



North Carolina Department of Environment and Natural Resources
Division of Air Quality

Beverly Eaves Perdue
Governor

Sheila C. Holman
Director

Dee Freeman
Secretary

XXX, XXX, 2010

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Dr. Jeannette M. Council
Chairman of Cumberland County Board of Commissioners
Cumberland County Ann Street Landfill
698 Ann Street
Fayetteville, North Carolina 28301

Dear Dr. Council:

SUBJECT: Air Quality Permit No. 08846T05
Facility ID: 2600161
Cumberland County Ann Street Landfill
Fayetteville, North Carolina
Cumberland County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for a **Renewal** of a Title V permit received May 28, 2009, we are forwarding herewith Air Quality Permit No. 08846T05 to Cumberland County Ann Street Landfill, located at 698 Ann Street, Fayetteville, North Carolina authorizing the construction and operation, of the emission sources and associated air pollution control devices specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. 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 request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

Permitting Section

1641 Mail Service Center, Raleigh, North Carolina 27699-1641
2728 Capital Blvd., Raleigh, North Carolina 27604
Phone: 919-715-6235 / FAX 919-733-5317 / Internet: www.ncair.org

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North Carolina
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You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the 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 GS 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 GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

This Air Quality Permit shall be effective from **XXXXXX, 2010** until **XXXX, 2015**, 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 Mr. Booker T. Pullen at (919) 715-6248.

Sincerely yours,

Donald R. van der Vaart, Ph.D., P.E.,
Chief

Attachment A
Attachment B

c: Gregg Worley, EPA Region 4
Fayetteville Regional Office
Central Files

ATTACHMENT A

Insignificant Activities Under 15A NCAC 2Q .0503 (8)

Source	Emission Source Description	Source of TAPs?	Source of Title V Pollutants?
IES-A2	Above ground used oil storage tank (1,000 gallon capacity)	Yes	Yes
IES-A1	Leachate pond (914,000 gallon capacity, 30000 square feet of surface area)	No	No

Table of changes to existing permit No. 08846T04, per renewal application 2600161.09A:

Cover Letter of Permit			
Old Page No.	New Page No.	Condition No.	Changes
Page 1	Page 1	Cover letter	Changed date, revised permit number, changed directors name to Sheila C. Holman, added "renewal" to first paragraph, changed name of responsible official
Page 2	Page 2	Cover letter	Changed date on letter, changed responsible official, changed effective date of permit
Page 3	Page 3	Cover letter	Revised "table of changes to the permit" per this application
Body of Permit			
Page 1	Page 1	Cover page	Changed: Permit No., "Replaces Permit No.", effective date of permit, application No., permit issue date
Page 2	Page 2	Table of Contents	Removed "Part II" Section designation, removed Section 2.2 Special Order by Consent, added Attachment B
All pages	All pages	Top of pages	Changed permit revision number
Page 3	Page 3	Permitted Emissions Sources	Removed the "Part I" heading and the two subsequent paragraphs under the heading, revised the table to include the Treatment system as a control device
Page 3	Pages 3	Specific Limitations and Conditions	Revised the table for regulation 15A NCAC 2D .0524
Page 4	Page N/A	Specific Limitations and Conditions	Removed 15A NCAC 2D .0540 from the table of applicable regulations. This rule is listed in the General Conditions MM. Removed the initial performance test requirements.
N/A	Page 5	Specific Limitations and Conditions	Added description of the requirements of a "gas treatment system" per EPA definition
Page 11	Page N/A	Specific Limitations and Conditions	Removed two site-specific conditions (C) and (D) from Section 2.1 A. i. ii.
Page 16	Page N/A	Special Order by Consent	This section was removed because the requirements have been satisfied.
Pages 18-26	Pages 14-23	General Conditions	Added the most current version of the General Conditions

State of North Carolina,
Department of Environment,
and Natural Resources



Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Issue Date	Effective Date	Expiration Date
08846T05	08846T04	XXXX, 2010	XX, 2010	XXXX, 2015

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 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, 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 County Ann Street Landfill**

Facility ID: **2600161**

Facility Site Location: **698 Ann Street**
City, County, State, Zip: **Fayetteville, Cumberland County, North Carolina, 28301**

Mailing Address: **698 Ann Street**
City, State, Zip: **Fayetteville, Cumberland County, North Carolina, 28301**

Application Number: **2600161.09A**
Complete Application Date: **May 28, 2009**
Primary SIC Code: **4953**

Division of Air Quality, **Fayetteville Regional Office**
Regional Office Address: **225 Green Street, Suite 714**
Fayetteville, North Carolina 28301

Permit issued this the **XX** day of **XXX, 2010**

Donald R. van der Vaart, Ph.D., P.E., Chief, Air Permits Section
By Authority of the Environmental Management Commission

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(Including specific requirements, testing, monitoring, recordkeeping, and
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SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT B

List of Acronyms

SECTION 1- PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION CONTROL DEVICES AND APPURTENANCES

This table identifies all emission sources & control devices for which this permit is being issued

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-1 NSPS, MACT	Municipal Solid Waste Landfill (closed portion)	CD-GCCS1	One landfill gas collection and control system
ES-3 NSPS, MACT	Municipal Solid Waste Landfill (active portion)	CD-1	One landfill gas-fired candlestick-type flare (1,250 scfm gas flow rate)
		CD-GasTreatment	One landfill gas treatment system that compresses the landfill gas, filter it, and dewater (refrigeration) it prior to offsite sale

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Sources and Control Devices 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 (ES-1 and ES-3) with associated landfill gas collection system (CD-GCCS1) including one gas treatment system (CD-GasTreatment), and one candlestick-type flare (1,250 scfm capacity)**

Regulated Pollutant	Limits/Standards	Applicable Regulation
Nonmethane organic compounds (NMOC)	Route landfill gas to a flare designed in accordance with 40 CFR Part 60, §60.18, or Route the collected landfill gas to a landfill gas treatment system that processes the collected gas for subsequent sale or use	15A NCAC 2D .0524 40 CFR Part 60, Subpart WWW
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Sulfur dioxide emissions	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Odorous emissions	Apply suitable odor control measures [State-enforceable only]	15A NCAC 2D .1806
Hazardous air pollutants	Operation standards, start up and shut down plan	15A NCAC 2D .1111 40 CFR Part 63, Subpart AAAA
Toxic air pollutants	Modeled emission rates [State-enforceable only]	15A NCAC 2D .1100
	Toxics demonstration [State-enforceable only]	15A NCAC 2Q .0705 Last MACT, toxics demonstration

1. 15A NCAC 2D .0524, 40 CFR Part 60, Subpart WWW “NEW SOURCE PERFORMANCE STANDARDS”

- a. Emissions of nonmethane organic compounds (NMOCs) from the landfill (ES-1 and ES-3) shall be controlled by a gas collection and control system (CD-GCCS1) that routes the gas to one flare (CD-1) that is designed and operated in accordance with 40 CFR §60.18, and/or routes the collected landfill gas to a gas treatment system in accordance with 40 CFR §60.752(b)(2)(iii)(C).

Testing [15A NCAC 2D .0524, 40 CFR §60.754]

- b. When testing is required, the testing shall be performed in accordance with 40 CFR Part 60.752(b)(2)(iii) (A) and General Condition JJ located in the General Conditions in Section 3 of the permit. If the results are above the limit given in Section 2.1 A. 1. a. above, the Permittee shall be deemed in noncompliance with the NMOC standard in 40 CFR Part 60, Subpart WWW.

Operational Standards For Collection and Control Systems [40 CFR Part 60, §60.753]

- c. Each owner or operator of a MSW landfill with a gas collection and control system used to comply with the provisions of §60.752(b)(2)(ii) of this subpart shall:
- (A) 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;
 - (B) Operate the collection system with negative pressure at each wellhead except under the following conditions:
 - (1) A fire or increased well temperature. The owner or operator shall record instances when positive pressure occurs in efforts to avoid a fire. These records shall be submitted with the annual reports as provided in §60.757(f)(1);
 - (2) Use of a geomembrane or synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan;
 - (3) A decommissioned well. A well may experience a static positive pressure after shut down to accommodate for declining flows. All design changes shall be submitted for approval to the DAQ Regional Office;
 - (C) Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.
 - (1) The nitrogen level shall be determined using Method 3C, unless an alternative test method is established as allowed by §60.752(b)(2)(i).
 - (2) Unless an alternative test method is established as allowed by §60.752(b)(2)(i), the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:
 - (a) The span shall be set so that the regulatory limit is between 20 and 50 percent of the span;
 - (b) A data recorder is not required;
 - (c) Only two calibration gases are required, a zero and span, and ambient air may be used as the span;
 - (d) A calibration error check is not required;(e) The allowable sample bias, zero drift, and calibration drift are ±10 percent.
 - (D) Operate the collection system so that the methane concentration is less than 500 parts per million above background at the surface of the landfill. To determine if this level is exceeded, the owner or operator 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. 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.

- (E) Operate the system such that all collected gases are vented to a control system designed and operated in compliance with §60.752(b)(2)(iii). 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
 - (F) Operate the control or treatment system at all times when the collected gas is routed to the system.
 - (G) If monitoring demonstrates that the operational requirements in paragraphs §60.753(b), (c), or (d) are not met, corrective action shall be taken as specified in §60.755(a)(3) through (5) or §60.755(c) of this subpart. If corrective actions are taken as specified in §60.755, the monitored exceedance is not a violation of the operational requirements in this section.
 - (H) The landfill gas treatment system shall have an absolute filtration rating of 10 microns or less, compress the landfill gas using blowers or similar devices, and lower the water dew point of the landfill gas by at least 20 degrees Fahrenheit with a dewatering process using chillers or other dehydration equipment.
- d. **Compliance Provisions** [40 CFR Part 60, §60.755]
- i. For the purpose of demonstrating whether the gas collection system flow rate is sufficient to determine compliance with §60.752(b)(2)(ii)(A)(3), the owner or operator 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 §60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance shall be submitted to the DAQ Regional Office for approval.
 - ii. Owners or operators are not required to expand the system as required in paragraph §60.755(a)(3) during the first 180 days after gas collection system startup.
 - iii. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in §60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance shall be submitted to the DAQ Regional Office for approval.
 - iv. An owner or operator seeking to demonstrate compliance with §60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in §60.759 shall provide information satisfactory to the Director as specified in §60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled.
 - v. For purposes of compliance with §60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan as provided in §60.752(b)(2)(i). 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 5 years or more if active; or 2 years or more if closed or at final grade.
 - vi. The following procedures shall be used for compliance with the surface methane operational standard as provided in §60.753(d).
 - (A) The owner or operator 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 in accordance with §60.756(f) using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.753(d).
 - (B) 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.

- (C) Surface emission monitoring shall be performed in accordance with section 8.3.1 of Method 21 of appendix A of 40 CFR Part 60, except that the probe inlet shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.
- (D) 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 paragraphs §60.755(c)(4) (i) through (v) shall be taken. As long as the specified actions are taken, the exceedance is not a violation of the operational requirements of §60.753(d).
 - (1) The location of each monitored exceedance shall be marked and the location recorded.
 - (2) 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.
 - (3) 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 §60.755(c)(4)(v) shall be taken, and no further monitoring of that location is required until the action specified in paragraph §60.755(c)(4)(v) has been taken.
 - (4) 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 §60.755 (c)(4) (ii) or (iii) 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)(4) (iii) or (v) shall be taken.
 - (5) 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 Regional Office for approval.
- (E) The owner or operator shall implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
- (F) Each owner or operator seeking to comply with the provisions in paragraph §60.755(c) shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices:
 - (1) The portable analyzer shall meet the instrument specifications provided in section 3 of Method 21 of appendix A of 40 CFR Part 60, except that “methane” shall replace all references to VOC.
 - (2) The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.
 - (3) To meet the performance evaluation requirements in section 3.1.3 of Method 21 of appendix A of 40 CFR Part 60, the instrument evaluation procedures of section 4.4 of Method 21 of appendix A of this part shall be used.
 - (4) The calibration procedures provided in section 4.2 of Method 21 of appendix A of this part shall be followed immediately before commencing a surface monitoring survey.
- (G) The provisions of this subpart apply at all times, except during periods of start-up, shutdown, or malfunction, provided that the duration of start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

- e. **Monitoring** [15A NCAC 2Q .0508(f), 40 CFR §60.756]
- i. Each owner or operator seeking to comply with §60.752(b)(2)(ii)(A) for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and:
 - (A) Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR §60.755(a)(3);
 - (B) Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in 40 CFR §60.755(a)(5);
 - (C) Monitor temperature of the landfill gas on a monthly basis as provided in §60.755(a)(5); and
 - (D) 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.
 - ii. The owner or operator shall calibrate, maintain, and operate according to the manufacture's recommendations the following equipment when using an open flare to comply with this Subpart: (A) 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.
 - (B) A device that records flow to or bypass of the flare. The owner or operator shall either:
 - (1) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
 - (2) 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.
 - iii. The owner or operator shall calibrate, maintain, and operate according to the manufacture's recommendations the following equipment when using an enclosed combustor to comply with this Subpart:
 - (A) A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ± 1 percent of the temperature being measured expressed in degrees Celsius or ± 0.5 degrees Celsius, whichever is greater. A temperature monitoring device is not required for boilers or process heaters with design heat input capacity equal to or greater than 44 megawatts.
 - (B) A device that records flow to or bypass of the control device. The owner or operator shall either:
 - (1) Install, calibrate, and maintain a gas flow rate measuring device that shall record the flow to the control device at least every 15 minutes; or
 - (2) 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.
 - iv. Each owner or operator seeking to install a collection system that does not meet the specifications in 40 CFR §60.759, or seeking to monitor alternative parameters to those required by 40 CFR §60.753 through §60.756, shall provide information satisfactory to the EPA as provided in §60.752(b)(2)(i)(B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures.
- f. **Recordkeeping** [40 CFR Part 60, §60.758]
- i. Except as provided in §60.752(b)(2)(i)(B), each owner or operator of an MSW landfill subject to the provisions of §60.752(b) shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered §60.752(b), 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.
 - ii. Except as provided in §60.752(b)(2)(i)(B), each owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control 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.

- (A) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.752(b)(2)(ii):
 - (1) The maximum expected gas generation flow rate as calculated in §60.755(a)(1). The owner or operator may use another method to determine the maximum gas generation flow rate, if the method has been approved by the DAQ.
 - (2) The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in §60.759(a)(1).
- (B) Where an owner or operator subject to the provisions of this subpart seeks to demonstrate compliance with §60.752(b)(2)(iii)(A) 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 §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.
- (C) Except as provided in §60.752(b)(2)(i)(B), each owner or operator of a controlled landfill subject to the provisions of this subpart shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in §60.756 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.
- (D) Each owner or operator subject to the provisions of this subpart 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 under §60.756.
- (E) Each owner or operator seeking to comply with the provisions of this subpart by use of an open flare shall keep up-to-date, readily accessible continuous records of the flame or flare pilot flame monitoring specified under §60.756(c), and up-to-date, readily accessible records of all periods of operation in which the flame or flare pilot flame is absent.
- (F) Except as provided in §60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart 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.
- (G) 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 under §60.755(b).
- (H) 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 nondegradable waste excluded from collection as provided in §60.759(a)(3)(i) as well as any nonproductive areas excluded from collection as provided in §60.759(a)(3)(ii).
- (I) Except as provided in §60.752(b)(2)(i)(B), each owner or operator subject to the provisions of this subpart shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in §60.753, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance. The Permittee shall be deemed in noncompliance with 15A NCAC 2D if these records are not maintained.

- g. **Specifications of Active Collection Systems** [40 CFR Part 60, §60.759]
- i. Each owner or operator seeking to comply with §60.752(b)(2)(i) shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at a sufficient density throughout all gas producing areas using the following procedures unless alternative procedures have been approved by the Division of Air Quality as provided in §60.752(b)(2)(i)(C) and (D).
- (A) The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer, who is registered in the State of North Carolina. The following issues shall be addressed in the design plan: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.
- (B) The sufficient density of gas collection devices determined above in this section shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.
- (C) The placement of gas collection devices determined above in this section shall control all gas producing areas, except as provided below:
- (1) Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under §60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area. If any area of the landfill qualifies for exclusion under §60.758(d), the Permittee shall provide the stipulated data as a request for approval to the DAQ Regional Office.
- (2) Any nonproductive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1 percent of the total amount of NMOC emissions from the landfill. The amount location, and age of the material shall be documented and provided to the Division of Air Quality upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill. If any area of the landfill qualifies for exclusion under §60.759(a)(3)(ii), the Permittee shall provide the stipulated data by letter as a request for approval to the DAQ Regional Office.
- ii. **Site Specific Requirements**
- (A) The gas collection and control system (CD-GCCS) shall be operated with an acceptable negative pressure limit of 4 inches of water column or less at each wellhead per the gas collection and control system design.
- (B) The collection of landfill gas, using the leachate system headers, that are connected to the gas collection and control system in areas of the landfill in which the initial solid waste has been in place for a period of five years or more (if active), or two years or more (if closed or at final grade), must meet the temperature, pressure, nitrogen and/or oxygen requirements of NSPS, Subpart WWW at each well head.
- h. **Well Closure** [40 CFR Part 60, §60.753]
If any gas collection well qualifies for exclusion under §60.753(b)(3) as a decommissioned well, the Permittee shall provide adequate documentation and data to justify well closure. This information shall be provided by letter to the DAQ Regional Office as a request for approval.
- i. **Reporting** [40 CFR Part 60, §60.757]
- (A) Each owner or operator seeking to comply with §60.752(b)(2) using an active collection system designed in accordance with §60.752(b)(2)(ii) shall submit to the Division of Air Quality annual reports of the recorded information listed below in this section.
- (1) Value and length of time for exceedance of applicable parameters monitored under 40 CFR §60.756(a), (b), (c), and (d).
- (2) 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 40 CFR §60.756.
- (3) Description and duration of all periods when the control device was not operating for a period exceeding one hour and length of time the control device was not operating.

- (4) All periods when the collection system was not operating in excess of 5 days.
 - (5) 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.
 - (6) The date of installation and the location of each well or collection system expansion added in accordance with 40 CFR §60.755(a)(3), (b), and (c)(4).
 - (7) Summary of all DAQ approved well closures that have been decommissioned in accordance with wells §60.753(b)(3).
 - (8) Summary of all DAQ approved nonproductive areas of the landfill in accordance with §60.759(a)(3)(ii).
- (B) The initial annual report shall be submitted within 180 days of the installation and start-up of the collection and control system, and shall include the initial performance test report required under 40 CFR §60.8.
- (C) The Permittee shall submit a **summary report** of monitoring and recordkeeping activities by 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.

2. 15A NCAC 2D .0516 "Sulfur Dioxide Emissions From Combustion Sources"

Regulation Analysis:

- a. Emissions of sulfur dioxide from flare (CD-1) 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. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .0501(c)(4)]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. 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 2D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the flare (CD-1) while firing landfill gas.

3. 15A NCAC 2D .0521 "Control Of Visible Emissions"

Regulation Analysis:

- a. The flare (CD-1) was installed on the landfill after July 1, 1971, and is therefore subject to 15A NCAC 2D .0521(d). Per this regulation visible emissions shall not be more than **20 percent opacity each** when averaged over a six-minute period except that six-minute periods averaging more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period.

Testing [15A NCAC 2D .0501(c)(8)]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A. 3. a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521(d).

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f)]

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the flare (CD-1) while firing landfill gas.

4. 15A NCAC 2D .1806 "Control And Prohibition Of Odorous Emissions" [State-enforceable only]

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.

5. **15A NCAC 2D .1111, 40 CFR Part 63, Subpart AAAA: National Emission Standards for Hazardous Air Pollutants, Municipal Solid Waste Landfills**

Applicability

- a. This facility shall comply with all requirements of 15A NCAC 2D .1111 “Maximum Achievable Control Technology” and 40 CFR Part 63, Subpart AAAA “National Emission Standards for Hazardous Air Pollutant, Municipal Solid Waste Landfills” [40 CFR, §63.1935]

Definitions and Nomenclature [40 CFR, §63.1990]

- b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR, 63, §1990 shall apply.

REGULATED POLLUTANTS [40 CFR, §63.2]

- c. Hazardous Air Pollutant (HAP) means any air pollutant listed in or pursuant to section 112(b) of the Clean Air Act. [40 CFR §63.2]

40 CFR Part 63 Subpart A “GENERAL PROVISIONS”

- d. The Permittee shall comply with the requirements of 40 CFR, §63 Subpart A “General Provisions” according to the applicability of Subpart A to such sources as identified in 40 CFR Part 63, Subpart AAAA, §63.1935.

Compliance dates [40 CFR Part 63, §63.1945]

- e. The Permittee is an **existing affected area source** in accordance with 40 CFR Part 63, §63.1935 (a)(3). An area source is by definition a landfill that is not major due to the annual emission rate of HAPs, but one that has a design capacity equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³) and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year (Mg/yr) NMOC emissions. This facility shall be in compliance with this regulation by the date this landfill is required to install a collection and control system in accordance with 40 CFR §60.752(b)(2) of the New Source Performance Standards, Subpart WWW. [§ 63.1945]

Monitoring [40 CFR Part 63, §63.1955 and §63.1960]

- f. Compliance with this Subpart (AAAA) is determined in accordance with the New Source Performance Subpart WWW, including performance testing, monitoring of the collection system, continuous parameter monitor, and other credible evidence. In addition, continuous parameter monitoring data, collected under 40 CFR §60.756(c)(1) and (d) of Subpart WWW, are used to demonstrate compliance with the operating conditions for control systems.

The Permittee must develop a written Start-Up/Shutdown/Malfunction (SSM) plan according to the provision in 40 CFR 63.6(e)(3). A copy of the SSM shall be maintained on site.

For the purposes of this rule, **deviation** means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- i. fails to meet any requirement or obligation established by this subpart, including, but not limited to, any emissions limitation (including any operating limit) or work practice standard;
- ii. fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit;
- iii. fails to meet any emission limitation, (including any operating limit), or work practice standard in this subpart during SSM, regardless of whether or not such failure is permitted by this subpart; or
- iv. fails to write, develop, or maintain a copy of the SSM plan.

If a deviation occurs, the Permittee has failed to meet the control device operating conditions describe in this subpart and have deviated from the requirements of this subpart.

Recordkeeping/Reporting Requirements [40 CFR Part 63, §63.1980]

- g. Keep records and reports as specified in the general provisions of 40 CFR Part 60, and in Subpart WWW, except the semi-annual report described in 40 CFR §60.757(f) shall be submitted every 6 months.

Any time an action taken during a startup, shutdown and malfunction event is not consistent with the startup, shutdown, and malfunction plan, and applicable NESHAP emission limitations were exceeded, the source shall report actions taken within **2 working days** after commencing such action, followed by a letter within **7 working days** after the event.

STATE-ONLY REQUIREMENT:

- 6. **15A NCAC 2Q .0705 “Existing Facilities And SIC Calls”,
15A NCAC 2D .1100 “Control Of Toxic Air Pollutants”**

Toxic Air Pollutant Emissions Limitation And Requirements - Pursuant to 15A NCAC 2Q .0705 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded in accordance with 15A NCAC 2D .1100:

Emission Sources	Toxic Air Pollutants	Emission Limits	
Municipal Solid Waste Landfill (ID Nos. ES-1 and ES-3)	Acrylonitrile	140.62 lbs per year	----- -
	Benzene	42.64 lbs per year	----- -
	Vinyl chloride	131.00 lbs per year	----- -
	Hydrogen chloride	----- -	2.27 lbs per hour
	Hydrogen fluoride	4.78 lbs per day	0.2 lbs per hour

STATE-ONLY REQUIREMENT:

- 7. **15A NCAC 2Q .0705: Existing Facilities and SIC Calls
15A NCAC 2Q .0711 “Emission Rates Requiring A Permit”**

TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT – Pursuant to 15A NCAC 2Q .0705, the Cumberland County Ann Street Landfill (ES-1 and ES-3), shall be operated and maintained in such a manner that emissions of any listed toxic air pollutants from the facility, including fugitive emissions, will not exceed the “Emission Rates Requiring A Permit” specified in 15A NCAC 2Q .0711. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the toxic air pollutant emissions do not exceed the emission rates as listed below. In the event one (1) or more of these thresholds are exceeded, compliance with 15A NCAC 2D. 1100 shall be demonstrated.

- a. As of **September 22, 2005**, emissions of toxic air pollutants have been demonstrated on a facility-wide basis (excluding those sources exempt under 15A NCAC 2Q .0702 "Exemptions") that each of the toxic air pollutants (TAPs) emitted from all sources at the facility are either below its respective toxic permit emission rates (TPER) listed in 15A NCAC 2Q .0711 - "Emission Rates Requiring a Permit" or the TAPs are in compliance with 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" as described elsewhere in this permit.
- b. The facility shall be operated and maintained in such a manner that any new, existing or increased actual emissions of any TAP listed in 15A NCAC 2Q .0711 or in this permit from all sources at the facility (excluding those sources exempt under 15A NCAC 2Q .0702 "Exemptions"), including fugitive emissions and emission sources not otherwise required to have a permit, will not exceed its respective TPER listed in 15A NCAC 2Q .0711 without first obtaining an air permit to construct or operate.
- c. PRIOR to exceeding any of the TPERs listed in 15A NCAC 2Q .0711, the Permittee shall be responsible for obtaining an air permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100 "Control of Toxic Air Pollutants".
- d. The Permittee shall maintain at the facility records of operational information sufficient for demonstrating to the Division of Air Quality staff that actual TAPs are less than the rate listed in 15A NCAC 2Q .0711.

e. The TPER table listed below is provided to assist the Permittee in determining when an air permit is required.

Pollutant (CAS Number)	Threshold (lbs/yr)	Threshold (lbs/day)	Threshold (lbs/hr)
1,1,1-Trichloroethane (Methyl chloroform) (71-55-6)	-----	250	64
1,1,2,2-Tetrachloroethane (79-34-5)	430	-----	-----
1,1-Dichloroethene (Vinylidene chloride) (75-01-4)	-----	2.5	-----
1,2-Dichloroethane (Ethylene dichloride) (107-06-2)	260	-----	-----
Benzo(a)pyrene (50-32-8)	2.2	-----	-----
Carbon disulfide (75-15-0)	-----	3.9	-----
Carbon tetrachloride (56-23-5)	460	-----	-----
Chlorobenzene (108-90-7)	-----	46	-----
Chloroform (67-66-3)	290	-----	-----
p-Dichlorobenzene (106-46-7)	-----	-----	16.8
Dichlorodifluoromethane (75-71-8)	-----	5200	-----
Dichlorofluoromethane (75-43-4)	-----	10	-----
Dichloromethane (Methylene chloride) (75-09-2)	1600	-----	0.39
Ethyl mercaptan (Ethanethiol) (75-08-1)	-----	-----	0.025
Hexachlorodibenzo-p-dioxin (57653-85-7)	0.0051	-----	-----
Hydrogen sulfide (7783-06-4)	-----	1.7	-----
Fluorotrichloromethane (75-69-4)	-----	-----	140
Mercury (7439-97-6)	-----	0.013	-----
Methyl ethyl ketone (78-93-3)	-----	78	22.4
Methyl isobutyl ketone (108-10-1)	-----	52	7.6
Methyl mercaptan (74-93-1)	-----	-----	0.013
Perchloroethylene (Tetrachloroethene) (127-18-4)	13000	-----	-----
Toluene (108-88-3)	-----	98	14.4
Trichloroethylene (Trichloroethene) (79-01-6)	4000	-----	-----
Xylenes (1330-20-7)	-----	57	16.4

SECTION 3 - GENERAL CONDITIONS (version 3.2)

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

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
 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 2Q .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 and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.
- C. **Severability Clause** [15A NCAC 2Q .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 2Q .0507(e) and 2Q .0508(i)(16)]
- Except as otherwise specified herein, two copies 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 2Q .0508(i)(2)]

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. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.

2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.

3. Minor Permit Modifications [15A NCAC 2Q .0515]

The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.

4. Significant Permit Modifications [15A NCAC 2Q .0516]

The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.

5. Reopening for Cause [15A NCAC 2Q .0517]

The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements

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 2Q .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 2Q .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 2Q .0523(c)]

To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

I.A. Reporting Requirements for Excess Emissions and Permit Deviations

[15A NCAC 2D .0535(f) and 2Q .0508(f)(2)]

“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 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700. (*Note: Definitions of excess emissions under 2D .1110 and 2D .1111 shall apply where defined by rule.*)

“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.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 2D .0535 as follows:
 - a. Pursuant to 15A NCAC 2D .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 2D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 2Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
 - a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 2D .0535 quarterly. 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.B. Other Requirements under 15A NCAC 2D .0535

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535, including 15A NCAC 2D .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 2D .0535(c)(1) through (7).
2. 15A NCAC 2D .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. Emergency Provisions [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. Permit Renewal [15A NCAC 2Q .0508(e) and 2Q .0513(b)]

This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

L. Need to Halt or Reduce Activity Not a Defense [15A NCAC 2Q .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 2Q .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 2Q .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 2Q .0508(f) and 2Q .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 2Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. 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; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 2Q .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 2Q .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 2Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 2Q .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 2Q .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 2Q .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 2Q .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 2Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environment and Natural Resources. 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 2Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 2Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 2Q .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 2Q .0107 and 2Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .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 2Q .0107.

Z. Construction and Operation Permits [15A NCAC 2Q .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 2Q .0100 and .0300.

AA. Standard Application Form and Required Information [15A NCAC 2Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.

BB. Financial Responsibility and Compliance History [15A NCAC 2Q .0507(d)(4)]

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 2Q .0501(e)]

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 2Q .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. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) -
FEDERALLY-ENFORCEABLE ONLY

Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.

FF. Title IV Allowances [15A NCAC 2Q .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 2D .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 2D .0300.

HH. Registration of Air Pollution Sources [15A NCAC 2D .0200]

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 2D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 2D .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 2D .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 2Q .0508(i)(16)]

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.
3. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
4. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
 - a. a description of the training and air testing experience of the person directing the test;
 - b. a certification of the test results by sampling team leader and facility representative;
 - c. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);
 - d. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
 - e. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
 - f. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
 - g. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
5. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ.

KK. **Reopening for Cause** [15A NCAC 2Q .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 2Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .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 2Q .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 2Q .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. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

MM. Fugitive Dust Control Requirement [15A NCAC 2D .0540] - STATE ENFORCEABLE ONLY

As required by 15A NCAC 2D .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 2D .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 2Q.0501 and .0523]

1. For modifications made pursuant to 15A NCAC 2Q .0501(c)(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 2Q .0501(d)(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 2Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth St., Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

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.

ATTACHMENT B

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CAA	Clean Air Act
DAQ	Division of Air Quality
DENR	Department of Environment and Natural Resources
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound