

ROY COOPER

MICHAEL S. REGAN

MICHAEL A. ABRACZINSKAS

Director

DRAFT

Stephanie Clarkson Vice President NTE Carolinas II, LLC 24 Cathedral Place, Suite 300 Saint Augustine, FL 32084

SUBJECT: Air Quality Permit No. 10494R00

Facility ID: 7900182

NTE Carolinas II, LLC - Reidsville Energy Center

Reidsville, North Carolina Rockingham County Fee Class: Title V PSD Status: Major

Dear Ms. Clarkson:

In accordance with your completed application received April 21, 2017, we are forwarding herewith Permit No. 10494R00 to NTE Carolinas II, LLC – Reidsville Energy Center, 4563 NC Highway 65, Reidsville, NC for the construction and operation of air emissions sources or air cleaning devices and appurtenances. Please note the records retention requirements are contained in General Condition 2 of the General Conditions and Limitations.

The Permittee shall file a Title V Air Quality Permit Application pursuant to 15A NCAC 02Q .0504 on or before 12 months after commencing operation.

If any parts, requirements, or limitations contained in this 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. Such a request will stay the effectiveness of the entire permit. This hearing request must be in the form of a written petition, conforming to NCGS 150B-23 of the North Carolina General Statutes, and filed with the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, NC 27699-6714. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Unless a request for a hearing is made pursuant to NCGS 150B-23, this air permit shall be final and binding.

You may request modification of your air 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 the 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.

Stephanie Clarkson MM DD, 2017 Page 2

Unless exempted by a condition of this permit or the regulations, construction of new air pollution sources or air cleaning devices, or modifications to the sources or air cleaning devices described in this permit must be covered under a permit issued by the Division of Air Quality prior to construction. Failure to do so is a violation of NCGS 143-215.108 and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

This permit shall be effective from MM DD, 2017 until MMM DD, 20XX, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Rockingham County has been triggered for PM_{10} , SO_2 and NO_X with respect to the associated minor source baseline dates on September 25, 1998. This modification (i.e., construction of a greenfield facility) will result in a significant increase of $PM_{2.5}$ emissions and hence trigger the minor source baseline date for $PM_{2.5}$. The minor source baseline date for $PM_{2.5}$ is August 08, 2016. For PSD increment tracking purposes, the emissions from this greenfield facility will result in the following increases:

- i. $PM_{10} = 40 \text{ lb/hr}$
- ii. $PM_{2.5} = 39 \text{ lb/hr}$
- iii. $NO_2 = 170 \text{ lb/hr}$

The Permittee is responsible for carefully reading the entire permit and evaluating the requirements of each permit stipulation. The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. 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.

Should you have any questions concerning this matter, please contact Joseph Voelker, P.E. at 919-707-8730.

Sincerely yours,

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

c: Heather Ceron, EPA Region 4
 Connie Horne (cover letter only)
 Winston-Salem Regional Office
 Central Files



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

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
10494R00	N/A	DRAFT	DRAFT

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: NTE Carolinas II, LLC – Reidsville Energy Center

Facility ID: 7900182

Facility Site Location: 4563 NC Highway 65

City, County, State, Zip: Reidsville, Rockingham County, North Carolina, 27320

Mailing Address: 24 Cathedral Place, Suite 300 City, State, Zip: St. Augustine, FL 32084

Application Number: 7900182.16A Complete Application Date: April 21, 2017

Primary SIC Code: 4911

Division of Air Quality, Winston-Salem Regional Office Regional Office Address: 450 West Hanes Mill Road, Suite 300

Winston-Salem, NC 27105

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 Source(s) Specific Limitations and Conditions

(Including specific requirements, testing, monitoring, recordkeeping, and

reporting requirements)

SECTION 3: GENERAL PERMIT CONDITIONS

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description		
One of the fo	One of the following combustion turbines:				
ES-1 (MHPSA) NSPS	(MHPSA) One nominal 500 MW natural gas-fired combined-cycle combustion turbine (CT) with duct burner (DB) (maximum heat input rate, HHV	CD-1A	Selective Catalytic Reduction (SCR)		
KKKK NSPS TTTT	basis = 2,894 MMBtu/hr, CT only and 724 MMBtu/hr, DB only). CT equipped with dry low-		CO oxidation catalyst		
or					
ES-1 (Siemens) NSPS	One nominal 500 MW natural gas-fired combined-cycle combustion turbine (CT) with duct burner (DB) (maximum heat input rate, HHV	CD-1A	Selective Catalytic Reduction (SCR)		
KKKK NSPS TTTT	MMBtu/hr, DB only). CT equipped with dry low-		CO oxidation catalyst		
Appurtenan	t equipment for either combustion turbine constru	ected			
ES-2 NSPS Dc	Natural gas-fired auxiliary boiler (85 MMBtu/hr maximum heat input rate) with low NOx burners	NA	NA		
ES-3	Natural gas-fired fuel gas heater (9 MMBtu/hr per hour maximum heat input rate) with low NOx burners	NA	NA		
ES-4 NSPS IIII MACT ZZZZ	Diesel fuel-fired standby emergency generator (1,675 maximum brake horsepower)	NA	NA		
ES-5 NSPS IIII MACT ZZZZ	Diesel fuel-fired emergency fire pump engine (300 maximum brake horsepower)	NA	NA		
ES-6	Multi-cell cooling tower (126,340 gallons per minute nominal recirculating flow rate)	CD-6	Mist eliminator (0.0005 percent drift loss)		

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

A. One of the following combustion turbines:

Emission Source ID No.	Emission source Description	Control Device ID No.	Control Device Description
ES-1	One nominal 500 MW natural gas-fired combined-cycle combustion turbine (CT) with duct burner (DB) (maximum heat input rate, HHV	CD-1A	Selective Catalytic Reduction (SCR)
E3-1	basis = 2,894 MMBtu/hr, CT only and 724 MMBtu/hr, DB only). CT equipped with dry low-NOx combustors	CD-1B	CO oxidation catalyst

or

Emission Source ID No.	Emission source Description	Control Device ID No.	Control Device Description
ES-1	One nominal 500 MW natural gas-fired combined-cycle combustion turbine (CT) with duct burner (DB) (maximum heat input rate, HHV	CD-1A	Selective Catalytic Reduction (SCR)
E3-1	basis = 2,973 MMBtu/hr, CT only and 698 MMBtu/hr, DB only). CT equipped with dry low-NOx combustors	CD-1B	CO oxidation catalyst

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	0.20 pounds per million Btu heat input	15A NCAC 02D .0503
Visible emissions	20 percent opacity when averaged over a six-minute period	15A NCAC 02D .0521
NO _x	 i. 15 ppm at 15 percent O₂ or, ii. 96 ppm at 15 percent O₂ when operating at less than 75 percent of peak load 	15A NCAC 02D .0524 (40 CFR 60, Subpart KKKK)
SO_2	0.06 lb/million Btu heat input	
PM ₁₀ , PM _{2.5} , NO _x , VOC, CO, H ₂ SO ₄ , GHG	BACT Limitations See Section 2.1 A.5.	15A NCAC 02D .0530
	Submit a complete Acid Rain permit application at least 24 months before the date on which the unit (ID No. ES-1) commences operation	15A NCAC 02Q .0402 (40 CFR Part 72)
NOx, SO ₂	Federally-Enforceable Only Cross State Air Pollution Rules (CSAPR) Requirements, as applicable	40 CFR Part 97, Subpart AAAAA, Subpart BBBBB, and Subpart CCCCC
GHG	1,000 lb CO ₂ /MWh of gross energy output as determined on a 12-operating month rolling average basis	15A NCAC 02D .0524 (40 CFR 60, Subpart TTTT)

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter from the combustion of natural gas that are discharged from this source into the atmosphere shall not exceed 0.20 pounds per million Btu heat input. This emission limitation only applies when the duct burner is in operation.

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

 No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in this source.

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

a. Visible emissions from this source 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 .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in this source.

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART KKKK)

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

Emission Limitations

- b. The following NOx emission limitations for the combustion turbine (ID No. ES-1) shall not be exceeded, except during startup, shutdowns, and malfunction.
 - i. 15 ppm at 15 percent O_2 or,
 - ii. 96 ppm at 15 percent O₂ when operating at less than 75 percent of peak load [§60.4320]
- c. The SO₂ emissions from the combustion turbine (ID No. ES-1) shall not exceed 0.06 lb/million Btu heat input, except during startup, shutdowns, and malfunction. [§60.4330]
- d. The Permittee shall operate and maintain the combustion turbine, air pollution control equipment, and monitoring equipment in a manner consistent with good air pollution control practices for minimizing emissions at all times including during startup, shutdown and malfunction in accordance with §60.4333.

Testing [15A NCAC 02Q .0308(a)]

- e. If performance testing is required, the testing shall be performed in accordance with General Condition 17.
- f. Pursuant to §60.4340(b) the Permittee has chosen to install a continuous emission monitoring system in lieu of stack testing for NOx. The initial performance test required under §60.8 shall be performed as described in §60.4405.
- g. Except as specified §60.8(a), within 60 days after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup of such facility, the Permittee shall conduct the performance test(s) and furnish the Administrator a written report of the results of such performance test(s).

General Monitoring/Recordkeeping [15A NCAC 02Q .0308(a)]

- h. The Permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative. [§60.8(b)]
- i. Pursuant to \$60.7(f), the Permittee shall maintain records of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The records shall be retained for at least two years following the date of such measurements, maintenance, reports, and records, except as allowed pursuant to \$60.7(f).

NOx Monitoring/Recordkeeping [15A NCAC 02Q .0308(a)]

- j. The Permittee shall install, calibrate, maintain and operate a continuous emissions monitoring system (CEMS) consisting of NO_X and O₂ monitors, to determine the hourly NO_X emission rate in parts per million (ppm). [§60.4340(b), §60.4335(b)]
- k. The CEMS shall meet the installation, certification and operating requirements of §60.4345.
- 1. Pursuant to \$60.4350(h), the hourly average NO_X emission rates shall be used to assess excess emissions on a 30 unit operating day rolling average basis, as described in \$60.4380(b)(1).

SO₂ Monitoring/Recordkeeping [15A NCAC 02Q .0308(a)]

m. The Permittee shall demonstrate compliance with the applicable SO₂ emission limit by making demonstrations that the fuel quality characteristics in a current, valid purchase contract, tariff sheet or transportation contract for the fuel specifies that the total sulfur content for natural gas is 20 grains of sulfur or less per 100 standard cubic feet, and has potential sulfur dioxide emissions of less than 0.06 lb SO₂/mmBtu heat input in accordance with §60.4365(a). The Permittee shall maintain records of the fuel contracts on site at the source for a period of two years pursuant to §60.7(f).

Reporting [15A NCAC 02Q .0308(a)]

- n. The Permittee shall submit the following notifications:
 - i. a notification of the date construction of the affected facility is commenced postmarked no later than 30 days after such date. [§60.7(a)(1)]
 - ii. a notification of the actual date of initial startup of the affected facility postmarked within 15 days after such date. [\$60.7(a)(3)]
 - iii. a notification of the date of the performance test. Notification shall be postmarked not less than 30 days prior to such date. [\$60.7(a)(5), \$60.8(d)]
- o. On a quarterly basis, the Permittee shall, pursuant to \$60.4395 and \$60.7(c), submit an excess emissions and monitoring systems performance report. The report shall contain the information required per 40 CFR 60.7(c) and (d). Excess emissions shall be identified pursuant to \$60.4350. The format for the report will be provided by the DAQ. The Permittee shall submit the report, acceptable to the Regional Air Quality Supervisor, within 30 days after each calendar year quarter, postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 for the calendar year for the preceding three-month period between July and September.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (40 CFR PART 60 SUBPART TTTT)

Applicability [§60.5509(a)]

a. The Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart TTTT Subpart TTTT "Standards of Performance for Greenhouse Gas Emissions for Electric Generating Units", including Subpart A "General Provisions."

Definitions and Nomenclature [15A NCAC 02Q .0308(a)]

b. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 60.5580 shall apply.

General Provisions [15A NCAC 02Q .0308(a)]

c. The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 3 of 40 CFR 60 Subpart TTTT. [§60 .5570]

Emission Limitations [15A NCAC 02Q .0308(a)]

d. The Permittee shall not discharge from the affected EGU any gases that contain CO₂ in excess of 1,000 lb CO₂/MWh of gross energy output as determined on a 12-operating month rolling average basis. [§60.4320, 60.5525]

General Requirements [15A NCAC 02O .0308(a)]

e. The Permittee shall be in compliance with the emission standard in Section 2.1 A.4.c all times. However, the Permittee shall determine compliance with the emission standard monthly by calculating the average CO₂ emission rate at the end of the initial and each subsequent 12-operating-month period. [60.5525(a)(1)]

f. At all times the Permittee shall operate and maintain each affected EGU, including associated equipment and monitors, in a manner consistent with safety and good air pollution control practice. The Administrator will determine if the Permittee is using consistent operation and maintenance procedures based on information available to the Administrator that may include, but is not limited to, fuel use records, monitoring results, review of operation and maintenance procedures and records, review of reports required by this subpart, and inspection of the EGU. [60.5525(b)]

Compliance Determinations [15A NCAC 02Q .0308(a)]

- g. No more than 30 days after the first 12-operating-month compliance period, the Permittee shall make an initial compliance determination for the affected EGU with respect to the applicable emissions standard in accordance with the requirements of 40 CFR 60 Subpart TTTT. The first operating month included in the initial 12-operating-month compliance period is the first operating month after the calendar month in which emissions reporting is required to begin under Section 2.1 A.4.r. (i.e., §60.5555(c)(3)(i)). [60.5525(c)]
- h. For the initial and each subsequent 12-operating-month rolling average compliance period, the Permittee shall follow the procedures in §60.5540(a)(1) through (7) to calculate the CO₂ mass emissions rate for the affected EGU in units of lb/MWh of gross energy output. [§60.5540(a), (b)]

Monitoring Requirements [15A NCAC 02Q .0308(a)]

- i. The Permittee shall prepare a monitoring plan to quantify the hourly CO₂ mass emission rate (tons/h), in accordance with the applicable provisions in 40 CFR 75.53(g) and (h). The electronic portion of the monitoring plan must be submitted using the ECMPS Client Tool and must be in place prior to reporting emissions data and/or the results of monitoring system certification tests under 40 CFR 60. The monitoring plan must be updated as necessary. Monitoring plan submittals must be made by the Designated Representative (DR), the Alternate DR, or a delegated agent of the DR. [§60.5535(a)]
- j. The Permittee shall determine the hourly CO₂ mass emissions from the affected EGU according to §60.5535(c).
- k. The Permittee shall install, calibrate, maintain, and operate a sufficient number of watt meters to continuously measure and record the hourly gross electric output from the affected EGU meeting the requirements of §60.5535(d)(1).

Recordkeeping Requirements [15A NCAC 02Q .0308(a)]

- 1. The Permittee shall maintain records of the occurrence and duration of any malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

 [§60.7(b)]
- m. The Permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least two years on site following the date of such measurements, maintenance, reports, and records, except as allowed at §60.7(f).

 [§60.5560(a)]
- n. The Permittee shall must follow the applicable recordkeeping requirements and maintain records as required under 40 CFR 75 Subpart F.
- o. The Permittee shall keep records:
 - i. of the calculations performed to determine the hourly and total CO₂ mass emissions (tons) for:
 - (A) each operating month; and
 - (B) each compliance period, including, each 12-operating-month compliance period.
 - ii. consistent with §60.5520, of the applicable data recorded and calculations performed that you used to determine your affected EGU's gross energy output for each operating month.
 - iii. of the calculations performed to determine the percentage of valid CO₂ mass emission rates in each compliance period.
 - iv. of the calculations performed to assess compliance with the applicable ${\rm CO_2}$ mass emissions standard.
 - v. of the calculations performed to determine any site-specific carbon-based F-factors you used in the emissions calculations (if applicable).

[§60.5560(c)]

- p. The Permittee shall maintain each record:
 - i. in a form suitable and readily available for expeditious review.
 - ii. for 3 years after the date of conclusion of each compliance period.

iii. on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §60.7. Records that are accessible from a central location by a computer or other means that instantly provide access at the site meet this requirement. The Permittee may maintain the records off site for the remaining year.

[§60.5565]

Notification Requirements [15A NCAC 02Q .0308(a)]

- q. The Permittee shall submit the following notifications:
 - i. a notification of the date construction of the affected facility is commenced postmarked no later than 30 days after such date. [§60.7(a)(1)]
 - ii. a notification of the actual date of initial startup of the affected facility postmarked within 15 days after such date. [§60.7(a)(3)]
 - iii. notifications specified in §75.61 as applicable, which includes, but not limited to, notifications of the certification of monitoring systems, periodic testing and audits, certification deadline date and date of commencing commercial operation.

[§60.5550]

Reporting Requirements [15A NCAC 02Q .0308(a)]

- r. On a quarterly basis, the Permittee shall submit electronic quarterly reports no later than 30 days after the end of that quarter as follows:
 - i. after the first 12-operating months of the EGU, submit a report for the calendar quarter that includes the twelfth operating month. Thereafter, the Permittee shall submit a report for each subsequent calendar quarter.
 - ii. submit each quarterly report including the information specified in §60.5555(a)(2).
 - iii. submit the final quarterly report of each calendar year also including the information specified in §60.5555(a)(3).
 - iv. submit all electronic reports using the Emissions Collection and Monitoring Plan System (ECMPS) Client Tool provided by the Clean Air Markets Division in the Office of Atmospheric Programs of EPA. [§60.5555(a), (b)]
- s. The Permittee shall meet all applicable reporting requirements as required under 40 CFR Part 75 Subpart G and shall begin submitting these reports in accordance with §75.64(a), beginning with data recorded on and after the earlier of:
 - i. The date of provisional certification, as defined in §75.20(a)(3); or
 - ii. 180 days after the date on which the EGU commences commercial operation as defined in §72.2. [§60.5555(c)]
- t. The reports required under conditions r and s. shall be submitted by the person appointed as the Designated Representative (DR) or Alternate Designated Representative (ADR); or a person (or persons) authorized by the DR or ADR pursuant to 40 CFR Part 72. [§§60.5555(c), 72.20, 72.22 and 72.26]

5. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION BACT Limitation during 50 to 100% operating load

a. The "Best Available Control Technology" (BACT) permitted emission limits for the emission source (ID No. ES-1), during normal operation (i.e., operating loads between 50 and 100% of full load), are as follows:

Table 5.a

Regulated	Table 5.a	Control Trobushors	
Pollutant	Emission Limits**	Control Technology	
	0.0039 lb/MMBtu, 3-hr basis, CT only		
PM ₁₀ / PM _{2.5}	0.0053 lb/MMBtu, 3-hr basis, CT and DB (MHPSA)	Good combustion practices; Exclusive natural gas firing	
2.3	0.0059 lb/MMBtu, 3-hr basis, CT and DB (Siemens)	3	
NO _x ,	2 ppmvd @ 15% O ₂ , 1 hr- basis	Exclusive natural gas firing, Dry low NOx combustors on CT; SCR on CT and DB exhaust	
СО	2 ppmvd @ 15% O ₂ , 1 hr- basis	Exclusive natural gas firing Oxidation catalysts; Good combustion practices;	
VOC	1.0ppmvd @ 15% O ₂ , 3 hr- basis w/o duct firing 1.5 ppmvd @ 15% O ₂ , 3 hr- basis with duct firing (MHPSA) 2.7 ppmvd @ 15% O ₂ , 3 hr- basis with duct firing (Siemens)	Exclusive natural gas firing Oxidation catalysts; Good combustion practices;	
H ₂ SO ₄	0.75 grains S per 100 SCF natural gas combusted	Exclusive natural gas firing	
GHGs	Initial Test gross heat rate = 6,590 Btu/kW-hr, HHV (gross*) at ISO conditions, (MHPSA) gross heat rate = 6,470 Btu/kW-hr, HHV (gross*) at ISO conditions, (Siemens) Life of the facility gross heat rate = 6,867 Btu/kW-hr, HHV (gross*) at ISO conditions, life of the facility (MHPSA) gross heat rate = 6,742 Btu/kW-hr, HHV (gross*) at ISO conditions, life of the facility (Siemens)	Energy efficiency/combined-cycle power plant; Good combustion practices;	

^{*} gross heat rate is based on the full electric energy output of the generation equipment, without duct firing and without consideration of internal plant loads

Secondary BACT Limitations to include start up, shutdown, commissioning, tuning and normal operations

b. The BACT permitted emission limits for the emission source (ID No. ES-1), <u>during start up</u>, <u>shutdown</u>, <u>commissioning</u>, <u>tuning</u> and <u>normal operations</u>, are as follows:

Table 5b.

Regulated	Emission Limits, tons per 12 months, rolling basis	
Pollutant	(MHPSA)	(Siemens)
PM ₁₀ /PM _{2.5}	82.3	83.2
NO_x	119.1	120.9
CO	280.3	98.1
VOC	100.4	56.1
GHGs	1,757,319 (CO ₂ e basis)	1,782,510 (CO ₂ e basis)

^{**} unless explicitly specified, each limit applies in both operating scenarios: 1. normal operation (50 to 100% load) without duct firing; and 2. normal operation (50 to 100% load) with duct firing;

- c. The Permittee shall:
 - i. limit operation during start up and shut down operations to 500 hours per year (rolling 12-month basis);
 - ii. minimize operation during commissioning to the maximum extent possible;
 - iii. limit tuning operations to 2 events per year (rolling 12-month basis). Each event shall not exceed 8 hours; and;
 - iv. minimize emissions to the maximum extent possible during start up shutdown, commissioning and tuning operations.
- d. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 02D .0530; 40 CFR 51.166(k):

Pollutant	Emission Rate (lb/hr)**			
Ponutant	1-hr average 24-hr average Annual a			
PM _{2.5}	NA	19.40	19.40	
NO ₂ (MHPSA)	47.20	NA	*	
NO ₂ (Siemens)	112.50	NA	*	

^{*} maximum project impacts were less than the respective SIL in the significant impact analysis

Testing [15A NCAC 02Q .0308(a)]

e. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Initial testing

f. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits for PM10/PM2.5 and VOC during normal operation with and without duct firing and heat rate limitations without duct firing in accordance with a DAQ approved protocol. The test(s) shall be conducted according to the schedule in Section 2.1 A.3.g. Gross heat rate will be determined during the testing utilizing test methods consistent with ASME "Performance Test Code on Overall Plant Performance" (PTC 46), or as otherwise approved by NC DAQ, and will be corrected from testing conditions to ISO conditions.

Subsequent testing

g. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits for PM10/PM2.5, VOC during normal operation with and without duct firing and heat rate limitations without duct firing in accordance with a DAQ approved protocol on an annual basis. If the results of this test(s) are less than 80 percent of the emission limit or applicable heat rate limit in Table 5A, the Permittee shall be required to conduct the applicable test once every five years following the last stack test. Gross heat rate will be determined during the testing utilizing test methods consistent with ASME "Performance Test Code on Overall Plant Performance" (PTC 46), or as otherwise approved by NC DAQ, and will be corrected from testing conditions to ISO conditions.

Monitoring [15A NCAC 02Q .0308(a)]

PM₁₀/PM_{2.5} and H₂SO₄

- h. The Permittee shall monitor the pipeline sulfur content by obtaining the monthly average sulfur content from the nearest monitoring station and maintaining that information on site for 5 years.
- i. Annual emissions of PM₁₀/PM_{2.5} during normal operation with and without duct firing shall be based upon the most recent source test data for each operating scenario. If no source test data is available for the other operating scenarios, the Permittee shall utilize the appropriate AP-42 emission factors, or other emission factors as approved by NC DAQ.

CO

- The Permittee shall monitor CO emissions using a CEMS according to the procedures specified in paragraphs i. through vii. below.
 - i. The CO CEMS must be installed, certified, maintained, and operated as follows:
 - (A) The continuous emission monitoring system shall be operated according to Performance Specification 4A in appendix B of 40 CFR Part 60.
 - (B) During each relative accuracy test run of the continuous emission monitoring system required by Performance

^{**} emission rates apply under all operating scenarios (i.e., normal, startup and shutdown)

Specification 4A in appendix B of 40 CFR Part 60, carbon monoxide and oxygen (or carbon dioxide) data shall be collected concurrently (or within a 30- to 60-minute period) by both the continuous emission monitors and the test methods specified in this paragraph.

- (B1) For carbon monoxide, EPA Reference Method 10, 10A, or 10B shall be used.
- (B2) For oxygen (or carbon dioxide), EPA Reference Method 3, 3A, or 3B, or ASME PTC-19-10-1981—part10 (incorporated by reference, see §60.17 of subpart A of this part), as applicable, shall be used.
- (C) The span value of the continuous emission monitoring system shall be 125 percent of the maximum estimated hourly potential carbon monoxide emissions of the municipal waste combustor unit.
- ii. Each 1-hour CO emissions average is calculated using the data points generated by the CO CEMS expressed in parts per million by volume corrected to 15 percent oxygen (dry basis).
- iii. At a minimum, non-out-of-control 1-hour CO emissions averages must be obtained for at least 90 percent of the operating hours on a 30-boiler operating day rolling average basis. The 1-hour averages are calculated using the data points required in 40 CFR 60.13(h)(2).
- iv. Quarterly accuracy determinations and daily calibration drift tests for the CO CEMS must be performed in accordance with procedure 1 in appendix F of 40 CFR 60.
- v. The Permittee shall meet the requirements of 15A NCAC 002D .0613 for the CO CEMS.
- vi. The Permittee shall calculate the 1-hour average CO mass emissions levels using the average hourly CO output concentration measured by the CO CEMS and the appropriate F-factor listed in 40 CFR Part 60 for natural gas combustion.
- vii. Annual emissions of CO shall be calculated as the rolling 12-month sum of 1-hour average CO emissions.

VOC

- k. For proper operation and maintenance of the oxidation catalyst, the Permittee shall meet the monitoring requirements for VOC by meeting the monitoring requirements for CO under Section 2.1 A.5.j.
- Annual emissions of VOC during normal operation with and without duct firing shall be based upon the most recent source test data for each operating scenario. If no source test data is available for the other operating scenarios, the Permittee shall utilize the appropriate AP-42 emission factors, or other emission factors as approved by NC DAQ.

NOx (and diluent O₂)

- m. The Permittee shall meet the monitoring and recordkeeping requirements of Section 2.1.A.3.h through k. Annual emissions of NOx shall be calculated as the rolling 12-month sum of 1-hour average NOx emissions.
- n. The Permittee shall install, certify, operate and maintain a second NOx CEMS with an NH₃/NO converter to monitor the ammonia slip, which shall be limited to 5 ppmv, via the differential NOx/NH₃ converter method. The Permittee shall meet the monitoring and recordkeeping requirements of Section 2.1 A.3.h through k.

GHGs - CO₂

o. The Permittee shall install, certify, operate and maintain a CO₂ CEMS or determine its CO₂ emissions according to 40 CFR Part 75 Appendix G. The Permittee shall submit its monitoring plan with the Acid Rain permit application as required by Section 2.1 A.6 at least 24 months before the date on which the unit (ID No. ES-1) commences operation. CO₂ emissions shall be determined on an hourly basis.

GHG - N2O and CH4

p. The Permittee shall determine N₂O and CH₄ emissions on a daily basis. The Permittee shall use the respective and current AP-42 emission factors, or other emission factors as approved by NC DAQ, to determine the emissions. The Permittee shall calculate heat input consistent with 40 CFR Part 75 Appendix F.

Good Combustion Practices

q. The Permittee shall comply with the requirements of Section 2.1 A 4.f.

Reporting [15A NCAC 02Q .0308(a)]

<u>NOx</u>

r. The Permittee shall meet the reporting requirements of Section 2.1 A.3.0 for the NOx monitor and for the NH₃ monitor.

CO

s. On a quarterly basis, the Permittee shall submit an excess emissions and monitoring systems performance report for the CO CEMS. The report shall contain the information required in 40 CFR 60.7 (c) and (d). The format for the report will

be provided by the DAQ. The Permittee shall submit the report, acceptable to the Regional Air Quality Supervisor, within 30 days after each calendar year quarter, postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 for the calendar year for the preceding three-month period between July and September.

GHGs

t. This reporting requirement may be revised based upon the monitoring plan submitted as required in Section 2.1 A.5.0 above

Other reporting requirements

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

The report shall include:

- i. the monthly emissions for each pollutant listed in Table 4b. above for the previous 17 months;
- ii. the rolling 12-month totals for each pollutant listed in Table 4b. above for the previous 6 months;
- iii. the monthly hours of startup and shut down operations;
- iv. the rolling 12-month totals hours of startup and shut down operations for the previous 6 months;
- v. the number of tuning events for the previous 17 months;
- vi. the duration of each tuning event; and
- vii. the rolling 12-month totals of tuning events for the previous 6 months.

6. 15A NCAC 02Q .0402 ACID RAIN PERMITTING PROCEDURES

The Permittee shall submit a complete Acid Rain permit application at least 24 months before the date on which the unit (ID No. ES-1) commences operation. The application shall contain the elements specified under 40 CFR 72.31.

Federally-Enforceable Only

7. CROSS STATE AIR POLLUTION RULES (CSAPR) PERMIT REQUIREMENTS

For the unit (ID Nos. ES-1), the Permittee shall comply with all applicable requirements of 40 CFR Part 97, Subpart AAAAA "CSAPR NOx Annual Trading Program", Subpart BBBBB "CSAPR NOx Ozone Season Group1 Trading Program", and Subpart CCCCC "CSAPR SO₂ Group 1 Trading Program".

B. The following combustion sources:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-2	Natural gas-fired auxiliary boiler (85 MMBtu/hr maximum heat input) with low NOx burners	NA	NA
ES-3	Natural gas-fired fuel gas heater (9 MMBtu/hr per hour maximum heat input) with low NOx burners	NA	NA

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM	0.20 pounds per million Btu heat input	15A NCAC 02D .0503
SO_2	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity when averaged over a six-minute period	15A NCAC 02D .0521
NA	ID No. ES-2 only	15A NCAC 02D .0524
INA	Monthly fuel combustion recordkeeping requirements	(40 CFR 60, Subpart Dc)
PM_{10} , $PM_{2.5}$, NO_x ,		
$VOC, CO, H_2SO_4,$	BACT Limitations	15A NCAC 02D .0530
GHG		

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter from the combustion of natural gas that are discharged from this source into the atmosphere shall not exceed 0.20 pounds per million Btu heat input. [15A NCAC 02D .0503(a)]

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

 No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in this source.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from this 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. [15A NCAC 02D .0516]

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17 found in Section 3.

Monitoring/Recordkeeping [15A NCAC 02Q .0308(a)]

c. No monitoring/recordkeeping is required for sulfur dioxide emissions from the firing of natural gas in this source.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from this source 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. [15A NCAC 02D .0521 (d)]

Testing [15A NCAC 02Q .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in this source.

Applicable to Boiler (ID No. ES-2) only

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (NSPS Subpart Dc)

a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units" including Subpart A "General Provisions."

Recordkeeping Requirements [15A NCAC 02Q .0308(a)]

b. Pursuant to 40 CFR 60.48c(g)(2), the Permittee shall record and maintain records of the amount of fuel combusted during each calendar month. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

5. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. The "Best Available Control Technology" (BACT) permitted emission limits for the boiler (ID No. ES-2) are as follows:

Table 5a.

Regulated Pollutant	Emission Limits*	Control Technology
PM ₁₀ , PM _{2.5}	0.007 lb/MMBtu, 3-hr basis	Exclusive natural gas—firing; Good combustion practices
H_2SO_4	0.75 grains S per 100 SCF natural gas combusted	Exclusive natural gas-firing
NO _x ,	9 ppmvd @ 3% O ₂ (0.01 lb/MMBtu), 3-hr basis	Ultra low NOx burners
CO	50 ppmvd @ 3% O ₂ (0.037 lb/MMBtu), 3-hr basis	Good combustion practices
VOC	0.005 lb/MMBtu, 3-hr basis	Good combustion practices
GHGs	22,830 tpy of CO2e	Good combustion practices

^{*}The above limits apply at all times except during startup and shutdown.

b. The "Best Available Control Technology" (BACT) permitted emission limits for the fuel gas heater (ID No. ES-3) are as follows:

Table 5b.

Regulated Pollutant	BACT Limits	Control Technology
PM ₁₀ , PM _{2.5}	0.007 lb/MMBtu	Exclusive natural gas–firing; Good combustion practices
H ₂ SO ₄	0.75 grains S per 100 SCF natural gas combusted	Exclusive natural gas-firing
NO _x ,	9 ppmvd @ 3% O ₂ (0.01 lb/MMBtu)	Ultra low NOx burners
СО	50 ppmvd @ 3% O ₂ (0.037 lb/MMBtu)	Good combustion practices
VOC	0.003 lb/MMBtu	Good combustion practices
GHGs	4,645 tpy of CO2e	Good combustion practices

- c. The boiler (ID No. ES-2) shall be limited to 4,560 hours of operation per year (12-month rolling total basis).
- d. For the boiler (ID No. ES-2), the following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 02D .0530; 40 CFR 51.166(k):

Pollutant	Emission Rate (lb/hr)			
Ponutant	1-hr average	24-hr average	Annual average	
PM _{2.5}	NA	0.60	0.60	
NO_2	0.85	NA	*	

- * maximum project impacts were less than the respective SIL in the significant impact analysis
- e. For the fuel gas heater (ID No. ES-3), The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 02D .0530; 40 CFR 51.166(k):

Dollutont		Emission Rate (lb/hr)			
Ponutant	Pollutant 1-hr average 24-hr average Annual av				
PM _{2.5}	NA	0.06	0.06		
NO_2	0.11	NA	*		

^{*} maximum project impacts were less than the respective SIL in the significant impact analysis

Testing [15A NCAC 02Q .0308(a)]

f. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring and Recordkeeping [15A NCAC 02Q .0308(a)]

- g The Permittee shall monitor the pipeline sulfur content by obtaining the monthly average sulfur content from the nearest monitoring station and maintaining that information on site for 5 years..
- h. Each calendar month, the Permittee shall use current AP-42 emission factors, or other emission factors as approved NC DAQ, and fuel use to determine GHG emissions (as CO2e) on a monthly and 12-month rolling basis.
- i. At all times, including periods of startup, shutdown, and malfunction, the Permittee shall, to the extent practicable, maintain and operate the boiler including associated in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating 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, opacity observations, review of operating and maintenance procedures, and inspection of the source.
- j. The Permittee shall perform inspections and maintenance as recommended by the manufacturer. 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:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection; and
 - iii. the results of maintenance performed.
- k. The Permittee shall maintain records of the hours of operation of the boiler (ID No. ES-2).

Reporting [15A NCAC 02Q .0308(a)]

- 1. The Permittee shall submit a summary report of monitoring and record keeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
- m. The report shall also include for each source (ID Nos. ES-2 and ES-3):
 - i. the monthly GHG emissions (CO2e basis) for the previous 17 months;
 - ii. the rolling 12-month totals GHG emissions (CO2e basis) for the previous 6 months;
 - iii. the monthly hours of operation of for the previous 17 months; and
 - iv. the rolling 12-month totals of hours of operation for the previous 6 months.

C. The following engines:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-4	Diesel Fuel-fired Standby Emergency Generator (1,675 maximum brake horsepower)	NA	NA
ES-5	Diesel Fuel-fired Emergency Fire Pump Engine (300 maximum brake horsepower)	NA	NA

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity when averaged over a six-minute period	15A NCAC 02D .0521
NMHC and NOx, CO, PM,	Comply with the NSPS IIII emission standards by purchasing an engine certified to the applicable emission standards. The engine shall be installed and configured according to the manufacturer's emission-related specifications	15A NCAC 02D .0524 (40 CFR 60, Subpart IIII)
Hazardous air	Comply with the requirements of 15A NCAC 02D .0524 (40	15A NCAC 02D .1111
pollutants (HAP)	CFR 60, Subpart IIII)	(40 CFR 63, Subpart ZZZZ)
PM ₁₀ , PM _{2.5} , NO _x , VOC, CO, H ₂ SO ₄ , GHG	BACT Limitations	15A NCAC 02D .0530

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

a. Visible emissions from these sources 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 .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of diesel fuel in this source.

2. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (ID No ES-4)

Applicability [15A NCAC 02Q .0308(a), 40 CFR 60.4200(a)(2)(i)]

a. For the standby emergency generator (**ID No. ES-4**), the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," including Subpart A "General Provisions."

General Provisions [15A NCAC 02Q .0308(a)]

b. Pursuant to 40 CFR 60 .4218, The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 8 of 40 CFR 60 Subpart IIII.

Emission Standards [15A NCAC 02Q .0308(a)]

c. The Permittee shall comply with the emission standards 40 CFR 60.4202 for all pollutants, for the same model year and maximum engine power for this engine. [40 CFR 60.4205(b)]

Fuel Requirements [15A NCAC 02Q .0308(a)]

- d. The Permittee shall use diesel fuel in the engine that meets the requirements of 40 CFR 80.510(b) including:
 - i. a maximum sulfur content of 15 ppm; and
 - ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(b)]

Testing [15A NCAC 02Q .0308(a)]

e. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0308(a)]

- f. The engine has the following monitoring requirements:
 - i. The engines shall be equipped with a non-resettable hour meter prior to startup. [40 CFR 60.4209(a)]
 - ii. The engine, if equipped with a diesel particulate filter, must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40 CFR 60.4209(b)]

Compliance Requirements [15A NCAC 02Q .0508(b)]

- g. The Permittee shall:
 - i. operate and maintain the <u>engines and control devices</u> according to the manufacturer's emission related-written instructions over the entire life of the engine;
 - ii. change only those emission-related settings that are permitted by the manufacturer; and
 - iii. meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable.

[40CFR 60.4206 and 60.4211(a)]

- h. The Permittee shall comply with the emission standards in <u>Section 2.1 C.2.c</u> by purchasing an engine certified to the emission standards in Section 2.1 C.2.c for the same model year and maximum engine power. The engine shall be installed and configured according to the manufacturer's emission-related specifications. [40CFR 60.4211(c)]
- i. In order for the engine to be considered an emergency stationary ICE under this condition, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described below, is prohibited.
 - (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
 - (2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraph (i)(2)(i) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (i)(3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (i)(2).
 - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (i)(2) of this condition. Except as provided in paragraph (i)(3)(i) of this condition, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
 - (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
 - (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
 - (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
 - (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR 60.4211(f)]

j. RESERVED

Recordkeeping [15A NCAC 02Q .0308(a)]

- k. The results of inspection and maintenance made pursuant to Section 2.1 C.2.g 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 inspection;
 - iii. the results of any maintenance performed on the engine;
 - iv. any variance from manufacturer's recommendations, if any, and corrections made;
 - v. the hours of operation of the engine in emergency and non-emergency service; [40 CFR 60.4214(b)]
 - vi. if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR60.4214(c)]; and
 - vii. documentation from the manufacturer that the engine is certified to meet the emission standards in Section 2.1 C.2.c.

Reporting [15A NCAC 02Q .0308(a)]

- 1. 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 with the requirements of this permit shall be clearly identified.
- m. If the Permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purposes specified in Section 2.1 C.2.i(3)(i), the Permittee shall submit an annual report according to the requirements at 40 CFR 60.4214(d). Thus report must be submitted to the Regional Supervisor and the EPA. [40 CFR60.4214(d)]

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS (ID No. ES-5)

Applicability [15A NCAC 02Q .0308(a), 40 CFR 60.4200(a)(2)(ii)]

a. For this <u>fire pump</u> engine (ID No. ES-5), the Permittee shall comply with all applicable provisions, including the requirements for emission standards, notification, testing, reporting, record keeping, and monitoring, contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines," including Subpart A "General Provisions."

General Provisions [15A NCAC 02Q .0308(a)]

b. Pursuant to 40 CFR 60 .4218, The Permittee shall comply with the General Provisions of 40 CFR 60 Subpart A as presented in Table 8 of 40 CFR 60 Subpart IIII.

Emission Standards [15A NCAC 02Q .0308(a)]

c. The Permittee shall comply with the emission standards in Table 4 of NSPS subpart IIII for all pollutants, for the same model year and maximum engine power for this engine. [40CFR 60.4205(c)]

Fuel Requirements [15A NCAC 02Q .0308(a)]

- d. The Permittee shall use diesel fuel in the engine with:
 - i. a maximum sulfur content of 15 ppm; and
 - ii. a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent. [40 CFR 60.4207(b) and 40 CFR 80.510(b)]

Testing [15A NCAC 02Q .0308(a)]

e. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring [15A NCAC 02Q .0308(a)]

- f. The engine has the following monitoring requirements:
 - i. The engines shall be equipped with a non-resettable hour meter prior to startup. [40CFR 60.4209(a)]
 - ii. The engine, if equipped with a diesel particulate filter, must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached. [40CFR 60.4209(b)]

Compliance Requirements [15A NCAC 02Q .0508(b)]

- g. The Permittee shall:
 - i. operate and maintain the <u>engines and control devices</u> according to the manufacturer's emission related-written instructions over the entire life of the engine;
 - ii. change only those emission-related settings that are permitted by the manufacturer; and
 - iii. meet the requirements of 40 CFR 89, 94 and/or 1068 as applicable.

[40CFR 60.4206 and 60.4211(a)]

- h. The Permittee shall comply with the emission standards in Section 2.1 C.3.c by purchasing an engine certified to the emission standards in Section 2.1 C.3.c. The engine shall be installed and configured according to the manufacturer's specifications. [40 CFR 60.4211(c)]
- i. In order for the engine to be considered an emergency stationary ICE under this condition, any operation other than emergency operation, maintenance and testing, and operation in non- emergency situations for 50 hours per year, as described below, is prohibited.
 - (1) There is no time limit on the use of emergency stationary ICE in emergency situations.
 - (2) The Permittee may operate the emergency stationary ICE for any combination of the purposes specified in paragraph (i(2)(i) of this condition for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraph (i)(3) of this condition counts as part of the 100 hours per calendar year allowed by this paragraph (i)(2).
 - (i) Emergency stationary ICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency ICE beyond 100 hours per calendar year.

- (3) Emergency stationary ICE may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (i)(2) of this condition. Except as provided in paragraph (i)(3)(i) of this condition, the 50 hours per calendar year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
 - (i) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:
 - (A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator;
 - (B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.
 - (C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.
 - (D) The power is provided only to the facility itself or to support the local transmission and distribution system.
 - (E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[40 CFR 60.4211(f)]

j. RESERVED

Recordkeeping [15A NCAC 02Q .0308(a)]

- k. To ensure compliance, the Permittee shall perform inspections and maintenance on the engine as recommended by the manufacturer per 40 CFR 60.4206 and 40 CFR 60.4211(a). 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:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the engine;
 - iv. any variance from manufacturer's recommendations, if any, and corrections made;
 - v. the hours of operation of the engine in emergency and non-emergency service. [40 CFR 60.4214(b)]
 - vi. if a PM filter is used, records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached [40 CFR60.4214(c)]; and
 - vii. documentation from the manufacturer that the engine is certified to meet the emission standards in Section 2.1. C.3.c.

Reporting [15A NCAC 02Q .0308(a)]

- 1. 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 with the requirements of this permit shall be clearly identified.
- m. If the Permittee owns or operates an emergency stationary CI ICE with a maximum engine power more than 100 HP that operates for the purposes specified in Section 2.1 C.3.i(3)(i), the Permittee shall submit an annual report according to the requirements at 40 CFR 60.4214(d). This report must be submitted to the Regional Supervisor and the EPA. [40 CFR60.4214(d)]

4. 15A NCAC 02D .1111 MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.6585, 6590(a)(2)(iii)]

a. For these sources (new stationary RICE 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 Emission Standards For Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines" and Subpart A "General Provisions."

Stationary RICE subject to Regulations under 40 CFR Part 60 [15 A NCAC 02Q. 0308(a)]

b. Pursuant to 40 CFR 63.6590(c)(1), these sources must meet the requirements of 40 CFR 63 Subpart ZZZZ and Subpart A by meeting the requirements of 40 CFR 60 Subpart IIII. No further requirements apply for these engines under 40 CFR 63 Subpart ZZZZ and Subpart A. If these requirements are not met, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.

5. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. The "Best Available Control Technology" (BACT) permitted emission limits for the emergency generator (ID No. ES-4) are as follows:

Regulated Pollutant	Emission Limits	Control Technology
$PM_{10}, PM_{2.5}$	0.15 g/bhp-hr	
H ₂ SO ₄	15 ppm maximum fuel sulfur content	Good combustion practices;
NO_x	4.8 g/bhp-hr, NOX+NMHC	Exclusive ultra-low sulfur fuel—
VOC	4.6 g/onp-m, NOX+NWITE	firing;
CO	2.6 g/bhp-hr	NSPS Subpart IIII compliant engine
GHGs	Good combustion practices	

b. The "Best Available Control Technology" (BACT) permitted emission limits for the fire pump engine (ID No. ES-5) are as follows:

Regulated Pollutant	Emission Limits	Control Technology
$PM_{10} / PM_{2.5}$	0.15 g/bhp-hr	
H ₂ SO ₄	15 ppm maximum fuel sulfur content	Good combustion practices;
NO _x	3.0 g/bhp-hr, NOX+NMHC	Exclusive ultra-low sulfur fuel-
VOC	3.0 g/onp-m, 110X+11111111C	firing;
CO	Good combustion practices	NSPS Subpart IIII compliant engine
GHGs	Good combustion practices	

c. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments for the emergency generator (ID No. ES-4) as required by 15A NCAC 02D .0530; 40 CFR 51.166(k):

Pollutant		Emission Rate (lb/hr)	
Ponutant			Annual average
PM _{2.5}	NA	0.15	0.15
NO ₂	8.69	NA	*

^{*} maximum project impacts were less than the respective SIL in the significant impact analysis

d. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments for the fire pump engine (ID No. ES-5) as required by 15A NCAC 02D .0530; 40 CFR 51.166(k):

Pollutant		Emission Rate (lb/hr)	
1 Onutant	1-hr average	24-hr average	Annual average
$PM_{2.5}$	NA	0.05	0.05
NO_2	0.90	NA	*

^{*} maximum project impacts were less than the respective SIL in the significant impact analysis

Operating Restrictions

- e. The Permittee shall limit the operation of these engines as follows:
 - i. Operation of each engine shall be limited to 30 minutes per hour of non-emergency operation; and
 - ii. The engines shall not operate simultaneously during non-emergency operation.
 - iii. For purposes of initial commissioning of these engines, Section 2.1 C.5e.i does not apply. Engine (ID No. ES-4) may operate up to 40 hours for purposes of initial commissioning. Engine (ID No. ES-5) may operate up to 30 hours for purposes of initial commissioning.

Testing [15A NCAC 02Q .0308(a)]

f. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

- g. The Permittee shall meet the requirements of NSPS IIII for each engine, as specified in Sections 2.1. C.2 and 3 above.
- h. The Permittee shall maintain records of the date, time and duration of the non-emergency operation and commissioning of each engine. The records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request.
- i. 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 with the requirements of this permit shall be clearly identified. The report shall also include the date, time and duration of the non-emergency operation and commissioning of each engine.

D. The following emission source:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-6	Multi-cell cooling tower (126,340 gallons per minute nominal recirculating flow rate)	CD-6	Mist eliminator (0.0005 percent drift loss)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	20 percent opacity	15A NCAC 02D .0521
PM ₁₀ , PM _{2.5}	Best Achievable Control Technology	15A NCAC 02D .0530
	NAAQS and Increment Modeled Rates	13A NCAC 02D .0330

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

a. Visible emissions from this source 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 .0308(a)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

c. No monitoring/recordkeeping/reporting is required for visible emissions from this source.

2. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

- a. The "Best Available Control Technology" (BACT) for the Cooling Tower (ID Nos. ES-6) is as follows: The Permittee shall not operate the Cooling Tower without the concurrent operation of the associated mist eliminator with a 0.0005 percent drift loss.
- b. The following limits are required in order to demonstrate compliance with the National Ambient Air Quality Standards and the PSD increments as required by 15A NCAC 02D .0530; 40 CFR 51.166(k):

Dellastent		Emission Rate (lb/hr)	
Pollutant	1-hr average	24-hr average	Annual average
PM _{2.5}	NA	1.00E-03	1.00E-03

Testing [15A NCAC 02Q .0308(a)]

c. If emissions testing is required, the testing shall be performed in accordance with General Condition 17.

Monitoring/Recordkeeping [15A NCAC 02Q .0308(a)]

- d. To ensure compliance, the Permittee shall perform inspections and maintenance on the mist eliminator as recommended by the manufacturer.
- e. 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:
 - i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on mist eliminators; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.

Reporting [15A NCAC 02Q .0308(a)]

f. Within 30 days of a request from the DAQ, the Permittee shall submit a report of any maintenance and repairs performed on the mist eliminator.

Air Quality Permit No. 10494R00 Page 24

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

2.2- Multiple Emission Source(s) Specific Limitations and Conditions

A. Facility-wide Emission Sources

State Enforceable Only

1. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

a. Pursuant to 15A NCAC 02D .1100 and in accordance with the air toxics compliance demonstration approved on January 30, 2017, the following emission limits shall not be exceeded:

	Allowable Emission Rates					
Source Description	Source ID No.	Ammonia (lb/hr)	Benzene (lb/year)	Chromic Acid (lb/24-hr)*	Formaldehyde (lb/hr)	Sulfuric Acid (lb/hr)
Mitsubishi Turbine	ES-1	25.20	249.7	0	1.69	6.49
Siemens Turbine	ES-1	25.50	269.8	0	1.82	2.95
Aux Boiler	ES-2	0.27	1.52	0	6.25E-03	0.02
Fuel Gas Heater	ES-3	0.03	0.16	0	6.62E-04	0.002

^{*} Facility-wide emission rates are over the TPER but the TAP is emitted from 02D .1100 exempt sources not listed here.

Monitoring/Recordkeeping/Reporting [15A NCAC 02Q .0308(a)]

b. No monitoring, recordkeeping or reporting is required.

2. 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. The "Best Available Control Technology" (BACT) for the GHG (i.e., CH4) emissions associated with fugitive emissions of natural gas is as follows: The Permittee shall conduct daily audio/visual/olfactory (AVO) walk-through inspections. If the fugitive emissions of natural gas are observed, the Permittee shall take appropriate action as soon as practicable, considering appropriate and reasonable health and safety precautions, and record the action taken as provided in the recordkeeping requirements below.

Monitoring/Recordkeeping [15A NCAC 02Q .0308(a)]

- b. The results of walk-through inspections 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 of each walk-through inspection; and,
 - ii. the observations of each walk-through inspection.

The Permittee shall also record corrective actions taken for any observed fugitive emissions of natural gas.

Reporting [15A NCAC 02Q .0308(a)]

- c. The Permittee shall submit the results of any corrective actions taken for any observed fugitive emissions of natural gas within 30 days of a written request by NC DAQ.
- d. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

- a. The "Best Available Control Technology" (BACT) for the GHG emissions associated with fugitive sulfur hexafluoride emissions (SF6) is as follows:
 - i. The Permittee will use enclosed circuit breakers with leak detection that meet ANSI standard C37.013; and
 - ii. The enclosures will be equipped with low pressure alarms and low pressure lockout mechanisms.

Monitoring/Recordkeeping [15A NCAC 02Q .0308(a)]

b. The Permittee shall calculate, for each month of facility operation, the SF6 emissions according to procedures of 40 CFR 98 Subpart DD.

Reporting [15A NCAC 02Q .0308(a)]

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

The report shall include:

- i. the monthly GHG emissions (CO2e basis) for the previous 17 months;
- ii. the rolling 12-month totals GHG emissions (CO2e basis) for the previous 6 months;
- **4. PERMIT RENEWAL REQUIREMENT** The Permittee, at least 90 days prior to the expiration date of this permit, shall request permit renewal by letter in accordance with 15A NCAC 02Q .0304(d) and (f). Pursuant to 15A NCAC 02Q .0203(i), no permit application fee is required for renewal of an existing air permit (without a modification request). The renewal request (with AA application form) should be submitted to the Regional Supervisor, DAQ.
- 5. ANNUAL EMISSION INVENTORY REQUIREMENT Pursuant to 15A NCAC 02Q .0207, the Permittee shall submit an air pollution emission inventory report (with Certification Sheet) by June 30 of each year in accordance with 15A NCAC 02Q .0207(a). The report shall include the actual emissions of each air pollutant listed in 15A NCAC .0207(a) from each emission source within the facility during the previous calendar year and be submitted to the Regional Supervisor, DAQ. 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 as defined under 40 CFR 70.2.

6. TITLE PERMIT APPLICATION SUBMITTAL REQUIREMENT

The Permittee shall file a Title V Air Quality Permit Application pursuant to 15A NCAC 02Q .0504 on or before 12 months after commencing operation.

7. NOTIFICATION REQUIREMENT

As required by 15A NCAC 02D .0535, the Permittee of a source of excess emissions that last for more than four hours and that results from a malfunction, a breakdown of process or control equipment or any other abnormal conditions, shall:

- a. Notify the Director or his designee 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 describe:
 - i. the name and location of the facility,
 - ii. the nature and cause of the malfunction or breakdown,
 - iii. the time when the malfunction or breakdown is first observed,
 - iv. the expected duration, and
 - v. an estimated rate of emissions.
- b. Notify the Director or his designee immediately when the corrective measures have been accomplished.

This reporting requirement does not allow the operation of the facility in excess of Environmental Management Commission Regulations.

SECTION 3 - GENERAL CONDITIONS

1. In accordance with G.S. 143-215.108(c)(1), <u>TWO COPIES OF ALL DOCUMENTS</u>, <u>REPORTS</u>, <u>TEST DATA</u>, <u>MONITORING DATA</u>, <u>NOTIFICATIONS</u>, <u>REQUESTS FOR RENEWAL</u>, <u>AND ANY OTHER INFORMATION</u> REQUIRED BY THIS PERMIT shall be submitted to the:

Regional Supervisor North Carolina Division of Air Quality Winston-Salem Regional Office 450 West Hanes Mill Road, Suite 300 Winston-Salem, NC 27105

For identification purposes, each submittal should include the facility name as listed on the permit, the facility identification number, and the permit number.

- 2. <u>RECORDS RETENTION REQUIREMENT</u> In accordance with 15A NCAC 02D .0605, any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. These records must be kept on site for a minimum of 2 years, unless another time period is otherwise specified.
- 3. <u>ANNUAL FEE PAYMENT</u> Pursuant to 15A NCAC 02Q .0203(a), the Permittee shall pay the annual permit fee within 30 days of being billed by the DAQ. Failure to pay the fee in a timely manner will cause the DAQ to initiate action to revoke the permit.
- 4. <u>EQUIPMENT RELOCATION</u> In accordance with 15A NCAC 02Q .0301, a new air permit shall be obtained by the Permittee prior to establishing, building, erecting, using, or operating the emission sources or air cleaning equipment at a site or location not specified in this permit.
- 5. <u>REPORTING REQUIREMENT</u> In accordance with 15A NCAC 02Q .0309, any of the following that would result in previously unpermitted, new, or increased emissions must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application regarding facility emissions;
 - b. changes that modify equipment or processes of existing permitted facilities; 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.

- 6. In accordance with 15A NCAC 02Q .0309, this permit is subject to revocation or modification by the DAQ upon a determination that information contained in the application or presented in the support thereof is incorrect, conditions under which this permit was granted have changed, or violations of conditions contained in this permit have occurred. In accordance with G.S. 143-215.108(c)(1), 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 cleaning device(s) and appurtenances.
- 7. In accordance with G.S. 143-215.108(c)(1), this permit is nontransferable by the Permittee. Future owners and operators must obtain a new air permit from the DAQ.
- 8. In accordance with G.S. 143-215.108(c)(1), this issuance of this permit in no way absolves the Permittee of liability for any potential civil penalties which may be assessed for violations of State law which have occurred prior to the effective date of this permit.
- 9. In accordance with G.S. 143-215.108(c)(1), this permit does not relieve the Permittee of the responsibility of complying with all applicable requirements of any Federal, State, or Local water quality or land quality control authority.

- 10. In accordance with 15A NCAC 02D .0605, reports on the operation and maintenance of the facility shall be submitted by the Permittee to the Regional Supervisor, DAQ at such intervals and in such form and detail as may be required by the DAQ. Information required in such reports may include, but is not limited to, process weight rates, firing rates, hours of operation, and preventive maintenance schedules.
- 11. A violation of any term or condition of this permit shall subject the Permittee to enforcement pursuant to G.S. 143-215.114A, 143-215.114B, and 143-215.114C, including assessment of civil and/or criminal penalties.
- 12. Pursuant to North Carolina General Statute 143-215.3(a)(2), no person shall refuse entry or access to any authorized representative of the DAQ who requests entry or access for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such 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.
- 13. In accordance with G.S. 143-215.108(c)(1), this permit does not relieve the Permittee of the responsibility of complying with any applicable Federal, State, or Local requirements governing the handling, disposal, or incineration of hazardous, solid, or medical wastes, including the Resource Conservation and Recovery Act (RCRA) administered by the Division of Waste Management.
- 14. <u>PERMIT RETENTION REQUIREMENT</u> In accordance with 15A NCAC 02Q .0110, the Permittee shall retain a current copy of the air permit at the site. The Permittee must make available to personnel of the DAQ, upon request, the current copy of the air permit for the site.
- 15. <u>CLEAN AIR ACT SECTION 112(r) REQUIREMENTS</u> Pursuant to 15A NCAC 02D .2100 "Risk Management Program," if the Permittee is required to develop and register a risk management plan pursuant to Section 112(r) of the Federal Clean Air Act, then the Permittee is required to register this plan with the USEPA in accordance with 40 CFR Part 68.
- 16. PREVENTION OF ACCIDENTAL RELEASES GENERAL DUTY Pursuant to Title I Part A Section 112(r)(1) of the Clean Air Act "Hazardous Air Pollutants Prevention of Accidental Releases Purpose and General Duty," 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. This condition is federally-enforceable only.
- 17. <u>GENERAL EMISSIONS TESTING AND REPORTING REQUIREMENTS</u> If emissions testing is required by this permit, or the DAQ, or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow all DAQ procedures including protocol approval, regional notification, report submittal, and test results approval.

Permit issued this the DDth day of MM, 2017.

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

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