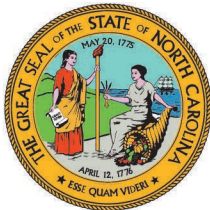


ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

MICHAEL ABRACZINSKAS
Director



NORTH CAROLINA
Environmental Quality

Month xx, 2024

Mr. Jody R. Wall
General Manager
Carolina Stalite Company
PO Box 1037
Salisbury, North Carolina 28145-1037

SUBJECT: Air Quality Permit No. 03059T50
Facility ID: 8000003
Carolina Stalite Company
Gold Hill
Rowan County
Fee Class: Title V
PSD Class: Major

Dear Mr. Wall:

In accordance with your completed Air Quality Permit Application for a Renewal of your Title V permit, we are forwarding, herewith, Air Quality Permit No. 03059T50 authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503(8) have been identified as such in the permit. Please note, the requirements for the annual compliance certification are contained in General Condition P in Section 4. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

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

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

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



North Carolina Department of Environmental Quality | Division of Air Quality
217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641
919.707.8400

Mr. Jody R. Wall
MM DD, YYYY DRAFT
Page 2

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

Rowan County has been triggered for increment tracking under PSD for PM₁₀, NO_x, and SO₂. However, this permit renewal does not consume or expand increments for any pollutants.

This Air Quality Permit shall be effective from MM DD, YYYY until MM DD, YYYY, 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 Chengqing Xiao at (919) 707-8476 or chengqing.xiao@deq.nc.gov.

Sincerely yours,

Mark J. Cuilla, EIT, CPM, Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Brad Akers, EPA Region 4 (Permit and Review)
Laserfiche (8000003)

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

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

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

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

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

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

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

* * *

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

Summary of Changes to Permit

The following changes were made to Air Permit No.03059T49:*

Page No.	Section	Description of Changes
Global	Global	<ul style="list-style-type: none"> Updated the application number and complete date. Updated permit revision number to T50. Updated the issuance/effective dates to permit.
Global	Global	Deleted the term “The permittee shall be allowed three (3) days of absent observations per semi-annual period.” from each weekly monitoring, recordkeeping, and reporting (MRR) condition throughout the permit.
3	List of Acronyms	Added List of Acronyms
4	Section 1 Table	Added PSD for source ES-1 through ES-4
4-5	Section 1 Table	<ul style="list-style-type: none"> Changed Source Description from “flyash storage silos” to “flyash/lime storage silos” for the Emission Sources (ID Nos. ES-7 through ES-10) Changed Source Description from “lime storage silo” to “flyash/lime storage silo” for the Emission Source (ID No. ES-16)
4-5	Section 1 Table	Added AOS1- Alternate Operating Scenario AOS2- Alternate Operating Scenario AOS3- Alternate Operating Scenario
8	Section 2.1 A Table	Removed “State-enforceable only” for the Applicable Regulation 15A NCAC 02D .0540
8	Section 2.1.A.1.c.i	Changed to “The permittee shall test one kiln (ID Nos. ES-1 through ES-6 and ES-17) every 12 months, ensure that a different kiln is tested every 12 months, allowing completion of testing all seven kilns at the end of eighty four (84) months from issuing 03059T50 permit, in accordance with a testing protocol approved by the DAQ.”
9	Section 2.1 A.1.g Section 2.1 A.2	Added “given in Section 2.1 A.1.d and e” Monitoring - Added “alternative control devices - lime injection chamber or”
9	Section 2.1 A.2.c.i	Corrected “is in operation” to “is NOT in operation”
10	Section 2.1 A.2.h	Monitoring - Added “Hydrated lime slurry”
11	Section 2.1 A.2.1 Section 2.1 A.2.1.i	Added “given in Section 2.1 A.2.f and h,” Added “or the packed bed scrubber (ID No. CD-2QDS)”
11-12	Section 2.1 A.3.d	Added “The daily observation must be made for each day of the calendar year period for Kiln No. 2 (ID No. ES-2) while operating the control device (ID No. CD-2LIC) or (ID No. CD-2QDS), and the weekly observation must be made for each week of the calendar year period for Kiln No. 2 (ID No. ES-2) while not operating the control device (ID No. CD-2LIC) nor (ID No. CD-2QDS). The Permittee shall be allowed three (3) days of absent observations per semi-annual period applying to the daily observation. The weekly observation must be made for each week of the calendar year period for the other Kilns (ID Nos. ES-1, ES-3, ES-4, ES-5, and ES-6) to ensure compliance with this requirement.”
12	Section 2.1 A.3.f	Added “given in Section 2.1 A.3.d and e,”
13	Section 2.1 A.4.d	Removed “The Permittee shall establish "normal" for the source in the first 30 days following the operation of the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system (ID No. CD-17c).”
13	Section 2.1 A.4.f Section 2.1 A.4.g	Corrected “2.1 A.1.d” to “2.1 A.4.d” Added “given in Section 2.1 A.4.d through Section 2.1 A.4.f above,”

Page No.	Section	Description of Changes
13	Section 2.1 A.5.d	<ul style="list-style-type: none"> Added the testing requirement condition for the lime injection chamber (ID No. CD-2LIC) and for the packed bed scrubber (ID No. CD-2QDS) associated with the Kiln No. 2 (ID No. ES-2) Per the facility's request, the Permittee shall complete a performance test of Kiln No. 2 (ID No. ES-2) within 90 days of initial start-up of the lime injection chamber (ID No. CD-2LIC) or the packed bed scrubber (ID No. CD-2QDS) to demonstrate compliance Removed RESERVED
13-14	Section 2.1 A.5.e.i Section 2.1 A.5.f.i Section 2.1 A.5.g.i	Changed to "The permittee shall test one kiln (ID Nos. ES-1 through ES-6 and ES-17) every 12 months, ensure that a different kiln is tested every 12 months, allowing completion of testing all seven kilns at the end of eighty four (84) months from issuing 03059T50 permit, in accordance with a testing protocol approved by the DAQ."
15	Section 2.1 A.5.i Section 2.1 A.5.m	Corrected "2.1 A.5.b.ii (ID No. ES-2)" to "2.1 A.5.b.ii (ID No. ES-17)" Added "given in Section 2.1 A.5.h through l,"
15-16	Section 2.1 A.5.n through o	Added Monitoring/Recordkeeping/Reporting for PM – Kiln Nos. 1 through 7 (ID Nos. ES-1 through ES-6, and ES-17) to meet the Part 70 monitoring provision (40 CFR 70.6(a)(3).
15-16	Section 2.1 A.5.p	Added Monitoring/Recordkeeping for NOx – Kiln Nos. 1 through 7 (ID Nos. ES-1 through ES-6, and ES-17) to meet the Part 70 monitoring provision (40 CFR 70.6(a)(3).
17	Section 2.1 A.8.h	Added "given in Section 2.1 A.8.b through g above,"
18	Section 2.1 A.9.a	Added "The daily observation must be made for each day of the calendar year period for Kiln No. 2 (ID No. ES-2) while operating the control device (ID No. CD-2LIC) or (ID No. CD-2QDS), and the weekly observation must be made for each week of the calendar year period for Kiln No. 2 (ID No. ES-2) while not operating the control device (ID No. CD-2LIC) nor (ID No. CD-2QDS). The Permittee shall be allowed three (3) days of absent observations per semi-annual period applying to the daily observation."
18	Section 2.1 A.9.c.i.(C)	Added 15A NCAC 02D .0530 PSD emission limit for PM to CAM
19	Section 2.1 A.9.e	Added "given in Sections 2.1 A.9.a through d,"
19	Section 2.1 B Table	Removed "State-enforceable only" for the Applicable Regulation 15A NCAC 02D .0540
19	Section 2.1 B.1.e	Added "given in Sections 2.1 B.1.c and d,"
20	Section 2.1 B.2.e	Added "given in Sections 2.1 B.2.c and d,"
21	Section 2.1 C Table	Removed "State-enforceable only" for the Applicable Regulation 15A NCAC 02D .0540
21	Section 2.1 C.1.h	Added "given in Sections 2.1 C.1.e through g,"
22	Section 2.1 C.2.e	Added "given in Sections 2.1 C.2.c and d,"
22	Section 2.1 D Table	Removed "State-enforceable only" for the Applicable Regulation 15A NCAC 02D .0540
23	Section 2.1 D.2.e	Added "given in Sections 2.1 D.2.c and d,"
24	Section 2.1 E Table	Removed "State-enforceable only" for the Applicable Regulation 15A NCAC 02D .0540
25	Section 2.1 E.2.e	Added "given in Sections 2.1 E.2.c and d,"
26	Section 2.1 F.2.e	Added "given in Sections 2.1 F.2.c and d,"
27	Section 2.1 G Table	Removed "State-enforceable only" for the Applicable Regulation 15A NCAC 02D .0540
27	Section 2.1 G.1.h	Added "given in Sections 2.1 G.1.e through g,"
28	Section 2.1 G.2.e	Added "given in Sections 2.1 G.2.c and d,"

Page No.	Section	Description of Changes
29	Section 2.2 A	Removed "State-enforceable only" for the Applicable Regulation 15A NCAC 02D .0540
32	Section 3 Insignificant Activities	<ul style="list-style-type: none"> • Moved Insignificant Activities list on Page 32 and removed footnote 3. • Add Insignificant Source (ID No. I-GST) - gasoline storage tank (1,000 gallon capacity) • Add Insignificant Source (ID No. I-GDST) - diesel storage tank (15,000 gallon capacity)
33-44	Section 4	<ul style="list-style-type: none"> • General Conditions as Section 4 of the Title V Permit • Updated General Conditions (version 8.0, 07/10/2024)

* This list is not intended to be a detailed record of every change made to the permit but a summary of those changes.



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

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
03059T50	03059T49	DRAFT	DRAFT

NOTE: Per General Condition K, a permit application for the renewal of this Title V permit shall be submitted no later than *[enter date six months prior to expiration date]*.

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: Carolina Stalite Company
Facility ID: 8000003
Primary SIC Code: 3281
NAICS Code: 327991

Facility Site Location: 16815 Old Beatty Ford Road
City, County, State, Zip: Gold Hill, Rowan County, NC 28071
Mailing Address: PO Box 1037
City, State, Zip: Salisbury, NC 28145-1037

Application Number: 8000003.21A
Complete Application Date: March 19, 2021

**Division of Air Quality,
Regional Office Address:** Mooresville Regional Office
610 East Center Avenue, Suite 301
Mooresville, NC 28115

Permit issued this the XXth day of Month, 2024

Mark J. Cuilla, EIT, CPM, Chief, Air Permitting Section
By Authority of the Environmental Management Commission

Table of Contents

LIST OF ACRONYMS

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

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

2.1 Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

2.2 Multiple Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)

SECTION 3: INSIGNIFICANT ACTIVITIES PER 15A NCAC 02Q .0503(8)

SECTION 4: GENERAL PERMIT CONDITIONS

List of Acronyms

AOS	Alternative Operating Scenario
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEMS	Continuous Emission Monitoring System
CEDRI	Compliance and Emissions Data Reporting Interface
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
CSAPR	Cross-State Air Pollution Rule
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
GHGs	Greenhouse Gases
HAP	Hazardous Air Pollutant
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NAAQS	National Ambient Air Quality Standards
NAICS	North American Industry Classification System
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NOx	Nitrogen Oxides
NSPS	New Source Performance Standard
NSR	New Source Review
OAH	Office of Administrative Hearings
PAE	Projected Actual Emissions
PAL	Plantwide Applicability Limitation
PM	Particulate Matter
PM_{2.5}	Particulate Matter with Nominal Aerodynamic Diameter of 2.5 Micrometers or Less
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	Tons Per Year
VOC	Volatile Organic Compound

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
Lightweight Aggregate Kilns and Associated Air Pollution Control Equipments			
ES-1 PSD CAM	lightweight aggregate rotary expanding kiln (23 tons per hour capacity) fired with coal or natural gas (52 million Btu per hour heat input rate)	CD-1a CD-1b	hydrated lime slurry injection system bagfilter (7,313 square feet of filter area)
ES-2 PSD CAM	lightweight aggregate rotary expanding kiln (23 tons per hour capacity) fired with coal or natural gas (52 million Btu per hour heat input rate)	AOS1* CD-2a CD-2b	hydrated lime slurry injection system bagfilter (7,313 square feet of filter area each)
		AOS2* CD-2LIC CD-2b	lime injection chamber bagfilter (7,313 square feet of filter area each)
		AOS3* CD-2QDS CD-2b	packed bed scrubber (100 gallons per minute minimum liquid injection rate) bagfilter (7,313 square feet of filter area each)
ES-3 and ES-4 PSD CAM	two lightweight aggregate rotary expanding kilns (23 tons per hour capacity each) fired with coal or natural gas (52 million Btu per hour heat input rate each)	CD-3a CD-4a CD-3b ¹ CD-4b ¹	two hydrated lime slurry injection systems two bagfilters (7,313 square feet of filter area each)
ES-5 PSD CAM	lightweight aggregate rotary expanding kiln (23 tons per hour capacity) fired with coal or natural gas (52 million Btu per hour heat input rate)	CD-5a CD-5b	one hydrated lime slurry injection system bagfilter (7,313 square feet of filter area)
ES-6 PSD CAM	lightweight aggregate rotary expanding kiln (23 tons per hour capacity) fired with coal or natural gas (52 million Btu per hour heat input rate)	CD-6a CD-6b	one hydrated lime slurry injection system bagfilter (7,313 square feet of filter area)
ES-17 PSD NSPS UUU CAM	lightweight aggregate rotary expanding kiln (35 tons per hour capacity) fired with wood, coal, or natural gas (79.1 million Btu per hour heat input rate)	AOS1* CD-17a	one hydrated lime slurry injection system
		CD-17b	bagfilter (10,820 square feet of filter area)
		AOS2* CD-17c CD-17b	sodium hydroxide (NaOH) sorbent packed-bed wet scrubber bagfilter (10,820 square feet of filter area)
Flyash and Lime Storage Silos			
ES-7	two flyash/lime storage silos A-1,2, A-3,4 (3 tons per hour maximum process rate)	CD-7a CD-7b	two bagfilters FAB-1,2, FAB-3,4 (171 square feet of filter area each)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-8	two interconnected flyash/lime storage silos A-8, Silos 1 and 2 (3 tons per hour maximum process rate)	CD-8	bagfilter FAB-8 (171 square feet of filter area)
ES-9	flyash/lime storage silo A-5,6 (3 tons per hour maximum process rate)	CD-9	bagfilter FAB-5,6 (171 square feet of filter area)
ES-10	flyash/lime storage silo A-7 (3 tons per hour maximum process rate)	CD-10	bagfilter FAB-7 (171 square feet of filter area)
ES-16	flyash/lime storage silo (15 tons per hour maximum process rate)	CD-16	bagfilter (147 square feet of filter area)
Material Crushing, Screening, and Handling Equipment			
ES-11, including:	<p>miscellaneous Crushing, Screening, and Handling Equipment including: two 4-foot secondary crushers (123 tons per hour crushing capacity each) (ID Nos. T-1² and T-2)</p> <p>three 4-foot tertiary gyradisc crushers (78 tons per hour crushing capacity each) (ID Nos. N-1, N-2 and N-3) double-deck screen (6 feet x 16 feet) (ID No. DD-1²)</p> <p>two double-deck screens (5 feet x 12 feet each) (ID Nos. DD-2² and DD-3) portable C50 Telsmith jaw crusher (50 inches by 26 inches) with integral feeder and conveyor powered by one Caterpillar C9 350 hp diesel engine (ID No. PJ-C1)</p> <p>One temporary portable screen (8 foot diameter by 30 ft long) powered by one 173 hp diesel engine. (ID No. ES-TEMPS-1)</p> <p>portable trammel screen (8 foot diameter by 30 ft long) powered by one 139 hp diesel engine (ID No. TS-1) two triple-deck screens (6 feet x 16 feet each) (ID No. TD-2 and TD-3) one single deck screen (18 inches x 50 feet) (ID No. SD-1) pug mill (ID No. PM-1)</p> <p>fifty-four 24-inch belt conveyors (ID Nos. 8 through 19, 21², 22 through 25, 27 through 40, 41² through 44², 46 through 63, and 74) fifteen 30-inch belt conveyors (ID Nos. 45a, 64 through 73, and 91 through 94) two 36-inch belt conveyors (ID Nos. 89 and 90)</p>	CD-11	wet suppression consisting of water sprays at crusher T-1, T-2, N-1, N-2, and N-3, screens DD-1, DD-2, DD-3, TD-2, and TD-3, pugmill PM-1, and conveyors 12, 13, 18, 19, 21, 22, 27, 28, 35, 44, 45a, 48, 66, 67, 89, and PJ-C1

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-12, PSD	seven 24-inch belt conveyors (ID Nos. 2 through 7, 20)	CD-12	wet suppression consisting of water sprays at 6, 7 and 20
ES-23a and ES-23b	two 24-inch belt conveyors	CD-23a and CD-23b	two water sprays
ES-25	30-inch slate conveyor	N/A	N/A
ES-26a	36-inch belt conveyor	CD-26a	water spray
ES-27	24-inch portable slate conveyor	N/A	N/A
ES-28	30-inch slate conveyor	N/A	N/A
ES-29, including:	Crushing, Screening, and Handling Equipment (Structural Plant) 57-inch gryodisc secondary crusher (150 tons per hour maximum crushing rate) (ID No. T-3 ²) double-deck sizing screen (8 feet x 24 feet) (ID No. DD-4 ²) triple-deck screen (8 feet x 24 feet) (ID No. TD-4 ²) twelve 30-inch belt conveyors (ID No. 21c ² and 41a ² through 44a ² , and 95 through 101) two 48-inch belt conveyors (ID No. 102 and 107) four 36-inch belt conveyors (ID No. 103 through 106)	CD-29	wet suppression consisting of water sprays at crusher T-3, DD-4, T-4, 21c, 44a, and 107
ES-SWH-1	feed hopper	CD-SWH-1	water spray
ES-SWC-1	24-inch belt conveyor	CD-SWC-1	water spray
ES-SWC-2	24-inch belt conveyor	CD-SWC-2	water spray
ES-PLS-1	portable Loader with integral hopper and conveyor for loading Super Sac	N/A	N/A
Other Sources			
ES-19 PSD	flyash/dust storage silo (3 tons per hour maximum process rate)	CD-19	bagfilter (171 square feet of filter area)
ES-21a and ES-21b PSD	two 24-inch belt conveyors	CD-21a and CD-21b	two water sprays
ES-24a, ES-24ba and ES-24bb PSD	three 30-inch slate shuttle conveyors	N/A	N/A
ES-22 PSD	24-inch coal conveyor	N/A	N/A
ES-13	triple deck screen (8 feet by 20 feet)	CD-13	water spray

- Permit No. 03059T24 on December 20, 2001 authorized Carolina Stalite to replace existing bagfilters (5,688 square feet, each) with new, larger bagfilters (7,313 square feet, each). As of the date of permit issuance, the bagfilters have not yet been replaced. However, Carolina Stalite retains authorization to replace the existing bagfilters.
- These emission sources (**ID Nos. ES-29, T-3, DD-4, TD-4, 21a, and 41a through 44**) and associated water sprays may replace these emission sources (**ID Nos. ES-11: T-1, DD-1, DD-2, 21, and 41 through 44**) and associated water sprays.

* AOS1- Alternate Operating Scenario
AOS2- Alternate Operating Scenario
AOS3- Alternate Operating Scenario

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

The emission source(s) and associated air pollution control device(s) 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. Lightweight aggregate kilns (ID Nos. ES-1 through ES-6, and ES-17) with associated hydrated lime slurry injection systems (ID Nos. CD-1a through CD-6a, and CD-17a), bagfilters (ID Nos. CD-1b through CD-6b, and CD-17b).**

Alternate Control Devices: lime injection chamber (ID No. CD-2LIC) and packed bed scrubber system (ID No. CD-2QDS) installed on kiln (ID No. ES-2).

Alternate Control Devices: sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system (ID No. CD-17c) installed on kiln (ID No. ES-17).

AOS1- Alternate Operating Scenario 1

Lightweight aggregate kiln (ID No. ES-2), controlled by hydrated lime slurry injection systems (ID No. CD-2a) and bagfilter (ID No. CD-2b)

Lightweight aggregate kiln (ID No. ES-17), controlled by hydrated lime slurry injection systems (ID No. CD-17a) and bagfilter (ID No. CD-17b)

AOS2- Alternate Operating Scenario 2

Lightweight aggregate kiln (ID No. ES-2), controlled by lime injection chamber (ID No. CD-2LIC) and bagfilter (ID No. CD-2b)

Lightweight aggregate kiln (ID No. ES-17), controlled by sodium hydroxide (NaOH) sorbent packed-bed wet scrubber (ID No. CD-17c) and bagfilter (ID No. CD-17b)

AOS3- Alternate Operating Scenario 3

Lightweight aggregate kiln (ID No. ES-2), controlled by packed bed scrubber (100 gallons per minute minimum liquid injection rate) (ID No. CD-2QDS) and bagfilter (ID No. CD-2b)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Stack emissions from each kiln shall be reduced by at least 95 percent by weight by the bagfilters (ID Nos. ES-1 through ES-6 and ES-17)	15A NCAC 02D .0511
Sulfur Dioxide	2.3 pounds per million Btu (ID Nos. ES-1 through ES-6 and ES-17)	15A NCAC 02D .0516
Visible Emissions	20 percent opacity (ID Nos. ES-3 through ES-6) 40 percent opacity (ID Nos. ES-1 and ES-2)	15A NCAC 02D .0521
Particulate Matter	0.04 gr/dscf (ID No. ES-17) 10 percent (ID No. ES-17)	15A NCAC 02D .0524 40 CFR 60 Subpart UUU
Particulate Matter	9.0 pounds per hour per kiln (ID Nos. ES-1 through ES-6)	15A NCAC 02D .0530

Pollutant	Limits/Standards	Applicable Regulation
	11 pounds per hour (ID No. ES-17)	15A NCAC 02D .0530
Sulfur Dioxide	120.0 pounds per hour (ID Nos. ES-1 through ES-4)	15A NCAC 02D .0530
	74.9 pounds per hour per kiln (ID Nos. ES-5 and ES-6) 1.2 pounds per million Btu of heat input to each kiln from coal combustion only (ID Nos. ES-5 and ES-6)	15A NCAC 02D .0530
	106.5 pounds per hour (ID No. ES-17)	15A NCAC 02D .0530
Particulate Matter Sulfur Dioxide	Compliance Assurance Monitoring (CAM) Plan	15A NCAC 02D .0614
Nitrogen Oxides	43.7 pounds per hour per kiln (ID Nos. ES-1 through ES-6) 66.5 pounds per hour (ID No. ES-17)	15A NCAC 02D .0530
Nitrogen Oxides	RACT – no additional controls required	15A NCAC 02D .1402
Malfunction Abatement Plan	Amend and submit the Malfunction Abatement Plan (MAP) to meet the requirements of any permit modification within 90-days of such modification.	15A NCAC 02D .0535
Fugitive Non-Process Dust Emissions	See Section 2.2 A.1	15A NCAC 02D .0540
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.1	15A NCAC 02D .1100
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.2	15A NCAC 02Q .0711

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. Particulate matter from any stack serving any lightweight aggregate kiln (ID Nos. ES-1 through ES-6, and ES-17) shall be reduced by at least 95% by weight before being discharged to the atmosphere. The 95% reduction shall be by air pollution control devices.

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

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are below the percent reduction requirement given in Section 2.1 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.
- c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limit(s) (95% particulate reduction) included in Section 2.1 A.1.a by testing one kiln (ID Nos. ES-1 through ES-6 and ES-17) each year on a rotating basis.
- i. The Permittee shall test one kiln (ID Nos. ES-1 through ES-6 and ES-17) every 12 months, ensure that a different kiln is tested every 12 months, allowing completion of testing all seven kilns at the end of eighty four (84) months from issuing 03059T50 permit, in accordance with a testing protocol approved by the DAQ.
- ii. If testing demonstrates that the emission control efficiency is greater than or equal to 99% by weight, no further testing is required for the duration of the permit term.

Details of the emissions testing and reporting requirements can be found in General Condition JJ. If the results of any of the tests fail to meet the control requirement in Section 2.1 A.1.a, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

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

- d. Particulate matter emissions from each lightweight aggregate kiln shall be controlled by a bagfilter. To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
- ii. An annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter's structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511 if the ductwork and bagfilters are not inspected and maintained.

- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. The date and time of each recorded action;
 - ii. The results of each inspection;
 - iii. The results of any maintenance performed on 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 02D .0511 if the required records are not created and maintained.

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

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

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

- a. Emissions of sulfur dioxide from the lightweight aggregate kilns (**ID Nos. ES-1 through ES-6, and ES-17**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide (SO₂) formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring – Kiln No. 2 alternative control devices - lime injection chamber or Packed Bed Scrubber CEMS
[15A NCAC 02Q .0508(f)]

- c. When operating the alternative control device – lime injection chamber (**ID No. CD-2LIC**) on Kiln No. 2 (**ID No. ES-2**), the Permittee shall demonstrate compliance with the limit in Section 2.1 A.2.a above as follows:
 - i. The lime injection chamber (**ID No. CD-2LIC**) may only be operated while the hydrated lime slurry injection system (**ID No. CD-2a**) is **NOT** in operation;
 - ii. Monitor the SO₂ emissions using a continuous emission monitor system (CEMS) for a minimum of one year following initial operation of the control device;
 - iii. Install, operate, and maintain the CEMS in accordance with the protocol submitted to and approved by the NC DAQ;
 - iv. The device must measure and record a minimum of four data points, equally spaced, to determine a valid hour value unless the CEMS is installed to meet the provisions of 40 CFR 75; and,
 - v. Prior to discontinuing use of the CEMS, obtain a permit modification to incorporate replacement monitoring provisions into the permit.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516, if the above terms and conditions are not observed.

- d. When operating the alternative control device – packed bed scrubber (**ID No. CD-2QDS**), the Permittee shall demonstrate compliance with the limit in Section 2.1 A.2.a above by monitoring the SO₂ emissions from Kiln No. 2 (**ID No. ES-2**) using a CEMS, as follows:
 - i. Install, operate, and maintain the CEMS in accordance with the protocol submitted to and approved by the NC DAQ.
 - ii. Operate the CEMS at all times that the packed bed scrubber (**ID No. CD-2QDS**) is in operation. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the packed bed scrubber (**ID No. CD-2QDS**) is operated without installing and operating the CEMS as provided in the protocol.
- e. The CEMS data shall be used to determine compliance with the SO₂ emissions limitations as follows:
 - i. The 24-hour block average shall be determined by averaging hourly continuous emission monitoring system

values over a 24-hour block period beginning at midnight.

- ii. To compute the 24-hour block average, the average hourly values shall be summed, and the sum shall be divided by 24.

If the CEMS detects any 24-hour block average SO₂ emission rate in exceedance of 2.3 pounds per million Btu heat input for the CEMS, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring – Kiln No. 7 CEMS [15A NCAC 02Q .0508(f) and 15A NCAC 02D .2610(A)]

- f. The SO₂ CEMS on the kiln (**ID No. ES-17**) shall be operated in accordance with 40 CFR Part 60, Appendix B, “Performance Specifications” and Appendix F, “Quality Assurance Procedures,” and as provided below:
 - i. Compliance with SO₂ emission standard of Condition 2.1 A.2.a above, shall be determined by averaging hourly continuous emission monitoring system values over a 24-hour block period beginning at midnight.
 - ii. To compute the 24-hour block average, the average hourly values shall be summed, and the sum shall be divided by 24.
 - iii. A minimum of four data points, equally spaced, is required to determine a valid hour value unless the continuous emission monitoring system is installed to meet the provisions of 40 CFR Part 75.

If any 24-hour block average exceeds 2.3 pounds SO₂ per million Btu heat input, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516

CEMS Operating Requirements [15A NCAC 02Q .0508(f) and 15A NCAC 02D .2610(A)]

- g. The SO₂ CEMS on the affected kilns (**ID Nos. ES-2 and ES-17**) shall be deemed to be properly operated and maintained if the Percent Monitor Downtime (%MD) does not exceed 2.0 percent.

%MD Calculation for CEMS:

$$\%MD = \frac{\text{Total.Monitor.Downtime}^*}{\text{(Total.Source.Operating.Time}^{**})} \times 100\%$$

* Total Monitor Downtime includes Quality Assurance (QA) activities unless exempted by regulation or defined in an agency approved QA Manual. The amount of exempt QA Time will be reported in the semiannual report as such.

** If a source operates less than 2,200 hours during any semiannual period, the source may calculate the %MD using all operating data for the current semiannual period and the preceding calendar quarters until 2,200 hours of data are obtained.

If the quarterly MD is greater than 2%, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

Monitoring – Hydrated lime slurry injection systems and sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system [15A NCAC 02Q .0508(f)]

- h. The Permittee shall install and operate hydrated lime slurry injection systems on the kilns (**ID Nos. ES-1 through ES-6 and ES-17**) and the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system (**ID No. CD-17c**) on kiln (**ID No. ES-17**), except that the Permittee need not operate the hydrated lime slurry injection system on Kiln No. 2 (**ID No. ES-2**) when the Permittee is operating the packed bed scrubber (**ID No. CD-2QDS**) or lime injection chamber (**ID No. CD-2LIC**). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516 if the hydrated lime slurry injection systems and the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system are not installed and operated as required above.
- i. For Kilns Nos. 1 through 6 (**ID Nos. ES-1 through ES-6**) the Permittee shall inject hydrated lime at a rate equal to or greater than the rate determined by the following equation:

$$F = 2.93(S)$$

Where:

- F = Calcium hydroxide [Ca(OH)₂] feed rate (in lb/hr, based on a 24-hour block average); and,
- S = Combined sulfur input rate from rock and coal (in lb/hr, based on a 24-hour block average).

- j. The Permittee shall monitor and record each operating parameter listed below for Kilns Nos. 1 through 6 (**ID Nos. ES-1 through ES-6**). The records shall be created for each calendar day on a 24-hour block average basis, and in a manner sufficiently demonstrate the compliance status with the required hydrated lime injection rate provided in

Section 2.1 A.2.h above.

i. The sulfur input rate, calculated from the following parameters:

- (A) Rock feed rate;
- (B) Rock sulfur content;
- (C) Coal feed rate;
- (D) Coal sulfur content;

ii. Calcium hydroxide feed rate.

All records shall be retained onsite in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516, if the above parameters are not monitored and recorded, or if the 24-hour block average calcium hydroxide feed rate is less than the minimum feed rate required in Section 2.1 A.2.i above.

- k. The Permittee shall perform periodic inspections and maintenance of the hydrated lime slurry injection systems (**ID Nos. CD-1a through CD-6a and CD-17a**) and sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system (**ID No. CD-17c**) as recommended by the manufacturer. In addition, the Permittee shall perform an annual inspection of the hydrated lime slurry injection systems and the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber injection system. As a minimum, the annual inspection will include inspection of spray nozzles, lime feed system, sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system and the cleaning/calibration of all associated instrumentation. If the required inspections and maintenance of the hydrated lime slurry injection systems and the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system are not performed, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

- l. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Sections 2.1 A.2.f and h, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The report shall include:
- i. SO₂ emission rates as measured by CEMS at Kiln No. 7 (**ID No. ES-17**) when operating the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system (**ID No. CD-17c**); and at Kiln No. 2 (**ID No. ES-2**) when operating the lime injection chamber (**ID Nos. CD-2LIC**) or the packed bed scrubber (**ID No. CD-2QDS**) and,
 - ii. A summary report of the recordkeeping requirements associated with the hydrated lime injection systems for Kilns Nos. 1 through 6 (**ID Nos. ES-1 through ES-6**), as provided in Section 2.1 A.2.j above, including a clear indication of any 24-hour period where the block average hydrated lime injection rate fell below the requirement in Section 2.1 A.2.i above.
- m. The Permittee shall submit any excess SO₂ emission reports as measured by the CEMS, 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. If there are no excess emissions, the Permittee shall submit a report stating that no excess emissions occurred during the semiannual reporting period.

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

- a. Visible emissions from these sources (**ID Nos. ES-3 through ES-6**) 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.
- b. Visible emissions from these sources (**ID Nos. ES-1 and ES-2**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 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 90 percent opacity.

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

- c. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a (**ID Nos. ES-3 through ES-6**) or b (**ID Nos. ES-1 and ES-2**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

- d. To ensure compliance, once a week the Permittee shall observe the emission points of these sources for any visible emissions above normal. The daily observation must be made for each day of the calendar year period for Kiln No. 2 (**ID No. ES-2**) while operating the control device (**ID No. CD-2LIC**) or (**ID No. CD-2QDS**), and the weekly

observation must be made for each week of the calendar year period for Kiln No. 2 (**ID No. ES-2**) while not operating the control device (**ID No. CD-2LIC**) nor (**ID No. CD-2QDS**). The Permittee shall be allowed three (3) days of absent observations per semi-annual period applying to the daily observation. The weekly observation must be made for each week of the calendar year period for the other Kilns (**ID Nos. ES-1, ES-3, ES-4, ES-5, and ES-6**) to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:

- i. Take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.3.a (**ID Nos. ES-3 through ES-6**) or b (**ID Nos. ES-1 and ES-2**) above.

If the above-normal emissions are not corrected per i. above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521

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

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

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

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

- f. The Permittee shall submit a summary report of the observations given in Section 2.1 A.3.d and e, 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.

4. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. For Kiln No. 7 (**ID No. ES-17**), the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524, "New Source Performance Standards," (NSPS) as promulgated in 40 CFR 60, Subpart UUU, including Subpart A, "General Provisions."

Emissions Limitations - [15A NCAC 02D .0524]

- b. The following emissions limits shall not be exceeded:

Affected Facility	Pollutant	Emission Limit
Kiln No. 7 (ID No. ES-17)	Particulate Matter	0.04 gr/dscf
	Visible Emissions	10 percent

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

- c. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 A.4.b, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

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

- d. To ensure compliance with the visible emission limit in Section 2.1 A.4.b above, once a week the Permittee shall observe the emission points of this source (**ID No. ES-17**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source (**ID No. ES-17**) are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source (**ID No. ES-17**) in

accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.4.b above.

If the above-normal emissions are not corrected per 2.1 A.4.d.i above or if the demonstration in ii above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0524.

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.
- f. For this emission source (**ID No. ES-17**), the monitoring/recordkeeping requirements in Section 2.1 A.1.d and e above shall be sufficient to ensure compliance with the particulate matter emission limit of Section 2.1 A.4.b above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the monitoring and recordkeeping requirements in Section 2.1 A.4.d and e above are not met.

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

- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 A.4.d through Section 2.1 A.4.f above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

- a. The lightweight aggregate kilns (**ID Nos. ES-1 through ES-6**) shall discharge into the atmosphere, not more than:
 - i. 9.0 pounds of particulate matter per hour per kiln;
 - ii. 120.0 pounds of sulfur dioxide per hour per kiln (**ID Nos. ES-1 through ES-4**);
74.9 pounds of sulfur dioxide per hour per kiln (**ID Nos. ES-5 and ES-6**);
1.2 pounds of sulfur dioxide per million Btu of heat input to each kiln from coal combustion only (**ID Nos. ES-5 and ES-6**);
 - iii. 43.7 pounds of nitrogen dioxide per hour per kiln;
- b. The lightweight aggregate kiln (**ID No. ES-17**) shall discharge into the atmosphere, not more than:
 - i. 11 pounds of particulate matter per hour;
 - ii. 106.5 pounds of sulfur dioxide per hour;
 - iii. 66.5 pounds of nitrogen dioxide per hour;

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

- c. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 A.5.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.
- d. The Permittee shall complete a performance test of Kiln No. 2 (**ID No. ES-2**) within 90 days of initial start-up for the lime injection chamber (**ID No. CD-2LIC**) or for the packed bed scrubber (**ID No. CD-2QDS**). The test results shall demonstrate compliance with (1) the particulate matter, and PM₁₀ emission limits provided in Section 2.1 A.1.a, and Section 2.1 A.5.a.i; (2) the SO₂ emission limits provided in the permit Section 2.1 A.2.a and Section 2.1 A.5.a.ii, utilizing EPA Reference Method No. 6, contained in 40 CFR Part 60 Appendix A or in accordance with a testing protocol approved by the DAQ. The Permittee shall comply with all general testing requirements and reporting requirements pursuant to General Condition JJ. The Permittee shall complete all testing in accordance with the testing protocol provided to and approved by DAQ. If testing is not completed as provided above or if testing results exceed either the emission limitations of particulate matter, and PM₁₀ provided in Section 2.1 A.1.a, and Section 2.1 A.5.a.i; or the SO₂ emission limitations provided in the permit Section 2.1 A.2.a and Section 2.1 A.5.a.ii, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0511 and 15A NCAC 2D .0530.
- e. The Permittee shall demonstrate compliance with the PM emission limits (including condensable particulate as measured by Method 202) included in Section 2.1 A.5.a and b above by testing one kiln (**ID Nos. ES-1 through ES-6, and ES-17**) each year on a rotating basis.
 - i. The Permittee shall test one kiln (**ID Nos. ES-1 through ES-6 and ES-17**) every 12 months, ensure that a different kiln is tested every 12-months, allowing completion of testing all seven kilns at the end of eighty four (84) months from issuing 03059T50 permit, in accordance with a testing protocol approved by the DAQ.
 - ii. If the test results indicate that the particulate matter (including condensable particulate as measured by Method

202) emission rate exceeds 80% of the emission limit given in Section 2.1 A.5.a or b above, the Permittee shall perform additional testing for particulate matter (including condensable particulate as measured by Method 202) once every year until a subsequent test indicates particulate matter emissions are less than or equal to 80% of the emission limits.

If the results of any tests are above the limit given in Section 2.1 A.5.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

- f. The Permittee shall demonstrate compliance with the SO₂ emission limits included in Section 2.1 A.5.a and b above by testing one kiln (**ID Nos. ES-1 through ES-6 and ES-17**) each year on a rotating basis.

i. The Permittee shall test one kiln (**ID Nos. ES-1 through ES-6 and ES-17**) every 12-months, ensure that a different kiln is tested every 12-months, allowing completion of testing all seven kilns at the end of eighty four (84) months from issuing 03059T50 permit, in accordance with a testing protocol approved by the DAQ.

If the results of any tests are above a limit given in Section 2.1 A.5.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

- g. The Permittee shall demonstrate compliance with the NO_x emission limits included in Section 2.1 A.5.a and b above by testing one kiln (**ID Nos. ES-1 through ES-6 and ES-17**) each year on a rotating basis.

i. The Permittee shall test one kiln (**ID Nos. ES-1 through ES-6 and ES-17**) every 12-months, ensure that a different kiln is tested every 12-months, allowing completion of testing all seven kilns at the end of eighty four (84) months from issuing 03059T50 permit, in accordance with a testing protocol approved by the DAQ.

If the results of any tests are above the limit given in Section 2.1 A.5.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

Monitoring/Recordkeeping for SO₂ – Kiln No. 7 and Kiln No. 2 [15A NCAC 02Q .0508(f)]

- h. The Permittee shall demonstrate compliance with the emission limit for Kiln No. 7 (**ID No. ES-17**) when operating the hydrated lime slurry injection system (**ID No. CD-17a**) or the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system (**ID No. CD-17c**), and at Kiln No. 2 (**ID No. ES-2**) when operating the lime injection chamber (**ID No. CD-2LIC**) or the packed bed scrubber (**ID No. CD-2QDS**) or hydrated lime slurry injection system (**ID No. CD-2a**), as follows:

- i. Monitor and record 24-hour average SO₂ emissions (in lb/million Btu) from Kiln No. 2 (**ID No. ES-2**) using a CEMS, as required in Section 2.1 A.2.c or d of this permit;
- ii. Monitor and record 24-hour average SO₂ emissions (in lb/million Btu) from Kiln No. 7 (**ID No. ES-17**) using a CEMS, as required in Section 2.1 A.2.f of this permit;
- iii. Monitor and record the 24-hour average heat input to the kilns (in million Btu/hour), including contributions from coal and rock feeds; and,
- iv. Calculate and record the 24-hour average SO₂ emission rates (in lb/hr) for each kiln according to the following equation:

$$S = (C * H_{coal} + R * H_{rock}) (E_{SO_2})$$

Where:

- S = Sulfur dioxide emission rate (in lb/hr);
C = Coal feed rate (in lb/hr);
H_{coal} = Heat content of coal (in million Btu/lb);
R = Rock feed rate (in lb/hr);
H_{rock} = Heat content of rock (in million Btu/lb); and
E_{SO₂} = Sulfur dioxide emission rate as measured by the CEMS (in lb/million Btu).

The hourly SO₂ emission limit is required to comply with the 24-hour NAAQS. The Permittee may use 24-hour average values in the calculation above to demonstrate compliance with the emission limit and associated NAAQS. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .0530 if it does not to perform the required monitoring, if the records listed above are not created and maintained, or if the SO₂ emission rate exceeds the limitation provided in Section 2.1 A.5.a.ii and Section 2.1 A.5.b.ii above.

- i. The SO₂ CEMS on the kilns (**ID Nos. ES-2 and ES-17**) shall be installed, calibrated, maintained, tested, and operated in accordance with 40 CFR Part 60, Appendix B, “Performance Specifications” and Appendix F, “Quality Assurance Procedures.” If any 24-hour average monitored SO₂ emission rate exceeds the limitation provided in Section 2.1 A.5.a.ii (**ID No. ES-2**) and 2.1 A.5.b.ii (**ID No. ES-17**) above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D.0530

Monitoring/Recordkeeping for SO₂ – Kiln Nos. 1 through 6 [15A NCAC 02Q .0508(f)]

- j. For Kiln Nos. 1 through 6 (**ID Nos. ES-1 through ES-6**), the Permittee shall inject hydrated lime as required in

Section 2.1 A.2.i. of this permit, and the Permittee shall monitor the operation of the system and maintain records as provided in Section 2.1 A.2.j. The Permittee shall be in noncompliance with 15A NCAC 02D .0530 if the system is not monitored or records retained as required, or if the 24-hour block average hydrated lime slurry injection rate is less than the feed rate required in Section 2.1 A.2.i above.

- k. For kilns Nos. 5 and 6 (**ID Nos. ES-5 and ES-6**), the Permittee shall monitor the sulfur and heat content of all the coal burned during the period by using coal supplier certification per total shipment received. The coal supplier certification shall be recorded in a logbook (written or electronic format) per total shipment and include the following information:
- i. The name of the coal supplier; and
 - ii. A statement verifying that the methods used to determine the maximum sulfur content of the coal was in accordance with the following:
 - (A) Sampling - ASTM Method D 2234;
 - (B) Preparation - ASTM Method D 2013;
 - (C) Gross calorific value (Btu) - ASTM Method D-2015, D-3286 or D-1989;
 - (D) Moisture content - ASTM Method D 3173; and
 - (E) Sulfur content - ASTM Method D 3177 or ASTM Method D 4239.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the sulfur and heat content of the coal is not monitored and recorded.

- l. For kilns Nos. 5 and 6 (**ID Nos. ES-5 and ES-6**), the Permittee is required to calculate and record in a logbook (written or electronic format) the pounds of sulfur dioxide per million Btu heat content of the coal per total shipment taking into account any controls operated during the same period. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if these records are not kept or if the affected kilns fire any coal that results in a sulfur dioxide emission rate in exceedance of the limit given in Section 2.1 A.5.a.ii above.

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

- m. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1.A.5.h through l, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The report shall contain the following:
- i. The date and results of any performance tests conducted during the reporting period;
 - ii. A summary of SO₂ emissions monitoring data, as required in Section 2.1 A.2.1 of this permit.
 - iii. The coal supplier certifications and calculations of the pounds of SO₂ per million Btu heat content of the coal per total shipment.

Monitoring/Recordkeeping for PM – Kiln Nos. 1 through 7 (ID Nos. ES-1 through ES-6, and ES-17) [15A NCAC 02Q .0508(f)]

- n. Particulate matter emissions from the Kiln Nos. 1 through 7 (**ID Nos. ES-1 through ES-6, and ES-17**) shall be controlled by the bagfilters (**ID Nos. CD-1b through CD-6b, and CD-17b**). The Monitoring/Recordkeeping requirements as included in Section 2.1 A.1.d through e shall be sufficient to ensure compliance with 15A NCAC 02D .0530. If the requirements in Section 2.1 A.1.d through e are not complied with, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

- o. The reporting requirements as included in Section 2.1 A.1.f through g shall be sufficient to meet with reporting requirements in 15A NCAC 02D .0530.

Monitoring/Recordkeeping for NOx – Kiln Nos. 1 through 7 (ID Nos. ES-1 through ES-6, and ES-17) [15A NCAC 02Q .0508(f)]

- p. The Permittee shall perform the following monitoring including recordkeeping requirements:
- i. The Permittee shall perform a visual inspection of the combustion system including the fuel delivery system and the combustion air fan. A visual review shall be conducted on the fuel delivery system for material build up, structural integrity of the tube, the fan wheel, and fan drive system.
 - ii. The Permittee shall perform a visual inspection of the combustion system for each kiln no later than 180 days from the issuance of air quality permit 03059T50, and thereafter annually (for each 12 month period following the initial inspection).
 - iii. The Permittee shall maintain records of the combustion system inspections for each kiln.
 - iv. The Permittee shall submit a report of the most recent inspection for each kiln conducted upon request by DAQ.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if requirements of this Section 2.1 A.5.p are not complied with.

6. 15A NCAC 02D .1402: RACT APPLICABILITY

Based on the review of Permit Application 8000003.08D the DAQ has determined that Reasonably Available Control Technology (RACT) for the emission sources above are no additional controls.

7. 15A NCAC 02D .0535: EXCESS EMISSIONS REPORTING AND MALFUNCTIONS

For each permit modification, the Permittee shall amend or up-date the malfunction abatement plan (MAP) of May 2, 1997, as approved by the DAQ, for each kiln (**ID Nos. ES-1 through ES-6, and ES-17**) to meet the requirements of the permit within ninety (90) days of issuance. The amended or up-dated documents shall be submitted to the Regional Supervisor. The permittee shall be deemed in non-compliance with 15A NCAC 02D .0535, if requirements of this section 2.1 A.7 are not complied with.

8. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING – SO₂

- a. For Kiln No. 7 (**ID No. ES-17**) when operating the hydrated lime slurry injection system (**ID No. CD-17a**) or the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system (**ID No. CD-17c**), and for Kiln No. 2 (**ID No. ES-2**) when operating the lime injection chamber (**ID No. CD-2LIC**) or the packed bed scrubber (**ID No. CD-2QDS**) or hydrated lime slurry injection system (**ID No. CD-2a**), the Permittee shall monitor and record the 24-hour average SO₂ emissions (in lb/million Btu) using a CEMS in accordance with Section 2.1 A.2.c through g of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0614 if monitoring and recordkeeping requirements of this section 2.1 A.8.a are not complied with.
- b. For Kiln Nos. 1 through 6 (**ID Nos. ES-1 through ES-6**), the Permittee shall monitor the sulfur input and hydrated lime injection rate in accordance with Section 2.1 A.2.i and j of this permit.

Indicator Range [15A NCAC 02D .0614]

- c. For Kiln No. 7 (**ID No. ES-17**), the Permittee shall conduct an inspection of the lime slurry injection system (**ID No. CD-17a**) or the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system (**ID No. CD-17c**) each time the hourly emission rate is equal to or above 101.2 lb/hr (i.e., within 5% of the PSD emission limitation pursuant to Section 2.1 A.5.b.ii above).

An excursion occurs when the SO₂ hourly emission rate is greater than 101.2 lb/hr. The excursion triggers corrective action and reporting requirement.

- i. The inspection shall, at a minimum, include an inspection of the flanges for proper spray, pumps, and an analysis of the lime slurry to ensure appropriate concentrations of calcium hydroxide are present.
- ii. The Permittee shall retain records of each inspection, including the identification of any maintenance or repairs made as a result of such inspection.

If the Permittee does not conduct an inspection of the affected equipment or maintain records as provided above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0614.

- d. For the hydrated lime injection systems installed on Kiln Nos. 1 through 6 (**ID Nos. CD-1a through CD-6a**), the Permittee shall conduct an inspection of the lime slurry injection system each time the measured hydrated lime injection rate is within 5% of the minimum rate required pursuant to Section 2.1 A.2.i of this permit (i.e., An excursion occurs where the hydrated lime feed/injection rate is less than the rate required by the following equation: $F = 1.05[2.93(S)]$; where F is the hydrated lime injection rate and S is the combined sulfur input from rock and coal feeds). The inspection shall, at a minimum, include an inspection of the flanges for proper spray, pumps, and an analysis of the lime slurry to ensure appropriate concentrations of calcium hydroxide are present. The Permittee shall retain records of each inspection, including the identification of any maintenance or repairs made as a result of such inspection. If the Permittee does not conduct an inspection of the affected equipment or maintain records as provided above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0614.

Performance Criteria [15A NCAC 02D .0614]

- e. **Data Representativeness and Monitoring Frequency.** The Permittee shall ensure that data is representative of the operation of the kilns and associated lime injection system or the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system as follows:
 - i. For Kiln No. 7 (**ID No. ES-17**) when operating the hydrated lime slurry injection system (**ID No. CD-17a**) or the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system (**ID No. CD-17c**), and for Kiln No. 2 (**ID No. ES-2**) when operating the lime injection chamber (**ID No. CD-2LIC**) or the packed bed scrubber (**ID No. CD-2QDS**) or the hydrated lime slurry injection system (**ID No. CD-2a**), the CEMS measurements

shall be made at the emission point in compliance with 40 CFR 60, Appendix B. The CEMS shall measure and record the sulfur dioxide emission rate in the stack once every 15-minutes so that there are four data points per hour.

- ii. For Kiln Nos. 1 through 6 (**ID Nos. ES-1 through ES-6**):
 - (A) Sulfur contents of coal shall be determined using vendor-supplied certifications for each shipment received. The coal supplier certification shall be recorded in a logbook (written or electronic format).
 - (B) The feed rate of coal to each kiln on a 24-hour block average shall be determined by belt scales.
 - (C) Sulfur contents of rock shall be determined by taking a representative of the rock stored on-site at least once per calendar week and performing an analysis of the sulfur content of that representative sample. The date of the sample and results of the analysis shall be recorded in a logbook (written or electronic format).
 - (D) The feed rate of rock to each kiln on a 24-hour block average shall be determined by weigh feeders.
 - (E) The hydrated lime injection rate on a 24-hour block average shall be determined using a continuous flow monitoring device.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0614 if it does not collect or record data as described above.

- f. QA/QC Practices. The Permittee shall ensure that data is representative of the operation of the kilns and associated lime injection system as follows:
 - i. For Kiln No. 7 (**ID No. ES-17**) when operating the hydrated lime slurry injection system (**ID No. CD-17a**) or the sodium hydroxide (NaOH) sorbent packed-bed wet scrubber system (**ID No. CD-17c**), and for Kiln No. 2 (**ID No. ES-2**) when operating the lime injection chamber (**ID No. CD-2LIC**) or the packed bed scrubber (**ID No. CD-2QDS**) or the hydrated lime slurry injection system (**ID No. CD-2a**), the CEMS shall follow the quality assurance and quality control procedures provided in 40 CFR 60, Appendix F, including a daily CEMS calibration, quarterly audits, and annual RATA testing.
 - ii. For Kiln Nos. 1 through 6 (**ID Nos. ES-1 through ES-6**), the continuous flow monitors on the lime injection hydration system shall be maintained in accordance with manufacturer recommendations. The Permittee shall retain records of the manufacturer recommendations, and all maintenance activities associated with the flow monitors.
- g. Averaging Periods. Compliance with the SO₂ emission limitations pursuant to both 15A NCAC 02D .0516 and 15A NCAC 02D .0530 are determined on a 24-hour basis.

Reporting [15A NCAC 02Q .0508(f) and 40 CFR 64.9]

- h. The Permittee shall submit a summary report of all monitoring and recordkeeping activities given in Section 2.1 A.8.b through g above, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. In addition, the summary report shall contain the following information, as applicable:
 - i. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the Permittee shall include, in the next summary report, documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances.

9. 15A NCAC 02D .0614: COMPLIANCE ASSURANCE MONITORING – PM

- a. For kilns (**ID Nos. ES-1, ES-3 through ES-6 and ES-17**), the Permittee shall perform weekly visible emission and retain records of the observations as provided in Section 2.1 A.3.d through f and Section 2.1 A.4.d through f of this permit. The daily observation must be made for each day of the calendar year period for Kiln No. 2 (**ID No. ES-2**) while operating the control device (**ID No. CD-2LIC**) or (**ID No. CD-2QDS**), and the weekly observation must be made for each week of the calendar year period for Kiln No. 2 (**ID No. ES-2**) while not operating the control device (**ID No. CD-2LIC**) nor (**ID No. CD-2QDS**). The Permittee shall be allowed three (3) days of absent observations per semi-annual period for daily observations only. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0614 if it does not collect or record data as described above.

Background [15A NCAC 02D .0614]

- b. Emission Units:

- i. six lightweight aggregate rotary expanding kilns (23 tons per hour capacity, each) fired with coal or natural gas (52 million Btu per hour heat input rate, each) **(ID Nos. ES-1 through ES-6)**
- ii. one lightweight aggregate rotary expanding kiln (35 tons per hour capacity) fired with wood, coal or natural gas (79.1 million Btu per hour heat input rate, each) **(ID No. ES-17)**
- c. Applicable Regulation, Emission Limit, and Monitoring Requirements.
 - i. Regulation and associated emission limits:
 - (A) 15A NCAC 02D .0511 – particulate matter emissions from **ES-1 through ES-6 and ES-17** shall be reduced by at least 95% by weight by the bagfilters
 - (B) 15A NCAC 02D .0524 – particulate matter emissions from **ES-17** shall be less than 0.092 gm/dscf (0.04 gr/dscf)
 - (C) 15A NCAC 02D .0530 – particulate matter emissions from **ES-1 through ES-6** shall be less than 9.0 pounds of particulate matter per hour per kiln; and particulate matter emissions from **ES-17** shall be less than 11 pounds of particulate matter per hour.
 - ii. Control Technology: Bagfilters

Monitoring Approach

- d. The key elements of the monitoring approach for particulate matter, including parameters to be monitored, parameter ranges and performance criteria are presented in the following table

	PM Indicator
I. Indicator	Visible emissions
Measurement Approach	Visible emissions from each baghouse will be monitored daily using EPA Reference Method 22-like procedures
II. Indicator Range	An excursion is defined as the presence of visible emissions. Excursion triggers an inspection, corrective action and a reporting requirement.
QIP Threshold	The QIP threshold is five excursions in a six-month period.
III. Performance Criteria	
A. Data Representativeness	Measurements are being made at the emission points (baghouse outlets).
B. Verification of Operational Status	NA
C. QA/QC Practices	The observer will be familiar with Reference Method 22 and follow Method 22-like procedures when VE is observed.
D. Monitoring Frequency	Observations shall be performed daily, when operating.
Data Collection Procedures	VE observations are documented by the observer.
Averaging Periods	NA

Reporting [15A NCAC 02Q .0508(f) and 40 CFR 64.9]

- e. The Permittee shall submit a summary report of all monitoring and recordkeeping activities given in Sections 2.1 A.9.a through d, 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. In addition, the summary report shall contain the following information, as applicable:
 - i. Summary information on the number, duration, and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - ii. Summary information on the number, duration, and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

- iii. A description of the actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the Permittee shall include, in the next summary report, documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances.

B. Flyash and lime storage silos (ID Nos. ES-7 through ES-10 and ES-16) and bagfilters (ID Nos. CD-7a, CD-7b, CD-8 through CD-10, and CD-16); and, Flyash/dust storage silo (ID No. ES-19) and bagfilter (ID No. CD-19).

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Particulate Matter	0.08 lb/hr (ID No. ES-19 only) 7 percent opacity (ID No. ES-19 only)	15A NCAC 02D .0530
Fugitive Non-Process Dust Emissions	See Section 2.2 A.1	15A NCAC 02D .0540
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.1	15A NCAC 02D .1100
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.2	15A NCAC 02Q .0711

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

- a. Emissions of particulate matter from the flyash, lime, and dust storage silos shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67}$$

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

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

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

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

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

- c. Particulate matter emissions from the flyash and lime storage silos shall be controlled by the bagfilters. The Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer’s inspection and maintenance recommendations, or if there are no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. An annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter's structural integrity.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork and bagfilters are not inspected and maintained.
- 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 02D .0515 if these records are not kept.

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

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

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

- a. Visible emissions from the flyash, lime, and dust storage silos shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

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

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

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

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

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

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

- a. The flyash/dust storage silo (**ID No. ES-19**) shall discharge into the atmosphere not more than 0.08 pounds of particulate matter per hour and shall not exhibit visible emissions more than 7 percent opacity.

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

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 B.3.a, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

- c. The monitoring, recordkeeping, and reporting requirements as included in Section 2.1 B.1.c through e shall be

sufficient to comply with the particulate matter emission limit provided in Section 2.1 B.3.a. above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if it does not comply with the monitoring and recordkeeping requirements Section 2.1 B.1.c through e.

- d. The monitoring, recordkeeping, and reporting requirements as included in Section 2.1 B.2.c through e shall be sufficient to comply with the visible emission limit provided in Section 2.1 B.3.a above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if it does not comply with the monitoring and recordkeeping requirements Section 2.1 B.2.c through e.

- C. Crushing, screening and handling equipment (ID No. ES-11);
 Conveyors (ID Nos. ES-12, ES-23a, ES-23b, ES-25, ES-26a, ES-27, ES-28 and ES-SWC-1) and
 water sprays (ID Nos. CD-11, CD-12, CD-23a, CD-23b, and CD-26a);
 One portable C50 Telsmith jaw crusher (ID No. PJ-C1) with integral feeder and conveyor
 powered by one Caterpillar C9 350 hp diesel engine with water spray;
 One temporary portable trammel screen (ID No. ES-TEMPS-1) powered by one 173 hp diesel
 engine
 One portable trammel screen (ID No. TS-1) powered by one 139 hp diesel engine; and,
 One feed hopper (ID No. ES-SWH-1)
 One single deck screen (ID No. SD-1)
 One Portable Loader with integral hopper and conveyor for loading Super Sac
 (ID No. ES-PLS-1)
 One Stacker Conveyor (ID No. ES-SWC-2)**

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	crushers T-1, T-2, N-1, N-2, N-3 and PJ-C1 shall be equipped with wet suppression control	15A NCAC 02D .0511
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Fugitive Non-Process Dust Emissions	See Section 2.2 A.1	15A NCAC 02D .0540
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.1	15A NCAC 02D .1100
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.2	15A NCAC 02Q .0711

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent the ambient air quality standards for particulate matter, both PM₁₀ and total suspended particulates, from being exceeded beyond the property line.
- b. The Permittee shall control emissions from crushers with wet suppression.
- c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standards are not exceeded.

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

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a through c above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

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

- e. Once a week, the Permittee shall observe the wet suppression systems installed on the crushers (ID Nos. T-1, T-2, N-1, N-2, N-3 and PJ-C1) for proper operation. If the observations are not performed or the wet suppression systems are not properly operated the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0511.
- f. For remaining affected sources (ID Nos. ES-11, ES-12, ES-23a, ES-23b, ES-25, ES-26a, ES-27, ES-28,

ES-SWH-1 and ES-SWC-1; excluding crushers as provided above), the monitoring, recordkeeping, and reporting requirements as included in Section 2.1 C.2 shall be sufficient to demonstrate compliance with the emission standard of Section 2.1 C.1.a above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511 if monitoring/recordkeeping requirements in 2.1 C.2 are not met.

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

- g. 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 noting those sources that were observed to be in noncompliance along with any corrective actions taken; and,
 - iii. The results of any corrective actions performed.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511 if these records are not kept.

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

- h. The Permittee shall submit a summary report of the observations given in Sections 2.1 C.1.e through g, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

- a. Visible emissions from each source shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

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

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

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

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

- e. The Permittee shall submit a summary report of the observations given in Sections 2.1 C.2.c and d, 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 aggregate conveyors (ID Nos. ES-21a and ES-21b) and water sprays (ID No. CD-21a and CD-21b) and Three slate shuttle conveyors (ID Nos. ES-24a, ES-24ba and ES-24bb)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	-	15A NCAC 02D .0511
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Visible Emissions (As a Surrogate of Particulate Matter)	10 percent opacity	15A NCAC 02D .0530
Fugitive Non-Process Dust Emissions	See Section 2.2 A.1	15A NCAC 02D .0540
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.1	15A NCAC 02D .1100
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.2	15A NCAC 02Q .0711

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent the ambient air quality standards for particulate matter, both PM₁₀ and total suspended particulates, from being exceeded beyond the property line.
- b. The Permittee shall control emissions from crushers with wet suppression.
- c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standards are not exceeded.

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

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 D.1.a through 2.1 D.1.c, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

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

- e. The monitoring, recordkeeping, and reporting requirements as included in Section 2.1 D.2.c through e shall be sufficient to comply with the emission standard of Section 2.1 D.1.a, above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511 if monitoring/recordkeeping requirements in Section 2.1 D.2.c and d are not performed.

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

- a. Visible emissions from the conveyors (**ID Nos. ES-21a, ES-21b, ES-24a, ES-24ba and ES-24bb**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

- c. To ensure compliance, once a week the Permittee shall observe the emission points of these sources for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. Take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with

15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 D.2.a above. If the above-normal emissions are not corrected per Section 2.1 D.c.i above or if the demonstration in ii above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

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

- a. The conveyors (**ID Nos. ES-21a, ES-21b, ES-24a, ES-24ba and ES-24bb**) shall not exhibit visible emissions more than 10 percent opacity.

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

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 D.3.a, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

The monitoring, recordkeeping, and reporting requirements as included in Section 2.1 D.2.c through e shall be sufficient to comply with the emission limit of Section 2.1 D.2.a above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if it does not comply with the monitoring and recordkeeping requirements in Section 2.1 D.2.c and d.

E. Coal conveyor (ID No. ES-22).

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	-	15A NCAC 02D .0511
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Visible Emissions (As a Surrogate of Particulate Matter)	10 percent opacity	15A NCAC 02D .0530
Fugitive Non-Process Dust Emissions	See Section 2.2 A.1	15A NCAC 02D .0540
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.1	15A NCAC 02D .1100
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.2	15A NCAC 02Q .0711

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent the ambient air quality standards for particulate matter, both PM10 and total suspended particulates, from being exceeded beyond the property line.
- b. The Permittee shall control emissions from crushers with wet suppression.
- c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity

standards are not exceeded.

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

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 E.1.a, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.
- e. **Monitoring/Recordkeeping/Reporting** [15A NCAC 02Q .0508(f)]
The monitoring, recordkeeping, and reporting requirements as included in Section 2.1 E.2.c, d, and e shall be sufficient to comply with the emission limit of Section 2.1 E.1.a above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511, if monitoring/recordkeeping requirements in Section 2.1 E.2.c and d are not performed.

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

- a. Visible emissions from the conveyor (**ID No. ES-22**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

- c. To ensure compliance, once a week the Permittee shall observe the emission points of this source for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. Take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 E.2.a above.If the above-normal emissions are not corrected per 2.1 E.2.c.i above or if the demonstration in ii above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

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

- a. The coal conveyor (**ID No. ES-22**) shall not exhibit visible emissions more than 10 percent opacity when averaged over a six-minute period.

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

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 E.3.a, the Permittee shall be deemed in

noncompliance with 15A NCAC 02D .0530.

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

- c. The monitoring, recordkeeping, and reporting requirements as included in Section 2.1 E.2.c through e shall be sufficient to comply with the emission limit of Section 2.1 E.3.a above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if monitoring/recordkeeping requirements in Section 2.1 E.2.c and d are not complied.

F. Screening operation consisting of one triple deck screen (ID No ES-13).

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	-	15A NCAC 02D .0511
Visible Emissions	20 percent opacity	15A NCAC 02D .0521

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent the ambient air quality standards for particulate matter, both PM₁₀ and total suspended particulates, from being exceeded beyond the property line.
- b. The Permittee shall control emissions from crushers with wet suppression as needed to meet the applicable opacity standard.
- c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standards are not exceeded.

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

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 F.1.c, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

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

- e. The monitoring, recordkeeping, and reporting requirements as included in Section 2.1 F.2.c through e shall be sufficient to comply with the emission standard of Section 2.1 F.1.a above.

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

- a. Visible emissions from the screen (**ID No. ES-13**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

- c. To ensure compliance, once a week the Permittee shall observe the emission points of this source for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. Take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. Demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 F.2.a above.
 If the above-normal emissions are not corrected per 2.1 F.2.c.i above or if the demonstration in ii. above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

- e. The Permittee shall submit a summary report of the observations given in Sections 2.1 F.2.c and d, 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. Crushing, screening and handling equipment (ID No. ES-29) including crusher (T-3), screens (DD-4 and TD-4), conveyors (21c, 41a through 44a, and 95 through 107) and water sprays (ID No. CD-29)

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Crusher (ID No. T-3) shall be equipped with wet suppression control	15A NCAC 02D .0511
Visible Emissions	20 percent opacity	15A NCAC 02D .0521
Fugitive Non-Process Dust Emissions	See Section 2.2 A.1	15A NCAC 02D .0540
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.1	15A NCAC 02D .1100
Toxic Air Pollutants	State-enforceable only See Section 2.2 B.2	15A NCAC 02Q .0711

1. 15A NCAC 02D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. The Permittee shall not cause, allow, or permit any material to be produced, handled, transported or stockpiled without taking measures to reduce to a minimum any particulate matter from becoming airborne to prevent the ambient air quality standards for particulate matter, both PM₁₀ and total suspended particulates, from being exceeded beyond the property line.
- b. The Permittee shall control emissions from crushers with wet suppression.
- c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standards are not exceeded.

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

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.1.a or c above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511.

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

- e. Once a week, the Permittee shall observe the wet suppression system installed on the crusher (ID No. T-3) for proper operation. If the observations are not performed or the wet suppression system is not properly operated the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0511.
- f. For the screens and conveyors (ID Nos. DD-4, TD-4, 21c, 41a through 44a, and 95 through 107), the monitoring, recordkeeping, and reporting requirements, as included in Section 2.1 G.2.c through e shall be sufficient to demonstrate compliance with the emission standard of Section 2.1 G.1.a above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511, if monitoring/recordkeeping requirements in Section 2.1 G.2.c and d are not met.

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

- g. 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 noting those sources that were observed to be in noncompliance along with any corrective actions taken; and,
 - iii. The results of any corrective actions performed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0511 if these records are not kept.

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

- h. The Permittee shall submit a summary report of the observations given in Sections 2.1 G.1.e through g, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

- a. Visible emissions from the crushing, screening and handling equipment (**ID No. ES-29**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

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

If the above-normal emissions are not corrected per 2.1 G.2.c.i above or if the demonstration in ii above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521.

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

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

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

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

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

2.2 Multiple Emission Source(s) Specific Limitations and Conditions

A. Non-process fugitive dust emission sources

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

Pollutant	Limits/Standards	Applicable Regulation
Fugitive Non-Process Dust Emissions	fugitive non-process dust emissions shall not cause or contribute to substantive complaints	15A NCAC 02D .0540

1. 15A NCAC 02D .0540: PARTICULATES FROM FUGITIVE NON-PROCESS DUST EMISSION SOURCES

- a. For the purpose of this Rule the following definitions shall apply:
 - i. "Fugitive non-process dust emission" means particulate matter that is not collected by a capture system and is generated from areas such as pit areas, process areas, haul roads, stockpiles, and plant roads.
 - ii. "Substantive complaints" means complaints that are verified with physical evidence acceptable to the DAQ.
- b. The Permittee shall not cause or allow fugitive non-process dust emissions to cause or contribute to substantive complaints.
- c. If fugitive non-process dust emissions from a facility, required to comply with this Rule, cause or contribute to substantive complaints, the Permittee shall:
 - i. Within 30 days upon receipt of written notification from the Director of a second substantive complaint in a 12-month period, submit to the Director a written description of what has been done and what will be done to reduce fugitive non-process dust emissions from that part of the facility that caused the second substantive complaint;
 - ii. within 90 days of receipt of written notification from the Director of a second substantive complaint in a 12-month period, submit to the Director a control plan as described in Paragraph (e) of this Rule; and
 - iii. Within 30 days after the Director approves the plan, be in compliance with the plan.
- d. The Director may require that the Permittee develop and submit a fugitive non-process dust control plan as described in Paragraph e of this Rule if:
 - i. Ambient air quality measurements or dispersion modeling acceptable to the DAQ show violation or a potential for a violation of an ambient air quality standard for particulates in 15A NCAC 02D .0400 "Ambient Air Quality Standards;" or
 - ii. If the DAQ observes excessive fugitive non-process dust emissions from the facility beyond the property boundaries.

The control plan shall be submitted to the Director no later than 90 days after notification. The facility shall be in compliance with the plan within 30 days after the Director approves the plan.

- e. The fugitive dust control plan shall:
 - i. Identify the sources of fugitive non-process dust emissions within the facility;
 - ii. Describe how fugitive non-process dust will be controlled from each identified source;
 - iii. Contain a schedule by which the plan will be implemented;
 - iv. Describe how the plan will be implemented, including training of facility personnel; and
 - v. Describe methods to verify compliance with the plan.
- f. The Director shall approve the plan if he finds that:
 - i. The plan contains all required elements in Paragraph (e) of this Rule;
 - ii. The proposed schedule contained in the plan will reduce fugitive non-process dust emissions in a timely manner;
 - iii. The methods used to control fugitive non-process dust emissions are sufficient to prevent fugitive non-process dust emissions from causing or contributing to a violation of the ambient air quality standards for particulates; and
 - iv. The described compliance verification methods are sufficient to verify compliance with the plan.

If the Director finds that the proposed plan does not meet the requirements of this Paragraph he shall notify the Permittee of any deficiencies in the proposed plan. The Permittee shall have 30 days after receiving written notification from the Director to correct the deficiencies.

- g. If after a plan has been implemented, the Director finds that the plan inadequately controls fugitive non-process dust emissions; he shall require the Permittee to correct the deficiencies in the plan. Within 90 days after receiving written notification from the Director identifying the deficiency, the Permittee shall submit a revision to his plan to correct the deficiencies.

B. Facility-wide

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

Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	State-enforceable only Control of Toxic Air pollutants – Section 2.2 B.1	15A NCAC 02D .1100
Toxic Air Pollutants	State-enforceable only Requirement for Facility Wide Emission of a toxic air pollutant to remain below its respective Toxic Pollutant Exemption Rates - Section 2.2 B.2	15A NCAC 02Q .0711

STATE-ENFORCEABLE ONLY

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

- a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
Facility-wide	Arsenic	6.88 lb/yr
Facility-wide	Benzo(a)pyrene	100.0 lb/yr
Facility-wide	Benzene	945.0 lb/yr
Facility-wide	Beryllium	13.35 lb/yr
Facility-wide	Bromine	8.55 lb/hr
Facility-wide	Non-specific Chromium (VI) Compounds, as Chromium (VI) Equivalent	9.29 x 10 ⁻³ lb/yr
ES-1	Soluble Chromate Compounds, as Chromium (VI) Equivalent	0.0921 lb/day
ES-2	Soluble Chromate Compounds, as Chromium (VI) Equivalent	0.0921 lb/day
ES-3	Soluble Chromate Compounds, as Chromium (VI) Equivalent	0.0921 lb/day
ES-4	Soluble Chromate Compounds, as Chromium (VI) Equivalent	0.0921 lb/day
ES-5	Soluble Chromate Compounds, as Chromium (VI) Equivalent	0.0921 lb/day
ES-6	Soluble Chromate Compounds, as Chromium (VI) Equivalent	0.0921 lb/day
ES-17	Soluble Chromate Compounds, as Chromium (VI) Equivalent	0.140 lb/day
Facility-wide	Cadmium	0.521 lb/yr
Facility-wide	Formaldehyde	0.052 lb/hr
Facility-wide	Hydrogen Chloride	2.01 lb/hr
Facility-wide	Hydrogen Fluoride	0.86 lb/hr, 20.6 lb/day
Facility-wide	Manganese	8.57 x 10 ⁻¹ lb/day
Facility-wide	Mercury	0.105 lb/day

- b. The Permittee shall maintain records of any other process operational information as is necessary to determine compliance with 15A NCAC 02D .1100. All records of compliance shall be maintained in a logbook and made available for inspection by personnel of the Division of Air Quality for a period of two years from the date of recording.

STATE-ENFORCEABLE ONLY

2. 15A NCAC 02Q .0711: EMISSION RATES REQUIRING A PERMIT

Pursuant to 15A NCAC 02Q .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 02Q .0711. The facility shall be operated and maintained in such a manner that emissions of any listed TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 02Q .0711.

- 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 02D.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)
Nickel (7440-02-0)		0.13		

SECTION 3 - INSIGNIFICANT ACTIVITIES PER 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description ^{1, 2}
IES-1	portable coal screen
IES-2	single deck coal screen
IES-3	twin roll coal crusher
IES-4	nine (9) coal storage silos
IES-5	fourteen (14) coal conveyors
IES-6	six (6) enclosed weigh coal feeders
I33	bulk material stockpiles
I-B1 through I-B5	five (5) storage silos (12 ft diameter by 30 ft height; 93 ton capacity each)
I-B6 through I-B9	four (4) storage silos (20 ft diameter by 30 ft height; 259 ton capacity each)
I-BA, I-BB, I-BF	three (3) storage silos (24 ft diameter by 40 ft height; 498 ton capacity each)
I-BC, I-BD, I-BE	three (3) storage silos (20 ft diameter by 40 ft height; 346 ton capacity each)
I-R1 through I-R7	seven (7) kiln feed silos (24 ft diameter by 40 ft height; 860 ton capacity each)
I-GST	gasoline storage tank (1,000 gallon capacity)
I-DST	diesel storage tank (15,000 gallon capacity)

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

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

SECTION 4 - GENERAL CONDITIONS (version 8.0, 07/10/2024)

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

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

B. **Permit Availability** [15A NCAC 02Q .0507(k) and .0508(i)(9)(B)]

The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application(s) and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of the Department of Environmental Quality upon request.

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

In the event of an administrative challenge to a final and binding permit in which a condition is held to be invalid, the provisions in this permit are severable so that all requirements contained in the permit, except those held to be invalid, shall remain valid and must be complied with.

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

Except as otherwise specified herein, one copy of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

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

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

The Permittee shall comply with all terms, conditions, requirements, limitations and restrictions set forth in this permit. Noncompliance with any permit condition except conditions identified as state-only requirements constitutes a violation of the Federal Clean Air Act. Noncompliance with any permit condition is grounds for enforcement action, for permit termination, revocation and reissuance, or modification, or for denial of a permit renewal application.

F. **Circumvention** - STATE ENFORCEABLE ONLY

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

G. **Title V Permit Modifications**

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

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements [15A NCAC 02Q .0508(f)]
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
 - a. changes in the information submitted in the application;
 - b. changes that modify equipment or processes; or
 - c. changes in the quantity or quality of materials processed.If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.
2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.
 - d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A. Reporting Requirements for Excess Emissions [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

1. "Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. (*Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.*)
2. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or the operating permit provides for periodic (e.g., quarterly) reporting of excess emissions, reporting shall be performed as prescribed therein.
3. If the source is not subject to NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
 - a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
 - i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
 - name and location of the facility;
 - nature and cause of the malfunction or breakdown;
 - time when the malfunction or breakdown is first observed;
 - expected duration; and
 - estimated rate of emissions;
 - ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
 - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

I.B. Reporting Requirements for Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

1. "Permit Deviations" - for the purposes of this condition, any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions as well as excess emissions as defined above lasting less than four hours.
2. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) quarterly by notifying the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.C. Other Requirements under 15A NCAC 02D .0535

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

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

J. RESERVED

K. Permit Renewal [15A NCAC 02Q .0508(e) and 02Q .0513(b)]

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

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]

It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .0507(f)]

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to the DAQ. The Permittee shall also provide additional information as necessary to address any requirement that becomes applicable to the facility after the date a complete permit application was submitted but prior to the release of the draft permit.

O. **Retention of Records** [15A NCAC 02Q .0508(f) and 02Q .0508(l)]

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

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]

The Permittee shall submit to the DAQ and the EPA (Air Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303 or through the EPA CEDRI) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all terms and conditions in the permit (including emissions limitations, standards, or work practices), except for conditions identified as being State-enforceable Only. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

1. the identification of each term or condition of the permit that is the basis of the certification;
2. the compliance status (with the terms and conditions of the permit for the period covered by the certification);
3. whether compliance was continuous or intermittent;
4. the method(s) used for determining the compliance status of the source during the certification period;
5. each deviation and take it into account in the compliance certification; and
6. as possible exceptions to compliance, any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (CAM) occurred.

Q. **Certification by Responsible Official** [15A NCAC 02Q .0520]

A responsible official shall certify the truth, accuracy, and completeness of any application form, report, or compliance certification required by this permit. All certifications shall state that based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

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

1. Compliance with the terms and conditions of this permit shall be deemed compliance with applicable requirements, where such applicable requirements are included and specifically identified in the permit as of the date of permit issuance.
2. A permit shield shall not alter or affect:
 - a. the power of the Commission, Secretary of the Department, or Governor under NCGS 143-215.3(a)(12), or EPA under Section 303 of the Federal Clean Air Act;
 - b. the liability of an owner or operator of a facility for any violation of applicable requirements prior to the effective date of the permit or at the time of permit issuance;
 - c. the applicable requirements under Title IV; or

- d. the ability of the Director or the EPA under Section 114 of the Federal Clean Air Act to obtain information to determine compliance of the facility with its permit.
3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .0519]

The Director may terminate, modify, or revoke and reissue this permit if:

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

T. **Insignificant Activities** [15A NCAC 02Q .0503]

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

U. **Property Rights** [15A NCAC 02Q .0508(i)(8)]

This permit does not convey any property rights in either real or personal property or any exclusive privileges.

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

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

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

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

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

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

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

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

- Y. **Confidential Information** [15A NCAC 02Q .0107 and 02Q .0508(i)(9)]
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 02Q .0107.
- Z. **Construction and Operation Permits** [15A NCAC 02Q .0100 and .0300]
A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 02Q .0100 and .0300.
- AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.
- BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(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 02Q .0501(d)]
 1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
 2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
 3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.
- DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 02Q .0508(h)]
If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.
- EE. **National Emission Standards Asbestos – 40 CFR Part 61, Subpart M** [15A NCAC 02D .1110]
The Permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.
- FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.
- GG. **Air Pollution Emergency Episode** [15A NCAC 02D .0300]
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 02D .0300.
- HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 02D .0202(b).
- II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of

the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 02Q .0508(i)(16)]

Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .1110, or .1111 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance for emission sources subject to Rules .0524, .1110, or .1111, the Permittee shall provide and submit all notifications, conduct all testing, and submit all test reports in accordance with the requirements of 15A NCAC 02D .0524, .1110, or .1111, as applicable. Otherwise, if emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

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

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

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .0507, .0521, or .0522 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 02Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.

4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

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

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

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

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

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

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

1. For modifications made pursuant to 15A NCAC 02Q .0501(b)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (Air Permitting Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303 or through the EPA CEDRI) in writing at least seven days before the change is made.
 - a. The written notification shall include:
 - i. a description of the change at the facility;
 - 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.
 - b. In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. Third Party Participation and EPA Review [15A NCAC 02Q .0521, .0522 and .0525(7)]

For permits modifications subject to 45-day review by the federal EPA, EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.