March 4, 2005

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

Dear Mr. Warner:

SUBJECT: **Air Quality Permit No. 02502T19**
Facility ID: 08/010/00054
Archer Daniels Midland Company
Southport, North Carolina
Brunswick County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for a 502(b)(10) modification received December 6, 2004, we are forwarding herewith Air Quality Permit No. **02502T19** to Archer Daniels Midland Company, Southport, North Carolina authorizing the operation, as outlined in Part I, "Air Quality Federal Title V and State Operation Permit," and the construction, as outlined in Part II, "Air Quality State Construction Permit," 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 2Q .0503 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 of Part I. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year. The Permittee shall notify the EPA with written notification at least seven days before the "change is made" pursuant to 15A NCAC 2Q .0523(a)(1)(C) for the air emission source(s) / control device(s) (ID No(s). EU14, EU12, CE12, CE28, CE40, EU31d and EU31e).**

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 the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding.

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. Failure to do so is a violation of GS 143-215.108 and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

This Air Quality Permit shall be effective from March 4, 2005 until September 30, 2008, 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 Jeff Twisdale at (919) 715-6260.

Sincerely yours,

Laura S. Butler, P.E.
Chief

Enclosure

c: Central Files
Wayne Cook, Wilmington Regional Office

ATTACHMENT
Summary Table of Permit Changes
for Air Permit 02502T19
March 4, 2005

The following changes incorporated in the permit revision are summarized below:

Page	**Section**	**Change**
Attachment	Insignificant Activities List	added emergency generator (EU50)
Page 2	Table of Contents	added the Part II Construction Permit and associated Sections
Page 3	Section 1 Table – Control Device Description for inline cartridge filter	deleted the inline cartridge filter (CE6) that has been removed
Page 3	Section 1 Table – Emission Source Description for storage silo (EU14) and associated bagfilter	separated the precipitated lime silo (EU14) from other existing silos and changed the contents to hydrated lime
Page 3	Section 1 Table - Emission Source Description and footnote (**) for hydrated lime storage silo (EU14)	added footnote and reference to Part II Construction Permit for hydrated lime storage silo (EU14)
Page 4	Section 1 Table – Emission Source / Control Device Description for the calcium hydroxide slurry mixing tank (EU12) & associated bagfilter (CE12)	added the hydrated lime slurry mixing tank (EU12) and the associated bagfilter (CE12)
Page 4	Section 1 Table - Emission Source / Control Device Description and footnote (**) for slurry mixing tank (EU12) & associated bagfilter (CE12)	added footnote and reference to Part II Construction Permit for hydrated lime mixing tank (EU12) and associated bagfilter (CE12)
Page 4	Section 1 Table – Emission Source Description for boiler (EU24)	deleted the dual-fuel boiler (EU24) that has been removed from service
Page 4	Section 1 Table – Control Device Description for multivane scrubber on powdered products packaging	modified the injection rate range of the multivane scrubber (CE28) from 10 to 30 gpm to 10 to 40 gpm
Page 4	Section 1 Table - Control Device Description and footnote (**) for multivane scrubber (CE28)	added footnote and reference to Part II Construction Permit for multivane scrubber (CE28)
Page 4	Section 1 Table – Control Device Description for cyclonic wet scrubber (CE40) on powdered products drying	modified the injection rate range of the cyclonic wet scrubber (CE40) from 45 to 75 gpm to 20 to 70 gpm
Page 4	Section 1 Table - Control Device Description and footnote (**) for cyclonic wet scrubber (CE40)	added footnote and reference to Part II Construction Permit for cyclonic wet scrubber (CE40)
Page 5	Section 1 Table – Emission Source Description for two citric acid fermenters (EU31d & EU31e)	added two citric acid fermenters (EU31d & EU31e)
Page 5	Section 1 Table - Emission Source Description and footnote (**) for two fermenters (EU31d & EU31e)	added footnote and reference to Part II Construction Permit for two fermenters (EU31d & EU31e)
Page 5	Section 1 Table - Footnote (**) for all Emission Sources/ Control Devices that will added or modified through a Section 502(b)(10) modification	added footnote and reference to Part II Construction Permit for all Emission Sources/ Control Devices that will added or modified
Page 8	Section 2.1 C - Control Device Description for inline cartridge filter	deleted the inline cartridge filter (CE6) that has been removed

Page	Section	Change
Page 12	Section 2.1 E - Emission Source Description for storage silo (EU14)	changed precipitated limestone silo to hydrated lime (calcium hydroxide)
Page 12	Section 2.1 E - Emission Source Description and footnote (**) for hydrated lime storage silo (EU14)	added footnote and reference to Part II Construction Permit for hydrated lime storage silo (EU14)
Page 13	Section 2.1 E.1.c. - Emission Source Description for storage silo (EU14)	changed precipitated limestone silo to hydrated lime (calcium hydroxide)
Pages 15 - 17	Section 2.1 G - Emission Source Description for the hydrated lime slurry mixing tank (EU12) and the bagfilter (CE12), Standards Table and Associated Specific Conditions	added the hydrated lime slurry mixing tank (EU12) and the bagfilter (CE12) along with the applicable standards/ limits and the associated specific conditions
Page 15	Section 2.1 G - Emission Source / Control Device Description and Table - footnote (**) for slurry mixing tank (EU12) & associated bagfilter (CE12)	added footnote and reference to Part II Construction Permit for hydrated lime mixing tank (EU12) and associated bagfilter (CE12)
Pages 17 - 18	Section 2.1 G becomes H - Emission Source Description, etc. for Turbines	changed references throughout the specific conditions from G to H
Page 17	Section 2.1 H – Table for Combustion Turbines and state-only toxics limits	removed state-only toxics limits since modeling demonstration has been made for unadulterated fuel sources
Pages 18 - 19	Section 2.1 H - Emission Source Description for the boiler (EU24), Standards Table and Associated Specific Conditions	removed boiler (EU24) along with the applicable standards/ limits and the associated specific conditions since boiler has not operated recently
Pages 18 - 19	Section 2.1 I - Control Device Description for two scrubbers (CE28 and CE40) with powdered products	adjusted the liquid injection rate ranges both scrubbers (CE28 and CE40) in the description only
Pages 18 - 19	Section 2.1 I - Control Device Description and Table footnote (**) for two scrubbers (CE28 and CE40)	added footnote and reference to Part II Construction Permit for both scrubbers (CE28 and CE40)
Page 20	Section 2.1 J - Emission Source Description and Table - footnote (**) for two fermenters (EU31d & EU31e)	added footnote and reference to Part II Construction Permit for two fermenters (EU31d and EU31e)
Page 21	Section 2.2 A – Table for facility-wide sources and state-only toxics limits (only for 2D .1100 limit)	removed state-only toxics limits since modeling demonstration has been made for unadulterated fuel sources
Page 22	Section 2.2 A.2. – Specific Condition (facility-wide) and state-only toxics limit for sulfuric acid (2Q .0711)	added six sulfuric acid storage tanks (ID Nos. T-101, T-256, T-268, T-434, T-435 and T-436)
Page 22	Section 2.2 A.3. – Specific Condition (facility-wide) sources and state-only toxics limit for ammonia (2D .1100)	removed state-only toxics limits for ammonia since MSG process (only source of NH_3) has ceased operation
Page 22	Section 2.2 B - Emission Source Description and Table – footnote (***) for the Combustion Sources (specifically boiler (EU24))	added footnote (***) for boiler (EU24) detailing removal from permit; however, the PSD avoidance cannot be modified at this time
Page 24	Section 2.3 E. – Nonapplicability statement for NSPS Subpart GG	changed to turbines rather than boilers & corrected applicability date
Pages 33 - 35	Part II Sections 1, 2 & 3 - Construction Permit Table and associated Conditions	added new/modified sources in table plus applicable regulations and notification requirement conditions

State of North Carolina,
Department of Environment
and Natural Resources

Division of Air Quality

NCDENR
NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
02502T19	02502T18	March 4, 2005	September 30, 2008

Until such time as this permit expires or is modified or revoked, the below named Permittee is authorized to operate, as outlined in Part I, "Air Quality Federal Title V and State Operation Permit," and to construct and operate, as outlined in Part II, "Air Quality State Construction Permit," 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 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, 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: **08/010/00054**

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: **1000054.04A**
Complete Application Date: **December 6, 2004**
Renewal Application Due Date: **December 30, 2007**
Primary SIC Code: **2869**
Division of Air Quality,
Regional Office Address: **Wilmington Regional Office**
127 Cardinal Drive Extension
Wilmington, North Carolina 28405

Permit issued this the 4th day of March, 2005.

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Laura S. Butler, P.E., Chief, Air Permits Section
By Authority of the Environmental Management Commission

Table Of Contents

PART I
AIR QUALITY TITLE V OPERATION PERMIT

The Division of Air Quality (DAQ), the United States Environmental Protection Agency (EPA), and citizens as defined under the Federal Clean Air Act have the authority to enforce the terms, conditions, and limitations contained in Part I of this permit unless otherwise specified.

Under Title 15A NCAC 2Q, the operation of emission source(s) and associated air pollution control device(s) and appurtenances listed in Part I of this permit is based on plans, specifications, operating parameters, and other information as submitted in the Air Quality Permit Application.

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Sodium Citrate Packaging Operation			
EU1	One sodium citrate packaging operation	CE1	One wet venturi scrubber (25 to 50 gallons per minute liquid injection rate)
Citric Acid Dryers/ Coolers			
EU2	Citric acid dryer	CE2	One dynamic wet scrubber (20 to 50 gallons per minute liquid injection rate)
EU3 and EU4	Two citric acid coolers	CE3	One dynamic wet scrubber (30 to 70 gallons per minute injection rate)
EU5	One sodium citrate dryer	CE5	One wet venturi scrubber (25 to 50 gallons per minute injection rate)
Railcar Unloading			
EU6	Sodium carbonate railcar unloading	CE6	One bagfilter (406 square feet of filter area)
EU47	Limestone railcar unloading	n/a	n/a
Filter Precoat Preparation Tanks			
EU7 and EU8	Two filter precoat preparation tanks	CE7 and CE8	Vent spray systems followed by 20" x 21" x 2" HV-2 filter cells

Storage Silos			
EU9 and EU17	Two limestone (calcium carbonate) storage silos	CE9, CE17	Two bagfilters (400 square feet of filter area each)
EU14**	One hydrated lime (calcium hydroxide) storage silo	CE14	One bagfilter (400 square feet of filter area)
EU10 and EU11	Filteraid (perlite) storage silos	CE10 and CE11	Two bagfilters (400 square feet of filter area each)
EU25 and EU26	Two starch storage silos	CE25	One bagfilter (710 square feet of filter area)
EU38 and EU39	Two starch storage silos	CE38	One bagfilter (708 square feet of filter area)
Calcium Hydroxide Slurry Mixing Tank			
EU12**	One hydrated lime (calcium hydroxide) slurry mixing tank	CE12**	One bagfilter (435 square feet of filter area)
Limestone Slurry Mixing Tanks			
EU18, EU19, and EU20	Three limestone slurry mixing tanks	CE18	One vent spray (20 to 40 gallons per minute injection rate)
Combustion Turbines			
EU21 and EU22	Two natural gas/ No. 2 fuel oil-fired combustion turbine (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
EU23	One natural gas-fired combustion turbine (190 million Btu per hour firing rate)	n/a	n/a
Powdered Products			
EU27	One steam-heated fluidized bed dryer (powdered products)	CE27	One cyclonic wet scrubber (75 to 125 gallons per minute liquid injection rate)
EU 28	Powdered products packaging	CE28**	One multivane scrubber (10 to 40 gallons per minute liquid injection rate) with a demister
EU40	One steam-heated fluidized bed dryer (powdered products)	CE40**	One cyclonic wet scrubber (20 to 70 gallons per minute liquid injection rate)

****** These emission source(s)/control device(s) (ID No(s). EU14, EU12, CE12, CE28, CE40, EU31d and EU31e) are permitted under Part II Construction Permit as a 502(b)(10) change per NCAC 2Q .0523. The permit shield described in General Condition R does not apply.

Citric Acid Fermentation System*			
EU33a, EU33b, EU33c, EU33d, EU33e, EU33f, EU33g, and 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)
EU31a, EU31b, EU31c, EU31d**, and EU31e**		CE31	one packed bed scrubber equipped with a demister section (0-400 gallons per minute liquid recirculation rate)
Emergency Diesel Generator			
EU48	One 1,200 hp/900kW diesel-fired emergency generator	n/a	n/a

***** These emission sources are insignificant for Title V purposes; however, they are permitted pursuant to state-enforceable only requirements.
****** These emission source(s)/control device(s) (ID No(s). EU14, EU12, CE12, CE28, CE40, EU31d and EU31e) are permitted under Part II Construction Permit as a 502(b)(10) change per NCAC 2Q .0523. The permit shield described in General Condition R does not apply.

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 one associated wet venturi scrubber (25 to 50 gallons per minute liquid injection rate, 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	$E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521

1. 15A NCAC 2D .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: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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 2D .0501(c)(3)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping [15A NCAC 2Q .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, 25 to 50 gallons per minute liquid injection rate). 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 is 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, including a recording of the differential pressure drop and liquid flow rate; and
   ii. 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 2D .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. the results of each inspection;
   iii. the results of any maintenance performed on the scrubber; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .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 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 2D .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. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .0501(c)(8)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A. 2. a. (**ID No. EU1**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 A.2. a. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the observations 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 one associated dynamic wet scrubber (ID No. CE2, 20 to 50 gallons per minute liquid injection rate)**
- **Two citric acid coolers (ID Nos. EU3 and EU4) with one associated dynamic wet scrubber (ID No. CE3, 30 to 70 gallons per minute liquid injection rate)**
- **One sodium citrate dryer (ID Nos. EU5) with one associated dynamic wet venturi scrubber (ID No. CE5, 20 to 50 gallons per minute liquid injection rate)**

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	E=4.10$P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521

1. 15A NCAC 2D .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: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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 2D .0501(c)(3)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

c. Particulate matter emissions from the citric acid dryer (ID No. EU2) shall be controlled by the dynamic wet scrubber (ID No. CE2, 20 to 50 gallons per minute liquid injection rate). Particulate matter emissions from the two citric acid coolers (ID Nos. EU3 and EU4) shall be controlled by the dynamic wet scrubber (ID No. CE3, 30 to 70 gallons per minute liquid injection rate). Particulate matter emissions from the sodium citrate dryer (ID No. EU5) shall be controlled by the dynamic wet venturi scrubber (ID No. CE5, 20 to 50 gallons per minute liquid injection rate). 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 is 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, including a recording of the differential pressure drop across the scrubber and liquid flow rate; and
ii. an annual (for each 12 month period following the initial inspection) internal inspection of the scrubbers' structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and scrubbers 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. the results of each inspection;
iii. the results of any maintenance performed on the scrubbers; and
iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .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 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 2D .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. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .0501(c)(8)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 B. 2. a. (**ID No. EU2, EU3, EU4, and EU5**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 B.2. a. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the observations 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, 406 square feet of filter area)**
- **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	E=4.10$P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521

1. 15A NCAC 2D .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: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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 2D .0501(c)(3)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

c. Particulate matter emissions from the sodium carbonate railcar unloading (ID No. EU6) shall be controlled by the bagfilter (ID No. CE6, 406 square feet of filter area). 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 is 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, including a recording of the differential pressure drop across the fabric filter; 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 2D .0515 if the ductwork and bagfilter 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. the results of each inspection;
   iii. the results of any maintenance performed on the bagfilter; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

2. 15A NCAC 2D .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. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .0501(c)(8)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 C. 2. a. (**ID No. EU6 and EU47**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 C.2. a. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the observations 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 precoat 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	E=4.10$P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521

1. 15A NCAC 2D .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: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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 2D .0501(c)(3)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 D. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

c. Particulate matter emissions from the two filter precoat preparation tanks (ID Nos. EU7 and EU8) shall be controlled by the vent spray systems followed by the 20" x 21" x 2" HV-2 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 is 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 units for leaks.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, vent spray systems, and 20" x 21" x 2" HV-2 filter cells 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. the results of each inspection;
   iii. the results of any maintenance performed on the vent spray systems and 20" x 21" x 2" HV-2 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 2D .0515 if these records are not maintained.

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

e. The Permittee shall submit the results of any maintenance performed on the vent spray systems and 20" x 21" x 2" HV-2 filter cells within 30 days of a written request by the DAQ.

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

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

a. Visible emissions from these two 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. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .0501(c)(8)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 D. 2. a. (**ID No. EU7 and EU8**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

c. To assure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 D.2. a. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the observations 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, respectively).**
- **Two Filteraid (perlite) storage silos (ID Nos. EU10 and EU11) with two associated bagfilters (ID Nos. CE10 and CE11, 400 square feet of filter area each)**
- **Two starch storage silos (ID Nos. EU25 and EU26) with one associated bagfilter (ID No. CE25, 710 square feet of filter area)**
- **Two starch storage silos (ID Nos. EU38 and EU39) with one associated bagfilter (ID No. CE38, 708 square feet of filter area)**

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	E=4.10$P^{0.67}$ or E=55.0$P^{0.11}$ - 40 where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521

****** These emission source(s)/control device(s) are permitted under Part II Construction Permit as a 502(b)(10) change per 15A NCAC 2Q .0523. The permit shield described in General Condition R does not apply.

1. 15A NCAC 2D .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: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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 2D .0501(c)(3)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 E. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

c. Particulate matter emissions from the two limestone storage silos (ID Nos. EU9 and EU17) and the one hydrated **lime** storage tank (ID No. EU14) shall be controlled by the bagfilters (ID Nos. CE9, CE17, and CE14, respectively). Particulate matter emissions from the two Filteraid (perlite) storage silos (ID Nos. EU10 and EU11) shall be controlled by the bagfilters (ID Nos. CE10 and CE11, respectively). Particulate matter emissions from the two starch storage silos (ID Nos. EU25 and EU26) shall be controlled by the bagfilter (ID No. CE25). Particulate matter emissions from the two starch storage silos (ID Nos. EU38 and EU39) shall be controlled by the bagfilter (ID No. CE38). 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 is 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, including a recording of the differential pressure drop across the fabric filters; and
   ii. 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 2D .0515 if the ductwork and bagfilters 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. the results of each inspection;
   iii. the results of any maintenance performed on the bagfilters; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

2. 15A NCAC 2D .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. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .0501(c)(8)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 E. 2. a. **(ID Nos. EU9, EU17, EU14, EU10, EU11, EU25, EU26, EU38, and EU39**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 E.2. a. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the observations 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 one associated vent spray (ID No. CE18, 20 to 40 gallons per minute injection rate)

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	E=4.10$P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521

1. 15A NCAC 2D .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: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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 2D .0501(c)(3)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

Monitoring/Recordkeeping [15A NCAC 2Q .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 is 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 units for leaks.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and vent spray system 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. 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 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .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 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 2D .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. [15A NCAC 2D .0521 (d)]

Testing [15A NCAC 2D .0501(c)(8)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 F. 2. a. (**ID Nos. EU18, EU19, and EU20**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

c. To assure compliance, once a month the Permittee shall observe the emission points of these sources for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 F.2. a. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the observations 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 one associated bagfilter (ID No. CE12**, 435 square feet of filter area)

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	$E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521

****** These emission source(s)/control device(s) are permitted under Part II Construction Permit as a 502(b)(10) change per 15A NCAC 2Q .0523. The permit shield described in General Condition R does not apply.

1. 15A NCAC 2D .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: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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 2D .0501(c)(3)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

c. Particulate matter emissions from the calcium hydroxide mixing tank (**ID No. EU12**) shall be controlled by the bagfilter (**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 is 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 units for leaks, including a recording of the differential pressure drop across the bagfilter; 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 2D .0515 if the ductwork and the bagfilter 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. the results of each inspection;
   iii. the results of any maintenance performed on the bagfilter; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

2. 15A NCAC 2D .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. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .0501(c)(8)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 G. 2. a. (**ID No. EU12**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 G.2. a. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the observations 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 turbine (ID Nos. EU21 and EU22, 240 million Btu per hour firing rate each) with 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**
- **One natural gas-fired combustion turbine (ID No. EU23, 190 million Btu per hour firing rate)**

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	$E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
sulfur dioxide	2.3 pounds per million Btu	15A NCAC 2D .0516
visible emissions	20 percent opacity	15A NCAC 2D .0521
SO_2, NOx, CO, PM/PM_{10}, and VOC	See Section 2.2.(B)(1)	Avoidance of 15A NCAC 2D .0530

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these turbines shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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 2D .0501(c)(3)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 H. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

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

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

a. Emissions of sulfur dioxide from this source shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .0501(c)(4)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. 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 2D .0516.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0501(c)(4)(A)]

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

3. 15A NCAC 2D .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. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .0501(c)(8)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 H. 3. a. (**ID Nos. EU21, EU22, and EU23**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .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 one associated cyclonic wet scrubber (ID No. CE27, 75 to 125 gallons per minute liquid injection rate)**
-
- **Powdered products packaging (ID No. EU28**) with one associated multivane scrubber (ID No. CE28, 10 to 40 gallons per minute liquid injection rate) with a demister**
-
- **One steam-heated fluidized bed dryer (powdered products) (ID No. EU40**) with one associated cyclonic wet scrubber (ID No. CE40, 20 to 70 gallons per minute liquid injection rate)**

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	E=4.10$P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521

****** These emission source(s)/control device(s) are permitted under Part II Construction Permit as a 502(b)(10) change per 15A NCAC 2Q .0523. The permit shield described in General Condition R does not apply.

1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

a. Emissions of particulate matter from these sources (**ID Nos. EU27, EU28, and EU40**) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

$E = 4.10 \times P^{0.67}$ 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 2D .0501(c)(3)]

b. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 I. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

c. Particulate matter emissions from the steam-heated fluidized bed dryer (ID No. EU27) shall be controlled by one associated cyclonic wet scrubber (ID No. CE27, 75 to 125 gallons per minute liquid injection rate). Particulate matter emissions from the powdered products packaging operation (ID No. EU28) shall be controlled by the multivane scrubber (ID No. CE28, 10 to 40 gallons per minute liquid injection rate with a demister). Particulate matter emissions from the steam-heated fluidized bed dryer (ID No. EU40) shall be controlled by one associated cyclonic wet scrubber (ID No. CE40, 20 to 70 gallons per minute liquid injection rate). 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 is 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, including a recording of the differential pressure drop and liquid flow rate; and
   ii. an annual (for each 12 month period following the initial inspection) internal inspection of the scrubbers' structural integrity.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and scrubbers 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. the results of each inspection;
   iii. the results of any maintenance performed on the scrubbers; and
   iv. any variance from manufacturer's recommendations, if any, and corrections made.

   The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

Reporting [15A NCAC 2Q .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 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 2D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from these sources (**ID Nos. EU27, EU28, and EU40**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .0501(c)(8)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 I. 2. a. (**ID Nos. EU27, EU28, EU40**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days following the effective date of permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 I.2. a. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

Recordkeeping [15A NCAC 2Q .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 2D .0521 if these records are not maintained.

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

e. The Permittee shall submit a summary report of the observations 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.

J. Citric acid fermentation system* (ID No. EU33a, EU33b, EU33c, EU33d, EU33e, EU33f, EU33g, and EU33h) with one associated cyclonic impingement scrubber (ID No. CE33) and a gravity spray tower wet scrubber equipped with a demister section (ID No. CE34, 0 to 1200 gallons per minute liquid injection rate), and (ID No. EU31a, EU31b, EU31c, EU31d**, and EU31e**) with one associated packed bed scrubber (ID No. CE31) equipped with demister section (0-400 gallons per minute liquid recirculation rate)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
odors	See Section 2.2.(A)(1); **State-enforceable only**	15A NCAC 2D .1806

***** These emission sources are insignificant for Title V purposes; however, they are permitted pursuant to state-enforceable only requirements.

****** These emission source(s)/control device(s) are permitted under Part II Construction Permit as a 502(b)(10) change per 15A NCAC 2Q .0523. The permit shield described in General Condition R does not apply.

K. One 1,200hp/900kW diesel fired emergency generator

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 2D .0516
visible emissions	20 percent opacity	15A NCAC 2D .0521

1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from this source shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 2D .0501(c)(4)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. 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 2D .0516.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0501(c)(4)(A)]

c. No monitoring/recordkeeping is required for sulfur dioxide emissions from diesel fuel combustion for this emergency generator (ID No. EU48).

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

a. Visible emissions from this emergency 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. [15A NCAC 2D .0521(d)]

Testing [15A NCAC 2D .0501(c)(8)]

b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 K. 3. a. (**ID No. EU48**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

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

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

STATE-ONLY REQUIREMENTS

A. Facility-wide affected sources

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
odors	Odorous emissions must be controlled**; State enforceable only**	15A NCAC 2D .1806
toxic air pollutants	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded; **State-enforceable only**	15A NCAC 2Q .0711

STATE-ENFORCEABLE ONLY

1. 15A NCAC 2D .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. TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT - Pursuant to 15A NCAC 2Q .0711 "Emission Rates Requiring a Permit," for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 2Q .0711. The facility, specifically the sulfuric acid storage tanks (ID Nos. T-101, T-256, T-268, T-434, T-435 and T-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 2Q .0711.

a. 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.
b. 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 2D .1100 "Control of Toxic Air Pollutants".
c. 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:

	TPERs Limitations			
Pollutant (CAS Number)	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) and one natural gas-fired turbine (ID No. EU23) and the natural gas/No. 2 fuel oil-fired boiler (ID No. EU24***)

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.	Avoidance of 15A NCAC 2D .0530
sulfur dioxide	Less than 1315 tons per year.	Avoidance of 15A NCAC 2D .0530
carbon monoxide	Less than 120.71 tons per year.	Avoidance of 15A NCAC 2D .0530
TSP/PM10	Less than 118.68 tons per year.	Avoidance of 15A NCAC 2D .0530
volatile organic compounds	Less than 41.16 tons per year	Avoidance of 15A NCAC 2D .0530

*** The boiler (ID No. EU24) has been removed from the facility; however, this condition cannot be modified until the next significant modification or renewal of the Title V permit.

1. 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. To avoid the applicability of NCAC 2D .0530 "Prevention of Significant Deterioration"

i. NOx emissions shall be less than 466.6 tons per 12-month period. The use of fuel in turbines (ID Nos. EU21, EU22, and EU23) and boiler (ID No. EU24) shall be limited such that NOx emissions shall not exceed 466.6 tons for any consecutive 12-month period. Calculations shall be made monthly and recorded in a log (written or in electronic format), according to the following formula:

$$E(NOx) = (A1 + A2) \times 175.4 \frac{\text{lbs NOx}}{\text{mm cuft}} + (B1 + B2) \times \frac{53.3 \text{ lbs NOx}}{1000 \text{ gal fuel oil}}$$

ii. Sulfur dioxide emissions shall be less than 1315 tons per 12-month period. The use of fuel in turbines (ID Nos. EU21, EU22, and EU23) and boiler (ID No. EU24) shall be limited such that sulfur dioxide emissions shall not exceed 1315 tons for any consecutive 12-month period. Calculations shall be made monthly and recorded in a log (written or in electronic format), according to the following formula:

$$E(SO2) = (A1 + A2) \times 7.54 \frac{\text{lbs SO2}}{\text{mm cuft}} + B1 \times \frac{141 \text{ lbs SO2}}{1000 \text{ gal fuel oil}} \times S + B2 \times \frac{157 \text{ lbs SO2}}{1000 \text{ gal fuel oil}} \times S$$

iii. Carbon monoxide emissions shall be less than 120.71 tons per 12-month period. The use of fuel in turbines (ID Nos. EU21, EU22, and EU23) and boiler (ID No. EU24) shall be limited such that carbon monoxide emissions shall not exceed 120.71 tons for any consecutive 12-month period. Calculations shall be made monthly and recorded in a log (written or in electronic format), according to the following formula:

$$E(CO) = (A1 + A2) \times 20.6 \frac{\text{lbs CO}}{\text{mm cuft}} + (B1 + B2) \times \frac{10.6 \text{ lbs CO}}{1000 \text{ gal fuel oil}}$$

iv. PM/PM10 emissions shall be less than 118.68 tons per 12-month period. The use of fuel in turbines (ID Nos. EU21, EU22, and EU23) and boiler (ID No. EU24) shall be limited such that particulate matter emissions shall not exceed 118.68 tons for any consecutive 12-month period. Calculations shall be made monthly and recorded in a log (written or in electronic format), according to the following formula:

$$E(PM) = A1 \times 12.6 \frac{\text{lbs PM}}{\text{mm cuft}} + A2 \times 7.6 \frac{\text{lbs PM}}{\text{mm cuft}} + B1 \times \frac{1.675 \text{ lbs PM}}{1000 \text{ gal fuel oil}} + B2 \times \frac{2 \text{ lbs PM}}{1000 \text{ gal fuel oil}}$$

v. VOC emissions shall be less than 41.16 tons per 12-month period. The use of fuel in turbines (ID Nos. EU21, EU22, and EU23) and boiler (ID No. EU24) shall be limited such that VOC emissions shall not exceed 41.16 tons for any consecutive 12-month period. Calculations shall be made monthly and recorded in a log (written or in electronic format), according to the following formula:

$$E(VOC) = A1 \times 2.2 \frac{\text{lbs VOC}}{\text{mm cuft}} + A2 \times 11 \frac{\text{lbs VOC}}{\text{mm cuft}} + B1 \times \frac{0.057 \text{ lbs VOC}}{1000 \text{ gal fuel oil}} + B2 \times \frac{0.252 \text{ lbs VOC}}{1000 \text{ gal fuel oil}}$$

Where: E(NOx) is the total actual emissions of nitrogen oxides in pounds
$E(SO_2)$ is the total actual emissions of volatile organic compounds in pounds
E(PM/PM10) is the total actual emissions of particulate matter in pounds
E(CO) is the total actual emissions of carbon monoxide in pounds
E(VOC) is the total actual emissions of volatile organic compounds in pounds
A1 is the total amount of natural gas used in the turbines in cubic feet
A2 is the total amount of natural gas used in the boiler in cubic feet
B1 is the amount of No. 2 fuel oil used in the turbine in gallons
B2 is the amount of No. 2 fuel oil used in the boiler in gallons
S is the weight percent sulfur in the No. 2 fuel oil

Testing [15A NCAC 2Q .0501 (c)(4)]

b. If emission testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.2 B. 1. a., the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

c. The Permittee shall keep monthly records of the amount of natural gas and No. 2 fuel oil used and quarterly analysis of the sulfur content, including certification of the No. 2 fuel oil, in a log (written or in electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the sulfur content of the fuel is not monitored.

d. A minimum steam to fuel (s:f) injection rate ratio of 0.46 is required when firing No. 2 fuel oil in the two turbines (ID Nos. EU21 and EU22).

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

e. The Permittee shall submit a summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding three-month period between October and December, April 30 of each calendar year for the preceding three-month period between January and March, July 30 of each calendar year for the preceding three-month period between April and June, and October 30 for the calendar year for the preceding three-month period between July and September. The report shall contain the following:
   i. The monthly sulfur dioxide and nitrogen oxide emissions from natural gas and No. 2 fuel oil combustion for the previous 14 months. The emissions must be calculated for each of the 12-month periods over the previous 14 months;
   ii. The monthly quantities of natural gas and No. 2 fuel oil for the previous 14 months;
   iii. The average sulfur content for the No. 2 fuel oil; and
   iv. The minimum steam to fuel ratio in turbines (ID Nos. EU21 and EU22) over the previous quarter.

2.3- Permit Shield for Nonapplicable Requirements

The Permittee is shielded from the following nonapplicable requirements [15A NCAC 2Q .0512(a)(1)(B)].

A. The Process Cooling Tower NESHAP (40 CFR 63 Subpart Q) is not applicable to the cooling towers (ID Nos. G701, G702, and CTM01), because ADM Southport is not a major source of HAPs.

B. The NSPS for Fossil Fuel-Fired Steam Generators (40 CFR 60 Subpart D) is not applicable to the Boiler (ID No. EU24), because the boiler capacity is less than 250 million Btu per hour.

C. The NSPS for Electric Steam Generators (40 CFR 60 Subpart Da) is not applicable to the Boiler (ID No. EU24), because the boiler capacity is less than 250 million Btu per hour.

D. The NSPS for Industrial/ Commercial/ Institutional Steam Generator (40 CFR 60 Subpart Db) is not applicable to the Boiler (ID No. EU24) because the boiler construction/ modification commenced prior to July 19, 1984.

E. 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.

F. 15A NCAC 2D .0925 “Petroleum Liquid Storage in Fixed Roof Tanks” is not applicable to the No. 2 Fuel Oil Storage Tanks (ID Nos. T720, T711, and T712), because the vapor pressure of the No. 2 fuel oil is less than 1.52 psia.

G. The NSPS for Storage Vessels of VOC including Petroleum Liquid (40 CFR 60 Subpart Kb) is not applicable to the Unleaded Gasoline Tank (ID No. T722) and the No. 2 Fuel Oil Storage Tanks (ID Nos. T707-1, T707-2, and T720), because the capacity of each tank is less than 10,554 gallons. The No. 2 Fuel Oil Storage Tanks (ID Nos. T711 and T712) are not subject to 40 CFR 60 Subpart Kb, because they were constructed before June 23, 1984.

H. The NSPS for Storage Vessels of Petroleum Liquid (40 CFR 60 Subpart K and Ka) is not applicable to the No. 2 Fuel Oil Storage Tanks (ID Nos. T720, T711, and T712), because fuel oil is not included in the definition of petroleum liquid.

SECTION 3 - GENERAL CONDITIONS

This section describes terms and conditions applicable to this Title V facility. All references to the "permit" in this section apply only to Part I of the permit.

A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(aa)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
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 2Q .0507(k) and .0508(aa)]
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 Environment and Natural Resources upon request.

C. **Severability Clause** [15A NCAC 2Q .0508(i)]
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 2Q .0507(c)]
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

E. **Duty to Comply** [15A NCAC 2Q .0508(j)]
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 2Q .0514]
   The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.
2. Transfer of Ownership or Operation [15A NCAC 2Q .0524]
   The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q .0524.
3. Minor Permit Modifications [15A NCAC 2Q .0515]
   The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.
4. Significant Permit Modifications [15A NCAC 2Q .0516]
   The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.
5. Reopening for Cause [15A NCAC 2Q .0517]
   The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Section 502(b)(10) Changes [15A NCAC 2Q .0523(a)]
   a. 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.
   b. 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.
   c. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
2. Off Permit Changes [15A NCAC 2Q .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.

3. Emissions Trading [15A NCAC 2Q .0523(c)]
   To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

I.A. **Reporting Requirements for Excess Emissions and Permit Deviations**

[15A NCAC 2D .0535(f) and 2Q .0508(f)(3)]

"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 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700. (*Note: Definitions of excess emissions under 2D .1110 and 2D .1111 shall apply where defined by rule.)*

"Deviations" - any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions, but not including excess emissions as defined above.

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 2D .0524), NESHAPS (15A NCAC 2D .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 2D .0524), NESHAPS (15A NCAC 2D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 2D .0535 as follows:
   a. Pursuant to 15A NCAC 2D .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 corrected measures have been accomplished; &
      iii. submit, if requested, to the Regional Supervisor or Director within 15 days after the request a written report as described in 15A NCAC 2D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 2Q .0508(f)(3), 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 2D .0535 on the next business day after becoming aware of the deviation. A written report shall be submitted within two business days to the Regional Supervisor and shall include the probable cause of such deviation and any corrective actions or preventative actions taken. All reports of deviations from permit requirements shall be certified by a responsible official.

I.B. **Other Requirements under 15A NCAC 2D .0535**

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535, including 15A NCAC 2D .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 2D .0535(c)(1) through (7).
2. Note that 15A NCAC 2D .0535(g) is state-enforceable only.

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 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 2Q .0513(b)]
This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 2Q.0508(k)]
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 2Q.0508(n)]
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 2Q .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 2Q .0508(f)]
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 2Q .0508(t)]
The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, Atlanta, GA 30303) postmarked on or before **January 30** 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. 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;
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source, currently and over the reporting period.

Q. **Certification by Responsible Official** [15A NCAC 2Q .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 2Q .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 2Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 2Q .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 2Q .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 2Q .0508(m)]
This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 2Q .0508(r) 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 2Q .0508(o)]
1. The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environment and Natural Resources. 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 2Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 2Q .0207]
The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 2Q .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 2Q .0107 and 2Q .0508(n)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .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 2Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 2Q .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 2Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 2Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 2Q .0507(d)(3)]
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 2Q .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 2Q .0508(g)]
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 2Q .0508(h)]
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 2D .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 2D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 2D .0200]
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 2D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 2D .0501(e)]
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 2D .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 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 2Q .0508(aa)]
If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application, the Permittee shall perform such testing in accordance with the appropriate EPA reference method(s) as approved by the DAQ and follow the procedures outlined below. The Permittee must request **in writing** and receive approval from the DAQ for an alternate test method or procedure.

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.
3. During all sampling periods, the Permittee shall operate the emission source(s) under maximum normal operating conditions or alternative operating conditions as deemed appropriate by the Regional Supervisor or his delegate.
4. The Permittee shall submit **two** copies of the test report to the DAQ. The test report shall contain at a minimum the following information:
    a. a certification of the test results by sampling team leader and facility representative;
    b. a summary of emissions results and text detailing the objectives of the testing program, the applicable state and federal regulations, and conclusions about the testing and compliance status of the emission source(s);
    c. a detailed description of the tested emission source(s) and sampling location(s) process flow diagrams, engineering drawings, and sampling location schematics should be included as necessary;
    d. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
    e. example calculations for at least one test run using equations in the applicable test methods and all test results including intermediate parameter calculations; and
    f. documentation of facility operating conditions during all testing periods and an explanation relating these operating conditions to maximum normal operation. If necessary, provide historical process data to verify maximum normal operation.
5. The testing requirement(s) shall be considered satisfied only upon written approval of the test results by the DAQ.
6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ. The use of the test results beyond the stated objectives remains subject to the approval of the DAQ.

KK. **Reopening for Cause** [15A NCAC 2Q .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 2Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .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 2Q .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 2Q .0508(f)]
The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

PART II
AIR QUALITY STATE CONSTRUCTION PERMIT

The Permittee is hereby authorized to construct air emission source(s) and associated air pollution control device(s) and appurtenances listed in Section 1, Part II of this permit, in accordance with the completed Air Quality Permit Application (1000054.04A) received December 6, 2004, including all plans, specifications, previous applications, and other supporting data, all of which are filed with the DAQ and are incorporated in Part II of this Air Quality Permit.

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

Table 1: The following table contains a summary of all permitted emission sources and associated air pollution control devices and appurtenances **associated with Air Quality Permit Application** (1000054.04A):

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
EU14**	One hydrated lime (calcium hydroxide) storage silo	CE14	One bagfilter (400 square feet of filter area)
EU12**	One hydrated lime (calcium hydroxide) slurry mixing tank	CE12**	One bagfilter (435 square feet of filter area)
EU28	Powdered products packaging	CE28**	One multivane scrubber (10 to 40 gallons per minute liquid injection rate) with a demister
EU40	One steam-heated fluidized bed dryer (powder products)	CE40**	One cyclonic wet scrubber (20 to 70 gallons per minute liquid injection rate)
EU31d** & EU31e**	Two fermenters added to the citric acid fermentation system	CE31	One packed bed scrubber equipped with a demister section (0-400 gallons per minute liquid recirculation rate)

** These emission sources/control devices are being permitted as a 502(b)(10) change. The permit shield described in General Condition R of Part I of the permit does not apply to these sources.

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

The air emission source(s) and associated air pollution control device(s)and appurtenances listed in Section 1 are subject to the following specific terms, conditions, and limitations, including the monitoring, recordkeeping, and reporting requirements as specified herein:

1. Any air emission sources or control devices authorized to construct in Section 1 must be constructed and maintained in accordance with the provisions contained herein and operated in accordance with provisions contained in Part I of this permit. The Permittee shall comply with applicable Environmental Management Commission Regulations, including Title 15A NCAC, Subchapter 2D .0515, .0521, and .1806.

2. **NOTIFICATION REQUIREMENT** - In accordance with 15A NCAC 2Q .0523(a)(1)(C), the **Permittee** shall notify the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street, 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.

   If the proposed operational date of October 31, 2005 is not met, a revised permit is not needed. However, within 15 days after the proposed operational date is not met, the Permittee shall notify in **writing** the Regional Supervisor of the new proposed operational date. Any existing equipment being replaced is permitted to operate in compliance until the replacement equipment is operational.

SECTION 3: GENERAL CONDITIONS:

This section describes terms and conditions applicable to the construction of the air emission source(s) and associated air pollution control device(s) listed in Section 1 and State-only emission sources listed in Part I of the permit. Unless otherwise specified herein all references to the "permit" in this section apply only to Part II of the permit.

A. **Operating Conditions**

All operating conditions for the air emission source(s) and associated air pollution control device(s) listed in Section 1 are under Part I of this permit.

B. **General Provisions**

1. This permit is nontransferable by the Permittee. Future owners and operators must obtain a new Air Quality Permit from the DAQ.
2. This issuance of this permit in no way absolves the Permittee of liability for any potential civil penalties which may be assessed for violations of state law which have occurred prior to the issuance date of this permit.
3. A violation of any term or condition of Part II of this permit shall subject the Permittee to enforcement pursuant to NCGS 143-215.114A, 143-215.114B, and 143-215.114C, including assessment of civil and/or criminal penalties.

C. **Submissions (reports, test data, monitoring data, notifications, and requests for renewal)**

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.

D. **Part II Renewal Request**

The Permittee shall request renewal of the emission source(s) and associated air pollution control device(s) listed in Section 1 at the same time as specified in Part I, Section 3 - General Condition K of this permit.

E. **Annual Fee Payment**

The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200 and in conjunction with Part I, Section 3 - General Condition W of this Air Quality Permit.

F. **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:
1. changes in the information submitted in the application;
2. changes that modify equipment or processes; or
3. 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.

G. **Termination, Modification, and Revocation of the Permit**

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; or
4. 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.

H. **Inspection and Entry**

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:
1. 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;
2. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
3. 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
4. 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.

I. **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.

ATTACHMENT

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CAA	Clean Air Act
DAQ	Division of Air Quality
DENR	Department of Environment and Natural Resources
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
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
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound

ATTACHMENT to Air Permit 02502T19, March 4, 2005
Insignificant Activities under 15A NCAC 2Q .0503(8)

Emission Source Description	Insignificant Activities Regulation	Basis for Insignificance
One diesel-fired emergency generator (45 kW, ID No. EU49)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
One diesel-fired emergency generator (230 kW, ID No. EU50)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
One calcium carbonate slurry mix tank (ID No. EU15)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
One Epson salt mix tank (ID No. EU16)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Sodium citrate bulk loadout (ID No. EU29)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Gypsum pile (ID No. EU30)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Paint booth (ID No. EU32)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Fire fighting IC engines (ID No. EU35, EU36)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Parts cleaner (ID No. EU37)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Activated carbon bag unloading (ID No. EU46)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Sulfuric acid storage tanks (ID Nos. T-101, T-256, T-268, T-434, T-435, and T-436)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Cooling Towers	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Gasoline Tank (ID No. T-722)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
No. 2 fuel oil storage tanks (ID Nos. T-711, T-712, T-720)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Diesel fuel storage tanks (ID Nos. T-707-1, T-707-2, and T-724)	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.
Maintenance repair and sandblasting	15A NCAC 2Q .0503(8)	Potential emissions do not exceed 5 tons per year of criteria pollutants or 1,000 pounds per year of any HAPs.