



ROY COOPER  
*Governor*

MICHAEL S. REGAN  
*Secretary*

MICHAEL A. ABRACZINSKAS  
*Director*

XXXX, 2018

Mr. Brad Burmaster  
Senior Vice President  
INGENCO Renewable Development, LLC  
811 Main Street, Suite 3500  
Houston, TX 77002

SUBJECT: Air Quality Permit No. 10198T04  
Facility ID: 9200830  
INGENCO Renewable Development, LLC  
Apex, North Carolina  
Wake County  
Fee Class: Title V  
PSD Class: Major

Dear Mr. Burmaster:

In accordance with your completed Air Quality Permit Application for “Part 2” significant modification of a Title V permit received March 15, 2016, we are forwarding herewith Air Quality Permit No. 10198T04 to INGENCO Renewable Development, LLC located at 6512 Old Smithfield Road, Apex, North Carolina 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 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.

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 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.

Wake County has triggered increment tracking under PSD for sulfur dioxide. This modification will result in an increase in 0.8 pounds per hour of sulfur dioxide.

This Air Quality Permit shall be effective from XXXX, 2018 until April 30, 2020, 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 Ms. Betty Gatano, P.E., at (919) 707-8736.

Sincerely yours,

William D. Willets, P.E., Chief, Permitting Section  
Division of Air Quality, NCDEQ

Enclosure

c: Heather Ceron, EPA Region 4  
Raleigh Regional Office  
Central Files  
Connie Horne (Cover only)

ATTACHMENT to Permit No. 10198T04

Insignificant Activities per 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description
IES-Tank1	One aboveground Diesel fuel oil storage tank (15,000 gallon capacity)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source 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".
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows: <http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>.

## Summary of Changes to Permit

The following changes were made to INGENCO Renewable Development, LLC, Air Permit No. 10198T03

Pages	Section	Description of Changes
Throughout	-	Updated all dates and permit revision numbers.
Cover letter	--	Added statement on increment tracking. This statement was not included in the Part 1 permit.
Cover page	--	Updated mailing address and physical address of the facility.
3	Section 1.0 – Equipment Table	<ul style="list-style-type: none"> <li>• Changed format of the footnotes.</li> <li>• Removed reference to NSPS IIII in footnotes.</li> <li>• Removed footnote requiring submittal of a TV permit application within 12 months of commencement of operation of engines (ID Nos. ES-D1 through D6, or ES-E1 through E6, or F1 through F6).</li> </ul>
4	2.1 A – Regulations Table	<ul style="list-style-type: none"> <li>• Removed reference to NSPS Subpart IIII. The engines were manufactured prior to the trigger dates in NSPS Subpart IIII and are not subject to this rule.</li> <li>• Clarified the engines are subject to work practices standards under MACT Subpart ZZZZ.</li> </ul>
4	2.1 A.1.b	Revised testing condition to reflect most current permitting language.
4	2.1 A.2.b	Revised testing condition to reflect most current permitting language.
5	2.1. A.3	Clarified title of permit condition.
5	2.1 A.3.b	Revised testing condition to reflect most current permitting language.
5 – 6	2.1 A.3.c.ix and x	Reordered permit conditions for clarification
6	2.1 A.3.d	Removed permit condition specifying noncompliance for failure to submit reports.
6	2.1. A.4	Clarified title of permit condition.
6	2.1 A.4.b	Revised testing condition to reflect most current permitting language.
7	2.1 A.4.c x	Added non-compliance statement.
8	2.1. A.5	Clarified title of permit condition.
8 – 9	2.1 A.5	Updated MACT Subpart ZZZZ condition to reflect the engines status as “existing sources” under the MACT.
--	2.1 A.6	Removed permit condition. The engines were manufactured prior to the trigger dates in NSPS Subpart IIII and are not subject to this rule.
11 – 19	Section 3	Updated the General Conditions to the most recent revision (V5.2 04/03/2018).
20	Attachment	Updated the list of acronyms.



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

## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
10198T04	10198T03	XXXX, 2018	April 30, 2020

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:** **INGENCO Renewable Development, LLC**

**Facility ID:** **9200830**

**Facility Site Location:** **6512 Old Smithfield Road**  
**City, County, State, Zip:** **Apex, Wake County, North Carolina 27502**

**Mailing Address:** **811 Main Street, Suite 3500**  
**City, State, Zip:** **Houston, TX 77002**

**Application Number:** **9200830.16A**  
**Complete Application Date:** **March 15, 2016**

**Primary SIC Code:** **4931**

**Division of Air Quality,**  
**Regional Office Address:** **Raleigh Regional Office**  
**3800 Barrett Drive**  
**Raleigh, North Carolina 27609**

Permit issued this the XXX day of XXXX, 2018

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William D. Willets, P.E., Chief, Permitting Section  
By Authority of the Environmental Management Commission

## Table of Contents

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

### SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

- 2.1- Emission Source(s) Specific Limitations and Conditions  
(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
- 2.2- Multiple Emission Sources  
State BACT Limits

### SECTION 3: GENERAL PERMIT CONDITIONS

### ATTACHMENT

List of Acronyms

## SECTION 1- PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION CONTROL DEVICES 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-A1 <sup>1,2</sup> ES-A2 <sup>1,2</sup> ES-A3 <sup>1,2</sup> ES-A4 <sup>1,2</sup> ES-A5 <sup>1,2</sup> ES-A6 <sup>1,2</sup>	Six landfill gas/Diesel fuel oil-fired engine (469 hp each)/generator (350 kW each) units exhausting to a common manifold and stack	N/A	N/A
ES-B1 <sup>1,2</sup> ES-B2 <sup>1,2</sup> ES-B3 <sup>1,2</sup> ES-B4 <sup>1,2</sup> ES-B5 <sup>1,2</sup> ES-B6 <sup>1,2</sup>	Six landfill gas/ Diesel fuel oil-fired engine (469 hp each)/generator (350 kW each) units exhausting to a common manifold and stack	N/A	N/A
ES-C1 <sup>1,2</sup> ES-C2 <sup>1,2</sup> ES-C3 <sup>1,2</sup> ES-C4 <sup>1,2</sup> ES-C5 <sup>1,2</sup> ES-C6 <sup>1,2</sup>	Six landfill gas/ Diesel fuel oil-fired engine (469 hp each)/generator (350 kW each) units exhausting to a common manifold and stack	N/A	N/A
ES-D1 <sup>1,2</sup> ES-D2 <sup>1,2</sup> ES-D3 <sup>1,2</sup> ES-D4 <sup>1,2</sup> ES-D5 <sup>1,2</sup> ES-D6 <sup>1,2</sup>	Six landfill gas/ Diesel fuel oil-fired engine (469 hp each)/generator (350 kW each) units exhausting to a common manifold and stack	N/A	N/A
ES-E1 <sup>1,2</sup> ES-E2 <sup>1,2</sup> ES-E3 <sup>1,2</sup> ES-E4 <sup>1,2</sup> ES-E5 <sup>1,2</sup> ES-E6 <sup>1,2</sup>	Six landfill gas/ Diesel fuel oil-fired engine (469 hp each)/generator (350 kW each) units exhausting to a common manifold and stack	N/A	N/A
ES-F1 <sup>1,2</sup> ES-F2 <sup>1,2</sup> ES-F3 <sup>1,2</sup> ES-F4 <sup>1,2</sup> ES-F5 <sup>1,2</sup> ES-F6 <sup>1,2</sup>	Six landfill gas/ Diesel fuel oil-fired engine (469 hp each)/generator (350 kW each) units exhausting to a common manifold and stack	N/A	N/A

1. MACT Subpart ZZZZ
2. State BACT (SB3)

## SECTION 2 – SPECIFIC LIMITATIONS AND CONDITIONS

### 2.1 – Emission Sources and Control Devices Specific Limitations and Conditions

The emission sources and associated air pollution control devices 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. Six groups of six landfill gas/diesel fuel oil-fired engine (469 hp each, 2.1 liters per cylinder each)/electrical generator (350 kW each) units with each group exhausting to a common manifold and stack (ID Nos. ES-A1 through A6, ES-B1 through B6, ES-C1 through C6, ES-D1 through D6, ES-E1 through E6, and ES-F1 through F6)**

The following table provides a summary of limits and standards for the emission sources described above:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	Less than 2.3 lbs per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Nitrogen dioxide Carbon monoxide	Less than 250 tons per year of NO <sub>x</sub> Less than 250 tons per year of CO  98% or less total energy supplied by landfill gas in each engine/generator unit	15A NCAC 02Q .0317 of 02D .0530 PSD Avoidance
Hazardous Air Pollutants	Work practice standards	15A NCAC 02D .1111 40 CFR Part 63, Subpart ZZZZ
CO, NO <sub>x</sub> , PM <sub>10</sub> /PM <sub>2.5</sub> , SO <sub>2</sub> , VOC, Lead, Mercury	Best Available Control of Emissions See Section 2.2	North Carolina General Statute 62-133.8(g) "Control of Emissions"

**1. 15A NCAC 02D .0516: Sulfur Dioxide Emissions from Combustion Sources**

- a. Emissions of sulfur dioxide from each source 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 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.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 and/or diesel fuel oil in any engine/generator unit.

**2. 15A NCAC 02D .0521: Control of Visible Emissions**

- a. Visible emissions from each engine/generator unit shall not be more than 20 percent opacity 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 and/or diesel fuel oil in any engine/generator unit.



**3. 15A NCAC 02Q .0317: Avoidance Conditions for 15A NCAC 02D .0530: Prevention of Significant Deterioration for Nitrogen Dioxide and Carbon Monoxide**

- a. In order to avoid applicability of 15A NCAC 02D .0530 (g) for major sources and major modifications, engine/generator units (**ID Nos. ES-A1 through ES-A6, ES-B1 through ES-B6, and ES-C1 through ES-C6**) shall discharge into the atmosphere less than 250 tons of nitrogen dioxide and less than 250 tons per year of Carbon monoxide per consecutive 12-month period.

**Testing** [15A NCAC 02D .0501(c)(3)]

- b. If emission testing is required, the Permittee shall perform such testing in accordance with 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 02D .0530.

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

- c. To ensure emissions of nitrogen oxides and carbon monoxide do not exceed the limitation listed above, the following requirements shall apply.
- The Permittee shall take readings at least once every hour of the gas fraction of the energy supplied to each generator in operation. Gas fraction is defined as the heat input supplied by landfill gas divided by the total heat input supplied to the generators. The Permittee shall record the total heat input supplied to every generator operated for every calendar day.
  - The Permittee shall use the gas fractions obtained and the daily total heat input supplied to each generator to calculate nitrogen oxide and carbon monoxide emissions for each calendar day.

**Table 1:**

Gas Fraction	Diesel Fuel Oil NOx (lbs/mm Btu) {E <sub>NOx(d)</sub> }	Landfill Gas/Fuel oil NOx (lbs/mmBtu) {E <sub>NOx(lfg)</sub> }	Diesel Fuel Oil CO (lbs/mmBtu) {E <sub>CO(d)</sub> }	Landfill Gas/Fuel oil CO (lbs/mmBtu) {E <sub>CO(lfg)</sub> }
0% - 50%	2.15	-0.4	0.26	5.25
80 - 98%	0.37*		0.94*	
> 50% - < 80%	The Permittee must document and record a basis for nitrogen oxide and carbon monoxide emissions if the gas fraction falls in this range. All such instances of gas fractions in this range must be recorded and made available to DAQ upon request.			

\* September 9, 2014 stack test results

- The facility shall be equipped with devices to continuously measure and record the consumption of landfill gas and/or diesel fuel in the engines.
- The Permittee shall sum the total daily fuel consumption of diesel fuel oil and landfill gas in the engines to determine monthly emissions for each calendar month.
- The Permittee shall record monthly emissions of nitrogen oxides and carbon monoxide from engines ES-A1 through ES-A6, ES-B1 through ES-B6, and ES-C1 through ES-C6.
- Records of the calculations performed to determine facility nitrogen oxide and carbon monoxide emissions shall be kept on-site and made available to the DAQ personnel upon request.
- Fuel supplier certification shall be kept on-site and made available to DAQ personnel upon request.
- The Permittee shall keep each record on file for a minimum of three years.
- The emissions shall be calculated monthly according to the following equations using the values listed in Table 1 above:

$$NO_x = \left[ \frac{A \text{ (gallons)}}{\text{(month)}} \times \frac{CV_d \text{ (Btu)}}{\text{(gallon)}} \times \% \text{liquid} \times E_{NO_x(d)} \times \frac{1 \text{ ton } NO_x}{2000 \text{ lbs } NO_x} \right] + \left[ \frac{B \text{ (ft}^3\text{)}}{\text{(month)}} \times \frac{CV_{lfg} \text{ (Btu)}}{\text{(ft}^3\text{)}} \times \% \text{lfg} \times E_{NO_x(lfg)} \times \frac{1 \text{ ton } NO_x}{2000 \text{ lbs } NO_x} \right]$$

$$CO = \left[ \frac{A \text{ (gallons)}}{\text{(month)}} \times \frac{CV_d \text{ (Btu)}}{\text{(gallon)}} \times \% \text{liquid} \times E_{CO(d)} \times \frac{1 \text{ ton } CO}{2000 \text{ lbs } CO} \right] + \left[ \frac{B \text{ (ft}^3\text{)}}{\text{(month)}} \times \frac{CV_{lfg} \text{ (Btu)}}{\text{(ft}^3\text{)}} \times \% \text{lfg} \times E_{CO(lfg)} \times \frac{1 \text{ ton } CO}{2000 \text{ lbs } CO} \right]$$

**Where:**

A = gallons of Diesel fuel oil consumed per month

B = cubic feet of landfill gas consumed per month  
CV<sub>d</sub> = calorific value (heat content) of Diesel fuel oil (137,000 Btu/gallon)  
CV<sub>lfg</sub> = calorific value (heat content) landfill gas

$$\left[ CV_{lfg \text{ (heat content)}} = \frac{\% \text{ Methane}}{100} \times \frac{996.65 \text{ Btu}}{\text{standard cubic feet}} \right]$$

% liquid = percentage of liquid Diesel fuel content  
% lfg = percentage of landfill gas content  
E<sub>NOx (d)</sub> = Emission factor for NO<sub>x</sub> from Diesel fuel oil (lbs NO<sub>x</sub>/mmBtu)  
E<sub>NOx (lfg)</sub> = Emission factor for NO<sub>x</sub> from landfill gas (lbs NO<sub>x</sub>/mmBtu)  
E<sub>CO (d)</sub> = Emission factor for CO from Diesel fuel oil (lbs CO/mmBtu)  
E<sub>CO (lfg)</sub> = Emission factor for CO from landfill gas (lbs CO/mmBtu)

- x. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if monitoring and recordkeeping are not conducted and/or records are not maintained.

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

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, 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. The report shall contain the following:
- The monthly nitrogen dioxide and carbon monoxide emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;
  - Copies of Diesel fuel oil certification records.

**4. 15A NCAC 02Q .0317: Avoidance Conditions for 15A NCAC 02D .0530: Prevention of Significant Deterioration for Nitrogen Dioxide and Carbon Monoxide**

- a. In order to avoid applicability of 15A NCAC 02D .0530 (g) for major sources and major modifications, engine/generator units (**ID Nos. ES-D1 through ES-D6, ES-E1 through ES-E6, and ES-F1 through ES-F6**) shall discharge into the atmosphere less than 250 tons of nitrogen dioxide and less than 250 tons per year of Carbon monoxide per consecutive 12-month period.

**Testing** [15A NCAC 02D .0501(c)(3)]

- b. If emission testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.4.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

- c. To ensure emissions of nitrogen oxides and carbon monoxide do not exceed the limitation listed above, the following requirements shall apply.
- The Permittee shall take readings at least once every hour of the gas fraction of the energy supplied to each generator in operation. Gas fraction is defined as the heat input supplied by landfill gas divided by the total heat input supplied to the generators. The Permittee shall record the total heat input supplied to every generator operated for every calendar day.
  - The Permittee shall use the gas fractions obtained and the daily total heat input supplied to each generator to calculate nitrogen oxide and carbon monoxide emissions for each calendar day.

**Table 2:**

Gas Fraction	Diesel Fuel Oil NOx (lbs/mm Btu) {E <sub>NOx(d)</sub> }	Landfill Gas/Fuel oil NOx (lbs/mmBtu) {E <sub>NOx(lfg)</sub> }	Diesel Fuel Oil CO (lbs/mmBtu) {E <sub>CO(d)</sub> }	Landfill Gas/Fuel oil CO (lbs/mmBtu) {E <sub>CO(lfg)</sub> }
0% - 50%	2.15	-0.4	0.26	5.25
80 - 98%	0.37*		0.94*	
> 50% - < 80%	The Permittee must document and record a basis for nitrogen oxide and carbon monoxide emissions if the gas fraction falls in this range. All such instances of gas fractions in this range must be recorded and made available to DAQ upon request.			

\* September 9, 2014 stack test results

- iii. The facility shall be equipped with devices to continuously measure and record the consumption of landfill gas and/or diesel fuel in the engines.
- iv. The Permittee shall sum the total daily fuel consumption of Diesel fuel oil and landfill gas in the engines to determine monthly emissions for each calendar month.
- v. The Permittee shall record monthly emissions of nitrogen oxides and carbon monoxide from engines ES-D1 through ES-D6, ES-E1 through ES-E6, and ES-F1 through ES-F6.
- vi. Records of the calculations performed to determine facility nitrogen oxide and carbon monoxide emissions shall be kept on-site and made available to the DAQ personnel upon request.
- vii. Fuel supplier certification shall be kept on-site and made available to DAQ personnel upon request.
- viii. The Permittee shall keep each record on file for a minimum of three years.
- ix. The emissions shall be calculated monthly according to the following equations using the values listed in Table 2 above:

$$NOx = \left[ \frac{A \text{ (gallons)}}{\text{(month)}} \times \frac{CV_d \text{ (Btu)}}{\text{(gallon)}} \times \%liquid \times E_{NOx(d)} \times \frac{1 \text{ ton } NOx}{2000 \text{ lbs } NOx} \right] + \left[ \frac{B \text{ (ft}^3\text{)}}{\text{(month)}} \times \frac{CV_{lfg} \text{ (Btu)}}{\text{(ft}^3\text{)}} \times \%lfg \times E_{NOx(lfg)} \times \frac{1 \text{ ton } NOx}{2000 \text{ lbs } NOx} \right]$$

$$CO = \left[ \frac{A \text{ (gallons)}}{\text{(month)}} \times \frac{CV_d \text{ (Btu)}}{\text{(gallon)}} \times \%liquid \times E_{CO(d)} \times \frac{1 \text{ ton } CO}{2000 \text{ lbs } CO} \right] + \left[ \frac{B \text{ (ft}^3\text{)}}{\text{(month)}} \times \frac{CV_{lfg} \text{ (Btu)}}{\text{(ft}^3\text{)}} \times \%lfg \times E_{CO(lfg)} \times \frac{1 \text{ ton } CO}{2000 \text{ lbs } CO} \right]$$

**Where:**

A = gallons of Diesel fuel oil consumed per month  
B = cubic feet of landfill gas consumed per month  
CV<sub>d</sub> = calorific value (heat content) of Diesel fuel oil (137,000 Btu/gallon)  
CV<sub>lfg</sub> = calorific value (heat content) landfill gas

$$CV_{lfg \text{ (heat content)}} = \frac{\% \text{ Methane}}{100} \times \frac{996.65 \text{ Btu}}{\text{standard cubic feet}}$$

- % liquid = percentage of liquid Diesel fuel content  
%lfg = percentage of landfill gas content  
E<sub>NOx(d)</sub> = Emission factor for NOx from Diesel fuel oil (lbs NOx/mmBtu)  
E<sub>NOx(lfg)</sub> = Emission factor for NOx from landfill gas (lbs NOx/mmBtu)  
E<sub>CO(d)</sub> = Emission factor for CO from Diesel fuel oil (lbs CO/mmBtu)  
E<sub>CO(lfg)</sub> = Emission factor for CO from landfill gas (lbs CO/mmBtu)
- x. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if monitoring and recordkeeping are not conducted and/or records are not maintained.

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

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, 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. The report shall contain the following:

- i. The monthly nitrogen dioxide and carbon monoxide emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;
- ii. Copies of diesel fuel oil certification records.

**5. 15A NCAC 02D .1111: Maximum Achievable Control Technology**

**Applicability** [40 CFR 63.6585, 63.6590(a)(1)(iii),(iv)]

- a. For this emission source(s) (existing non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis located at an area source of HAP emissions), the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, "Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines." and Subpart A "General Provisions."

**Definitions and Nomenclature**

- b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 63.6675 shall apply.

**Applicability Date** [40 CFR 63.6595(a)(1)]

- c. The Permittee shall comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013.

**Notifications** [40 CFR 63.6645(a)(5)]

- d. The Permittee has no notification requirements.

**General Provisions** [40 CFR 63.6665]

- e. The Permittee shall comply with the General Provisions as applicable pursuant to Table 8 of 40 CFR 63 Subpart ZZZZ

**Operating and Maintenance Requirements** [15A NCAC 2Q .0508(f)]

- f. The Permittee shall use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. [40 CFR 63.6604(a)]
- g. During periods of startup of the IC engine, the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [ 40 CFR 63.6625(h)]
- h. Except during periods of startup of the IC engine, the Permittee shall:
  - i. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;
  - ii. Inspect air cleaner every 1,440 hours of operation or annually, whichever comes first and replace as necessary;
  - iii. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[40 CFR 63.6603(a), Table 2d]
- i. The permittee shall be in compliance with the emission limitations, operating limitations and other requirements that apply at all times. [40 CFR 63.6605(a)]
- j. 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 you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator 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 63.6605(b)]
- k. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e) and 63.6640(a), Table 6]

- l. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Section 2.1 A.5.f through k are not met.

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

- m. The Permittee shall keep the following:
  - i. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]
  - ii. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]
  - iii. Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(4)]
  - iv. Records of actions taken during periods of malfunction to minimize emissions in accordance with Section 2.1 A.5.j, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]
  - v. Records of the maintenance conducted on the RICE pursuant to Section 2.1 A.5.k. [40 CFR 63.6655(d) and (e)]
- m. The Permittee shall keep each record in a form suitable and readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a), (b),(c)]
- n. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the recordkeeping in Section 2.1 A.5.m and n is not conducted or the records maintained.

**Reporting** [15A NCAC 2Q .0508(f), 40 CFR 63.6650(f)]

- o. 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 noncompliance must be clearly identified.

## Section 2.2- Multiple Emission Sources

### STATE ENFORCEABLE ONLY

#### North Carolina General Statute G.S. 62 -133.8(g)

**General Assembly of North Carolina, Session Law 2007-397, Senate Bill 3 (SB3)** - Under the provisions of a Renewable Energy and Energy Efficiency Portfolio Standard (REPS), the Permittee will be categorized as a new renewable energy facility that delivers electric power to an electric power supplier. SB3, 62-133.8(g) requires biomass combustion processes at a new renewable energy facility to meet Best Available Control Technology (BACT).

- A. In order to comply with the BACT determination pursuant to GS 62.133.8(g) for each pollutant, the following shall apply to each compression ignition engine:
  - 1. CO emissions shall not exceed 4.0 grams per horsepower-hour (g/hp-hr),
  - 2. NOx emissions shall not exceed 2.0 g/hp-hr,
  - 3. PM10/PM2.5, SO2, VOCs, Pb, and Hg shall be controlled from each engine using good combustion practices and the burning of landfill gas in the engine.
- B. Annual testing for NOx and CO shall be performed using the test procedures and results (g/hp-hr) in accordance with 40 CFR 1065.10 and shall be used to demonstrate compliance with the State BACT limits listed above in this Section for groups of engines. The applicant and the DAQ shall discuss testing procedures and the frequency of testing for engine groups in the protocol.
  - 1. The Permittee shall arrange for air emission testing protocols to be provided to the DAQ prior to testing. Testing protocols are not required to be pre-approved by the DAQ prior to testing. The DAQ shall review testing protocols for pre-approval prior to testing if requested by the Permittee at least 45 days before conducting the test.
  - 2. To afford the Regional Supervisor, DAQ, the opportunity to have an observer present, the Permittee shall PROVIDE the Regional Office, in WRITING, at least a 15 day notice of any required performance test(s).
  - 3. Two copies of the test results must be submitted to the Regional Supervisor, DAQ, in accordance with the approved procedures of the Environmental Management Commission within 30 days after the completion of the source test.
  - 4. The source shall be responsible for ensuring, within the limits of practicality, that the equipment or process being tested is operated at or near its maximum normal production rate, or at a lesser rate if specified by the Director or his delegate.
- C. The Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - 1. The Permittee shall perform an annual inspection (for each 12 month period following the initial inspection) to ensure the engine groups are operating properly.
  - 2. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
    - a. The date and time of each recorded action;
    - b. The results of each inspection;
    - c. The results of any maintenance performed on the engine;
    - d. Any variance from manufacturer's recommendations, if any, and the corrections made.

#### **Reporting Requirements [15A NCAC 02Q .0508(f)]**

- D. The Permittee shall maintain a summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping listed above and shall submit the results within 30 days of a written request by the DAQ.

## SECTION 3 - GENERAL CONDITIONS (version 5.2, 04/03/2018)

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 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 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, 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 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. **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  
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 and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .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 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.*)

“**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 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.
2. 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).

**Permit Deviations**

3. Pursuant to 15A NCAC 02Q .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 02D .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 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. 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 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 and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, 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 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)(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 02Q .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 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. **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 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, .0912, .1110, .1111, or .1415 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, 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 this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
  - b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter 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 Section 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(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 02Q .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 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, 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.

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 Environmental Protection Agency (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.

## ATTACHMENT

### List of Acronyms

<b>AOS</b>	Alternate Operating Scenario
<b>BACT</b>	Best Available Control Technology
<b>Btu</b>	British thermal unit
<b>CAA</b>	Clean Air Act
<b>CAIR</b>	Clean Air Interstate Rule
<b>CEM</b>	Continuous Emission Monitor
<b>CFR</b>	Code of Federal Regulations
<b>DAQ</b>	Division of Air Quality
<b>DEQ</b>	Department of Environmental Quality
<b>EMC</b>	Environmental Management Commission
<b>EPA</b>	Environmental Protection Agency
<b>FR</b>	Federal Register
<b>GACT</b>	Generally Available Control Technology
<b>HAP</b>	Hazardous Air Pollutant
<b>MACT</b>	Maximum Achievable Control Technology
<b>NAA</b>	Non-Attainment Area
<b>NCAC</b>	North Carolina Administrative Code
<b>NCGS</b>	North Carolina General Statutes
<b>NESHAP</b>	National Emission Standards for Hazardous Air Pollutants
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>NSPS</b>	New Source Performance Standard
<b>OAH</b>	Office of Administrative Hearings
<b>PM</b>	Particulate Matter
<b>PM<sub>10</sub></b>	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
<b>POS</b>	Primary Operating Scenario
<b>PSD</b>	Prevention of Significant Deterioration
<b>RACT</b>	Reasonably Available Control Technology
<b>SIC</b>	Standard Industrial Classification
<b>SIP</b>	State Implementation Plan
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>tpy</b>	Tons Per Year
<b>VOC</b>	Volatile Organic Compound