use	15A NCAC 02D .0524 40 CFR 60, Subpart XXX
Asbestos	Waste disposal management practices	15A NCAC 02D .1110 40 CFR 61, Subpart M
Hazardous Air Pollutants (HAP)	Route landfill gas to a non-enclosed flare designed in accordance with 40 CFR 60.18, or Route landfill gas to an enclosed combustion device that reduces NMOC emissions by 98 weight percent or reduces the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen, or Route the collected landfill gas to a landfill gas treatment system that processes the collected gas for subsequent sale or use	15A NCAC 02D .1111 40 CFR Part 63, Subpart AAAA
Odorous Emissions	**State-enforceable only** Apply suitable control measures	15A NCAC 02D .1806
-	**State-enforceable only** Section 2.1 A.7	15A NCAC 02Q .0308(a)(1) and 15A NCAC 02Q .0309(b)

1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from these sources (**ID No. CD-2**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 2Q. 0508(f)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q. 0508(f)]

c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of landfill gas in these sources **(ID No. CD-2**).

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources **(ID No. CD-2)** shall not be more than 20 percent opacity each when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0508(f)]

c. No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of landfill gas in these sources **(ID No. CD-2)**.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR 60, Subpart XXX – Municipal Solid Waste Landfills)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart XXX, including Subpart A "General Provisions." [15A NCAC 02D .0524]

Standards for Air Emissions from Municipal Solid Waste Landfills [40 CFR 60.762, 15A NCAC 02Q .0508(b)]

b. 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, must either comply with paragraph (b)(i) of this section or calculate an NMOC emission rate for the landfill using the procedures specified in 40 CFR 60.764. The NMOC emission rate must be recalculated annually, except as provided in 40 CFR 60.767(b)(1)(ii).

i. If the calculated NMOC emission rate is equal to or greater than 34 megagrams per year, the Permittee shall: Submit a collection and control system design plan prepared by a professional engineer who is registered in the State of North Carolina within one year of the first NMOC emission rate report in which the NMOC emission rate equals or exceeds 34 megagrams per year, except as follows:
The collection and control system as described in the plan shall meet the design requirements of Section 2.1 A.3b.i.(A) below.

(A) The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of 40 CFR 40 CFR 60.763 through 60.768 proposed by the Permittee.

(B) The collection and control system design plan shall either conform with specifications for active collection systems in 40 CFR 60.769 or include a demonstration to the DAQ's satisfaction of the sufficiency of the alternative provisions to 40 CFR 60.769.

ii. Install a collection and control system that captures the gas generated within the landfill as required by paragraphs (b)(2)(ii)(C) or (D) and (b)(2)(iii) of 40 CFR 60.762 within 30 months after the first report in which the NMOC emission rate equals or exceeds 34 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrates that the emission rate is less than 34 megagrams per year, as specified in 40 CFR 60.767(c)(4) or 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 60.767(c)(4)(iii).
   (A) An active collection system shall:
      (1) be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control or treatment system equipment;
      (2) collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of
         (i) 5 years or more if active; or
         (ii) 2 years or more if closed or at final grade.
      (3) collect gas at a sufficient extraction rate; and
      (4) be designed to minimize off-site migration of subsurface gas.
   (B) A passive collection system shall:
      (1) comply with the provisions specified in 40 CFR 60.762(b)(2)(ii)(C); and
      (2) be installed with liners on the bottom and all sides in all areas in which gas is to be collected. The liners shall be installed as required under 40 CFR 258.40.

iii. Route all the collected gas to a control system that complies with the requirements in either Section 2.1 A.3 b.iii. (A), (B) or (C) below.
   (A) An open flare designed and operated in accordance with 40 CFR 60.18 except as noted in 40 CFR 60.764(e);
   (B) A control system designed and operated to 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 3 percent oxygen. The reduction efficiency or 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 method specified in 40 CFR 60.764(d).
      (1) If a boiler or process heater is used as the control device, the landfill gas stream shall be introduced into the flame zone.
      (2) 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 are specified in 40 CFR 60.766;
   (C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use. All emissions from any atmospheric vent from the gas treatment system shall be subject to the requirements of Section 2.1 A.3iii.(A) or (B) above.

iv. Operate the collection and control device installed to comply with this subpart in accordance with the provisions of 40 CFR 60.763, 60.765 and 60.766.

Operational Standards for Collection and Control Systems [40 CFR 60.763**,** 15A NCAC 02Q .0508(b)]

c. Each owner operator of an MSW landfill with a gas collection and control system used to comply with 40 CFR 60.762 must operate the collection and control system **(ID Nos. CD-GCCS1 and CD-2)** in accordance with the following standards:
   i. 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 5 years or more if active, or 2 years or more if closed or at final grade.
   ii. Operate the collection system with negative pressure at each wellhead except under the following conditions:
      (A) A fire or increased well temperature. The Permittee 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 Section 2.1 A.3.x.i below.
      (B) Use of a geomembrane or synthetic cover. The Permittee shall develop acceptable pressure limits in the design plan;
      (C) A decommissioned well. A well may experience a static positive pressure after shutdown to accommodate for declining flows. All design changes shall be approved by DAQ.

iii. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C. The Permittee may establish a higher operating temperature value at a particular well via a demonstration submitted to the DAQ Regional Office for approval. A higher operating value demonstration shall include supporting data showing that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

iv. Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill using an organic vapor analyzer, flame ionization detector or other portable monitor meeting the specifications of Section 2.1 A.3.g below. To determine if this level is exceeded, the facility shall conduct surface testing around the perimeter of the collection area and along a pattern that traverses the landfill at 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 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 from the surface testing.

v. Operate the system such that all collected gases are vented to a control system designed and operated in compliance with Section 2.1 A.3.b.iii above. In the event the collection or control system is inoperable, 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 1 hour; and

vi. Operate the control or treatment system at all times when the collected gas is routed to the system.

vii. If monitoring demonstrates that the operational requirements in Section 2.1 A.3.c.ii., iii. or iv above are not met, corrective action shall be taken as specified in Section 2.1 A.3.d.iii and A.3.d.iv or A.3.f of this section. If corrective actions are taken as specified in the compliance provisions specified in Section 2.1 A.3.d through h, the monitored exceedance is not a violation of the operational requirements in this section.

Compliance Provisions [40 CFR 60.765, 15A NCAC 02Q .0508(f)]

d. Unless the facility's collection and control system design include any alternatives to the monitoring provisions approved by the DAQ as provided in 40 CFR 60.767(c)(2), the following methods shall be used to determine whether the gas collection system is in compliance with Section 2.1 A.3.b above.

i. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with Section 2.1 A.3.b.ii of this section, the following equation shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and approved by the DAQ. If k has been determined by Tier 3 testing as specified in 40 CFR 60.764(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(A) For sites with known year-to year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^{n} 2kL_o M_i (e^{-kt_i})$$

where, Q_M = maximum expected gas generation flow rate, cubic meters per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
M_i = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years

(B) The Permittee may use actual flow data to project the maximum expected gas generation flow rate instead of, or in conjunction with the above equation. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equation above or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

ii. For the purposes of determining sufficient density of gas collectors for compliance with Section 2.1 A.3.b.ii above, the Permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the DAQ, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

iii. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with Section 2.1 A.3.b.ii.(A), the Permittee shall measure gauge pressure in the gas collection header at each individual well, monthly. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under Section 2.1 A.3.c.ii of this section. Any attempted corrective action shall not cause exceedances of other operational or performance standards.

(A) If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement of positive pressure, the Permittee shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured.

(B) If corrective actions cannot be fully implemented within 60 days, the Permittee shall conduct a corrective action plan analysis, and develop an implementation schedule to complete the corrective actions as soon as practicable, but no more than 120 days following the positive pressure measurement.

(C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the Permittee shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the DAQ according to Section 2.1 A.3.cc.

iv. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the Permittee shall monitor each well monthly for temperature as provided in Section 2.1 A.3.c.iii of this section. If a well exceeds the operating parameter for temperature, action shall be initiated to correct the exceedance within 5 calendar days. Any attempted corrective action shall not cause exceedances of other operational or performance standards.

If correction of the temperature exceedance cannot be achieved within 15 calendar days of the first measurement, the Permittee shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after the temperature exceedance was first measured.

(A) If corrective actions cannot be fully implemented within 60 days, the Permittee shall conduct a corrective action plan analysis, and develop an implementation schedule to complete the corrective actions as soon as practicable, but no more than 120 days following the measurement of the temperature exceedance.

(B) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the Permittee shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the DAQ according to Section 2.1 A.3.cc.

v. The Permittee may establish a higher operating temperature value at a particular well provided that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens as described in Section 2.1 A.3.c.iii of this section. An alternative operating value, a parameter, and the well ID(s) along with supporting data shall be submitted to the DAQ Regional Office for approval.

vi. The Permittee seeking to demonstrate compliance with Section 2.1 A.3.b.ii.(A)(4) of this section through the use of a collection system not conforming to the specification provided in 40 CFR 60.769 shall provide information satisfactory to the DAQ as specified in 40 CFR 60.767(c)(3) demonstrating that off-site migration is being controlled.

e. For purposes of compliance with Section 2.1 A.3.c.i of this section, the Permittee shall place each well or design component as specified in the approved design plan as provided in 40 CFR 60.767(c). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:

i. 5 years or more if active; or

ii. 2 years or more if closed or at final grade.

f. The following procedures shall be used for compliance the surface methane operational standard as provided in Section 2.1 A.3.c.iv above.

i. The Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in Section 2.1 A.3.g of this section.

ii. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

iii. Surface emission monitoring shall be performed in accordance with section 8.3.1 of Method 21 of appendix A of this part, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

iv. Any reading of 500 parts per million or more above background at any location shall be recorded as a monitored exceedance and the actions specified in the following paragraphs, (A) through (E), shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of Section 2.1 A.3.c.iv.

(A) The location of each monitored exceedance shall be marked, and the location recorded.

(B) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance.

(C) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken, and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in paragraph (E) below shall be taken, and no further monitoring of that location is required until the action specified in paragraph (E) below has been taken.

(D) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in paragraph (B) or (C) above shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in paragraph (C) or (E) of this section shall be taken.

(E) For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation shall be submitted to the DAQ for approval.

v. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

g. The Permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:

i. The portable analyzer shall meet the instrument specifications provided in section 6 of Method 21 of appendix A of this part, except that “methane” shall replace all references to VOC.

ii. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

iii. To meet the performance evaluation requirements in section 8.1 of Method 21 of appendix A of this part, the instrument evaluation procedures of section 8.1 of Method 21 of appendix A of this part shall be used.

iv. The calibration procedures provided in sections 8 and 10 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.

h. The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction. During periods of startup, shutdown, and malfunction, the Permittee shall comply with the work practice specified in Section 2.1 A.3.c.v in lieu of the compliance provisions in Section 2.1 A.3.d through g of this section.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the above compliance provisions are not met.

Test Methods and Procedures [40 CFR 60.764, 15A NCAC 02Q .0508(f)]

i. When testing is required, the testing shall be performed in accordance with 40 CFR 60.764 and General Condition JJ located in Section 4 of this permit.

i. The following initial performance test shall be conducted for the flare **(ID No. CD-2)**:

(A) Within 180 days of the compliance date listed in Section A.3.b.ii., an initial performance test shall be conducted, and a written report of the results submitted, by verifying that the flare is designed and operated in accordance with 40 CFR 60.18.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these Test Methods and Procedures are not met.

Monitoring [15A NCAC 02Q .0508(f), 40 CFR 60.765 and 60.766]

j. Unless the facility's collection and control system design include any alternatives to the monitoring provisions approved by the DAQ as provided in 40 CFR 60.767(c)(2), the facility must meet the monitoring requirements as described in Section 2.1 A.3.j through p below. The Permittee shall monitor the following parameters at each wellhead:
   i. Measure the gauge pressure in the gas collection header on a monthly basis as provided in A.3.d.iii of this section;
   ii. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:
      (A) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established by DAQ under 40 CFR 60.767(c)(2).
      (B) Unless an alternative test method is approved by DAQ under 40 CFR 60.767(c)(2), the oxygen level shall be determined by an oxygen meter using Method 3A, 3C or ASTM D6522-11 (if sample location is prior to combustion) except that:
         (1) The span shall be set between 10 and 12 percent oxygen;
         (2) A data recorder is not required;
         (3) Only two calibration gases are required, a zero and span;
         (4) A calibration error check is not required;
         (5) The allowable sample bias, zero drift, and calibration drift are ±10 percent.
      (C) A portable gas composition analyzer may be used to monitor oxygen levels provided:
         (1) The analyzer is calibrated; and
         (2) The analyzer meets all quality assurance and quality control requirements for Method 3A or ASTM D6522-11.
   iii. Monitor temperature of the landfill gas on a monthly basis as provided in Section 2.1 A.3.d.iv, using a temperature measuring device that has been calibrated annually using the procedure in section 10.3 of Method 2 of appendix A-1 of this part; and
   iv. Monitor surface concentrations of methane along the entire perimeter of the collection area (or site-specific established spacing) for each collection area on a quarterly basis.

k. The Permittee shall install, calibrate, maintain, and operate according to the manufacture's specifications the following equipment when using an enclosed combustor:
   i. A temperature monitoring device equipped with a continuous recorder having a minimum accuracy of ± 1 percent of the temperature being measured in degrees Celsius or ± 5°C, whichever is greater.
      (A) A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.
   ii A device that records flow to and bypass of the control device. The Permittee shall:
      (A) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; and
      (B) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

l. The Permittee shall install, calibrate, maintain, and operate according to the manufacture's specifications the following equipment when using an open flare:
   i. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame.
   ii. A device that records flow to and bypass of the flare. The Permittee shall:
      (A) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; and
      (B) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

m. The Permittee shall maintain and operate all monitoring systems associated with the treatment system according to the site-specific monitoring plan required in Section 2.1 A.3.r.iii.(B) of this section, and shall install, calibrate,

maintain, and operate according to the manufacture's specifications the following equipment when using a landfill gas treatment system:

i. A device that records flow to or bypass of the treatment system. The Permittee shall:
   (A) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; and
   (B) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

n. Each owner or operator seeking to install a collection system that does not meet the active collection system specifications in 40 CFR 40 CFR 60.769, or seeking to monitor alternative parameters to those required by 40 CFR 60.763 through 60.766, shall provide information satisfactory to DAQ as provided in 40 CFR 60.767(c)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures.

o. The Permittee shall monitor surface concentrations of methane according to the procedures in Section 2.1 A.3.f and instrument specifications and procedure provided in Section 2.1 A.3.g of this section. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

p. The monitoring requirements of Section 2.1 A.3.k through Section 2.1 A.3.m of this section apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.
   i. A monitoring system malfunction shall be defined as any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures caused in part by poor maintenance or careless operation are not malfunctions.
   ii. The Permittee shall complete monitoring system repairs in response to monitoring system malfunctions and return the monitoring system to operation as expeditiously as practicable.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the above monitoring provisions are not met.

Recordkeeping requirements [40 CFR 60.768, 15A NCAC 02Q .0508(f)]

q. The Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered the standard of 2.5 million megagrams and 2.5 million cubic meters, 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 4 hours. Either paper copy or electronic formats are acceptable.

r. The Permittee shall keep up-to-date, readily accessible records for the life of the control system equipment of the data listed below in this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.
   i. In order to demonstrate compliance with paragraph Section 2.1 A.3.b through use of a gas collection and control system, the system shall be designed such that:
      (A) The maximum expected gas generation flow rate as calculated in Section 2.1 A.3.d.i of this section is adequately captured. The Permittee may use another method to determine the maximum gas generation flow rate, if the method has been approved by the DAQ.
      (B) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices can be determined using the procedures specified in 40 CFR 60.769(a)(1).
   ii. In order to demonstrate compliance with Section 2.1 A.3.b.iii through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 60.18; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame of the flare flame is absent.
   iii. In order to demonstrate compliance with Section 2.1 A.3.b.iii through use of a landfill gas treatment system:
      (A) Records of the flow of landfill gas to, and bypass of, the treatment system;
      (B) A site-specific treatment monitoring plan, to include:

(1) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records shall include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas;
(2) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas;
(3) Documentation of the monitoring methods and ranges, along with justification for their use;
(4) Identify person responsible (by job title) for data collection;
(5) Processes and methods used to collect the necessary data; and

(6) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

s. The Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Section 2.1 A.3.j through Section 2.1 A.3.p as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.
   i. The Permittee shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified in Section 2.1 A.3.k through Section A.3.m of this section.
   ii. The Permittee using an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified in Section 2.1 A.3.l of this section, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
   iii. The permittee shall keep records of periods when the collection system or control device is not operating.

t. The Permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
   i. Each owner or operator subject to the provisions of this subpart shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified in Section 2.1 A.3.e of this section.
   ii. Each owner or operator subject to the provisions of this subpart shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from collection as provided in 40 CFR 60.769(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 60.769(a)(3)(ii).

u. The Permittee shall keep for at least 5 years up-to-date, readily accessible records of the following:
   i. All collection and control system exceedances of the operational standards in Section 2.1 A.3.c of this section, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
   ii. Each wellhead temperature monitoring value of 55ºC or above, each wellhead nitrogen level at or above 20 percent, and each wellhead oxygen level at or above 5 percent.
   iii. For any root cause analysis for which corrective actions are required in Section 2.1 A.3.d.iii.(A) or Section A.3.d.iv.(A) of this section, keep a record of the root cause analysis conducted, including a description of the recommended corrective actions taken, and the dates the corrective actions were completed.
   iv. For any root cause analysis for which corrective actions are required in Section 2.1 A.3.d.iii.(B) or Section A.3.d.iv.(B) of this section, keep a record of the root cause analysis conducted, the corrective action analysis, the dates for corrective actions already completed following the positive pressure reading or high temperature reading, and a schedule for implementation for any corrective actions not already completed, including proposed commencement and completion dates.
   v. For any root cause analysis for which corrective actions are required in Section 2.1 A.3.d.iii.(C) or Section A.3.d.iv.(C) of this section, keep a record of the root cause analysis conducted, the corrective action analysis, the dates for corrective actions already completed following the positive pressure reading or high temperature reading, a schedule for implementation for any corrective actions not already completed, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the DAQ.

v. The Permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control monitoring data from Section 2.1 A.3.j of this section.

w. For any leachate or other liquids addition reported under Section 2.1 A.3.dd of this section, the Permittee shall keep records of any engineering calculations or company records used to estimate the quantities of 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.

x. Unless the facility's collection and control system design include any alternatives to the recordkeeping provisions approved by the DAQ as provided in 40 CFR 60.767(c)(2), the facility must meet the recordkeeping requirements as described in Section 2.1 A.3.q through w above.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the above recordkeeping requirements are not met.

Reporting [40 CFR 60.767]

y. The Permittee shall submit to DAQ annual reports of the recorded information listed below:
   i. Value and length of time for exceedance of applicable parameters monitored in Section 2.1 A.3.j through Section 2.1 A.3.m of this section.
   ii. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified in Section 2.1 A.3.k through Section 2.1 A.3.m of this section.
   iii. Description and duration of all periods when the control device was not operating, and length of time the control device was not operating.
   iv. All periods when the collection system was not operating.
   v. The location of each exceedance of the 500 parts per million methane concentration and the concentration recorded at each location for which an exceedance was recorded in the previous month.
      (A) The Permittee shall determine the latitude and longitude coordinates for the location, in decimal degrees with at least 5 decimal places, using an instrument with an accuracy of at least 4 meters.
   vi. The date of installation and the location of each well or collection system expansion added in accordance with Section 2.1 A.3.d.iii, Section 2.1 A.3.d.iv, Section 2.1 A.3.e and Section 2.1 A.3.f.iv of this section.
   vii. For any corrective action analysis for which corrective actions are required in Section 2.1 A.4.d.iii and iv, and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective actions, the dates for corrective actions already completed following the positive pressure reading, and, for actions not already completed, a schedule for implementation, including proposed commencement and completion dates.
   viii. Summary of all DAQ approved well closures that have been decommissioned in accordance with wells Section 2.1 A.3.c.ii.(C) of this section.
   ix. Summary of all DAQ approved nonproductive areas of the landfill in accordance with 40 CFR 60.769(a)(3)(ii).
   x. The initial annual report shall be submitted within 180 days of the compliance date, listed in Section 2.1 A.3.b.ii., for installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR 60.8. Note: the initial annual report was due on July 26, 2021 and the DAQ received the initial report with the initial performance test on July 22, 2021.

z. The Permittee shall submit a revised design plan to the DAQ for approval as follows:
   i. At least 90 days before expanding operations to an area not covered by the previously approved design plan;
   ii. 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 DAQ according to 40 CFR 60.767(c).

aa. The Permittee shall submit a closure report to the DAQ within 30 days of waste acceptance cessation. The DAQ may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the DAQ, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4).

bb. The Permittee shall submit an equipment removal report to the DAQ 30 days prior to removal or cessation of operation of the control equipment.
   i. The equipment removal report shall contain all of the following items:
      (A) A copy of the closure report submitted in accordance with paragraph z of this section;
      (B) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, or information that demonstrates that the GCCS will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process units tested, the pollutants tested, and the

date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's Central Data Exchange (CDX); and

(C) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 34 megagrams or greater of NMOC per year. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

ii. The DAQ may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 60.762(b)(2)(v) have been met.

cc. The Permittee shall submit reports to the EPA electronically according to 40 CFR 60.767(i)(1) and (2):

i. Within 60 days after the date of completing each performance test (as defined in 40 CFR 60.8), the Permittee shall submit the results of each performance test according to the following procedures:

(A) For data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT Web site (https://www3.epa.gov/ttn/chief/ert/ert_info.html) at the time of the test, you must submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI). CEDRI can be accessed through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/). Performance test data must be submitted in a file format generated through the use of the EPA's ERT or an alternative file format consistent with the extensible markup language (XML) schema listed on the EPA's ERT Web site, once the XML schema is available. If some of the performance test information being submitted is claimed as confidential business information (CBI), the Permittee shall follow the procedure in 40 CFR 60.767(i)(1)(i) for submittal.

(B) For data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT Web site at the time of the test, you must submit the results of the performance test to the Administrator at the appropriate address listed in 40 CFR 60.4.

ii. The Permittee shall submit reports as required by this paragraph to the EPA via the CEDRI. (CEDRI can be accessed through the EPA's CDX.) The owner or operator must use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI Web site (https://www3.epa.gov/ttn/chief/cedri/index.html). If the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the owner or operator must submit the report to the Administrator at the appropriate address listed in 40 CFR 60.4. Once the form has been available in CEDRI for 90 calendar days, the Permittee shall begin submitting all subsequent reports via CEDRI. The reports shall be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted.

dd. The Permittee shall submit, according to Section 2.1 A.3.d.iii.(C) and Section 2.1 A.3.d.iv.(C), the following.

i. For corrective action that is required according to Section 2.1 A.3.d.iii.(C) or Section 2.1 A.3.d.iv.(C) and is expected to take longer than 120 days after the initial exceedance to complete, you must submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the DAQ Regional Office as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 55 ºC (131 ºF). DAQ must approve the plan for corrective action and the corresponding timeline.

ii. For corrective action that is required according to Section 2.1 A.3.d.iii.(C) or iv.(C) and is not completed within 60 days after the initial exceedance, you must submit a notification to the DAQ Regional Office as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

ee. For affected landfills with a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters that have employed leachate recirculation, or added liquids based on a Research, Development, and Demonstration permit (issued through Resource Conservation and Recovery Act, subtitle D, part 258) within the last 10 years, the Permittee shall submit to the Administrator annually, following the procedure specified in Section 2.1 A.3.bb.ii above, the following information:

i. Volume of leachate recirculated (gallons per year) and the reported basis of those estimates (records or engineering estimates).

ii. Total volume of all other liquids added (gallons per year) and the reported basis of those estimates (records or engineering estimates).

iii. Surface area (acres) over which the leachate is recirculated (or otherwise applied).

iv. Surface area (acres) over which any other liquids are applied.

v. The total waste disposed (megagrams) in the areas with recirculated leachate and/or added liquids based on on-site records to the extent data are available, or engineering estimates and the reported basis of those estimates.

vi. The annual waste acceptance rates (megagrams per year) in the areas with recirculated leachate and/or added liquids, based on on-site records to the extent data are available, or engineering estimates.

vii. The initial report must contain items in Section 2.1 A.3.ee.i through Section 2.1 A.3.ee.vi of this section per year for the initial annual reporting period as well as for each of the previous 10 years, to the extent historical data are available in on-site records, and the report must be submitted no later than:

(A) September 27, 2017, for landfills that commenced construction, modification, or reconstruction after July 17, 2014 but before August 29, 2016 containing data for the first 12 months after August 29, 2016; or

(B) Thirteen (13) months after the date of commenced construction, modification, or reconstruction for landfills that commence construction, modification, or reconstruction after August 29, 2016 containing data for the first 12 months after August 29, 2016.

viii. Subsequent annual reports must contain items in Section 2.1 A.3.ee.i through Section 2.1 A.3.ee.vi of this section for the 365-day period following the 365-day period included in the previous annual report, and the report must be submitted no later than 365 days after the date the previous report was submitted.

ix. Landfills may cease annual reporting of items in paragraphs Section 2.1 A.3.ee.i through Section 2.1 A.3.ee.vii of this section once they have submitted the closure report in Section 2.1 A.3.bb of this section.

ff. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .1110: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (40 CFR 61, Subpart M – Asbestos)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1110 "National Emission Standards for Hazardous Pollutants" as promulgated in 40 CFR Part 61, Subpart M "National Emission Standard for Asbestos", including Subpart A "General Provisions."

Applicability [40 CFR 61.140 and 61.141]

b. Municipal Solid Waste Landfill **(ID No. ES-1)** is subject to this provision if the source is considered active waste disposal site. The site is considered active if asbestos-containing waste material has been deposited within the past year.

Testing [15A NCAC 02Q .0508(f)]

c. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this testing are above the applicable limits in 40 CFR 61.154, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1110.

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f), 40 CFR 61.154]

d. The Permittee shall comply with at least one of the following:

i. Ensure that there are no visible emissions from any active waste disposal site; OR

ii. Use an alternative emissions control method that has received prior written approval by the Administrator according to the procedures described in 40 CFR 61.149(c)(2); OR

iii. At the end of each operating day (or at least once every 24-hour period while the site is in continuous operation), the asbestos-containing waste material that has been deposited at the site during the operating day or previous 24-hour period shall:

(A) Be covered with at least 15 centimeters (6 inches) of compacted nonasbestos-containing material; OR

(B) Be covered with a resinous or petroleum-based dust suppression agent that effectively binds dust and controls wind erosion. Such an agent shall be used in the manner and frequency recommended for the particular dust by the dust suppression agent manufacturer to achieve and maintain dust control. Other equally effective dust suppression agents may be used upon prior approval by the Administrator. For purposes of this paragraph, any used, spent, or other waste oil is not considered a dust suppression agent.

e. If the Permittee uses an option other than in Section 2.1 A.4.d.iii, above, the Permittee shall install signs and barriers that meet the requirements of 40 CFR 61.154(b).

f. For all asbestos-containing waste material received, the Permittee shall:

i. Maintain waste shipment records, using a form similar to that shown in Figure 4 of Subpart M, and include the following information:

(A) The name, address, and telephone number of the waste generator.
(B) The name, address, and telephone number of the transporter(s).
(C) The quantity of the asbestos-containing waste material in cubic meters (cubic yards).
(D) The presence of improperly enclosed or uncovered waste, or any asbestos-containing waste material not sealed in leak-tight containers. Report in writing to the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the disposal site, by the following working day, the presence of a significant amount of improperly enclosed or uncovered waste. Submit a copy of the waste shipment record along with the report.
(E) The date of the receipt.

ii. As soon as possible and no longer than 30 days after receipt of the waste, send a copy of the signed waste shipment record to the waste generator.
iii. Upon discovering a discrepancy between the quantity of waste designated on the waste shipment records and the quantity actually received, attempt to reconcile the discrepancy with the waste generator. If the discrepancy is not resolved within 15 days after receiving the waste, immediately report in writing to the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the waste generator (identified in the waste shipment record), and, if different, the local, State, or EPA Regional Office responsible for administering the asbestos NESHAP program for the disposal site. Describe the discrepancy and attempts to reconcile it, and submit a copy of the waste shipment record along with the report.
iv. Retain a copy of all records and reports required by this paragraph for at least 2 years.

g. The Permittee shall maintain records of the location, depth and area and quantity in cubic meters (or cubic yards) of asbestos-containing waste material within the disposal site on a map or diagram of the disposal area until closure of the landfill.
h. Upon closure, the Permittee shall:
i. Comply with all the provisions of 40 CFR 61.151; AND
ii. Submit a copy of records of asbestos waste disposal locations and quantities.

If the Permittee does not comply with the monitoring and recordkeeping requirements in Section 2.1 A.4.d through h above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1110.

Reporting [15A NCAC 02Q .0508(f), 40 CFR 61.154(i) and (j)]

i. Upon request, the Permittee shall provide all records required under this subpart and make available during normal business hours for inspection by the DAQ.
j. The Permittee shall notify the DAQ Regional Office in writing at least 45 days prior to excavating or otherwise disturbing any asbestos-containing waste material that has been deposited at a waste disposal site and is covered. If the excavation will begin on a date other than the one contained in the original notice, notice of the new start date must be provided to the DAQ at least 10 working days before excavation begins and in no event shall excavation begin earlier than the date specified in the original notification. Include the following information in the notice:
i. Scheduled starting and completion dates.
ii. Reason for disturbing the waste.
iii. Procedures to be used to control emissions during the excavation, storage, transport, and ultimate disposal of the excavated asbestos-containing waste material. If deemed necessary, the Administrator may require changes in the emission control procedures to be used.
iv. Location of any temporary storage site and the final disposal site.

5. 15A NCAC 02D .1111: MAXIMUM ACHIVABLE CONTROL TECHNOLOGY (40 CFR Part 63, Subpart AAAA – Municipal Solid Waste Landfills)

a. For all sources located at this facility, the Permittee shall comply with all applicable provisions contained in Environmental Management Commission Standard 15A NCAC 02D .1111, “Maximum Achievable Control Technology” (MACT) as promulgated in 40 CFR Part 63, Subpart AAAA, including Subpart A, "General Provisions."
b. Any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions that have already been approved under 40 CFR 60, Subpart WWW; Subpart XXX; a federal plan; or an EPA-approved and effective state or tribal plan, can be used to comply with this subpart. The collection and control system design plan may include for approval, collection and control systems that include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping, or reporting provisions, as provided in 40 CFR 63.1981(d)(2). [40 CFR 63.1955(a)]

c. The Permittee shall meet the requirements of this subpart. The requirements of this subpart apply at all times, including during periods of SSM. The SSM requirements of the General Provisions 40 CFR Part 63 do not apply. [40 CFR 63.1930(b)]
d. At all times, the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if the requirements of this subpart have been achieved. Determination of whether a source is operating in compliance with operation and maintenance requirements will be based on information available to the DAQ which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.1955(c)]
e. Compliance is determined using performance testing, collection system monitoring, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data collected under Section 2.1 A.5.s.i below are used to demonstrate compliance with the operating standards for control systems. If a deviation occurs, the Permittee will have failed to meet the control device operating standards and will have deviated from the requirements of this subpart. [40 CFR 63.1964]
The SSM provisions of 40 CFR 63.6(e) do not apply. Compliance with the emissions standards and the operating standards of Section 2.1 A.5.k.i through 2.1 A.5.k.vii below is required at all times.
f. The Permittee is no longer required to comply with the requirements of this subpart when the collection and control system removal criteria in Section 2.1 A.5.j below are met. [40 CFR 63.1950]

Requirements for Gas Collection and Control System Installation and Removal
[40 CFR 63.1957, and 63.1959]

g. The facility's collection and control system that captures the gas generated within the landfill shall meet the following requirements:
   i. Be designed to handle the maximum expected gas flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment;
   ii. Collect gas from each area, cell, or group of cells in the landfill in which the initial solid waste has been placed for a period of
      (A) 5 years or more if active; or
      (B) 2 years or more if closed or at final grade.
   iii. Collect gas at a sufficient extraction rate; and
   iv. Be designed to minimize off-site migration of subsurface gas.
h. The Permittee shall collect gas from the landfill **(ID No. ES-1, ES-2 and ES-3)** to a control system **(ID No. GCCS-1)** that routes all the collected gas to a control system that complies with the requirements in one of the following:
   i. The landfill gas-fired flare **(ID No. CD-2)** designed and operated in accordance with the parameters established in 40 CFR 63.11(b) except as noted in 40 CFR 63.1959(f); or
   ii. 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 ppmv, dry basis as hexane at 3-percent oxygen. The operating parameters to be monitored are specified in 40 CFR 63.1959(d).
   iii. Route the collected gas to the treatment system **(ID No. CD-GasTreatment)** that processes the collected gas for subsequent sale or beneficial use. The Permittee shall not vent treated landfill gas to the ambient air. If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to Section 2.1 A.5.h.i or ii above.
i. The Permittee shall operate the collection and control device in accordance with the provisions of 40 CFR 63.1958, 63.1960, and 63.1961.
j. The collection and control system may be capped, removed, or decommissioned if the following criteria are met:
   i. The landfill is a closed landfill. Closed landfill means a landfill in which solid waste is no longer being placed, and in which no additional solid wastes will be placed without first filing a notification of modification as prescribed under 40 CFR 63.9(b). Once a notification of modification has been filed, and additional solid waste is placed in the landfill, the landfill is no longer closed. A closure report shall be submitted to the DAQ as provided in Section 2.1 A.5.ii below;
   ii. The gas collection and control system has been in operation a minimum of 15 years or the Permittee demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flow; and
   iii. Following the procedures specified in 40 CFR 63.1959(c), the calculated NMOC emission rate at the landfill is less than 50 Mg/yr on three successive test dates. The test dates shall be no less than 90 days apart, and no more

than 180 days apart.

Operational Standards for Collection and Control Systems [40 CFR 63.1958]

k. The Permittee shall operate the collection and control system **(ID Nos. GCCS-1, CD-2 and CD-GasTreatment,)** in accordance with the following standards:
   i. 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 5 years or more if active, or 2 years or more if closed or at final grade.
   ii. Operate the collection system with negative pressure at each wellhead except under the following conditions:
      (A) A fire or increased well temperature. The Permittee shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the semi-annual reports as provided in Section 2.1 A.5.gg below;
      (B) Use of a geomembrane or synthetic cover. The Permittee shall develop acceptable pressure limits in the design plan;
      (C) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes must be approved by the DAQ.
   iii. Operate each interior wellhead in the collection system with a landfill gas temperature less than 62.8 °C (145 °F). The Permittee may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the DAQ Regional Office for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved.
   iv. Operate the collection system so that the methane concentration is less than 500 parts per million (ppm) above background at the surface of the landfill. To determine if this level is exceeded, the Permittee 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. The Permittee 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 from the surface testing.
      (A) The Permittee shall:
         (1) Conduct surface testing using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications of Section 2.1 A.5.o below.
         (2) Conduct surface testing at all cover penetrations. The Permittee shall monitor any cover penetrations that are within an area of the landfill where waste has been placed and a gas collection system is required.
         (3) Determine the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places.
   v. Operate the system such that all collected gases are vented to a control system designed and operated in compliance with Section 2.1 A.5.h above. In the event the collection or control system is not operating:
      (A) 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 must be closed within 1 hour of the collection or control system not operating; and
      (B) Efforts to repair the collection or control system shall be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system shall be returned to operation.
   vi. Operate the control system at all times when the collected gas is routed to the system.
   vii. If monitoring demonstrates that the operational requirements in Section 2.1 A.5.k.ii, iii, or iv above are not met, corrective action shall be taken as specified in Section 2.1 A.5.l.iii and 2.1 A.5.l.v, or 2.1 A.5.n below. If corrective actions are taken as specified in Section 2.1 A.5.l through p below, the monitored exceedance is not a deviation of the operational requirements in this section.

Compliance Provisions [40 CFR 63.1960]

l. Unless the facility's collection and control system design includes any alternatives to the monitoring provisions approved by DAQ as provided in 40 CFR 63.1981(d)(2), the following methods shall be used to determine whether the gas collection system is in compliance with Section 2.1 A.5.g above:
   i. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine

compliance with Section 2.1 A.5.g.i above, the following equation shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42) or other site-specific values demonstrated to be appropriate and approved by the DAQ. If k has been determined by Tier 3 testing as specified in 40 CFR 63.1959(a)(4), the value of k determined from the test must be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure.

(A) For sites with known year-to-year solid waste acceptance rate:

$$Q_m = \sum_{i=1}^{n} 2kL_oM_i\left(e^{-kt_i}\right)$$

Where: Q_m = maximum expected gas generation flow rate, cubic meters per year
k = methane generation rate constant, $year^{-1}$
L_o = methane generation potential, cubic meters per megagram solid waste
M_i = mass of solid waste in the i^{th} section, megagrams
t_i = age of the i^{th} section, years

(B) The Permittee may use actual flow data to project the maximum expected gas generation flow rate instead of, or in conjunction with, the above equation. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equation above or other methods shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

ii. For the purposes of determining sufficient density of gas collectors for compliance with Section 2.1 A.5.g.ii above, the Permittee shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the DAQ, capable of controlling and extracting gas from all portions of the landfill sufficient to meet all operational and performance standards.

iii. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with Section 2.1 A.5.g.iii above, the Permittee shall measure gauge pressure in the gas collection header applied to each individual well monthly. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the DAQ for approval. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 days, except for the three conditions allowed under Section 2.1 A.5.k.ii above.

(A) If negative pressure cannot be achieved without excess air infiltration within 15 days of the first measurement of positive pressure, the Permittee shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured.

(B) If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the Permittee shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective actions as soon as practicable, but no more than 120 days following the positive pressure measurement.

(C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the Permittee shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the DAQ, according to Section 2.1 A.5.kk below.

iv. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the Permittee shall monitor each well monthly for temperature. If a well exceeds the operating parameter for temperature as provided in Section 2.1 A.5.k.iii above, action shall be initiated to correct the exceedance within 5 days. Any attempted corrective measure shall not cause exceedances of other operational or performance standards.

(A) If a landfill gas temperature less than or equal to 62.8 °C (145 °F) cannot be achieved within 15 days of the first measurement of landfill gas temperature greater than 62.8 °C (145 °F), the Permittee shall conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after a landfill gas temperature greater than 62.8 °C (145 °F) was first measured.

(B) If corrective actions cannot be fully implemented within 60 days following the temperature measurement for which the root cause analysis was required, the Permittee shall also conduct a corrective action analysis and develop an implementation schedule to complete the corrective actions as soon as practicable, but no more than 120 days following the measurement of landfill gas temperature greater than 62.8 °C (145 °F).

(C) If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the Permittee shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the DAQ, according to Section 2.1 A.5.gg.vii and 2.1 A.5.kk below.

(D) If a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 °C (170 °F) and the carbon monoxide concentration measured, according to the procedures in Section 2.1 A.3.r.iv.(F) below is greater than or equal to 1,000 ppmv the corrective actions for the wellhead temperature standard (62.8 °C or 145 °F) shall be completed within 15 days.

v. When seeking to demonstrate compliance with Section 2.1 A.5.g.iv above, through the use of a collection system not conforming to the specifications provided in 40 CFR 63.1962, the Permittee shall provide information satisfactory to the DAQ as specified in 40 CFR 63.1981(c)(3) demonstrating that off-site migration is being controlled.

m. For purposes of compliance with Section 2.1 A.5.k.i above, the Permittee shall place each well or design component as specified in the approved design plan. Each well must be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of:
   i. 5 years or more if active; or
   ii. 2 years or more if closed or at final grade.

n. The following procedures shall be used for compliance with the surface methane operational standard as provided in Section 2.1 A.5.k.iv above:
   i. The Permittee shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in Section 2.1 A.5.o below.
   ii. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.
   iii. Surface emission monitoring shall be performed in accordance with section 8.3.1 of EPA Method 21 of appendix A-7 of part 60, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.
   iv. Any reading of 500 ppm or more above background at any location shall be recorded as a monitored exceedance and the actions specified in Section 2.1 A.5.n.iv.(A) through (E) below shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of Section 2.1 A.5.k.iv above.
      (A) The location of each monitored exceedance shall be marked and the location and concentration recorded. The location shall be recorded using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places.
      (B) Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 days of detecting the exceedance.
      (C) If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in Section 2.1 A.5.n.iv.(E) below shall be taken, and no further monitoring of that location is required until the action specified in Section 2.1 A.5.n.iv.(E) below has been taken.
      (D) Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in Section 2.1 A.5.n.iv.(B) or (C) above, shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows an exceedance, the actions specified in Section 2.1 A.5.n.iv.(C) or (E) above, shall be taken.
      (E) For any location where monitored methane concentration equals or exceeds 500 ppm above background three times within a quarterly period, a new well or other collection device shall be installed within 120 days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the DAQ for approval.
   v. The Permittee shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

o. The Permittee shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:
   i. The portable analyzer shall meet the instrument specifications provided in section 6 of EPA Method 21 of appendix A of part 60, except that “methane” replaces all references to “VOC”.
   ii. The calibration gas shall be methane, diluted to a nominal concentration of 500 ppm in air.
   iii. To meet the performance evaluation requirements in section 8.1 of EPA Method 21 of appendix A of part 60,

the instrument evaluation procedures of section 8.1 of EPA Method 21 of appendix A of part 60 shall be used.

iv. The calibration procedures provided in sections 8 and 10 of EPA Method 21 of appendix A of part 60 shall be followed immediately before commencing a surface monitoring survey.

p. The provisions of this subpart apply at all times, including periods of SSM. During periods of SSM, the Permittee shall comply with the work practice requirement specified in Section 2.1 A.5.k.v above in lieu of the compliance provisions in Section 2.1 A.5.l through o above.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the above compliance provisions are not met.

Test Methods and Procedures [15A NCAC 02D .1111, 40 CFR 63.1959]

q. When testing is required, the testing shall be performed in accordance with 40 CFR 63.1959 and General Condition JJ located in Section 3 of this permit. Additionally, the Permittee shall submit results of performance tests to the EPA following the procedures specified in Section 2.1 A.5.mm.i.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these requirements are not met.

Monitoring [15A NCAC 2Q .0508(f), 40 CFR 63.1961]

r. Unless the facility's collection and control system design includes any alternatives to the monitoring provisions approved by the DAQ as provided in 40 CFR 63.1981(d)(2), the facility must meet the monitoring requirements as described in paragraphs r through w below. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these monitoring requirements are not met. The Permittee shall monitor the following parameters at each wellhead:

i. Measure the gauge pressure in the gas collection header on a monthly basis as provided in Section 2.1 A.5.l.iii above; and

ii. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as follows:

(A) The nitrogen level shall be determined using EPA Method 3C, unless an alternative test method is established as allowed by 40 CFR 63.1981(d)(2).

(B) Unless an alternative test method is established as allowed by 40 CFR 63.1981(d)(2), the oxygen level shall be determined by an oxygen meter using EPA Method 3A or 3C or ASTM D6522-11 (if sample location is prior to combustion) except that:

(1) The span shall be set between 10 and 12 percent oxygen;
(2) A data recorder is not required;
(3) Only two calibration gases are required, a zero and span;
(4) A calibration error check is not required; and
(5) The allowable sample bias, zero drift, and calibration drift are ±10 percent.

(C) A portable gas composition analyzer may be used to monitor the oxygen levels provided:

(1) The analyzer is calibrated; and
(2) The analyzer meets all quality assurance and quality control requirements for EPA Method 3A or ASTM D6522-11.

iii. The Permittee shall monitor temperature of the landfill gas on a monthly basis as provided in Section 2.1 A.5.l.iv below. The temperature measuring device must be calibrated annually using the procedure in Section 10.3 of EPA Method 2. Keep records specified in Section 2.1 A.5.bb.

iv. Unless a higher operating temperature value has been approved by the DAQ, the Permittee shall initiate enhanced monitoring at each well with a measurement of landfill gas temperature greater than 62.8 °C (145 °F) as follows:

(A) Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well.

(B) Monitor oxygen concentration as provided in Section 2.1 A.5.r.ii above.

(C) Monitor temperature of the landfill gas at the wellhead as provided in Section 2.1 A.5.r.iii above.

(D) Monitor temperature of the landfill gas every 10 vertical feet of the well as provided in Section 2.1 A.5.r.v below.

(E) Monitor the methane concentration with a methane meter using EPA Method 3C, EPA Method 18, or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18.

(F) Monitor and determine carbon monoxide concentrations, as follows:

(1) Collect the sample from the wellhead sampling port in a passivated canister or multi-layer foil gas sampling bag (such as the Cali-5-Bond Bag) and analyze that sample using EPA Method 10 of 40 CFR

60, Appendix A-4, or an equivalent method with a detection limit of at least 100 ppmv of carbon monoxide in high concentrations of methane; or

(2) Collect and analyze the sample from the wellhead using EPA Method 10 of 40 CFR 60, Appendix A-4, to measure carbon monoxide concentrations.

(3) When sampling directly from the wellhead, the Permittee shall sample for 5 minutes plus twice the response time of the analyzer. These values shall be recorded. The five 1-minute averages are then averaged to give the carbon monoxide reading at the wellhead.

(4) When collecting samples in a passivated canister or multi-layer foil sampling bag, the Permittee shall sample for the period of time needed to assure that enough sample is collected to provide 5 consecutive, 1-minute samples during the analysis of the canister or bag contents, but no less than 5 minutes plus twice the response time of the analyzer. When analyzing canister or bag samples, the analysis will continue until a minimum of 5 consecutive, 1-minute averages recorded by the data acquisition system differ by no more than 7 ppm. The 5 consecutive, 1- minute averages are then averaged together to give a carbon monoxide value from the wellhead.

(G) The enhanced monitoring shall begin 7 days after the first measurement of landfill gas temperature greater than 62.8 °C (145 °F); and

(H) The enhanced monitoring shall be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the Permittee shall return to weekly monitoring.

(I) The enhanced monitoring can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value shall be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 °C (145 °F).

v. For each wellhead with a measurement of landfill gas temperature greater than or equal to 73.9 °C (165 °F), annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well.

s. The Permittee shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment when using open flare **(ID No. CD-2)**:

i. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself to indicate the continuous presence of a flame; and

ii. A device that records flow to the flare and bypass of the flare (if applicable). The Permittee shall:

(A) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the control device at least every 15 minutes; and

(B) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

t. The Permittee shall maintain and operate all monitoring systems associated with the treatment system **(ID No. CD-GasTreatment)** according to the site-specific treatment system monitoring plan required in Section 2.1 A.5.y.iii.(B) below, and shall install, calibrate, maintain, and operate according to the manufacturer's specifications the following equipment when using a landfill gas treatment system:

i. A device that records flow to and bypass of the treatment system (if applicable). The Permittee shall:

(A) Install, calibrate, and maintain a gas flow rate measuring device that records the flow to the treatment system at least every 15 minutes; and

(B) Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

u. When seeking to install a collection system that does <u>not meet</u> the active collection system specifications in 40 CFR 63.1962 or seeking to monitor alternative parameters to those required by 40 CFR 63.1958 through 40 CFR 63.1961 the Permittee shall provide information satisfactory to the DAQ as provided in 40 CFR 63.1981(d)(2) and (3) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The DAQ may specify additional appropriate monitoring procedures. The following alternative parameters and operating procedures have been approved:

i. The landfill may shut down a wellhead or consider a wellhead a non-MACT wellhead if the collector is equipped with more than one wellhead. As long as landfill gas extraction is continued in compliance with the MACT standards, this landfill may do so, and shall document any shut-down wellheads in the semi-annual

reports.

ii. Operate the collection and control system with a pressure at each wellhead of up to 5 inches of water column in areas that have a geomembrane or synthetic cover. [40 CFR 63.1958(b)(2)]

iii. After approval of a written request made to the Raleigh Regional Office, the landfill may exclude surface monitoring of dangerous areas [40 CFR 63.1958(d)(1)]. When the landfill deviates from the surface monitoring route in the design plan due to the dangerous area, the deviation shall be documented in the semi-annual reports.

v. The Permittee shall monitor surface concentrations of methane according to the procedures in Section 2.1 A.5.n and the instrument specifications in Section 2.1 A.3.o above.

i. The Permittee shall determine the latitude and longitude coordinates for the location of each exceedance using an instrument with an accuracy of at least 4 meters and the coordinates must be in decimal degrees with at least five decimal places. In the semi-annual report in Section 2.1 A.5.gg.v, the Permittee shall report the location of each exceedance of the 500-ppm methane concentration as provided in Section 2.1 A.5.k.iv above and the concentration recorded at each location for which an exceedance was recorded in the previous month. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring.

w. The monitoring requirements of Section 2.1 A.5.r, 2.1 A.5.s, and 2.1 A.5.t above, apply at all times the affected source is operating, except for periods of monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities.

i. A monitoring system malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring system to provide valid data. Monitoring system failures that are caused in part by poor maintenance or careless operation are not malfunctions.

ii. The Permittee shall complete monitoring system repairs in response to monitoring system malfunctions and to return the monitoring system to operation as expeditiously as practicable.

iii. The temperature and pressure operational standards in Section 2.1 A.5.k.iii, 2.1 A.5.k.iv, and 2.1 A.5.k.v above, apply at all times.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the above monitoring requirements are not met.

Recordkeeping [15A NCAC 2Q .0508(f), 40 CFR 63.1983]

x. Unless the facility's collection and control system design includes any alternatives to the recordkeeping provisions approved by the DAQ as provided in 40 CFR 63.1981(d)(2), the facility must meet the recordkeeping requirements in Table 1 of 40 CFR 63, Subpart AAAA as well as those described in paragraphs x through ee below. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these recordkeeping requirements are not met. The Permittee shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report that triggered the standard of 2.5 million megagrams and 2.5 million cubic meters, 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 4 hours. Either paper copy or electronic formats are acceptable.

y. The Permittee shall keep up-to-date, readily accessible records for the life of the control system equipment of the data listed below as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

i. In order to demonstrate compliance with Section 2.1 A.5.g above:

(A) The maximum expected gas generation flow rate as calculated in Section 2.1 A.5.l.i above.

(B) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in 40 CFR 63.1962(a)(1) and (2).

ii. In order to demonstrate compliance with Section 2.1 A.5.h.i above, through use of an open flare, the flare type (i.e., steam-assisted, air-assisted, or nonassisted), all visible emission readings, heat content determination, flow rate or bypass flow rate measurements, and exit velocity determinations made during the performance test as specified in 40 CFR 63.11; continuous records of the flare pilot flame or flare flame monitoring and records of all periods of operations during which the pilot flame or the flare flame is absent.

iii. In order to demonstrate compliance with Section 2.1 A.5.h.iii above, through use of a landfill gas treatment system:

(A) Records of the flow of landfill gas to, and bypass of, the treatment system.

(B) The Permittee shall prepare a site-specific treatment monitoring plan to include:

(1) Monitoring records of parameters that are identified in the treatment system monitoring plan and that ensure the treatment system is operating properly for each intended end use of the treated landfill gas. At a minimum, records should include records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly for each intended end use of the treated landfill gas.
(2) Monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis for each intended end use of the treated landfill gas.
(3) Documentation of the monitoring methods and ranges, along with justification for their use.
(4) List of responsible staff (by job title) for data collection.
(5) Processes and methods used to collect the necessary data; and
(6) Description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

z. The Permittee shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in Section 2.1 A.5.r through 2.1 A.5.w above, as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.
   i. The Permittee 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 configurations used to seal bypass lines, specified under Section 2.1 A.5.s.ii.(B) and Section 2.1 A.5.t.i.(B) above.
   ii. When using an open flare, the Permittee shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under Section 2.1 A.5.s above, and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
   iii. The Permittee shall keep records of periods when the collection system or control device is not operating.
   iv. In order to demonstrate compliance with the operational standard in Section 2.1 A.5.k.v above, the Permittee shall keep records of the date, time, and duration of each startup and/or shutdown period, recording the periods when the affected source was subject to the standard applicable to startup and shutdown.
   v. In order to demonstrate compliance with the operational standard in Section 2.1 A.5.k.v above, in the event that an affected unit fails to meet an applicable standard, the Permittee shall keep records of the following information:
      (A) For each failure; record the date, time and duration of each failure and the cause of such events (including unknown cause, if applicable).
      (B) For each failure to meet an applicable standard; record and retain a list of the affected sources or equipment.
      (C) Record actions taken to minimize emissions in accordance with the general duty of Section 2.1 A.5.d above and any corrective actions taken to return the affected unit to its normal or usual manner of operation.
   viii. In lieu of the requirements specified in 40 CFR 63.8(d)(3) of Subpart A, the Permittee shall keep the written procedures required by 40 CFR 63.8(d)(2) on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be made available for inspection, upon request, by the DAQ. If the performance evaluation plan is revised, the Permittee shall keep previous (*i.e.,* superseded) versions of the performance evaluation plan on record to be made available for inspection, upon request, by the DAQ, for a period of 5 years after each revision to the plan. The program of corrective action shall be included in the plan required under 40 CFR 63.8(d)(2).

aa. The Permittee shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.
   i. The Permittee shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under Section 2.1 A.5.m above.
   ii. The Permittee shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in 40 CFR 63.1962(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in 40 CFR 63.1962(a)(3)(ii).

bb. The Permittee shall keep for at least 5 years up-to-date, readily accessible records of the following:
   i. All collection and control system exceedances of the operational standards in Section 2.1 A.5.k.i through 2.1 A.5.k.vii above, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.
   ii. The Permittee shall keep records of each wellhead temperature monitoring value of greater than 62.8 °C (145 °F).

(A) The Permittee, when required to conduct the enhanced monitoring provisions in Section 2.1 A.5.r.iv above, shall keep records of all enhanced monitoring activities.
(B) The Permittee, when required to submit the 24-hour high temperature report in Section 2.1 A.5.ll below, shall keep a record of the email transmission.

iii. For any root cause analysis for which corrective actions are required in Section 2.1 A.5.l.iii.(A)(1) or Section 2.1 A.5.l.iv.(A)(1) above, keep a record of the root cause analysis conducted, including a description of the recommended corrective actions taken, and the dates the corrective actions were completed.

iv. For any root cause analysis for which corrective actions are required in Section 2.1 A.5.l.iii.(A)(2) or Section 2.1 A.5.l.iv.(A)(2) above, keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective actions already completed following the positive pressure reading or high temperature reading, and, for actions not already completed, a schedule for implementation, including proposed commencement and completion dates.

v. For any root cause analysis for which corrective actions are required in Section 2.1 A.5.l.iii.(A)(3) or Section 2.1 A.5.l.iv.(A)(3) above, keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective actions already completed following the positive pressure reading or high temperature reading, for actions not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the DAQ.

cc. The Permittee shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system monitoring data for parameters measured in Section 2.1 A.5.r.i through 2.1 A.5.r.iv above.

dd. To demonstrate compliance with the operational standard for temperature in Section 2.1 A.3.k.iii above, the Permittee shall keep the following records.
i. Records of the landfill gas temperature on a monthly basis as monitored in Section 2.1 A.5.l.iv above.
ii. Records of enhanced monitoring data at each well with a measurement of landfill gas temperature greater than 62.8 °C (145 °F) as gathered in Section 2.1 A.5.r.iv and 2.1 A.5.r.v above.

ee. Any records required to be maintained by this subpart that are submitted electronically via the EPA's CEDRI may be maintained in electronic format. This ability to maintain electronic copies does not affect the requirement for facilities to make records, data, and reports available upon request to the DAQ or the EPA as part of an on-site compliance evaluation.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the above recordkeeping requirements are not met.

Reporting [15A NCAC 2Q .0508(f), 40 CFR 63.1981]

ff. The Permittee shall submit the reports specified in this section and the reports specified in Table 1 to this subpart. Previously submitted initial design capacity reports, amended design capacity reports, initial NMOC emission rate reports, initial or revised collection and control system design plans, closure reports, equipment removal reports, or initial performance test reports submitted under 40 CFR 60, Subpart WWW; 40 CFR 60, Subpart XXX; or a federal plan or EPA-approved and effective state plan or tribal plan that implements either 40 CFR 60, Subpart Cc or 40 CFR 60, Subpart Cf, constitute compliance with the corresponding reporting requirements of this section. The Permittee does not need to re-submit the reports, however:
i. Permittee shall include a statement certifying prior submission of the respective reports and the date of submittal in the first semi-annual report required in this section.

gg. The Permittee shall submit to DAQ semi-annual reports of the recorded information listed below. The Permittee shall submit the report, following the procedure specified in Section 2.1 A.5.mm below:
i. Number of times that applicable parameters monitored under Section 2.1 A.5.k.ii, A.5.k.iii, and 2.1 A.5.k.iv above were exceeded and when the gas collection and control system was not operating under Section 2.1 A.5.k.v above, including periods of SSM. For each instance, report the date, time, and duration of each exceedance.
(A) To demonstrate compliance with the operational standard for temperature in Section 2.1 A.5.k.iii above, the Permittee shall provide a statement of the wellhead operational standard for temperature and oxygen being complied with for the period covered by the report. Indicate the number of times each of those parameters monitored under Section 2.1 A.5.r.iii above were exceeded. For each instance, report the date, time, and duration of each exceedance.
(B) The number of times the parameters for the site-specific treatment system in Section 2.1 A.5.t above were exceeded.

ii. Description and duration of all periods when the gas stream was diverted from the control device or treatment system through a bypass line or the indication of bypass flow as specified under Section 2.1 A.5.r through 2.1

A.5.w above.

iii. Description and duration of all periods when the control device or treatment system was not operating and length of time the control device or treatment system was not operating.

iv. All periods when the collection system was not operating.

v. The location of each exceedance of the 500-ppm methane concentration as provided in Section 2.1 A.5.k.iv above and the concentration recorded at each location for which an exceedance was recorded in the previous month. For location, record the latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters. The coordinates shall be in decimal degrees with at least five decimal places.

vi. The date of installation and the location of each well or collection system expansion added pursuant to Section 2.1 A.5.l.iii and iv, 2.1 A.5.m, and 2.1 A.5.n.iv above.

vii. For any corrective action analysis for which corrective actions are required in Section 2.1 A.5.l.iii.(A) or Section 2.1 A.5.i.v above and that take more than 60 days to correct the exceedance, the root cause analysis conducted, including a description of the recommended corrective actions, the date for corrective actions already completed following the positive pressure or high temperature reading, and, for actions not already completed, a schedule for implementation, including proposed commencement and completion dates.

viii. When required to conduct enhanced monitoring in Section 2.1 A.5.r.iv or Section 2.1 A.5.r.v above, the Permittee shall include the results of all monitoring activities conducted during the period.

(A) For each monitoring point, report the date, time, and well identifier along with the value and units of measure for oxygen, temperature (wellhead and downwell), methane, and carbon monoxide.

(B) Include a summary trend analysis for each well subject to the enhanced monitoring requirements to chart the weekly readings over time for oxygen, wellhead temperature, methane, and weekly or monthly readings over time, as applicable for carbon monoxide.

(C) Include the date, time, staff person name, and description of findings for each visual observation for subsurface oxidation event.

ix. Summary of all DAQ approved well closures that have been decommissioned in accordance with Section 2.1 A.5.k.ii(C) above.

x. Summary of all DAQ approved nonproductive areas of the landfill in accordance with 40 CFR 63.1962(a)(3)(ii).

xi. Summary of all shut down wellheads and deviations from the approved surface monitoring route as listed in Section 2.1 A.5.u.i and ii above.

hh. The Permittee shall submit a revised design plan to the DAQ for approval as follows:

i. At least 90 days before expanding operations to an area not covered by the previously approved design plan.

ii. 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 DAQ according to 40 CFR 63.1981(d).

ii. The Permittee shall submit a closure report to the DAQ within 30 days of waste acceptance cessation. The DAQ may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of 40 CFR 258.60. If a closure report has been submitted to the DAQ, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 63.9(b).

jj. The Permittee shall submit an equipment removal report to the DAQ 30 days prior to removal or cessation of operation of the control equipment.

i. The equipment removal report must contain all of the following items:

(A) A copy of the closure report submitted in accordance with Section 2.1 A.5.ii above;

(B) A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired, or information that demonstrates that the gas collection and control system will be unable to operate for 15 years due to declining gas flows. In the equipment removal report, the process units tested, the pollutants tested, and the date that such performance test was conducted may be submitted in lieu of the performance test report if the report has been previously submitted to the EPA's Central Data Exchange (CDX); and

(C) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 Mg or greater of NMOC per year. If the NMOC emission rate reports have been previously submitted to the EPA's CDX, a statement that the NMOC emission rate reports have been submitted electronically and the dates that the reports were submitted to the EPA's CDX may be submitted in the equipment removal report in lieu of the NMOC emission rate reports.

ii. The DAQ may request such additional information as may be necessary to verify that all of the conditions for removal in Section 2.1 A.3.j above, have been met.

kk. The Permittee shall submit the following information regarding corrective actions:

i. For corrective action that is required according to Section 2.1 A.5.l.iii or Section 2.1 A.5.l.iv above and is not

completed within 60 days after the initial exceedance, the Permittee shall submit a notification to the DAQ as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature exceedance.

ii. For corrective action that is required according to Section 2.1 A.5.l.iii or Section 2.1 A.5.l.iv above and is expected to take longer than 120 days after the initial exceedance to complete, The Permittee shall submit the root cause analysis, corrective action analysis, and corresponding implementation timeline to the DAQ as soon as practicable but no later than 75 days after the first measurement of positive pressure or temperature monitoring value of 62.8 °C (145 °F) or above. The DAQ must approve the plan for corrective action and the corresponding timeline.

ll. If a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 °C (170 °F) and the carbon monoxide concentration measured is greater than or equal to 1,000 ppmv, the Permittee shall report the date, time, well identifier, temperature and carbon monoxide reading via email to the DAQ Regional Office within 24 hours of the measurement unless a higher operating temperature value has been approved by the DAQ for the well.

mm. The Permittee shall submit reports electronically according to Section 2.1 A.5.mm.i and ii below:

i. Within 60 days after the date of completing each performance test required by this subpart, the Permittee shall submit the results of the performance test following the procedures specified in Section 2.1 A.5.mm.i.(A) through (C) below.

(A) Data collected using test methods supported by the EPA's Electronic Reporting Tool (ERT) as listed on the EPA's ERT website (https://www.epa.gov/electronic-reporting-air-emissions/electronic-reporting-tool-ert) at the time of the test. Submit the results of the performance test to the EPA via the Compliance and Emissions Data Reporting Interface (CEDRI), which can be accessed through the EPA's CDX (https://cdx.epa.gov/). The data shall be submitted in a file format generated through the use of the EPA's ERT. Alternatively, the Permittee may submit an electronic file consistent with the extensible markup language (XML) schema listed on the EPA's ERT website.

(B) Data collected using test methods that are not supported by the EPA's ERT as listed on the EPA's ERT website at the time of the test. The results of the performance test shall be included as an attachment in the ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the ERT generated package or alternative file to the EPA via CEDRI.

(C) If the Permittee claims some of the information submitted under 40 CFR 63.1981(a) is Confidential Business Information (CBI), the Permittee shall submit a complete file, including information claimed to be CBI, to the EPA. The file shall be generated through the use of the EPA's ERT or an alternate electronic file consistent with the XML schema listed on the EPA's ERT website. Submit the file on a compact disc, flash drive, or other commonly used electronic storage medium and clearly mark the medium as CBI. Mail the electronic medium to U.S. EPA/OAQPS/CORE CBI Office, Attention: Group Leader, Measurement Policy Group, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same file with the CBI omitted must be submitted to the EPA via the EPA's CDX as described in Section 2.1 A.5.mm.i.(A) above.

ii. The Permittee shall submit reports to the EPA via CEDRI. CEDRI can be accessed through the EPA's CDX. The Permittee shall use the appropriate electronic report in CEDRI for this subpart or an alternate electronic file format consistent with the XML schema listed on the CEDRI website (https://www.epa.gov/electronic-reporting-air-emissions/compliance-and-emissions-data-reporting-interface-cedri). Once the spreadsheet template upload/forms for the reports have been available in CEDRI for 90 days, the Permittee shall begin submitting all subsequent reports via CEDRI. The reports must be submitted by the deadlines specified in this subpart, regardless of the method in which the reports are submitted. The NMOC emission rate reports, semi-annual reports, and bioreactor 40-percent moisture reports should be electronically reported as a spreadsheet template upload/form to CEDRI. If the reporting forms specific to this subpart are not available in CEDRI at the time that the reports are due, the Permittee shall submit the reports to the Administrator at the appropriate address listed in 40 CFR 63.13.

iii. The Permittee may assert a claim of EPA system outage for failure to comply timely with the reporting requirement. To assert a claim of EPA system outage, the Permittee shall meet the following requirements:

(A) The Permittee shall have been or will be precluded from accessing CEDRI and submitting a required report within the time prescribed due to an outage of either the EPA's CEDRI or CDX systems.

(B) The outage shall have occurred within the period of time beginning 5 business days prior to the date that the submission is due.

(C) The outage may be planned or unplanned.

(D) The Permittee shall submit notification to the DAQ in writing as soon as possible following the date the Permittee first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.

(E) The Permittee shall provide to the DAQ a written description identifying:
(1) The dates and times when CDX or CEDRI was accessed and the system was unavailable;
(2) A rationale for attributing the delay in reporting beyond the regulatory deadline to EPA system outage;
(3) Measures taken or to be taken to minimize the delay in reporting; and
(4) The date by which the Permittee proposes to report, or the date reported if the reporting requirement has already been met at the time of the notification.
(F) The decision to accept the claim of EPA system outage and allow an extension to the reporting deadline is solely within the discretion of the DAQ.
(G) In any circumstance, the report shall be submitted electronically as soon as possible after the outage is resolved.

iv. The Permittee may assert a claim of force majeure for failure to comply timely with the reporting requirement. To assert a claim of force majeure, the Permittee shall meet the following requirements:
(A) The Permittee may submit a claim if a force majeure event is about to occur, occurs, or has occurred or there are lingering effects from such an event within the period of time beginning 5 business days prior to the date the submission is due. For the purposes of this section, a force majeure event is defined as an event that will be or has been caused by circumstances beyond the control of the affected facility, its contractors, or any entity controlled by the affected facility that prevents you from complying with the requirement to submit a report electronically within the time period prescribed. Examples of such events are acts of nature (*e.g.,* hurricanes, earthquakes, or floods), acts of war or terrorism, or equipment failure or safety hazard beyond the control of the affected facility (*e.g.,* large scale power outage).
(B) The Permittee shall submit notification to the DAQ in writing as soon as possible following the date the Permittee first knew, or through due diligence should have known, that the event may cause or has caused a delay in reporting.
(C) The Permittee shall provide to the DAQ:
(1) A written description of the force majeure event;
(2) A rationale for attributing the delay in reporting beyond the regulatory deadline to the force majeure event;
(3) Measures taken or to be taken to minimize the delay in reporting; and
(4) The date by which the Permittee proposes to report, or the date reported if the reporting requirement has already been met at the time of the notification.
(D) The decision to accept the claim of force majeure and allow an extension to the reporting deadline is solely within the discretion of the DAQ.
(E) In any circumstance, the reporting must occur as soon as possible after the force majeure event occurs.

nn. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 A.5.r through 2.1 A.5.ee above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

State-enforceable only

6. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

State-enforceable only

7. Disclosure of Information Relating to Emissions of Fluorinated Chemicals [15A NCAC 02Q .0308(a)(1) and **15A NCAC 02Q .0309(b)**]

a. The Permittee shall have an ongoing duty to disclose the presence of materials containing fluorinated chemicals at the facility that have the potential to result in the emission of fluorinated chemicals to the environment. Such disclosures shall be in writing and submitted to the Regional Office Supervisor within thirty days of the Permittee becoming aware of such information, unless such information has already been disclosed to DAQ by the Permittee. The disclosure shall describe the identity, quantity, and use of such material to the extent known. DAQ may require the permittee to conduct analysis or testing of fluorinated chemical emissions as necessary to properly evaluate emissions sources at the facility. As used in this condition, the term “fluorinated chemicals” includes but is not limited to per and polyfluoroalkyl substances (PFAS).

SECTION 3 - INSIGNIFICANT ACTIVITIES PER 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
IES-1	Diesel fuel storage tank (8,000-gallon capacity)
IES-A1	Leachate pond (914,000-gallon capacity, 30,000 square feet of surface area)
IES-A2	Above ground used oil storage tank (1,000-gallon capacity)
IA-EG 250 GACT ZZZZ	Diesel-fired emergency generator (250kW)

[1] Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement (Federal or State) or that the Permittee is exempted from demonstrating compliance with any applicable requirement.

[2] When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 “Control of Toxic Air Pollutants” or 02Q .0711 “Emission Rates Requiring a Permit.”

SECTION 4 - GENERAL CONDITIONS (version 8.0, 07/10/2024)

This section describes terms and conditions applicable to this Title V facility.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application(s) and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of the Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]
In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]
Except as otherwise specified herein, one copy of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]
The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY
The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Title V Permit Modifications**
1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**
1. Reporting Requirements [15A NCAC 02Q .0508(f)]
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
   a. changes in the information submitted in the application;
   b. changes that modify equipment or processes; or
   c. changes in the quantity or quality of materials processed.

   If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.
2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
   a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
   b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
      i. the changes are not a modification under Title I of the Federal Clean Air Act;
      ii. the changes do not cause the allowable emissions under the permit to be exceeded;
      iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
      iv. the Permittee shall attach the notice to the relevant permit.
   c. The written notification shall include:
      i. a description of the change;
      ii. the date on which the change will occur;
      iii. any change in emissions; and
      iv. any permit term or condition that is no longer applicable as a result of the change.
   d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
   a. the change affects only insignificant activities and the activities remain insignificant after the change; or
   b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A **Reporting Requirements for Excess Emissions** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

1. "Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*
2. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
3. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
   a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
      i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
         - name and location of the facility;
         - nature and cause of the malfunction or breakdown;
         - time when the malfunction or breakdown is first observed;
         - expected duration; and
         - estimated rate of emissions;
      ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
      iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

I.B **Reporting Requirements for Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

1. "Permit Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.
2. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) quarterly by notifying the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.C **Other Requirements under 15A NCAC 02D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **RESERVED**

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]
1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]
The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508(l)]
The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303 or through the EPA CEDRI) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all terms and conditions in the permit (including emissions limitations, standards, or work practices), except for conditions identified as being State-enforceable Only. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:
1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent;
4. the method(s) used for determining the compliance status of the source during the certification period;
5. each deviation and take it into account in the compliance certification; and
6. as possible exceptions to compliance, any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (CAM) occurred.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]
A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]
1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
   a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
   b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
   c. the applicable requirements under Title IV; or

d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.

3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]
The Director may terminate, modify, or revoke and reissue this permit if:
1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]
Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]
This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]
1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
   a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
   b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
   c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
   d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

   Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.
2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]
1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]
The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]
A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(3)]
The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(d)]
1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]
If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **National Emission Standards Asbestos – 40 CFR Part 61, Subpart M** [15A NCAC 02D .1110]
The Permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of

the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .1110, or .1111 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance for emission sources subject to Rules .0524, .1110, or .1111, the Permittee shall provide and submit all notifications, conduct all testing, and submit all test reports in accordance with the requirements of 15A NCAC 02D .0524, .1110, or .1111, as applicable. Otherwise, if emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
    a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
        i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
        ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
        iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in 15A NCAC 02D .2600 if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
    b. The Director may authorize the DAQ to conduct independent tests of any source subject to a rule in 15A NCAC 02D to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in 15A NCAC 02D .2600 has precedence over all other tests.

KK. **Reopening for Cause** [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
    a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
    b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
    c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
    d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.

4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. **Reporting Requirements for Non-Operating Equipment** [15A NCAC 02Q .0508(i)(16)]
The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540]
As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]
1. For modifications made pursuant to 15A NCAC 02Q .0501(b)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (Air Permitting Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303 or through the EPA CEDRI) in writing at least seven days before the change is made.
    a. The written notification shall include:
        i. a description of the change at the facility;
        ii. the date on which the change will occur;
        iii. any change in emissions; and
        iv. any permit term or condition that is no longer applicable as a result of the change.
    b. In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]
For permits modifications subject to 45-day review by the federal EPA, EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.