ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director

NORTH CAROLINA
Environmental Quality

Enter XX or Calendar Date

Mr. Eric Warner
Plant Manager
Archer Daniels Midland Company
1730 East Moore Street, S.E.
Southport, North Carolina 28461

SUBJECT: Air Quality Permit No. 02502T25
Facility ID: 1000054
Archer Daniels Midland Company
Southport, North Carolina
Brunswick County
Fee Class: Title V
NSR Status: Major

Dear Mr. Warner:

In accordance with your completed Air Quality Permit Application for a renewal of your Title V permit received January 9, 2018, we are forwarding herewith Air Quality Permit No. 02502T25 to Archer Daniels Midland Company, 1730 East Moore Street, SE, Southport, North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

As the designated responsible official it is your responsibility to review, understand, and abide by all of the terms and conditions of the attached permit. It is also your responsibility to ensure that any person who operates any emission source and associated air pollution control device subject to any term or condition of the attached permit reviews, understands, and abides by the condition(s) of the attached permit that are applicable to that particular emission source.

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

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

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of NCGS 143-215.108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of NCGS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Brunswick County has not triggered increment tracking under PSD for any pollutants, so no tracking is required.

This Air Quality Permit shall be effective from ***(Enter Permit Issuance Date)*** until ***(Enter Permit Expiration Date)***, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Eric Crump at (919) 707-8470, Eric.Crump@ncdenr.gov.

Sincerely yours,

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

Enclosure

c: Heather Ceron, EPA Region 4 (Permit and Review)
Connie Horne (Cover Letter Only)
Wilmington Regional Office
Central Files

ATTACHMENT to Permit No. 02502T25

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

Emission Source ID No.	**Emission Source Description**
IEU49 **GACT Subpart ZZZZ**	One diesel-fired emergency generator (45 kW)
IEU50 **GACT Subpart ZZZZ**	One diesel-fired emergency generator (230 kW)
IEU15	One calcium carbonate slurry mix tank
IEU16	One Epson salt mix tank
IEU30	Gypsum pile
IEU32	Paint booth (with a 9 square foot paint arrestor filter)
IEU35 and IEU36 **GACT Subpart ZZZZ**	Two Fire fighting IC engines
IEU37	Parts cleaner
IEU46	Activated carbon bag unloading
IEU53	Natural gas-fired low-NOx burner (5 million Btu/hr capacity) preheating incoming air for spray dryer (EU54)
IT-255	Glycerin storage tank
IT-2219	Glycerin storage tank
IT-101, IT-256, IT-268, IT-434, IT-435, IT-436	Sulfuric acid storage tanks
IG701, IG702, ICTM01	Cooling Towers
IT-722	Gasoline Tank
IT-711, IT-720	No. 2 fuel oil storage tanks
IT-707-1, IT-707-2, IT-724	Diesel fuel storage tanks
I1	Maintenance repair and sandblasting
IEU56	Natural gas-fired low-NO_X burner (8 million Btu/hr capacity) preheating incoming air for spray dryer (EU57)
**IEU58	Natural gas-fired low-NO_X burner (8 million Btu/hr capacity) preheating incoming air for spray dryer (EU59)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the Permittee is exempted from demonstrating compliance with any applicable requirement.

2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100 “Control of Toxic Air Pollutants” or 02Q .0711 “Emission Rates Requiring a Permit.”

3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled “Specific Permit Conditions Regulatory Guide.” The link to this site is as follows: http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide.

Summary of Changes to Permit

The following changes were made to the Archer Daniels Midland - Southport facilty, Air Permit No. 02502T24:

Page No.	Section	Description of Changes
Cover and throughout	—	Updated all dates and permit revision numbers Changed all citations of "15 NCAC 2D" to "15 NCAC 02D" Changed all citations of "15 NCAC 2Q" to "15 NCAC 02Q
5 7 15 20 22	2.1 A 2.1 B 2.1 F 2.1 I 2.1 J	Removed liquid injection rate from description of control devices
5-6 7-8 9-10 11-12 13-14 15-16 17-18 20-21	2.1 A.1 2.1 B.1 2.1 C.1 2.1 D.1 2.1 E.1 2.1 F.1 2.1 G.1 2.1 I.1	Updated format of requirements from 15A NCAC 02D .0515, Particulates from Miscallaneous Industrial Sources
6 8 10 12 14-15 16 18 19 21-22 23	2.1 A.2 2.1 B.2 2.1 C.2 2.1 D.2 2.1 E.2 2.1 F.2 2.1 G.2 2.1 H.2 2.1 I.2 2.1 K.2	Updated format of requirements from 15A NCAC 02D .0521, Control of Visible Emissions
19 22-23	2.1 H.1 2.1 K.1	Updated format of requirements from 15A NCAC 02D .0516, Sulfur Dioxide Emissions from Combustion Sources
22	2.1 K	Removed horsepower/kilowatts from description of black start generator
26-28	2.2 B.1	Updated format of requirements from 15A NCAC 02D .0317, Avoidance Conditions for 15A NCAC 02D.0530, Prevention of Significant Deterioration
30-39	3	Updated General Conditions to version 5.3, 8/21/2018

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
02502T25	02502T24	XXXX	XXXX

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: **Archer Daniels Midland Company**
Facility ID: **1000054**

Facility Site Location: **1730 East Moore Street, S.E.**
City, County, State, Zip: **Southport, North Carolina 28461**

Mailing Address; **1730 East Moore Street, S.E.**
City, State, Zip: **Southport, North Carolina 28461**

Application Number: **1000054.18A**
Complete Application Date: **January 9, 2018**

Primary SIC Code: **2869**

Division of Air Quality, **Wilmington Regional Office**
Regional Office Address: **127 Cardinal Drive Extension**
Wilmington, North Carolina 28405

Permit issued this the XX day of XXXXX, XXXX.

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

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ATTACHMENT
List of Acronyms

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:

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Sodium Citrate Packaging Operation				
5, 31	EU1	One sodium citrate packaging operation	CE1	One wet Venturi scrubber (25 to 50 gallons per minute liquid injection rate)
Citric Acid Dryers/ Coolers				
7, 31	EU2	Citric acid dryer	CE2	One dynamic wet scrubber (20 to 50 gallons per minute liquid injection rate)
7, 31	EU3, EU4	Two citric acid coolers	CE3	One dynamic wet scrubber (30 to 70 gallons per minute injection rate)
7, 31	EU5	One sodium citrate dryer	CE5	One wet Venturi scrubber (25 to 50 gallons per minute injection rate)
Railcar Unloading				
9, 31	EU6	Sodium carbonate railcar unloading	CE6	One bagfilter (406 square feet of filter area)
9	EU47	Limestone railcar unloading	N/A	N/A
Filter Precoat Preparation Tanks				
11, 31	EU7, EU8	Two filter precoat preparation tanks	CE7 and CE8	Two vent spray systems followed by HV-2 filter cells
Storage Silos				
13, 31	EU9, EU17	Two limestone (calcium carbonate) storage silos	*CE9 and *CE17	Two bagfilters (375 square feet of filter area each)
13, 31	EU14	One hydrated lime (calcium hydroxide) storage silo	CE14	One bagfilter (400 square feet of filter area)
13, 31	EU10, EU11	Two Filteraid (perlite) storage silos	**CE10 and **CE11	Two bagfilters (375 square feet of filter area each)
13, 31	EU25, EU26	Two starch storage silos	CE25	One bagfilter (710 square feet of filter area)
13, 31	EU38, EU39	Two starch storage silos	CE38	One bagfilter (708 square feet of filter area)
Calcium Hydroxide Slurry Mixing Tank				
17, 31	EU12	One hydrated lime (calcium hydroxide) slurry mixing tank	CE12	One cartridge filter dust collector (1,020 square feet of filter area)
Limestone Slurry Mixing Tanks				
15, 31	EU18, EU19, EU20	Three limestone slurry mixing tanks	CE18	One vent spray (20 to 40 gallons per minute injection rate)
Combustion Turbines				
19, 28, 31	EU21, EU22	Two natural gas/No. 2 fuel oil-fired combustion turbines (240 million Btu per hour firing rate each)	CE21 and CE22	Steam-injection for nitrogen oxide control while firing No. 2 fuel oil (no steam injection required while firing natural gas), minimum steam to fuel (s:f) ratio of 0.46
19, 28, 31	EU23	One natural gas-fired combustion turbine (190 million Btu per hour firing rate)	N/A	N/A

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Powdered Products				
20, 31	EU27	One steam-heated fluidized bed dryer (powdered products)	CE27	One cyclonic wet scrubber (75 to 125 gallons per minute liquid injection rate)
20, 31	EU28	Powdered products packaging	CE28	One multi-vane scrubber (10 to 40 gallons per minute liquid injection rate) with a demister
20, 31	EU40	One steam-heated fluidized bed dryer (powdered products)	CE40	One cyclonic wet scrubber (20 to 70 gallons per minute liquid injection rate)
20, 31	EU54	Spray dryer	CE54	One bagfilter (2,507 square feet of filter area)
20, 31	EU55	Dried yeast pneumatic transfer, storage, and packaging	CE55 and CE55A	One bagfilter (1,024 square feet of filter area) and one check filter (150 square feet area)
20, 31	*EU57	Spray dryer	*CE57	One bagfilter (3,525 square feet of filter area)
20	**EU59	Spray dryer	**CE59	One bagfilter (3,525 square feet of filter area)
Citric Acid Fermentation System				
23, 31	EU33a, EU33b, EU33c, EU33d, EU33e, EU33f, EU33g, EU33h	Citric acid fermentation system	CE33 and CE34	One cyclonic impingement scrubber and a gravity spray tower wet scrubber equipped with a demister section (0 to 1200 gallons per minute liquid injection rate)
23, 31	EU31a, EU31b, EU31c, EU31d, EU31e	Citric acid fermentation system	CE31	One packed bed scrubber equipped with a demister section (0-400 gallons per minute liquid recirculation rate)
Emergency Diesel Generator				
24	*EU48 **GACT Subpart ZZZZ**	One 1,500 hp/1000kW diesel-fired black-start generator	N/A	N/A

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 sodium citrate packaging operation (ID No. EU1) with associated wet Venturi scrubber (ID No. CE1)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	For process rates up to 30 tons per hour: **$E = 4.10 \times P^{0.67}$** For process rates greater than 30 tons per hour: **$E = 55.0 \times P^{0.11} - 40$** Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from this source **(ID No. EU1)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

c. Particulate matter emissions from the sodium citrate packaging operation **(ID No. EU1)** shall be controlled by the wet Venturi scrubber **(ID No. CE1)**. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. A monthly visual inspection of the system ductwork for leaks,
   ii. A monthly check of the differential pressure drop and liquid flow rate; and
   iii. An annual (for each 12 month period following the initial inspection) internal inspection of the scrubber's structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and scrubber are not inspected and maintained.

d. 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. Observations from each visual inspection;
   iii. A record of the differential pressure drop and liquid flow rate from each monthly check;
   iv. The results of any maintenance performed on the scrubber; and
   v. Any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the scrubber within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 A.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. Visible emissions from this sodium citrate packaging operation **(ID No. EU1)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. i. To ensure compliance, once a month the Permittee shall observe the emission points of this source **(ID No. EU1)** for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
   (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.2.a above.

ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
   (A) the above-normal emissions are not corrected per c.i.(A) above;
   (B) the demonstration in c.i.(B) above cannot be made; or
   (C) the monthly observations are not conducted per c.i above.

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

d. i. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   (A) the date and time of each recorded action;
   (B) the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   (C) the results of any corrective actions performed.

ii. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained per d.i. above.

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 A.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

B. Citric acid dryers/sodium citrate dryers/ coolers including:

- **One citric acid dryer (ID No. EU2) with associated dynamic wet scrubber (ID No. CE2)**
- **Two citric acid coolers (ID Nos. EU3 and EU4) with associated dynamic wet scrubber (ID No. CE3)**
- **One sodium citrate dryer (ID Nos. EU5) with associated dynamic wet Venturi scrubber (ID No. CE5)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	For process rates up to 30 tons per hour: **$E = 4.10 \times P^{0.67}$** For process rates greater than 30 tons per hour: **$E = 55.0 \times P^{0.11} - 40$** Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources **(ID Nos. EU2, EU3, EU4, and EU5)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

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

a. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

b. Particulate matter emissions from these sources shall be controlled as follows:
   i. The citric acid dryer **(ID No. EU2)** shall be controlled by the dynamic wet scrubber with a liquid injection rate of 20 to 50 gallons per minute **(ID No. CE2)**.
   ii. The two citric acid coolers **(ID Nos. EU3 and EU4)** shall be controlled by the dynamic wet scrubber with a liquid injection rate of 30 to 70 gallons per minute **(ID No. CE3)**.
   iii. The sodium citrate dryer **(ID No. EU5)** shall be controlled by the dynamic wet Venturi scrubber with a liquid injection rate of 20 to 50 gallons per minute **(ID No. CE5)**.

c. i. To assure compliance, the Permittee shall perform inspections and maintenance of each affected control device as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirements shall include the following:
   (A) a monthly visual inspection of the system ductwork for leaks,
   (B) a monthly check of the differential pressure drop and liquid flow rate; and
   (C) an annual (for each 12 month period following the initial inspection) internal inspection of the scrubbers' structural integrity.
   ii. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and scrubbers are not inspected and maintained.

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

d. 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. a record of the differential pressure drop and liquid flow rate from each monthly check;
iv. the results of any maintenance performed on any scrubber; and
v. any variance from manufacturer's recommendations, if any, and corrections made.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained per d.i. above.

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

e. The Permittee shall submit the results of any maintenance performed on the scrubbers within 30 days of a written request by the DAQ.
f. The Permittee shall submit a summary report of the 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. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these citric acid dryers and coolers **(ID Nos. EU2, EU3, EU4, and EU5)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. i. To ensure compliance, once a month the Permittee shall observe the emission points of these sources **(ID Nos. EU2, EU3, EU4, and EU5)** for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
(A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
(B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.2.a above.
ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
(A) the above-normal emissions are not corrected per c.i.(A) above;
(B) the demonstration in c.i.(B) above cannot be made;
(C) the monthly observations are not conducted per c.i above.

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

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
i. The date and time of each recorded action;
ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
iii. The results of any corrective actions performed.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on any scrubber within 30 days of a written request by the DAQ.
f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 B.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

C. Railcar unloading operations including:

- **Sodium carbonate railcar unloading (ID No. EU6) with associated bagfilter (ID No. CE6)**
- **Limestone railcar unloading (ID No. EU47)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	For process rates up to 30 tons per hour: **$E = 4.10 \times P^{0.67}$** For process rates greater than 30 tons per hour: **$E = 55.0 \times P^{0.11} - 40$** Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources **(ID Nos. EU6 and EU47)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55.0 \times P^{0.11} - 40$ (for process rates greater than 30 tons per hour)

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

c. Particulate matter emissions from sodium carbonate railcar unloading **(ID No. EU6)** shall be controlled by the bagfilter **(ID No. CE6)**. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.

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

d. 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 any control device; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 C.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. Visible emissions from these railcar unloading sources **(ID Nos. EU6 and EU47)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. i. To ensure compliance, once a month the Permittee shall observe the emission points of these railcar unloading sources **(ID Nos. EU6 and EU47)** for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
   (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.2.a above.

ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
   (A) the above-normal emissions are not corrected per c.i.(A) above;
   (B) the demonstration in c.i.(B) above cannot be made; or
   (C) the monthly observations are not conducted per c.i above.

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

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. the date and time of each recorded action;
   ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. the results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections 2.1 C.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. Two filter pre-coat preparation tanks (ID Nos. EU7 and EU8) with associated vent spray systems followed by 20" x 21" x 2" HV-2 filter cells (ID Nos. CE7 and CE8)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	For process rates up to 30 tons per hour: **$E = 4.10 \times P^{0.67}$** For process rates greater than 30 tons per hour: **$E = 55.0 \times P^{0.11} - 40$** Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources **(ID Nos. EU7 and EU8)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55.0 \times P^{0.11} - 40$ (for process rates greater than 30 tons per hour)

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

c. Particulate matter emissions from the two filter pre-coat preparation tanks **(ID Nos. EU7 and EU8)** shall be controlled by the vent spray systems followed by filter cells **(ID Nos. CE7 and CE8)**. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the filter cells' structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and filter cells are not inspected and maintained.

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

d. 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 vent spray systems and filter cells; and
   iv. Any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the vent spray systems and filter cells within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Sections(s) 2.1 D.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. Visible emissions from both filter precoat preparation tanks **(ID Nos. EU7 and EU8)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. i. To ensure compliance, once a month the Permittee shall observe the emission points of the filter precoat preparation tanks **(ID Nos. EU7 and EU8)** for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this/these source(s) are observed to be above normal, the Permittee shall either:
   (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 D.2.a above.

ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
   (A) the above-normal emissions are not corrected per c.i.(A) above;
   (B) the demonstration in c.i.(B) above cannot be made; or
   (C) the monthly observations are not conducted per c.i above.

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

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. The results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 D.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

E. Storage silos including:

- **Two limestone (calcium carbonate) storage silos (ID Nos. EU9 and EU17) and one hydrated lime (calcium hydroxide) storage tank (ID No. EU14) with three associated bagfilters (ID Nos. CE9, CE17, and CE14).**
- **Two Filteraid (perlite) storage silos (ID Nos. EU10 and EU11) with two associated bagfilters (ID Nos. CE10 and CE11)**
- **Two starch storage silos (ID Nos. EU25 and EU26) with one associated bagfilter (ID No. CE25)**
- **Two starch storage silos (ID Nos. EU38 and EU39) with one associated bagfilter (ID No. CE38)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	For process rates up to 30 tons per hour: **$E = 4.10 \times P^{0.67}$** For process rates greater than 30 tons per hour: **$E = 55.0 \times P^{0.11} - 40$** Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources **(ID Nos. EU9, EU17, EU14, EU10, EU11, EU25, EU26, EU38, and EU39)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55.0 \times P^{0.11} - 40$ (for process rates greater than 30 tons per hour)

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

c. Particulate matter emissions from the affected sources shall be controlled as follows:
   i. The two limestone storage silos **(ID Nos. EU9 and EU17)** and the one hydrated lime storage tank **(ID No. EU14)** shall be controlled by bagfilters **(ID Nos. CE9, CE17, and CE14, respectively)**.
   ii. The two Filteraid (perlite) storage silos **(ID Nos. EU10 and EU11)** shall be controlled by bagfilters **(ID Nos. CE10 and CE11, respectively)**.
   iii. The two starch storage silos **(ID Nos. EU25 and EU26)** shall be controlled by a bagfilter **(ID No. CE25)**.
   iv. The two starch storage silos **(ID Nos. EU38 and EU39)** shall be controlled by a bagfilter **(ID No. CE38)**.

d. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. A monthly visual inspection of the system ductwork and material collection unit for leaks,
   ii. A monthly check of the differential pressure drop and liquid flow rate; and

iii. An annual (for each 12 month period following the initial inspection) internal inspection of the bagfilters' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.

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

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. a record of the differential pressure drop and liquid flow rate from each monthly check;
   iv. the results of any maintenance performed on the bagfilters; and
   v. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

f. The Permittee shall submit the results of any maintenance performed on the bagfilters within 30 days of a written request by the DAQ.

g. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 E.1.c, d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. Visible emissions from these storage silos **(ID Nos. EU9, EU17, EU10, EU14, EU11, EU25, EU26, EU38, and EU39)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1E.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. i. To ensure compliance, once a month the Permittee shall observe the emission points of these storage silos **(ID Nos. EU9, EU17, EU10, EU14, EU11, EU25, EU26, EU38, and EU39)** for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these silos are observed to be above normal, the Permittee shall either:
   (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 E.2.a above.

   ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
   (A) the above-normal emissions are not corrected per c.i.(A) above;
   (B) the demonstration in c.i.(B) above cannot be made; or
   (C) the monthly observations are not conducted per c.i above.

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

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. The results of any corrective actions performed.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 E.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

F. Three limestone slurry mixing tanks (ID Nos. EU18, EU19, and EU20) with associated vent spray (ID No. CE18)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	For process rates up to 30 tons per hour: **$E = 4.10 \times P^{0.67}$** For process rates greater than 30 tons per hour: **$E = 55.0 \times P^{0.11} - 40$** Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from the limestone slurry mixing tanks **(ID Nos. EU18, EU19, and EU20)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55.0 \times P^{0.11} - 40$ (for process rates greater than 30 tons per hour)

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

c. Particulate matter emissions from the limestone slurry mixing tanks **(ID Nos. EU18, EU19, and EU20)** shall be controlled by the vent spray system **(ID Nos. CE18)**. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the vent spray system's structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and vent spray system are not inspected and maintained.

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

d. 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 vent spray systems; and

iv. Any variance from manufacturer's recommendations, if any, and corrections made.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the vent spray system within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 F.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. Visible emissions from the limestone slurry mixing tanks **(ID Nos. EU18, EU19, and EU20)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. i. To ensure compliance, once a week the Permittee shall observe the emission points of these sources **(ID Nos. EU18, EU19, and EU20)** for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
(A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
(B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 F.2.a above.

ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
(A) the above-normal emissions are not corrected per c.i.(A) above;
(B) the demonstration in c.i.(B) above cannot be made; or
(C) the weekly observations are not conducted per c.i above.

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

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
i. The date and time of each recorded action;
ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
iii. The results of any corrective actions performed.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 F.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

G. One calcium hydroxide slurry mixing tank (ID No. EU12) with associated cartridge filter dust collector (ID No. CE12)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	For process rates up to 30 tons per hour: **$E = 4.10 \times P^{0.67}$** For process rates greater than 30 tons per hour: **$E = 55.0 \times P^{0.11} - 40$** Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from the calcium hydroxide slurry mixing tank (**ID No. EU12**) shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55.0 \times P^{0.11} - 40$ (for process rates greater than 30 tons per hour)

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

c. Particulate matter emissions from the calcium hydroxide mixing tank **(ID No. EU12)** shall be controlled by a cartridge filter dust collector **(ID Nos. CE12)**. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
   i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
   ii. an annual (for each 12-month period following the initial inspection) internal inspection of the cartridge filter dust collector's structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and cartridge filter dust collector are not inspected and maintained.

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

d. 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 cartridge filter dust collector; and
   iv. Any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the cartridge filter dust collector within 30 days of a written request by the DAQ.

f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section(s) 2.1 G.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. Visible emissions from the calcium hydroxide slurry mixing tank **(ID No. EU12)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. i. To ensure compliance, once a week the Permittee shall observe the emission points of this source **(ID No. EU12)** for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
   (A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
   (B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 G.2.a above.

ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
   (A) the above-normal emissions are not corrected per c.i.(A) above;
   (B) the demonstration in c.i.(B) above cannot be made; or
   (C) the weekly observations are not conducted per c.i above.

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

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

v. The date and time of each recorded action;

vi. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and

vii. The results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 G.2.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

H. Combustion Turbines including:

- **Two natural gas/No. 2 fuel oil-fired combustion turbines (ID Nos. EU21 and EU22) and steam-injection with a minimum steam to fuel (s:f) ratio of 0.46 while firing No. 2 fuel oil**
- **One natural gas-fired combustion turbine (ID No. EU23)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
SO_2, NOx, CO, PM-10, and VOC	See Section 2.2.B.1. of this permit	15A NCAC 02Q .0317 (PSD Avoidance)

1. 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.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping is required for sulfur dioxide emissions from the firing of natural gas/No. 2 fuel oil in these turbines **(ID Nos. EU21, EU22, and EU23)**.

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

a. Visible emissions from these turbines **(ID Nos. EU21, EU22, and EU23)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 H.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas/No. 2 fuel oil in these turbines **(ID Nos. EU21, EU22, and EU23)**.

I. Powdered Products Sources, including:

- **One steam-heated fluidized bed dryer (powdered products) (ID No. EU27) with associated cyclonic wet scrubber (ID No. CE27)**
- **Powdered products packaging (ID No. EU28) with associated multi-vane scrubber (ID No. CE28) with a demister**
- **One steam-heated fluidized bed dryer (powdered products) (ID No. EU40) with an associated cyclonic wet scrubber (ID No. CE40)**
- **Spray dryer (ID No. EU54) with associated bagfilter (ID No. CE54)**
- **Dried yeast pneumatic transfer, storage, and packaging (ID No. EU55) with associated bagfilter and check filter (ID Nos. CE55 and CE55A)**
- **Spray dryer (ID No. EU57) with associated bagfilter (ID No. CE57)**
- **Spray dryer (ID No. EU59) with associated bagfilter (ID No. CE59)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	For process rates up to 30 tons per hour: **$E = 4.10 \times P^{0.67}$** For process rates greater than 30 tons per hour: **$E = 55.0 \times P^{0.11} - 40$** Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources **(ID Nos. EU27, EU28, EU40, EU54, EU55, EU57 and EU59)** shall not exceed an allowable emission rate as calculated by the following equation:

$E = 4.10 \times P^{0.67}$ (for process rates less than or equal to 30 tons per hour), or
$E = 55.0 \times P^{0.11} - 40$ (for process rates greater than 30 tons per hour)

Where E = allowable emission rate in pounds per hour
P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

c. Particulate matter emissions from the affected sources shall be controlled as follows:
   i. The steam-heated fluidized bed dryer **(ID No. EU27)** shall be controlled by one associated cyclonic wet scrubber with a liquid injection rate of 75 to 125 gallons per minute **(ID No. CE27)**.
   ii. The powdered products packaging operation **(ID No. EU28)** shall be controlled by the multi-vane scrubber with a liquid injection rate of 10 to 40 gallons per minute **(ID No. CE28)**.
   iii. The steam-heated fluidized bed dryer **(ID No. EU40)** shall be controlled by one associated cyclonic wet scrubber with a liquid injection rate of 20 to 70 gallons per minute **(ID No. CE40)**.
   iv. The spray dryer **(ID No. EU54)** shall be controlled by one associated bagfilter **(ID No. CE54)** with 2,507 square feet of filter area.

v. The dried yeast pneumatic transfer, storage, and packaging **(ID No. EU55)** shall be controlled by one associated bagfilter **(ID No. CE55)** with 1,024 square feet of filter area and one associated check filter **(ID No. CE55A)** with 150 square feet of area.
vi. The spray dryer **(ID Nos. EU57 and EU59)** shall be controlled by one associated bagfilters **(ID No. CE57 and CE59)** with 3,525 square feet of filter area, each.

d. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
i. a monthly visual inspection of the system ductwork for leaks,
ii. a monthly check of the differential pressure drop and liquid flow rate for each scrubber; and
iii. an annual (for each 12 month period following the initial inspection) internal inspection of the structural integrity for each scrubber and bagfilter.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork, scrubbers, and bagfilters are not inspected and maintained.

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

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. a record of the differential pressure drop and liquid flow rate from each monthly check of the scrubbers;
iv. the results of any maintenance performed on the scrubbers and bagfilters; and
v. any variance from manufacturer's recommendations, if any, and corrections made.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

f. The Permittee shall submit the results of any maintenance performed on the scrubbers and the bagfilters within 30 days of a written request by the DAQ.

g. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 I.1.c, d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. Visible emissions from these sources **(ID Nos. EU27, EU28, EU40, EU54, EU55, EU57 and EU59)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 I.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. i. To ensure compliance, once a month the Permittee shall observe the emission points of these sources **(ID Nos. EU27, EU28, EU40, EU54, EU55, EU57 and EU59)** for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
(A) take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
(B) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 I.2.a above.
ii. The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if:
(A) the above-normal emissions are not corrected per c.i.(A) above;
(B) the demonstration in c.i.(B) above cannot be made; or
(C) the monthly observations are not conducted per c.i above.

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

d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date and time of each recorded action;
   ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
   iii. The results of any corrective actions performed.
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 I.2.c and d abovepostmarked 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.

J. Citric acid fermentation system (ID Nos. EU33a, EU33b, EU33c, EU33d, EU33e, EU33f, EU33g, and EU33h) with associated cyclonic impingement scrubber (ID No. CE33) and gravity spray tower wet scrubber (ID No. CE34) and equipped with a demister section

Citric acid fermentation system (ID Nos. EU31a, EU31b, EU31c, EU31d, and EU31e) with associated packed bed scrubber (ID No. CE31) and equipped with demister section

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	**State-enforceable only** See Section 2.2.A.1	15A NCAC 02D .1806

K. One diesel-fired black-start generator (ID No. EU48)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Hazardous Air Pollutants	See Section 2.1 K.3, below	15A NCAC 02D .1111 (40 CFR Part 63, Subpart ZZZZ)

1. 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.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping is required for sulfur dioxide emissions from the firing of diesel fuel in this black-start generator **(ID No. EU48)**.

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

a. Visible emissions from the black-start generator **(ID No. EU48)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of diesel fuel in this black-start generator **(ID No. EU48).**

3. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

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

a. For the black-start generator **(ID No. EU48)** (existing 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 Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines."

Definitions and Nomenclature

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

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

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

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

d. The Permittee has no notification requirements.

General Provisions [40 CFR 63.6665]

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

Operating and Maintenance Requirements [15A NCAC 02Q .0508(b)]

f. The Permittee shall minimize the black-start generator's **(ID No. EU48)** time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission standards in Section 2.1 K.3.g, below, apply. [40 CFR 63.6603(a), Table 02D and 63.6625(h)]

g. Except during periods of startup of the IC engine, the Permittee shall:
   i. Change oil and filter every 500 hours of operation or annually, whichever comes first;
   ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
   iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary

   [40 CFR 63.6603(a), Table 02D]

h. The Permittee shall have the option to utilize the oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Section 2.1 K.3.g [40 CFR 63.6603(a), Table 02D, 63.6625(i)]

i. If performing the management practice on the required schedule in Section 2.1 K.3.g would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the unacceptable risk under Federal, State, or local law has abated. The Permittee shall report any

failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. [40 CFR 63.6603(a), Table 02D]

j. The Permittee shall be in compliance with the emission limitations, operating limitations and other requirements that apply at all times. [40 CFR 63.6605(a)]

k. The Permittee shall operate and maintain the black-start generator **(ID No. EU48)**, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.6605(b)]

l. The Permittee shall operate and maintain the black-start generator **(ID No. EU48)** and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e)(3) and 63.6640(a), Table 6]

m. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if Sections 2.1 K.3.e. through l. are not met.

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

n. The Permittee shall keep the following:
   i. A copy of each report that the Permittee submitted to comply with Section 2.1 K.3, including all documentation supporting any Initial Notification or Notification of Compliance Status that the Permittee submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv).[40 CFR 63.6655(a)(1)]
   ii. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]
   iii. Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(4)]
   iv. Records of actions taken during periods of malfunction to minimize emissions in accordance with Section 2.1 K.3.k., including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]
   v. Records of the maintenance conducted on the black-start generator **(ID No. EU48)** pursuant to Section 2.1 K.3.l. [40 CFR 63.6655(d) and (e)]

o. The Permittee shall keep each record in a form suitable and readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a),(b),(c)]

p. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if Sections 2.1 K.3.n and o are not met.

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

q. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of noncompliance must be clearly identified. [40 CFR 63.6640(b),(e), and 63.6650(f)]
   i. The summary report shall also include any reporting required under Section 2.1 K.3.i. as necessary. [40 CFR 63.6603(a), Table 02D]

The Permittee shall be deemed in noncompliance with the reporting requirements of 15A NCAC 02D .1111 if Section 2.1 K.3.q is not met.

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

A. Facility-wide affected sources

The above emission sources are subject to this multiple emission source limit.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	**State-enforceable only** Odorous emissions must be controlled	15A NCAC 02D .1806
Toxic air pollutants	**State-enforceable only** Toxic air pollutant emissions shall not exceed the levels listed in 02Q .0711 unless ambient standards are not exceeded	15A NCAC 02Q .0711

STATE-ENFORCEABLE ONLY

1. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

a. The Permittee shall not operate the facility without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

STATE-ENFORCEABLE ONLY

2. 15A NCAC 02Q .0711: TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT

a. For each of the toxic air pollutants (TAPs) below listed, the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 02Q .0711. The facility, specifically the sulfuric acid storage tanks **(ID Nos. IT-101, IT-256, IT-268, IT-434, IT-435 and IT-436)**, shall be operated and maintained in such a manner that emissions of any listed TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 02Q .0711.

b. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.

c. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 02D .1100 "Control of Toxic Air Pollutants".

d. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

Pollutant (CAS Number)	TPERs Limitations			
	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Sulfuric acid (7664-93-9)		0.25		0.025

B. Two natural gas/No. 2 fuel oil-fired turbines (ID Nos. EU21 and EU22) One natural gas-fired turbine (ID No. EU23)

The above emission sources are subject to this multiple emission source limit.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Nitrogen oxides	Less than 466.6 tons per year.	15A NCAC 02Q .0317 (PSD Avoidance)
Sulfur dioxide	Less than 1,315 tons per year.	15A NCAC 02Q .0317 (PSD Avoidance)
Carbon monoxide	Less than 120.71 tons per year.	15A NCAC 02Q .0317 (PSD Avoidance)
PM-10	Less than 118.68 tons per year.	15A NCAC 02Q .0317 (PSD Avoidance)
Volatile organic compounds	Less than 41.16 tons per year	15A NCAC 02Q .0317 (PSD Avoidance)

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, these turbines **(ID Nos. EU21, EU22, and EU23)** shall limit emissions as follows:
   i. NOx emissions shall be less than 466.6 tons per consecutive, 12-month period;
   ii. SO_2 emissions shall be less than 1,315 tons per consecutive, 12-month period;
   iii. CO emissions shall be less than 120.71 tons per consecutive, 12-month period;
   iv. PM-10 emissions shall be less than 118.68 tons per consecutive, 12-month period; and,
   v. VOC emissions shall be less than 41.16 tons per 12-month period.

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

b. When an affected turbine is firing No. 2 fuel oil and the engine output is greater than 14.25 megawatts, the Permittee shall maintain a minimum steam-to-fuel (s:f) injection ratio at the associated steam injection system **(ID No. CE21 and/or CE22)** of 0.46. Compliance with the minimum s:f ratio shall be evaluated using a one-hour averaging period. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .0530 if the minimum steam-to-fuel injection ratio is not maintained during No. 2 fuel oil firing when engine output is greater than 14.25 megawatts.

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

c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.2 B.1.a, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

d. The Permittee shall keep monthly records of fuel usage in a logbook (written or in electronic format), as follows:
   i. The total quantity of natural gas fired (in million scf) and No. 2 fuel oil fired (in 1,000 gal) at the affected turbines; and,
   ii. The fuel oil supplier certification for any fuel oil fired at the affected turbines, including the sulfur content of the oil (in percent by weight).

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the natural gas and fuel oil usage and No. 2 fuel oil sulfur content are not created and retained as required above.

e. The Permittee shall calculate monthly emissions from the affected turbines within 30 days after the end of each calendar month. Calculations shall be recorded in a logbook (written or electronic format), according to the following formulas:

i. NOx emissions shall be estimated as follows:

$$E_{NOx} = \frac{Q_{ng}\left(\frac{236.6\ lbs\ NOx}{million\ scf}\right) + Q_{fo2}\left(\frac{53.3\ lbs\ NOx}{1{,}000\ gal}\right)}{2{,}000\ lbs/ton}$$

Where: E_{NOx} = NOx emissions from the affected turbines (in tons/month) during the previous calendar month;
Q_{ng} = Quantity of natural gas fired at the affected turbines (in million scf/month) during the previous calendar month; and,
Q_{fo2} = Quantity of No. 2 fuel oil fired at the affected turbines (in 1,000 gal/month) *while operating the steam injection system* during the previous calendar month.

ii. SO_2 emissions shall be estimated as follows:

$$E_{SO2} = \frac{Q_{ng}\left(\frac{7.54\ lbs\ SO_2}{million\ scf}\right) + Q_{fo2}\left(\frac{(141\ lbs\ SO_2) * (S)}{1{,}000\ gal}\right)}{2{,}000\ lbs/ton}$$

Where: E_{SO2} = SO_2 emissions from the affected turbines (in tons/month) during the previous calendar month
S = Sulfur content in the No. 2 fuel oil (in percent by weight)

iii. CO emissions shall be estimated as follows:

$$E_{CO} = \frac{Q_{ng}\left(\frac{20.6\ lbs\ CO}{million\ scf}\right) + Q_{fo2}\left(\frac{10.6\ lbs\ CO}{1{,}000\ gal}\right)}{2{,}000\ lbs/ton}$$

Where: E_{CO} = CO emissions from the affected turbines (in tons/month) during the previous calendar month

iv. PM-10 emissions shall be estimated as follows:

$$E_{PM10} = \frac{Q_{ng}\left(\frac{12.6\ lbs\ PM10}{million\ scf}\right) + Q_{fo2}\left(\frac{1.675\ lbs\ PM10}{1{,}000\ gal}\right)}{2{,}000\ lbs/ton}$$

Where: E_{PM10} = PM-10 emissions from the affected turbines (in tons/month) during the previous calendar month

v. VOC emissions shall be estimated as follows:

$$E_{VOC} = \frac{Q_{ng}\left(\frac{2.2\ \ lbs\ VOC}{million\ \ scf}\right) + Q_{fo2}\left(\frac{0.057\ \ lbs\ VOC}{1{,}000\ \ gal}\right)}{2{,}000\ lbs/ton}$$

Where: E_{VOC} = VOC emissions from the affected turbines (in tons/month) during the previous calendar month

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the monthly calculations listed above are not created and retained.

f. The Permittee shall calculate rolling 12-month emissions from the affected turbines within 30 days after the end of each calendar month. Emissions shall be estimated by summing the monthly emissions, as calculated in Section 2.2 B.1.e above for the previous, consecutive 12-month period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the 12-month rolling calculations listed above are not created and retained, or if the emission total exceeds a limit in Section 2.2 B.1.a above.

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

g. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities given in Section 2.2 B.1.d through f above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following
   i. The monthly quantities of natural gas and No. 2 fuel oil fired in the affected turbines for the each of the previous 17 months;
   ii. The monthly NOx, SO_2, CO, PM-10, and VOC emission rates from the affected turbines for the previous 17 months;
   iii. The total NOx, SO_2, CO, PM-10, and VOC emissions from the affected turbines for each 12-month period ending during the six month reporting period;
   iv. The minimum steam to fuel ratio in turbines **(ID Nos. EU21 and EU22)** over the previous six-month period; and,
   v. All instances of deviations from the requirements of this permit must be clearly identified.

2.3 Permit Shield for Non-Applicable Requirements

The Permittee is shielded from the following non-applicable requirements [15A NCAC 02Q .0512(a)(1)(B)].

A. The NESHAP for Industrial Process Cooling Towers (40 CFR 63, Subpart Q) is not applicable to the cooling towers **(ID Nos. IG701, IG702, and ICTM01)** because the Permittee is not a major source of HAPs.

B. The NSPS for Stationary Gas Turbines (40 CFR 60 Subpart GG) is not applicable to the Turbines **(ID Nos. EU21, EU22, and EU23)** because the turbine construction/ modification commenced prior to October 3, 1977.

C. 15A NCAC 02D .0925 "Petroleum Liquid Storage in Fixed Roof Tanks" is not applicable to the No. 2 Fuel Oil Storage Tanks **(ID Nos. IT-711 and IT-720)** because the vapor pressure of the No. 2 fuel oil is less than 1.52 psia.

D. The NSPS for VOC Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR 60, Subpart Kb) is not applicable to the Unleaded Gasoline Tank **(ID No. IT722)** and the No. 2 Fuel Oil Storage Tanks **(ID Nos. IT-707-1, IT-707-2, IT-720, and IT-724)** because the capacity of each tank is less than 75 m^3 (19,811 gallons). The No. 2 Fuel Oil Storage Tank **(ID No. IT-711)** is not subject to 40 CFR 60, Subpart Kb, because it was constructed before June 23, 1984.

E. The NSPS for Storage Vessels of Petroleum Liquid (40 CFR 60, Subparts K and Ka) is not applicable to the No. 2 Fuel Oil Storage Tanks **(ID Nos. IT-711 and IT-720)** because fuel oil is not included in the definition of petroleum liquid.

F. Compliance Assurance Monitoring (CAM) provisions (15A NCAC 02D .0640) were evaluated as part of the Title V permit renewal and were not applicable to any of the permitted emission sources, as listed below:
- Sodium citrate packing operations **(ID No. EU1)**
- Citric acid dryers/coolers **(ID Nos. EU2 through EU5)**
- Railcar unloading **(ID No. EU6)**
- Filter precoat preparation tanks **(ID Nos. EU7 and EU8)**
- Storage silos **(ID Nos. EU9, EU10, EU11, EU14, EU17, EU25, EU26, EU38, and EU39)**
- Calcium hydroxide slurry mixing tank **(ID No. EU12)**
- Limestone slurry mixing tank **(ID Nos. EU18 through EU20)**
- Combustion turbines **(ID Nos. EU21 through EU23)**
- Powdered products **(ID Nos. EU27, EU28, EU40, EU54, and EU55)**
- Citric fermentation system **(ID Nos. EU31 and EU33)**

SECTION 3 - GENERAL CONDITIONS (version 5.3, 08/21/2018)

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]
In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

Supervisor, Stationary Source Compliance
North Carolina Division of Air Quality
1641 Mail Service Center
Raleigh, NC 27699-1641

All submittals shall include the facility name and Facility ID number (refer to the cover page of this permit).

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]
The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY
The facility shall be properly operated and maintained at all times in a manner that will effect an overall reduction in air pollution. Unless otherwise specified by this permit, no emission source may be operated without the concurrent operation of its associated air pollution control device(s) and appurtenances.

G. **Permit Modifications**
1. Administrative Permit Amendments [15A NCAC 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**
1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
   a. changes in the information submitted in the application;
   b. changes that modify equipment or processes; or
   c. changes in the quantity or quality of materials processed.

   If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
   a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
   b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
      i. the changes are not a modification under Title I of the Federal Clean Air Act;
      ii. the changes do not cause the allowable emissions under the permit to be exceeded;
      iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
      iv. the Permittee shall attach the notice to the relevant permit.
   c. The written notification shall include:
      i. a description of the change;
      ii. the date on which the change will occur;
      iii. any change in emissions; and
      iv. any permit term or condition that is no longer applicable as a result of the change.
   d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
   a. the change affects only insignificant activities and the activities remain insignificant after the change; or
   b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A **Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]
"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*

"Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
2. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
    a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
        i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
            - name and location of the facility;
            - nature and cause of the malfunction or breakdown;
            - time when the malfunction or breakdown is first observed;
            - expected duration; and
            - estimated rate of emissions;
        ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
        iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
    a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B **Other Requirements under 15A NCAC 02D .0535**
The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .0535(c) as follows:

1. Any excess emissions that do not occur during start-up and shut-down shall be considered a violation of the appropriate rule unless the owner or operator of the sources demonstrates to the Director, that the excess emissions are a result of a malfunction. The Director shall consider, along with any other pertinent information, the criteria contained in 15A NCAC 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]
The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
   a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
   b. the permitted facility was at the time being properly operated;
   c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
   d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]
This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least six months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]
1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]
The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508 (l)]
The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall

comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source during the certification period.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]
A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

R. **Permit Shield for Applicable Requirements** [15A NCAC 02Q .0512]

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
   a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
   b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
   c. the applicable requirements under Title IV; or
   d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]
The Director may terminate, modify, or revoke and reissue this permit if:

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;
4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

T. **Insignificant Activities** [15A NCAC 02Q .0503]
Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]
This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

1. Upon presentation of credentials and other documents as may be required by law, the Permittee shall allow the DAQ, or an authorized representative, to perform the following:
   a. enter the Permittee's premises where the permitted facility is located or emissions-related activity is conducted, or where records are kept under the conditions of the permit;
   b. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
   c. inspect at reasonable times and using reasonable safety practices any source, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
   d. sample or monitor substances or parameters, using reasonable safety practices, for the purpose of assuring compliance with the permit or applicable requirements at reasonable times.

Nothing in this condition shall limit the ability of the EPA to inspect or enter the premises of the Permittee under Section 114 or other provisions of the Federal Clean Air Act.

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. Annual permit fee payments shall refer to the permit number.
3. If, within 30 days after being billed, the Permittee fails to pay an annual fee, the Director may initiate action to terminate the permit under 15A NCAC 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History [**15A NCAC 02Q .0507(d)(4)]

The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(e)]

1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.

DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]

If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.

EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) –** FEDERALLY-ENFORCEABLE ONLY

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

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
    a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
        i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
        ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
        iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
    b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. **Reopening for Cause** [15A NCAC 02Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
   a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
   b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
   c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
   d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. **Reporting Requirements for Non-Operating Equipment** [15A NCAC 02Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540]

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas, stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

NN. **Specific Permit Modifications** [15A NCAC 02Q .0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
   a. a description of the change at the facility;
   b. the date on which the change will occur;
   c. any change in emissions; and
   d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the

application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]
For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM_{10}	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound