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Director



NORTH CAROLINA
Environmental Quality

August XX, 2022

Mr. Rich Deming
Principal
Carolina Poultry Power RG3, LLC
3730 North Main Street
Farmville, NC 27828

Subject: Air Permit No. 10745R00
Carolina Poultry Power RG3, LLC
LaGrange, Lenoir County, North Carolina
Permit Class: Unknown
Facility ID# 5400216

Dear Mr. Deming:

In accordance with your completed application received May 5, 2022, we are forwarding herewith Permit No. 10745R00 to Carolina Poultry Power RG3, LLC, LaGrange, Lenoir County, North Carolina for the construction and operation of air emissions sources or air cleaning devices and appurtenances.

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

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

This permit shall be effective from **August XX, 2022** until July 31, 2030, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

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



North Carolina Department of Environmental Quality | Division of Air Quality

Washington Regional Office | 943 Washington Square Mall | Washington, NC 27889

252.946.6481 T | 252.975.3716 F

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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 Kurt Tidd at 252-948-3827.

Sincerely,

Betsy Huddleston, Regional Supervisor
Division of Air Quality, NC DEQ

Enclosures

c: Washington Regional Office

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

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

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

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

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

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

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

* * *

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

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NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

DEPARTMENT OF ENVIRONMENTAL QUALITY

DIVISION OF AIR QUALITY

AIR PERMIT NO. 10745R00

Issue Date: August XX, 2022

Effective Date: August XX, 2022

Expiration Date: July 31, 2030

Replaces Permit: (new)

To construct and operate air emission source(s) and/or air cleaning device(s), and for the discharge of the associated air contaminants into the atmosphere in accordance with the provisions of Article 21B of Chapter 143, General Statutes of North Carolina (NCGS) as amended, and other applicable Laws, Rules and Regulations,

Carolina Poultry Power RG3, LLC
Lenoir County Tax Parcel No. 15787 (Brothers Road)
LaGrange, Lenoir County, North Carolina
Permit Class: Synthetic Minor
Facility ID# 5400216

(the Permittee) is hereby authorized to construct and operate the air emissions sources and/or air cleaning devices and appurtenances described below:

Emission Source ID	Emission Source Description	Control System ID	Control System Description
ES-B1 (NSPS, NESHAP)	poultry litter - fired boiler (97 million Btu per hour maximum heat input) equipped with a manufactured supplied integral multi-cyclone system (Ten (10), 24-inch diameter cyclones)	CD -SNCR1	selective non-catalytic reduction system with eight (8) urea injectors in series with
		CD-SI1	dry sorbent injection in series with
		CD-BF1	pulse jet baghouse (13,437 square feet of filter area)
ES-SILO	lime storage silo (31 tons storage capacity)	CD-BV1	bagfilter (196 square feet of filter area)

in accordance with the completed application 5400216.22A received May 5, 2022, including any plans, specifications, previous applications, and other supporting data, all of which are filed with the Department of Environmental Quality, Division of Air Quality (DAQ) and are incorporated as part of this permit.

This permit is subject to the following specified conditions and limitations including any TESTING, REPORTING, OR MONITORING REQUIREMENTS:

A. SPECIFIC CONDITIONS AND LIMITATIONS

1. Any air emission sources, or control devices authorized to construct and operate above shall be operated and maintained in accordance with the provisions contained herein. The Permittee shall comply with applicable Environmental Management Commission Regulations, including Title 15A North Carolina Administrative Code (NCAC), Subchapter 2D .0202, 2D .0504, 2D .0515, 2D .0516, 2D .0521, 2D .0524 (40 CFR 60, Subpart Dc), 2D .0535, 2D .0540, 2D .0605, 2D .0611, 2D .1111 (40 CFR 63, Subpart JJJJJ), 2D .1806 (Avoidance), 2Q .0315 and 2Q .0317 (Avoidance) and NCGS 62.133.8(g) State BACT (SB3).
2. PERMIT RENEWAL AND EMISSION INVENTORY 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 2Q .0304(d) and (f). Pursuant to 15A NCAC 2Q .0203(i), no permit application fee is required for renewal of an existing air permit (without a modification request). The renewal request (with application Form A) should be submitted to the Regional Supervisor, DAQ. Also, at least 90 days prior to the expiration date of this permit, the Permittee shall submit the air pollution emission inventory report (with Certification Sheet) in accordance with 15A NCAC 2D .0202, pursuant to N.C. General Statute 143-215.65. The report shall be submitted to the Regional Supervisor, DAQ and shall document air pollutants emitted for the 2029 calendar year.
3. PARTICULATE CONTROL REQUIREMENT - As required by 15A NCAC 2D .0504 "Particulates from Wood Burning Indirect Heat Exchangers," particulate matter emissions from the wood burning indirect heat exchangers shall not exceed the allowable emission rates listed below:

Source	Emission Limit (lbs/MMBtu)
Poultry litter-fired boiler (ID No. ES-B1)	0.42

4. PARTICULATE CONTROL REQUIREMENT - As required by 15A NCAC 2D .0515 "Particulates from Miscellaneous Industrial Processes," particulate matter emissions from the lime storage silo (31 tons storage capacity) (ID No. ES-SILO) shall not exceed allowable emission rates. The allowable emission rates are, as defined in 15A NCAC 2D .0515, a function of the process weight rate and shall be determined by the following equation(s), where P is the process throughput rate in tons per hour (tons/hr) and E is the allowable emission rate in pounds per hour (lbs/hr).

$$E = 4.10 * (P)^{0.67} \quad \text{for } P \leq 30 \text{ tons/hr, or}$$

$$E = 55 * (P)^{0.11} - 40 \quad \text{for } P > 30 \text{ tons/hr}$$

5. SULFUR DIOXIDE CONTROL REQUIREMENT - As required by 15A NCAC 2D .0516 "Sulfur Dioxide Emissions from Combustion Sources," sulfur dioxide emissions from boiler ID No. ES-B1 shall not exceed 2.3 pounds per million Btu heat input.

6. VISIBLE EMISSIONS CONTROL REQUIREMENT - As required by 15A NCAC 2D .0521 "Control of Visible Emissions," visible emissions from the lime storage silo (ID No. ES-SILO), manufactured after July 1, 1971, shall not be more than 20 percent opacity when averaged over a six-minute period, except that six-minute periods averaging not more than 87 percent opacity may occur not more than once in any hour nor more than four times in any 24-hour period. However, sources which shall comply with a visible emissions standard in 15A NCAC 2D .0524 "New Source Performance Standards" or 2D .1110 "National Emission Standards for Hazardous Air Pollutants" shall meet that standard instead of the 2D .0521 visible emissions standard.

7. 15A NCAC 2D .0524 "NEW SOURCE PERFORMANCE STANDARDS" - For the poultry litter-fired boiler (ID No. ES-B1), the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR 60, Subpart Dc, including Subpart A "General Provisions."
 - a. Emissions Limitations - As required by 15A NCAC 2D .0524, the following permit limits shall not be exceeded: [40 CFR 60.43c(e)(1) and 60.43c(c)]

Affected Source(s)	Pollutant	Emission Limit
Poultry litter-fired boiler (ES-B1)	Filterable PM	0.030 lb/MMBtu
	Visible Emissions	20% Opacity

- i. Visible Emissions shall not be greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43(c)(c)]
 - b. Notification Requirements - The Permittee shall NOTIFY the Regional Supervisor, DAQ, in WRITING, of the following:
 - i. A notification of the actual date of initial startup of the facility postmarked within 15 days after such date. [40 CFR 60.7(a)(3)]
 - ii. A notification of the anticipated date for conducting the initial PM source testing and opacity observations postmarked not less than 30 days prior to such date. [40 CFR 60.7(6)]
 - c. Source Testing Requirements - As required by 15A NCAC 2D .0524, the Permittee shall conduct an initial performance test as required under 40 CFR 60.8 and submit a written report of the results of the test 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 the facility, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards:

- i. As required by 15A NCAC 2D .0524, the Permittee shall conduct the following performance tests on the boiler: [40 CFR 60.45c]

Affected Source(s)	Pollutant	Test Method
Poultry litter-fired boiler (ES-B1)	Filterable PM	Method 5
	Visible Emissions	Method 9

The observation period for the Method 9 performance test may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation. [40 CFR 60.47c(a)]

- ii. The Permittee shall conduct subsequent Method 9 observations on a schedule as determined by the results of the most recent Method 9 test, as follows: [40 CFR 60.47c(a)(1)]
 - A. If no visible emissions are observed, a subsequent Method 9 test shall be completed within 12 calendar months from the date that the most recent performance test was conducted.
 - B. If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 observation shall be completed within 6 calendar months from the date that the most recent performance test was conducted.
 - C. If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 observation shall be completed within 45 calendar days from the date that the most recent performance test was conducted.

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

- i. The amounts of each fuel combusted during each month [40 CFR 60.48c(g)(1)]

All records required under this section shall be maintained for a period of two years following the date of such record. [40 CFR 60.48c(i)]

- e. The Permittee shall record boiler operational data as necessary to demonstrate that the boiler's maximum heat input does not exceed 100 million Btu per hour. The Permittee shall make that data available to personnel of the DAQ, upon request.

- 8. NOTIFICATION REQUIREMENT - As required by 15A NCAC 2D .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.

9. **FUGITIVE DUST CONTROL REQUIREMENT** - As required by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints are received or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f).

"Fugitive dust emissions" means particulate matter 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).

10. **TESTING REQUIREMENT** - Under the provisions of North Carolina General Statute 143-215.108 and in accordance with 15A NCAC 2D .0605, the Permittee shall demonstrate compliance with the 2D .0504 and 2Q .0315 emission limits provided in Specific Conditions A.3 and A.15 by testing for the specified pollutants as follows:

Affected Source(s)	Pollutant	Test Method
Poultry litter-fired boiler (ES-B1)	Filterable* and Condensable PM	Methods 1-5 and 202
	NOx	Method 7E
	CO	Method 10
	SO ₂	Method 6C
	HCl	Method 26A

*Testing for the filterable fraction of particulate is also required under 40 CFR, Part 60, Subpart Dc and 40 CFR, Part 63, Subpart JJJJJ, which are addressed in Specific Conditions A.7 and A.13.

- a. The boiler shall be tested for filterable and condensable PM, NO_x, CO, SO₂ and HCl.
 - b. All performance tests shall be conducted in accordance with EPA Reference Methods, contained in 40 CFR Part 60, Appendix A.
 - c. Minimum urea and dry sorbent injection rates for the boiler shall be established during NO_x, SO₂ and HCl testing. The Permittee shall collect injection rate data at a minimum of every 15 minutes during the entire period of each stack test. The injection rates for each individual test run shall be averaged, and then the run averages shall be used to compute a 3-hour average.
 - d. The Permittee shall conduct the tests and provide written reports of results 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 the facility. Two copies of the test results shall be submitted to the Regional Supervisor, DAQ.
 - e. At least 60 days prior to performing any required emissions testing, the Permittee shall submit two copies of a testing protocol to the Regional Supervisor, DAQ for review and approval. All testing protocols shall be approved by the DAQ prior to performing such tests.
 - f. To afford the Regional Supervisor, DAQ, the opportunity to have an observer present, the Permittee shall PROVIDE the Regional Office, in WRITING, at least 15 days' notice of any required performance test(s).
 - g. This permit may be revoked, with proper notice to the Permittee, or enforcement procedures initiated, if the results of the test(s) indicate that the facility does not meet applicable limitations.
 - h. The source shall be responsible for ensuring, within the limits of practicality, that the equipment or process being tested are operated at or near maximum normal production rate, or at a lesser rate if specified by the Director or his delegate.
 - i. All associated testing costs are the responsibility of the Permittee.
11. FABRIC FILTER REQUIREMENTS including cartridge filters, baghouses, and other dry filter particulate collection devices - As required by 15A NCAC 2D .0611, particulate matter emissions shall be controlled as described in the permitted equipment list.
- a. Inspection and Maintenance Requirements - To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall perform, at a minimum, an annual (for each 12-month period following the initial inspection) internal inspection of each particulate collection device system. In addition, the Permittee shall perform periodic inspections and maintenance as recommended by the equipment manufacturer.
 - b. Recordkeeping Requirements - The results of all inspections and any variance from manufacturer's recommendations or from those given in this permit (when applicable) shall be investigated with corrections made and dates of actions recorded

in a logbook. Records of all maintenance activities shall be recorded in the logbook. The logbook (in written or electronic format) shall be kept on-site and made available to DAQ personnel upon request.

12. MULTI-CYCLONE REQUIREMENTS - As required by 15A NCAC 2D .0611, particulate matter emissions shall be controlled as described in the permitted equipment list.

- a. Inspection and Maintenance Requirements - To comply with the provisions of this permit and ensure that emissions do not exceed the regulatory limits, the Permittee shall perform an annual (for each 12-month period following the initial inspection) internal inspection of the multi-cyclone system. In addition, the Permittee shall perform periodic inspections and maintenance (I&M) as recommended by the manufacturer.
- b. Monitoring Requirements - The multi-cyclone shall be equipped with a device to continuously measure the gauge pressure directly upstream of the multi-cyclone itself. The device shall be installed in an accessible location and shall be maintained by the Permittee such that it is in proper working order at all times. The pressure directly upstream of the multi-cyclone shall be recorded.
- c. Recordkeeping Requirements - The results of all inspections and any variance from the manufacturer's recommendations or from those given in this permit (when applicable) shall be investigated with corrections made and dates of actions recorded in a multi-cyclone logbook. Records of all maintenance activities shall be recorded in the logbook. The multi-cyclone logbook (in written or electronic format) shall be kept on-site and made available to DAQ personnel upon request.

13. GENERALLY AVAILABLE CONTROL TECHNOLOGY - For poultry litter-fired boiler ID No. ES-B1, the Permittee shall comply with all applicable provisions, including the notification, testing, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .1111, as promulgated in 40 CFR 63, Subpart JJJJJ, "National Emission Standards for Hazardous Air Pollutants for Area Sources: Industrial, Commercial, and Institutional Boilers," including Subpart A "General Provisions."

- a. Compliance Dates - The source shall achieve compliance with this final rule upon startup of the source. [40 CFR 63.11196(b)(c)]
- b. Emissions Limitation - As required by 15A NCAC 2D .1111, the following permit limit shall not be exceeded, except during periods of startup and shutdown:

Affected Source(s)	Pollutant	Emissions Limit
Poultry litter-fired boiler (ES-B1)	Filterable Particulate Matter	0.030 lb/MMBtu of heat input

The Permittee shall maintain the operating load of the affected boiler such that it does not exceed 110 percent of the average operating load recorded during the most recent performance stack test. [40 CFR 63.11201(c), Table 3]

- c. Performance Testing - The following performance test shall be conducted on the boiler:

Affected Source	Pollutant	Test Method
Poultry litter-fired boiler (ES-B1)	Filterable Particulate Matter	Method 5

- i. The Permittee shall conduct the required initial performance tests within 180 days of startup of the affected source. The results of these tests (two copies) shall be submitted with the Notification of Compliance Status no later than 60 days after each stack test. [40 CFR 63.11210(d) and 63.1125(e)]
- ii. The Permittee shall conduct all performance tests according to 40 CFR 63.7(c), (d), (f), and (h). The Permittee shall also develop a site-specific test plan according to the requirements of 40 CFR 63.7(c). [40 CFR 63.11212(a)]
- iii. During performance testing the Permittee shall establish maximum operating load for the boiler using data from the fuel feed monitors or steam generation monitors. [40 CFR 63.11212(c), Table 6]
 - A. Collect the data every 15 minutes during the entire period of the performance test. The hourly averages are calculated using all of the 15-minute readings taken during each test run.
 - B. The maximum operating load is calculated by averaging the three test run averages and multiplying by 1.1 (110 percent).
- iv. The Permittee shall conduct all applicable performance (stack) tests on a triennial basis, except as specified in the following paragraph. Triennial performance tests shall be completed no more than 37 months after the previous performance test. [40 CFR 63.11212, 63.11220(a), and Table 4]
- v. When demonstrating initial compliance with the PM emission limit, if the affected boilers' performance test results show that PM emissions are equal to or less than half of the PM emission limit, then the Permittee may choose to conduct performance tests for PM every fifth year (with testing no more than 61 months after the previous test) but shall continue to comply with all applicable operating limits and monitoring requirements. If any test results are greater than half of the PM emission limit, the testing returns to triennial basis [40 CFR 63.11220(c)]
- vi. At least 60 days prior to performing any required emissions testing, the Permittee shall submit two copies of a testing protocol to the Regional Supervisor, DAQ for review and approval. All testing protocols shall be approved by the DAQ prior to performing such tests. [40 CFR 63.11225(a)]

- vii. To afford the Regional Supervisor, DAQ, the opportunity to have an observer present, the Permittee shall PROVIDE the Regional Office, in WRITING, at least 15 days' notice of any required performance test.
 - viii. The boiler is required to be re-tested within 60 days of any new fuel type combusted other than used poultry litter.
 - ix. The Division of Air Quality retains the exclusive right to approve equivalent and alternative test methods, continuous monitoring procedures, and reporting requirements.
 - x. All associated testing costs are the responsibility of the Permittee.
- d. Compliance Requirements - As required by 15A NCAC 2D .1111, the Permittee shall comply with the following requirements:
- i. General Duty Clause (40 CFR 63.11205(a)) - At all times the Permittee shall operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.
 - ii. Boiler Tune-up (40 CFR 63.11223) - An initial boiler tune-up is required no later than 25 months after the initial startup of the affected source. The Permittee shall comply with the following with respect to the tune-up [40 CFR 63.11223]:
 - A. A biennial tune-up is required and shall be conducted no more than 25 months after the previous tune-up.
 - B. The Permittee shall conduct the tune-up while burning the type of fuel (or fuels in the case of boilers that routinely burn two types of fuels at the same time) that provided the majority of the heat input to the boiler over the 12 months prior to the tune-up.
 - C. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may delay the burner inspection until the next scheduled unit shutdown but shall inspect each burner at least once every 36 months.
 - D. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
 - E. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The Permittee may delay the air to fuel ratio inspection until the next scheduled unit shutdown but shall conduct the inspection at least once every 36 months.

- F. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.
 - G. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken with a portable CO analyzer.
- iii. The Permittee shall demonstrate that the operating load of the boiler is below the maximum established during performance testing [40 CFR 63.11212(c) and Table 6] by collecting operating load data for each boiler (fuel feed monitors or steam generation monitors) every 15 minutes, and reducing the data to 30-day rolling averages. [40 CFR 63.11222, Table 7]
 - iv. The Permittee shall minimize the boiler's startup and shutdown periods following the manufacturer's recommended procedures, if available. If manufacturer's recommended procedures are not available, the Permittee shall follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available. [40 CFR 63.11223(g)]
- e. FABRIC FILTER Monitoring and Continuous Compliance Requirements - The Permittee shall comply with the following requirements:
- i. Establishing Operating Limits - For the fabric filter (ID No. CD-BF1) the Permittee shall install and operate a bag leak detection system according to 40 CFR 63.11224.
 - A. The bag leak detection system shall be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with EPA-454/R-98-015 (incorporated by reference, 40 CFR 63.14).
 - B. The system shall be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.
 - C. The system sensor shall provide output of relative or absolute particulate matter loadings.
 - D. The system shall be equipped with a device to continuously record the output signal from the sensor.
 - E. The system shall be equipped with an audible or visual alarm system that will activate automatically when an increase in relative

particulate matter emissions over a preset level is detected. The alarm shall be located where it is easily heard or seen by plant operating personnel.

- F. Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.
- ii. Demonstrating Continuous Compliance – For the fabric filter (ID No. CD-BF1) the Permittee shall:
 - A. Operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month calendar period.
 - B. Initiate corrective action within 1 hour of a bag leak detection system alarm.
 - C. Keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken.
 - D. Record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm is counted as a minimum of 1 hour. If longer than 1 hour is required to initiate corrective action, the alarm time is counted as the actual amount of time taken to initiate corrective action. [40 CFR 63.11222(a)(4)]
 - iii. Site Specific Monitoring Plans – The Permittee shall submit a site-specific monitoring plan 60 days before the initial performance test. [40 CFR 63.11205(c) and 40 CFR 63.11224(c)]
- f. Recordkeeping Requirements - In addition to any other recordkeeping requirements of the EPA, the Permittee shall maintain the following records as defined under 40 CFR 63.11225(c):
 - i. The Permittee shall prepare an Annual Compliance Certification report for the previous calendar year by March 1st of each year starting March 1st of the calendar year following start-up of the boiler. The report shall meet the requirements of 40 CFR 63.11225(b) (1-4).
 - ii. The Permittee shall maintain copies of all required notifications and reports. [40 CFR 63.11225(c)(1)]
 - iii. The Permittee shall maintain the following records to document conformance with the work practices, emission reduction measures, and management practices:

- A. Tune-up records - Records shall identify the boiler, the date of tune-up, the procedures followed for tune-up, the manufacturer's specifications to which the boiler was tuned, and the following:
 - I. The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.
 - II. A description of any corrective actions taken as a part of the tune-up of the boiler.
- B. Records of non-waste determinations. [40 CFR 63.11225(c)(2)(ii)]
- C. The Permittee shall keep records of monthly fuel use by the affected boiler, including the type(s) of fuel and amount(s) used. [40 CFR 63.11225(c)(2)(iv)]
- iv. The Permittee shall maintain records of the occurrence and duration of any malfunction of the boiler, or of the associated air pollution control devices and monitoring equipment. [40 CFR 63.11225(c)(4)]
- v. The Permittee shall maintain records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR 63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation. [40 CFR 63.11225(c)(5)]
- vi. The Permittee shall maintain records of all inspection and monitoring data required by 40 CFR 63.11221 and 40 CFR 63.11222, the information identified in paragraphs 40 CFR 63.11225(c)(6)(i) through (vi) for each required inspection or monitoring, and the information identified in paragraphs 40 CFR 63.11225(c)(7)(i) through (iii) for the fabric filter leak detection system.
- vii. The Permittee shall keep each record for five years following the date of each recorded action. Each record shall be kept on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least two years after the date of each recorded action. Records may be kept off site for the remaining three years. [40 CFR 63.11225(d)]
- g. Notification and Reporting Requirements - In addition to the notification and reporting requirements of the Environmental Protection Agency (EPA), the Permittee is required to NOTIFY the Regional Supervisor, DAQ, in WRITING, of the following.
 - i. The Permittee shall submit an Initial Notification within 120 days after startup of the source. [40 CFR 63.11225(a)(2)]

- ii. The Permittee shall submit a Notification of Intent to conduct a performance test at least 60 days before the performance stack test is scheduled to begin. [40 CFR 63.11225(a)(3)]
- iii. The Permittee shall submit a Notification of Compliance Status within 60 days of completing any performance stack testing and within 60 days of conducting subsequent performance tests. [40 CFR 63.11225(a)(4)]
 - A. The Permittee shall include a signed statement in the notification that indicates that the Permittee conducted startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available. [40 CFR 63.11223(g)]
 - B. The notification shall also be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx).
- iv. Annual Compliance Certification report shall be prepared by March 1st of each year and submitted upon request. If the source experiences any deviations from the applicable requirements, then the report shall be submitted to the Division of Air Quality by March 15th. The report shall meet the requirements of 40 CFR 63.11225(b) (1-4).
- v. Within 60 days after the date of completing each performance test, the Permittee shall submit the results of the performance tests to EPA's WebFIRE database by using CEDRI that is accessed through EPA's CDX (www.epa.gov/cdx). Performance test data shall be submitted in the file format generated through use of EPA's Electronic Reporting Tool (ERT). Only data collected using test methods on the ERT web site are subject to this requirement for submitting reports electronically to WebFIRE. Owners or operators who claim that some of the information being submitted for performance tests is confidential business information (CBI) shall submit a complete ERT file including information claimed to be CBI on a compact disk or other commonly used electronic storage media (including, but not limited to, flash drives) to EPA. The electronic media shall be clearly marked as CBI and mailed to U.S. EPA/OAPQS/CORE CBI Office, Attention: WebFIRE Administrator, MD C404-02, 4930 Old Page Rd., Durham, NC 27703. The same ERT file with the CBI omitted shall be submitted to EPA via CDX as described earlier in this paragraph. At the discretion of the delegated authority, the Permittee shall also submit these reports, including CBI, to the delegated authority in the format specified by the delegated authority. For any performance test conducted using test methods that are not listed on the ERT Web site, the owner or operator shall submit the results of the performance test in paper submissions to the Administrator at the appropriate address listed in 40 CFR 63.13. [40 CFR 63.11225(e)]

- vi. Semi-Annual Reporting Requirement – The Permittee shall submit semi-annual continuous parametric monitoring system (CPMS) parameter exceedance, excess emission and monitoring down-time reports postmarked by January 30 and July 30 of each calendar year and according to the requirements in 40 CFR 63.10. The reports shall include the number, duration, and a brief description of each type of malfunction which occurred during the reporting period, and which caused or may have caused any applicable emission limitation to be exceeded.

14. LIMITATION TO AVOID 15A NCAC 2D .1806 - Pursuant to 15A NCAC 2D .1806(d)(11), to avoid the applicability of 15A NCAC 2D .1806, "Control and Prohibition of Odorous Emissions," the Permittee shall implement the following management practices for minimizing odor from poultry litter:

- a. When poultry litter arrives on the facility's property, it shall be in adequately covered trucks;
- b. The Permittee shall utilize on-site fuel handling and management practices to minimize emissions and spillage and improve combustion conditions of the poultry litter. These practices shall include:
 - i. performing loading and off-loading procedures inside a poultry litter storage area in an expeditious manner;
 - ii. reasonably utilizing the "first in, first out" (FIFO) method for processing and using poultry litter;
 - iii. immediately transporting loaded trucks when transferring poultry litter from storage to fuel processing; and
 - iv. not storing any poultry litter on site for more than 90 days.

15. LIMITATION TO AVOID 15A NCAC 2Q .0501 - Pursuant to 15A NCAC 2Q .0315 "Synthetic Minor Facilities," to avoid the applicability of 15A NCAC 2Q .0501 "Purpose of Section and Requirement for a Permit," as requested by the Permittee, facility-wide emissions shall be less than the following:

Pollutant	Emission Limit (Tons per consecutive 12-month period)
PM10	100
SO ₂	100
NO _x	100
CO	100
HCl	10

- a. Operations Restrictions - To ensure emissions do not exceed the limitations above, the following restrictions shall apply:

- i. Proper operation and maintenance of the multi-cyclone and bagfilters shall be conducted to ensure control of emissions as required under Specific Conditions A.11 through A.13 above.
 - ii. The Permittee shall continuously monitor urea injection into the boiler and dry sorbent injection into the boiler exhaust duct against the minimum injection rates established during testing required under permit Specific Condition A.10. Measurements shall be at a minimum of every 15 minutes, averaged to the hour. Hourly averages shall be used to compute rolling 3-hour averages.
- b. Fuel Sampling and Analysis - To demonstrate that the fuel being combusted in the process is consistent, the Permittee shall perform periodic sampling and analysis of the used poultry bedding fuel as follows:
- i. The Permittee shall obtain weekly representative samples of the used poultry bedding fuel fed to the process (i.e. sampling the fuel as burned). Weekly samples obtained during each month shall be composited and a representative monthly aggregate sample shall be drawn from the monthly composite.
 - ii. The monthly aggregate sample shall be analyzed for the following parameters:
 - A. Higher heating value, Btu/lb;
 - B. Lower heating value, Btu/lb;
 - C. Moisture content, % by weight;
 - iii. The sampling and analysis shall begin with startup of the facility and continue for one full year. The monthly analysis results shall be submitted to the Division of Air Quality within 30 days of the last sample analysis.
- c. Recordkeeping Requirements – To ensure emissions do not exceed the emission limitations above, the following shall be calculated and recorded **monthly** for the boiler (ID No. ES-B1):
- i. The monthly tons of fuel combusted.
 - ii. The monthly CO, NOx and HCl emissions. Each emission is calculated as follows:

$$[(lbs \text{ fuel}) \times (Btu/lb \text{ average heat content}) \times (MMBtu/1.0E6 \text{ Btu}) \times (\text{emission factor})] / 2000$$

where the emission factors are the most current approved stack test rates (as lb/MMBtu) for the boiler. Vendor guarantees and factors provided in permit application 5400216.22A may be used until testing required under Specific Condition A.10 is completed and the results are approved by DAQ.

The monthly fuel heat content analysis required by Specific Condition A.15.b. above shall be applied to the emissions calculation for that specific

month until the year of fuel sampling is completed. The twelve months of heat content data may then be averaged and applied to the monthly emissions calculations thereafter.

- iii. The rolling 12-month facility-wide CO, NOx, and HCl emissions.
 - iv. The Permittee shall maintain records of periodic inspections and maintenance of the multi-cyclone and bagfilters. The Permittee shall maintain monitoring records of urea and sorbent injection rates for the boiler.
- d. Reporting Requirements - Within 30 days after each calendar year, regardless of the actual emissions, the Permittee shall submit the following:
- i. The tons of fuel combusted per month in the calendar year; and
 - ii. For each calendar month, the rolling 12-month total facility-wide CO, NOx, and HCl emissions

16. LIMITATION TO AVOID 15A NCAC 2D .0530 "PREVENTION OF SIGNIFICANT DETERIORATION" - In accordance with 15A NCAC 2Q .0317, to comply with this permit and avoid the applicability of 15A NCAC 2D .0530 "Prevention of Significant Deterioration," as requested by the Permittee, emissions shall be limited as follows:

Affected Source(s)	Pollutant	Emission Limit (Tons Per Consecutive 12-month Period)
Facility Wide	PM10	250

- a. Operations Restrictions - To ensure emissions do not exceed the limitations above, the facility shall comply with Inspection and Maintenance Requirements listed in Conditions A.11 through A.13 and A.15. of this Permit.

17. AVOIDANCE CONDITION FOR SOURCES SUBJECT TO 40 CFR 63 Subpart DDDDD(5D) – In accordance with 15A NCAC 2Q .0317, to comply with this permit and avoid applicability of 40 CFR 63 Subpart DDDDD (5D), “National Emission Standards for Hazardous Air Pollutants for Major Source: Industrial, Commercial, and Institutional Boilers and Process Heaters," facility-wide emissions of hydrochloric acid shall be less than 10 tons per consecutive 12-month period.

- a. Operations Restrictions - To ensure emissions do not exceed the limitations above, the facility shall comply with Requirements listed in Specific Condition A.15. of this Permit.
- b. Recordkeeping and Reporting Requirements - The Permittee shall comply with the fuel sampling, recordkeeping and reporting requirements listed in Specific Conditions A.15.b. through A.15.d. of this Permit.

18. General Assembly of North Carolina, Session Law 2007-397, Senate Bill 3 (SB3) - Under the provisions of a Renewable Energy and Energy Efficiency Portfolio Standard (REPS), the Permittee will be categorized as a new renewable energy facility that delivers electric power to an electric power supplier. North Carolina General Statute 62-133.8(g) requires biomass combustion processes at a new renewable energy facility to meet Best Available Control Technology (BACT). The Permittee submitted a BACT analysis for the poultry litter-fired boiler (ID Nos. ES-B1) to the Division of Air Quality on May 5, 2022. Upon determination of BACT, the Division of Air Quality will reopen the permit for inclusion of the BACT conditions.

B. GENERAL CONDITIONS AND LIMITATIONS

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

Regional Supervisor
North Carolina Division of Air Quality
Washington Regional Office
943 Washington Square Mall
Washington, NC 27889
252-946-6481

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

2. RECORDS RETENTION REQUIREMENT - In accordance with 15A NCAC 2D .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 shall be kept on site for a minimum of 2 years, unless another time period is otherwise specified.
3. ANNUAL FEE PAYMENT - Pursuant to 15A NCAC 2Q .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. EQUIPMENT RELOCATION - In accordance with 15A NCAC 2Q .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. REPORTING REQUIREMENT - In accordance with 15A NCAC 2Q .0309, any of the following that would result in previously unpermitted, new, or increased emissions shall 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 2Q .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 effectuate 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. CHANGES NOT REQUIRING PERMIT REVISIONS - Pursuant to 15A NCAC 2Q .0318, changes to the facility that are not exempt pursuant to 15A NCAC 2Q .0102 may be allowed without first modifying an applicable air permit if the change(s) meet(s) the requirements of 15A NCAC 2Q .0318(b)(1) through (b)(5) and the owner or operator notifies the Director in writing, using forms provided by the Division, seven calendar days before the change is made. Within 10 business days of receipt of the notice, the Division shall notify the owner or operator of its determination of whether the change(s) meet(s) the requirements of 15A NCAC 2Q .0318(b)(1) through (b)(5).
8. In accordance with G.S. 143-215.108(c)(1), this permit is nontransferable by the Permittee. Future owners and operators shall obtain a new air permit from the DAQ.
9. 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.
10. 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.
11. In accordance with 15A NCAC 2D .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.
12. 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.
13. 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.

14. 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.
15. PERMIT RETENTION REQUIREMENT - In accordance with 15A NCAC 2Q .0110, the Permittee shall retain a current copy of the air permit at the site. The Permittee shall make available to personnel of the DAQ, upon request, the current copy of the air permit for the site.
16. CLEAN AIR ACT SECTION 112(r) REQUIREMENTS - Pursuant to 15A NCAC 2D .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.
17. 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.**
18. GENERAL EMISSIONS TESTING AND REPORTING REQUIREMENTS - If emissions testing is required by this permit, or the DAQ, or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow all DAQ procedures including protocol approval, regional notification, report submittal, and test results approval. Additionally, in accordance with 15A NCAC 2D .0605, the Permittee shall follow the procedures for obtaining any required audit sample and reporting those results.

Permit issued this the XXnd of August, 2022.

NORTH CAROLINA ENVIRONMENTAL MANAGEMENT COMMISSION

Betsy Huddleston
Regional Supervisor
By Authority of the Environmental Management Commission