



PAT MCCRORY
Governor

DONALD R. VAN DER VAART
Secretary

SHEILA C. HOLMAN
Director

TBD

Michael Brissie
Station Manager
Duke Energy Carolinas, LLC
6769 Old Plank Road
Stanley, NC 28164

Dear MR. Brissie:

SUBJECT: Air Quality Permit No. 07171T10
Facility ID: 5500082
Duke Energy Carolinas, LLC - Lincoln Combustion Turbine Station
Stanley, Lincoln County, North Carolina
Fee Class: Title V
PSD Class: Major

In accordance with your completed Air Quality Permit Application for a renewal of a Title IV Acid Rain permit and renewal of a Title V Air Quality permit, received on June 26, 2014, we are forwarding herewith Air Quality Permit No. 07171T10 to Duke Energy Carolinas, LLC, Lincoln Combustion Turbine, Stanley, Lincoln County, North Carolina 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 "ATTACHMENT 2" to this cover letter. 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

Michael Brissie

TBD

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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.

Lincoln County has triggered PSD Increment Tracking for the following pollutants: PM10, SO2, and NOx. The permit renewal application and this new permit are not expected to consume or expand any increments for any tracked pollutants.

This Air Quality Permit shall be effective from TBD until TBD, 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 Russell Braswell at 919-707-8731 or russell.braswell@ncdenr.gov.

Sincerely,

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

Enclosure

c: Heather Ceron, EPA Region 4 (with review)
Ron Slack, Supervisor, Mooresville Regional Office
Central Files
Connie Horne (cover letter only)

Table of Changes

Page(s)*	Section*	Description of Change(s)
Throughout	Throughout	<ul style="list-style-type: none"> • Updated dates/permit numbers/application numbers. • Removed references to CAIR because that regulation no longer applies. • Added references to CSAPR. • Updated format of stipulations to the DAQ standard. • Changed "DENR" to "DEQ". • Removed process rates from section headers (this information is in the Permitted Emission Source List). • Changed "2D" and "2Q" to "02D" and "02Q".
Insignificant Activities List	Insignificant Activities List	<ul style="list-style-type: none"> • Removed portable sources. • Added MACT 4Z callout.
3	Permitted Emission Source List	<ul style="list-style-type: none"> • Added footnote regarding MACT 4Y. • Added water injection to list of control devices. This is only to clarify how Duke uses water injection, and does not reflect a change in the facility's operations.
	2.1.A.1.	<ul style="list-style-type: none"> • Added recordkeeping requirement regarding the number of hours spent running on No. 2 oil.
	2.1.A.2.	<ul style="list-style-type: none"> • Reformatted emission limit section. No change in requirements, this should just be easier to read. • Added paragraph regarding the Alternative Operating Scenario.
	2.1.A.3.	<ul style="list-style-type: none"> • Removed HAPs from PSD limits per 51.166(b)(49)(i)(b)(4)(v) and 40 CFR 52.21(b)(50)(i)(b)(4)(v). • Added paragraph regarding the Alternative Operating Scenario. • Changed reporting schedule to semiannual (was quarterly).
	2.1.A.4.	<ul style="list-style-type: none"> • Added CAM requirements
	2.1.A.5. (former)	<ul style="list-style-type: none"> • Removed 15A NCAC 02D .1417 because the rule had been repealed.
	2.1.A.7.	<ul style="list-style-type: none"> • Added CSAPR requirements
	2.3. (former)	<ul style="list-style-type: none"> • Removed CAIR requirements.
	3.	<ul style="list-style-type: none"> • Updated General Conditions to v4.0..

* This refers to the current permit unless otherwise stated.

List of Insignificant Activities under 15A NCAC 02Q .0503(8)

Emission Source I.D.	Emission Source Description
I-1	Welding shop
I-2	Contained bead blast room
I-6	150 gallon sodium hydroxide storage tank
I-7	150 gallon sulfuric acid storage tank
I-8	250 gallon sulfuric acid storage/measuring tank
I-9	400 gallon sodium hydroxide storage/measuring tank
I-10	500 gallon diesel fuel storage tank and associated dispensing area
I-11	500 gallon gasoline fuel storage tank and associated dispensing area
I-12	560 gallon fuel oil storage/day tank
I-13	1,000 gallon used oil storage tank
I-14	Sixteen 3,300 gallon turbine lubricating oil storage tanks for units 1 through 16
I-15	4,000 gallon sulfuric acid bulk storage tank
I-16	4,500 gallon sodium hydroxide bulk storage tank
I-17	9,000 gallon turbine lubricating oil storage tank/holdup tank used for maintenance purposes only, normally empty
I-18 (MACT, Subpart ZZZZ)	diesel-fired fire protection system (370 horsepower maximum capacity)
I-19	Main transformers containing oil with 130,800 gallon total capacity
I-20	CCV transformers containing oil with 400 gallon total capacity
I-22	Miscellaneous gas cylinders containing: acetylene, argon, chlorine, oxygen or sulfur dioxide for wastewater treatment de-chlorination
I-23	Miscellaneous CFC and HCFC refrigerant cylinders
I-24	Miscellaneous non-CFC and non-HCFC refrigerant cylinders
I-refueling	Gasoline Refueling Operations

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 2D .1100 "Control of Toxic Air Pollutants" or 2Q .0711 "Emission Rates Requiring a Permit".
3. For additional information regarding the applicability of MACT see the DAQ page titled "The Regulatory Guide for Insignificant Activities/Permits Exempt Activities". The link to this site is as follows: <http://daq.state.nc.us/permits/insig/>



AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
07171T10	07171T09	TBD	TBD

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: **Duke Energy Corporation -
Lincoln Combustion Turbine Station**

Facility ID: 5500082
Facility Site Location: 6769 Old Plank Road
City, County, State, Zip: Stanley, Lincoln County, NC 28164

Mailing Address: 6769 Old Plank Road
City, State, Zip: Stanley, Lincoln County, NC 28164

Application Number: 5500082.14A
Complete Application Date: June 26, 2014
Primary SIC Code: 4911
**Division of Air Quality,
Regional Office Address:** Mooresville Regional Office
610 East Center Avenue
Mooresville, NC 28115

Permit issued this the TBD.

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SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENTS

Attachment 1: List of Acronyms

Attachment 2: Acid Rain Permit Application (dated June 26, 2014)

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

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

Page No(s).	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
	ES-1 through ES-16 (PSD; NSPS, Subpart GG; MACT, Subpart YYYY¹; CAM)	sixteen natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbines (1,313 million Btu per hour heat input rate when firing natural gas, 1,247 million Btu per hour heat input rate when firing No. 2 fuel oil), each equipped with dual fuel multi-nozzle combustion burners with combustion air inlet humidification (cooling) system	CD-1 through CD-16	water injection system (one per turbine)
	ES-17 and ES-18 (PSD)	two No. 2 fuel oil fixed-roof storage tanks (5.5 million gallon capacity, each) with atmospheric vents	N/A	N/A

¹ 40 CFR 63.6090(a)(1) defines "Existing stationary combustion turbine" as a unit that commenced construction or reconstruction before January 14, 2003. All of the turbines at this facility meet this definition. 40 CFR 63.6090(a)(4) states that existing turbines do not have to meet the requirements of 40 CFR Part 63, Subparts A or YYYY.

SECTION 2- SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Source(s) and Control Device(s) Specific Limitations and Conditions

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

- A. Sixteen natural gas/No. 2 fuel oil-fired simple-cycle internal combustion turbines (ID Nos. ES-1 through ES-16), each equipped with dual fuel multi-nozzle combustion burners with water injection capability (ID Nos CD-1 through CD-16) and combustion air inlet humidification (cooling) system**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
visible emissions	20 percent opacity (except during startups, shutdowns, and malfunctions)	15A NCAC 02D .0521
sulfur dioxide	0.015 percent by volume at 15 percent oxygen and on a dry basis; -OR- shall not burn any fuel that contains total sulfur in excess of 0.8% by weight.	15A NCAC 02D .0524 (40 CFR Part 60 Subpart GG)
	Federally-enforceable Only Cross State Air Pollution Rule (CSAPR) requirements See Section 2.2.A.7	40 CFR Part 97, Subpart CCCCC
nitrogen oxides	$STD = 0.0075 \left(\frac{14.4}{Y} \right) + F$, STD, Y, and F are defined by 40 CFR 60.332	15A NCAC 02D .0524 (40 CFR Part 60 Subpart GG)
	Comply with CAM procedures. See Section 2.1.A.4.	15A NCAC 02D .0614
	Federally-enforceable Only Cross State Air Pollution Rule (CSAPR) requirements See Section 2.2.A.7	40 CFR Part 97, Subparts AAAAA and BBBBB
Various	Emission limits, operating limits, fuel standards. See Section 2.1.A.3.	15A NCAC 02D .0530
nitrogen oxides	Emissions shall be less than 384.2 tons from the first of May through the end of September of each year	15A NCAC 02Q .0317 (PSD Avoidance)

1. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. ES-1 through ES-16**) 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 emissions 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 .0521.

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

- c. To assure compliance, the Permittee shall perform a Method 9 test for 1 hour using a preapproved protocol to be submitted in accordance with General Condition JJ before the source operates more than 1,100 hours using No. 2 fuel oil. This monitoring protocol shall be repeated before each subsequent 1,100 hours of operation using No. 2 fuel oil from the last test. The hours operated while burning No. 2 fuel oil under the alternative operating scenario as specified in Section 2.1.A.6 below shall count toward the 1,100 hours requirement. The hours of operation using natural gas do not count toward the 1,100 hours requirement.
- d. No opacity monitoring is required while the source is burning natural gas.

If the monitoring requirements in paragraph c., above, are not met, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

- e. The results of the monitoring 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:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.
- f. The Permittee shall keep records for each turbine of the time spent operating on No. 2 fuel oil. The record shall indicate the elapsed time since the previous Method 9 test and the number of hours remaining until another Method 9 test is required. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if the records in paragraphs e. and f., above, are not maintained.

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

- g. The Permittee shall submit the results of the Method 9 test as a part of the semiannual report described in Section 2.1 A. 3. 1. below. All instances of deviations from the requirements of this permit must be clearly identified.

**2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS
(40 CFR Part 60, Subpart GG)**

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements in accordance with 15A NCAC 02D .0524, "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60, Subpart GG "Standards of Performance for Stationary Gas Turbines", including Subpart A "General Provisions".

NSPS Emissions Limitations [40 CFR 60.332 and 333]

- b. The following permit limits shall not be exceeded:
 - i. Oxides of nitrogen (*NO_x*):

$$STD = 0.0075 \left(\frac{14.4}{Y} \right) + F$$

Where:

- STD = allowable NO_x emission concentration (percent by volume at 15 percent oxygen and on a dry basis), corrected as allowed by 40 CFR 60.335(b)(1)
- Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour
- F = NO_x emission allowance for fuel-bound nitrogen. See 40 CFR 60.332(a)(3) and (4).

ii. Sulfur dioxide (SO₂):

- A. The Permittee shall not allow any turbine to emit SO₂ in excess of 0.015 percent by volume at 15 percent oxygen and on a dry basis;
-OR-
B. The Permittee shall not burn any fuel that contains total sulfur in excess of 0.8% by weight.

Testing [15A NCAC 02Q .0508(f), 40 CFR 60.335]

- c. If emissions 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. b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

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

- d. In addition to any other monitoring requirements of the EPA, the Permittee is required to maintain records as follows:

i. The sulfur content of the fuel being fired in each combustion turbine shall be monitored as specified in 40 CFR 60.334(b) to demonstrate compliance with the sulfur dioxide standard in 40 CFR 60.333, using the test methods and procedures in 40 CFR 60.335, except as follows:

- A. When firing fuel oil, as an alternate to sampling each occasion that fuel oil is transferred to each storage tank from any other source (as specified in 40 CFR 60.334(b)(1)), the Permittee may sample each tank to determine sulfur content after all shipments have been transferred into the tank and prior to placing the tank in service for supply to the turbines. Samples shall be analyzed for sulfur content in accordance with 40 CFR Part 75, Appendix D or any other DAQ approved method. B. When firing natural gas, the procedures from 40 CFR Part 75, Appendix D or any other DAQ approved method shall be used to sample and analyze for sulfur content.

If the sulfur content of the fuel burned in each combustion turbine is not monitored as specified above or the sulfur dioxide emission rate of combustion turbine is above the limit given in Section 2.1 A. 2. b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

- ii. As required by 40 CFR 60.334(a), using the test methods and procedures in 40 CFR 60.335(c)(2), for each combustion turbine, a continuous monitoring device shall be installed, operated, calibrated, and maintained to monitor and record fuel consumption and the ratio of water-to-fuel being fired. This system shall be accurate to within ± 5.0 percent and must be approved by the DAQ prior to installation. The Permittee shall comply with the requirements of 40 CFR Part 60, Appendix B, Performance Specifications and Appendix F, Quality Assurance Procedures for continuous monitoring systems, installed on the turbines (ID Nos. ES-1 through ES-16).

If the fuel consumption and/or the ratio of water-to-fuel being fired is not monitored and

recorded continuously, for each combustion turbine, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

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

- e. In addition to any other reporting requirements to the EPA, the Permittee is required to **REPORT** the Regional Supervisor, DAQ, in **WRITING**, of the following:
- i. The reporting requirement for excess emissions for nitrogen oxides, as included in Section 2.1 A. 3. 1. iv., shall be sufficient for the purpose of reports required under 40 CFR 60.7(c).
 - ii. The reporting requirement for excess emissions for sulfur dioxide, as included in Section 2.1 A. 3. 1. v., shall be sufficient for the purpose of reports required under 40 CFR 60.7(c).

Alternative Operating Scenario

- f. The Permittee may comply with the requirements of the Alternative Operating Scenario (see Section 2.1.A.6.) if the conditions listed in Paragraph 2.1.A.6.b. are met.

3. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The following Best Available Control Technology (BACT) limits shall not be exceeded:
- i. Short term maximum emission rates for each turbine, equipped with duel fuel multi-nozzle combustion burners and water injection for NOx emission control, when firing No. 2 fuel oil, shall not exceed:

POLLUTANT	BACT EMISSION LIMITS			
	lb/hr	lb/mmBtu	other	BACT CONTROLS
opacity	---	---	20 %	combustion control
Sulfur dioxide	240.70	0.193	---	0.2%w sulfur fuel oil
particulate/PM-10	34.00	0.027	---	combustion control
oxides of nitrogen	287.00	0.23	58 ppm	multi-nozzle combustor and maximum water injection
carbon monoxide	60.00	0.048	---	combustion control
volatile organic compounds	5.00	0.004	---	combustion control
sulfuric acid	25.10	0.02	---	0.2 %w sulfur fuel oil
Lead	0.075	0.00006	---	combustion control

- ii. Short term maximum emission rates for each turbine, equipped with duel fuel multi-nozzle combustion burners and water injection for NOx emission control, when firing natural gas, shall not exceed:

POLLUTANT	BACT EMISSION LIMITS			
	lb/hr	lb/mmBtu	other	BACT CONTROLS
opacity	---	---	20 %	combustion control
Sulfur dioxide	0.70	0.0005	---	combustion control
particulate/PM-10	5.00	0.004	---	combustion control
oxides of nitrogen	119.00	0.095	25 ppm	multi-nozzle combustor and

POLLUTANT	BACT EMISSION LIMITS			
	lb/hr	lb/mmBtu	other	BACT CONTROLS
				maximum water injection
carbon monoxide	59.00	0.05	---	combustion control
volatile organic compounds	2.00	0.002	---	combustion control

iii. Long term total maximum emission rates from all turbines when firing either No. 2 fuel oil or natural gas shall not exceed:

POLLUTANT	BACT EMISSION LIMIT (tons/year)
sulfur dioxide	1,212.00
particulate/PM-10	544.00
oxides of nitrogen	3,600.00
Carbon monoxide	848.00
volatile organic compounds	72.00
sulfuric acid	128.00
Lead	0.94

Testing [15A NCAC 02D .0501 (c)(4)]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits 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. The maximum annual hours of operation for each combustion turbine shall not exceed 2,500 hours per calendar year.
- d. Total combined hours of operation for all turbines shall not exceed a maximum of 32,000 hours per calendar year.
- e. The Permittee shall maintain records of the actual hours of operation for each combustion turbine. If the actual hours of operation for each combustion turbine are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
- f. The maximum sulfur content of the No. 2 fuel oil used in each combustion turbine shall not exceed 0.2 percent sulfur by weight.
 - i. The Permittee shall determine the No. 2 fuel oil sulfur content in accordance with 40 CFR 60.334 at least quarterly or in accordance with written approval of any U.S. EPA approved custom fuel monitoring schedule, and
 - ii. The Permittee shall take representative No. 2 fuel oil samples from the fuel oil storage tank designated to supply fuel to the turbines, prior to combustion of the fuel.

If the sulfur content of the No. 2 fuel oil is not monitored or the results of the monitored No. 2 fuel oil is above the limit included in Section 2.1 A. 3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
- g. The maximum fuel bound nitrogen (FBN) content of the No. 2 fuel oil, used in each combustion turbine, shall be less than 0.1 percent by weight (0.04 percent by volume),
 - i. The Permittee shall determine the No. 2 fuel oil nitrogen content in accordance with NSPS requirements contained in 40 CFR 60.334 at least quarterly or in accordance with written

- approval of any U.S. EPA approved custom fuel monitoring schedule, and
- ii. The Permittee shall take representative No. 2 fuel oil samples from the fuel oil storage tank designated to supply fuel to the turbines, prior to combustion of the fuel.
If the nitrogen content of the No. 2 fuel oil is not monitored or the results of the monitored No. 2 fuel oil is above the limit included in Section 2.1 A. 3. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
 - h. The maximum No. 2 fuel oil heat input shall not exceed 1,247 million Btu per hour for each combustion turbine.
 - i. The maximum natural gas heat input shall not exceed a maximum of 1,313 million Btu per hour for each combustion turbine.
 - j. The combined emissions for all 16 combustion turbines shall not exceed a maximum sulfur dioxide emissions rate of 1,540 pounds per hour. To ensure this emission rate is not exceeded, the Permittee is limited to the following operational conditions and stipulations:
 - i. No. 2 fuel oil shall be supplied to the combustion turbines from only one of the two No. 2 fuel oil storage tanks at any one time,
 - ii. Once a tank begins supplying No. 2 fuel oil to the combustion turbines, no additional fuel shall be added to that particular storage tank,
 - iii. The sulfur content of the fuels shall be determined using American Society for Testing & Materials (ASTM) methods as follows:
 - A. ASTM method D 2880-71, D 1552-90, or another method upon receipt of U.S. EPA written approval, shall be used to determine the sulfur content of the No. 2 fuel oil in each storage tank prior to combustion of the fuel in the combustion turbines, and
 - B. ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81, ITT Barton M286, or another method upon receipt of U.S. EPA written approval shall be used to determine the sulfur content of the natural gas.
 - iv. The maximum averaged facility-wide sulfur dioxide emissions rate for any 60-minute period beginning on the hour shall be based on:
 - A. The actual recorded natural gas and No. 2 fuel oil consumption as determined by requirements of 40 CFR 60.334(a),
 - B. The sulfur content of the natural gas and No. 2 fuel oil as determined by requirements of 40 CFR 60.335(d),
 - C. No less than six computer-generated emission calculations per hour, and
 - D. The combined sulfur dioxide emissions rate for the natural gas and No. 2 fuel oil.
 - v. The Permittee shall determine and record the facility-wide sulfur dioxide emissions rate any time that five or more combustion turbines are being fired simultaneously.
If the records of the facility-wide sulfur dioxide emissions rate are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
 - k. Whenever five or more combustion turbines are in operation, the Permittee shall record the number of combustion turbines operated each hour and the pounds of sulfur dioxide emitted during each hour.

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

1. The Permittee shall submit in writing the following reports, 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.:
 - i. The sulfur and nitrogen content in percent by weight of the No. 2 fuel oil;
 - ii. The maximum number of hours of operation of each combustion turbine for the previous 12 months period;
 - iii. The total combined hours of operation for all turbines for the previous 12 months period;
 - iv. The periods of excess emissions for nitrogen oxides for any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the

- performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in 40 CFR 60.8. The excess emission report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, nitrogen content of fuel during the period of excess emissions, and the graphs and figures developed during the initial performance test;
- v. The periods of excess emissions for sulfur dioxide for any daily period during which the sulfur content of the fuel being fired exceeds 0.8 percent by weight; and
 - vi. The records associated with Paragraph k., above.

Alternative Operating Scenario

- m. The Permittee may comply with the requirements of the Alternative Operating Scenario (see Section 2.1.A.6.) if the conditions listed in Paragraph 2.1.A.6.b. are met.

4. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING

- a. For sources listed in paragraph a.i and associated control devices listed in paragraph a.ii, the Permittee shall comply with 40 CFR Part 64, pursuant to 15A NCAC 2D .0614, to assure that all listed emission sources and control devices comply with the NO_x emission standards listed in Sections 2.1.A.2. (NSPS Subpart GG) and 2.1.A.3. (PSD).
 - i. Emission sources: Sixteen combustion turbines (**ID Nos. ES-1 through 16**)
 - ii. Control devices: Water injection systems (**ID Nos. CD-1 through 16**), one installed per turbine.

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

- b. The Permittee shall install a continuous monitoring device that monitors the water-to-fuel ratio, as required by Paragraph 2.1.A.2.d.ii., above.
- c. The Permittee shall record continuously:
 - i. the water-to-fuel ratio for each turbine
 - ii. the load on each turbine
- d. The Permittee shall calculate and record the four hour block average water-to-fuel ratio for each turbine at the end of each four hour block period.
- e. An excursion has occurred if the four hour block average water-to-fuel ratio is less than the ratio used to determine compliance during the most recent emission testing. Periods of startup, shutdown, monitor malfunction, and operation under the AOS (see Section 2.1.A.6.) will not be considered when determining if an excursion has occurred.
- f. In the event of any excursion, the Permittee shall take appropriate action to correct the excursion as soon as practicable.
- g. If excursions occur more than five percent of the operating time during the reporting period, then the Permittee shall:
 - i. Develop and implement a Quality Improvement Plan (QIP); or
 - ii. If a QIP already exists, the Permittee shall modify the plan as specified in 40 CFR 64.8(b)(2).

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

- h. The Permittee shall submit a summary report of all monitoring and recordkeeping activities required by Paragraphs c. through f., above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations for the requirements of this permit must be clearly identified. The report shall also include the following information, as applicable:

- i. Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions and exceedances (including periods of startup, shutdown, and AOS), as applicable, and the corrective actions taken;
- ii. Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
- iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

5. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS

(Avoidance of 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION]

- a. To comply with this permit and avoid the applicability of 15A NCAC 02D .0530 "Prevention of Significant Deterioration," as requested by the Permittee, nitrogen oxides (NO_x) emissions from combustion turbines, while using combustion air inlet cooling humidification systems, shall be less than 384.2 tons from the first of May to the end of September of each year.

Testing [15A NCAC 02D .0501 (c)(4)]

- b. If emissions 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 Paragraph a., above, the Permittee shall be deemed in noncompliance with 15A NCAC 02Q .0317.

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

- c. Combustion air inlet cooling humidification systems may only be used from the first of May to the end of September of each year (i.e., the restricted period).
- d. The Permittee shall maintain records of NO_x emissions from combustion turbines while using combustion air inlet humidification systems for each month during the restricted period. These records shall be derived from the Acid Rain monitoring data required by the Acid Rain Permit. The Permittee shall keep these records on file (electronic format acceptable) and make them available to DAQ personnel upon request.

If the records of the NO_x emissions required by Paragraphs c. and d., above, are not maintained, the Permittee shall be deemed in noncompliance with 15A NCAC 02Q .0317.

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

- e. Each calendar year, the Permittee shall submit a report to the Regional Supervisor, DAQ, postmarked on or before October 30. The report shall include:
 - i. The monthly nitrogen oxides emissions from combustion turbines during combustion air humidification system use for each month of the restricted period,
 - ii. The cumulative total of nitrogen oxides emissions from combustion turbines during combustion air humidification system use for each of the five months during the restricted period.

6. ALTERNATIVE OPERATING SCENARIO

- a. Under the alternative operating scenario (AOS), the Permittee shall be allowed to operate the following units at low load operation (1-27 MW) without the use of water injection control for intermittent periods of time over a 24-hour period.
 - i. Up to four (4) combustion turbine units if fired on natural gas, OR
 - ii. Up to four (4) combustion turbine units if fired on No. 2 fuel oil with a sulfur content $\leq 0.05\%$ (by weight) verified by an analysis using ASTM methods, OR

- iii. One combustion turbine unit (except ES-1, ES-2, ES-9 and ES-10) if fired with sulfur content $\leq 0.2\%$ (by weight) verified by an analysis using ASTM methods.
- b. The AOS is necessitated in support of the Duke Power System Blackout Recovery Plan and shall be allowed only in the event of a catastrophic loss of all or a major part of the transmission grid, i.e., system blackout.

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

- c. The sulfur content of the fuels shall be determined using American Society for Testing & Materials (ASTM) method D 2880-71, D 1552-90, or another method upon receipt of U.S. EPA written approval, shall be used to determine the sulfur content of the No. 2 fuel oil in each storage tank prior to combustion of the fuel in the combustion turbines.
- d. The hours of operation for each turbine operated under the AOS shall be applied against the turbine's maximum annual hours of operation listed in Section 2.1.A.3.c.
- e. The combined hours of operation under the AOS shall be applied against the total combined hours of operation of listed in Section 2.1.A.3.d.

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

- f. The Permittee shall notify the Regional Supervisor by 9:00 a.m. Eastern Time of the Division's next business when initiating and terminating the AOS.
- g. The Permittee shall submit in writing the following reports 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:
 - i. The maximum number of hours of operation of each combustion turbine operated under the AOS for the previous 12 months period, and
 - ii. The total combined hours of operation for all turbines operated under the AOS for the previous 12 months period.

(Federally-enforceable Only)

7. CROSS STATE AIR POLLUTION RULE (CSAPR) REQUIREMENTS

For the sixteen combustion turbines (**ID Nos. ES-1 through ES-16**), the Permittee shall comply with all applicable requirements of 40 CFR Part 97, Subpart AAAAAA "TR NO_x Annual Trading Program", Subpart BBBBBB "TR NO_x Ozone Season Trading Program", and Subpart CCCCCC "TR SO₂ Group 1 Trading Program".

B. Two No. 2 fuel oil, fixed-roof storage tanks with atmospheric vents (5,500,000 gallons capacity each, ID Nos. ES-17 and ES-18)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
volatile organic compounds	13.30 tons per year, combined	15A NCAC 02D .0530

1. 15A NCAC 02D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The following Best Available Control Technology (BACT) limit shall not be exceeded:
 - i. Long term maximum emission rates for both storage tanks shall not exceed:

POLLUTANT	BACT EMISSION LIMIT (tons/year)
volatile organic compounds	13.30 total

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

- b. The requirements of Section 2.1 A. 3. d. and h. shall be sufficient to assure compliance with the emission limit indicated in Section 2.1 B. 2. a. i. above. No monitoring/recordkeeping/reporting is required for emissions of volatile organic compounds from this source.

2.2- Phase II Acid Rain Permit Requirements

ORIS code: 7277

Effective: Same as TV permit issue/exp dates, TBD

1. Statement of Basis

Statutory and Regulatory Authorities: In accordance with the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended and Titles IV and V of the Clean Air Act, the Division of Air Quality issues this permit pursuant to Title 15A North Carolina Administrative Codes, Subchapter 02Q .0400 and 02Q .0500, and other applicable Laws.

2. SO₂ Allowance Allocations and NO_x Requirements for each affected unit

ES-1 through ES-16	SO ₂ allowances, under Tables 2, 3, or 4 of 40 CFR part 73.	SO ₂ allowances are not allocated by U.S. EPA for new units under 40 CFR Part 72.
	NO _x limit	Does not apply to gas or oil-fired units.

3. Comments, Notes and Justifications

None.

SECTION 3- GENERAL CONDITIONS (version 4.0 12/17/15)

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 nine 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. 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 02D .0540] - STATE ENFORCEABLE ONLY

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.

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List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CSAPR	Cross State Air Pollution Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CAA	Clean Air Act
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
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

Phase II Acid Rain Permit Application (attached)

The Phase II Permit Application submitted for this facility, as approved by the Division of Air Quality, is part of this permit. The owners and operators of these Phase II acid rain sources must comply with the standard requirements and special provisions set forth in the following attached application.

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