

DRAFT

date, 2007

Mr. Charles Newsome
General Manager
Carolina Stalite Company
P.O. Box 1037
Salisbury, North Carolina 28145

Dear Mr. Newsome:

SUBJECT: **Air Quality Permit No. 03225T29**
 Facility ID: 8400013
 Carolina Stalite Company
 Aquadale Properties, LLC
 Norwood, North Carolina
 Stanly County
 Fee Class: Title V

In accordance with your completed Air Quality Permit Application for **renewal** of your Title V permit received **August 30, 2005**, we are forwarding herewith Air Quality Permit No. **03225T29** to Carolina Stalite Company, Aquadale Properties, LLC, 12423 Old Aquadale Road, Norwood, North Carolina, authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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 conditions of the attached permit that are applicable to that particular emission source.

Mr. Charles Newsome

date, 2007

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

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

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of GS 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 GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.

This Air Quality Permit shall be effective from date, 2007 until date, 2012, 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 Mark J. Cuilla, E.I.T., at (919) 733-1499.

Sincerely yours,

Donald R. van der Vaart, Ph.D., P.E.
Chief

Enclosure

cc: Gregg Worley, EPA Region 4 with review
Mooresville Regional Office
Central Files

ATTACHMENT

Insignificant Activities under 15A NCAC 2Q .0503(8) under Permit No. **03225T29**

Emission Source ID	Emission Source Description
ILABVENT1	One laboratory vent
I-Mixer	One mixing device installed at point of transfer of material from conveyor (ID No. FCS-14) to conveyor (ID No. FCS-C1)
I-GasTank	One gasoline storage tank (2000 gallons capacity)
I-RUC-1	One portable rail unloader/conveyor with diesel fired engine (55 hp)

ATTACHMENT

The following table lists all modifications associated with this permit action:

Page(s)	Section	Description of Change(s)
Attachment	Insignificant Activities	-updated permit revision number -added sources per Permittee request
Cover	-	-updated permit revision numbers and all dates
TOC	-	-removed reference to Part II as being completed
All	Header	-updated permit revision number
3-6	Equipment table	-corrected NSPS designations where needed (See ESM) -reordered equipment by ID Nos. within each Section -removed equipment per Permittee (See ESM) -removed unnecessary asterisked language
7	2.1 A	-verified equipment descriptions and ID Nos.
7-8	2.1 A (table)	-verified equipment ID Nos. and associated regulations
8	2.1 A.1.b 2.1 A.1.d 2.1 A.1.e	-added ID Nos. -updated generic testing language -updated shell language and added ID Nos.
9	2.1 A.1.g 2.1 A.2.a 2.1 A.2.b 2.1 A.2.c 2.1 A.2.d.iii 2.1 A.2.e	-updated shell language -updated shell language -updated shell language -updated shell language and added ID Nos. -added ID Nos. -added reporting requirements
10	2.1 A.2.f 2.1 A.3 2.1 A.4.a 2.1 A.4.b 2.1 A.4.c 2.1 A.4.d	-updated shell language -added 2D .0516 language per RO comments -added ID Nos. -added ID Nos. -updated shell language -updated shell language and added ID Nos.
11	2.1 A.4.f 2.1 A.5.b 2.1 A.5.c 2.1 A.5.d 2.1 A.5.e 2.1 A.5.f	-updated shell language -added ID Nos. -added ID Nos. -added ID Nos. -updated shell language -updated shell language
12	2.1 A.5.g 2.1 A.5.i 2.1 B 2.1 B (table)	-updated shell language and added ID Nos. -updated shall language -removed reference to removed sources -removed reference to removed sources -added CAM reference
13	2.1 B.1.a 2.1 B.1.c 2.1 B.1.d	-added ID Nos. -amended testing requirements per Regional Office request -added ID Nos.
14	2.1 B.1.e 2.1 B.1.f 2.1 B.1.g 2.1 B.1.h	-added ID Nos. -added ID Nos. -added ID Nos. -added ID Nos.
15	2.1 B.1.i 2.1 B.1.j 2.1 B.1.k 2.1 B.2.a 2.1 B.2.b 2.1 B.2.c	-added ID Nos. -updated shell language -updated shell language and added ID Nos. -added ID Nos. -updated shell language -added ID Nos.
16	2.1 B.2.d 2.1 B.2.e 2.1 B.3.a 2.1 B.3.b	-changed quarterly reporting to semiannual -updated shell language -added ID Nos. -updated shell language

Page(s)	Section	Description of Change(s)
17	2.1 B.3.c 2.1 B.3.e 2.1 B.4.a 2.1 B.4.b 2.1 B.4.c 2.1 B.4.d 2.1 B.4.e	-updated shell language -updated shell language -updated shell language -updated shell language -updated shell language -updated shell language -updated shell language
18	2.1 B.4.f 2.1 B.4.h 2.1 B.5.a 2.1 B.5.b 2.1 B.5.c 2.1 B.5.d 2.1 B.5.e	-updated shell language -updated shell language -added ID Nos. -added ID Nos. -added ID Nos. -added ID Nos. -updated shell language
19	2.1 B.5.f 2.1 B.5.g 2.1 B.5.h 2.1 B.5.i	-updated shell language -added ID Nos. -added ID Nos. -added ID Nos.
20	2.1 B.5.n	-changed quarterly reporting to semiannual
20-23	2.1 B.6	-added new CAM requirements (Note. 2D .0535 requirements for Malfunction Abatement Plan have been removed as being complete)
24	2.1 C.1.c 2.1 C.1.d 2.1 C.2.c	-updated shell language -updated shell language -updated shell language and added ID Nos.
25	2.1 C.2.e 2.1 D 2.1 D (table) 2.1 D.1.b	-updated shell language -removed non-subject equipment listing -verified ID Nos. -added ID Nos.
26	2.1 D.1.c-f	-added MRR requirements language instead of cross referencing requirements
27	2.1 D.3.b 2.1 D.3.c 2.1 D.4.b 2.1 D.4.c	-updated shell language -updated shell language -added ID Nos. -updated shell language
28	2.1 D.4.d	-updated shell language
29	2.2 B	-verified equipment listing
30	2.2 B.1.d 2.2 B.1.e	-added ID Nos. -added ID Nos.
31	2.2 B.1.j 2.2 B.1.p	-added ID Nos. -updated shell language
44	2.2 C	-edited subject kilns to remove deleted equipment
45	2.2 C.1.a 2.2 C.1.b 2.2 C.1.c 2.2 C.1.d	-added ID Nos. -added ID Nos. -added ID Nos. -added ID Nos.
46	2.2 C.1.e 2.2 C.1.f	-added ID Nos. -added ID Nos.
47	2.2 C.1.g	-updated shell language for recycled fuel oil
-	Part II	-removed Part II as being completed



Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
03225T29	03225T28	date, 2007	date, 2012

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 2D and 2Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 2Q, the Permittee shall not construct, operate, or modify any emission source(s) or air pollution control device(s) without having first submitted a complete Air Quality Permit Application to the permitting authority and received an Air Quality Permit, except as provided in this permit.

Permittee: **Carolina Stalite Company
Aquadale Properties, LLC**

Facility ID: **8400013**

Facility Site Location: **12423 Old Aquadale Road**
City, County, State, Zip: **Norwood, Stanly County, North Carolina 28128**
Mailing Address: **P.O. Box 1037**
City, State, Zip: **Salisbury, North Carolina 28145**

Application Number: **8400013.05D**
Complete Application Date: **August 30, 2005**

Primary SIC Codes: **3295**

Division of Air Quality, **Mooreville Regional Office**
Regional Office Address: **610 East Center Avenue, Suite 301**
Mooreville, North Carolina 28115

Permit issued this the xxth day of xxxxx, 2007

Donald R. van der Vaart, Ph.D., P.E., Chief, Air Permits Section
By Authority of the Environmental Management Commission

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(Including specific requirements, testing, monitoring, record keeping, and reporting requirements)

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

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

PART II -

This permit does not include a Part II.

PART I

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

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

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Raw material, nonmetallic mineral processing operation			
RCS-1 (NSPS, Subpart OOO)	One primary jaw crusher (300 tons per hour maximum permitted crushing capacity; 545 tons per hour actual maximum rated crushing capacity)	RCS-1S	One water spray
RCS-2	One cone crusher (150 tons per hour maximum crushing capacity)	RCS-4S	One water spray
RCS-3B (NSPS, Subpart OOO)	One cone crusher (310 tons per hour maximum crushing capacity)	RCS-5S	One water spray
RCS-4 and RCS-5 (NSPS, Subpart OOO; both sources)	Two multiple deck screens (6 feet x 16 feet each)	RCS-3S	One water spray installed on both screens
RCS-6	One conveyor (24 inches wide)	RCS-7S	One water spray
RCS-7 through RCS-9 and RCS-23 through RCS-30	Eleven conveyors (24 inches wide each)	NA	NA
RCS-10 and RCS-13	Two conveyors (30 inches wide each)	RCS-6S RCS-8S	Two water sprays installed one each on each conveyor
RCS-11, RCS-12, RCS-14, and RCS-31	Four conveyors (30 inches wide each)	NA	NA
RCS-15	One conveyor (36 inches wide)	RCS-2S	One water spray
RCS-16	One conveyor (36 inches wide)	NA	NA
RCS-17	One conveyor (42 inches wide)	NA	NA
RCS-18, RCS-19, and RCS-20	Three raw material (argillite) storage silos (600 tons storage capacity each with a combined maximum throughput of 350,400 tons per year total raw material (argillite) throughput)	NA	NA
RCS-21	One feed hopper (50 tons maximum capacity)	RCS-1S	One water spray
RCS-22* (NSPS, Subpart OOO)	One conveyor (36 inches wide)	NA	NA
RCS-32 ⁺ (NSPS, Subpart OOO)	One conveyor (30 inches wide)	NA	NA
RCS-33 ⁺ (NSPS, Subpart OOO)	One wet screen (5 feet x 16 feet)	RCS-33S	One water spray
RCS-34 (NSPS, Subpart OOO)	One kiln rock double deck wash screen (5 feet x 16 feet)	RCS-34S	One water spray

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
RCS-35 ⁺ (NSPS, Subpart OOO)	One conveyor (30 inches wide)	RCS-33S	One water spray
RCS-37 (NSPS, Subpart OOO)	One conveyor (30 inches wide)	NA	NA
RCS-36 ⁺ and RCL-1 ⁺ (NSPS, Subpart OOO; both sources)	Two feed hoppers (45 tons maximum capacity each)	NA	NA
RCL-2 ⁺ (NSPS, Subpart OOO)	One conveyor (30 inches wide)	RCL-2S	One water spray
RM	Raw material (argillite) storage areas with a combined total maximum permitted storage capacity of 380,000 tons at any given time	NA	NA
Finishing product, nonmetallic mineral processing operation			
FCS-2	One short head crusher (85 tons per hour maximum crushing capacity)	FCS-6S	One water spray
FCS-3 (NSPS, Subpart OOO)	One short head crusher (85 tons per hour maximum crushing capacity)	FCS-3S	One water spray
FCS-4	One conveyor (18 inches wide)	NA	NA
FCS-5	One conveyor (24 inches wide)	NA	NA
FCS-8 (NSPS, Subpart OOO)	One conveyor (24 inches wide)	NA	NA
FCS-10, FCS-14, and FCS-17	Three conveyors (30 inches wide each)	FCS-2S FCS-8S FCS-4S	Three water sprays installed one each on each conveyor
FCS-11 and FCS-12	Two conveyors (30 inches wide each)	NA	NA
FCS-13 (NSPS, Subpart OOO)	One conveyor (30 inches wide)	NA	NA
FCS-19 and FCS-30 (NSPS, Subpart OOO; both sources)	Two multiple deck screens (5 feet x 16 feet each)	NA	NA
FCS-20 and FCS-29 (NSPS, Subpart OOO; both sources)	Two multiple deck screens (5 feet x 16 feet each)	NA	NA
FCS-22, FCS-23, FCS-24, and FCS-25	Four finished product storage silos (110 tons maximum storage capacity each)	NA	NA
FCS-26 and FCS-27	Two finished product surge hoppers (85 tons maximum storage capacity each)	NA	NA
FCS-28	One finished product loadout bin (525 tons maximum capacity)	NA	NA
FCS-36 (NSPS, Subpart OOO)	One conveyor (30 inches wide)	NA	NA
FCS-38* and FCS-39* (NSPS, Subpart OOO; both sources)	Two belt conveyors (24 inches wide each)	FCS-38S FCS-39S	Two water sprays installed one each on each conveyor
FCS-40* (NSPS, Subpart OOO)	One belt conveyor (24 inches wide)	NA	NA
FCS-41	One feed hopper (24 tons capacity – used for reclaimed clinker)	FCS-1S	One water spray
FCS-42* (NSPS, Subpart OOO)	One belt conveyor (30 inches wide)	NA	NA
FCS-43* (NSPS, Subpart OOO)	One radial stacker conveyor (36 inches wide)	FCS-43S	One water spray
FCS-C1 (NSPS, Subpart OOO)	One conveyor (30 inches wide)	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
FCS-C2, FCS-C3, and FCS-C4 (NSPS, Subpart OOO; all sources)	Three conveyors (30 inches wide each)	FCS-C2S FCS-C3S FCS-C4S	Three water sprays installed one each on each conveyor
FCS-C5	One conveyor (30 inches wide)	NA	NA
FP	Finished product storage areas with a combined total maximum storage capacity of 165,000 tons at any given time	NA	NA
DSC-1	One dust silo (340 tons maximum storage capacity)	DSC-1B DSC-2B	One fabric filter receiver (309 square feet of filter area) installed on storage silo inlet and water sprays installed on screw auger dust unloading system
Portable screening and conveying, nonmetallic mineral processing operation			
PS-1 (NSPS, Subpart OOO)	One portable screener (5 feet x 10 feet)	PS-1S	One water spray
PSC-1 (NSPS, Subpart OOO)	One portable screener feed conveyor (36 inches wide)	PS-1S	One water spray
PSC-2 (NSPS, Subpart OOO)	One portable screener main conveyor (36 inches wide)	PS-1S	One water spray
PSC-3 and PSC-4 (NSPS, Subpart OOO; both sources)	Two portable screener side discharge conveyors (26 inches wide each)	PS-1S	One water spray
PSC-5 (NSPS, Subpart OOO)	One portable screener tail conveyor (32 inches wide)	PS-1S	One water spray
PSG-1	One portable screener diesel engine (76 hp capacity)	NA	NA
PSH-1 (NSPS, Subpart OOO)	One portable screener feed hopper (550 tons per hour maximum capacity)	PS-1S	One water spray
Portable riprap screening and conveying, nonmetallic mineral processing, operation			
RPCS-F70	One grizzly feeder	RS-70	One water spray
RPCS-F71 (NSPS, Subpart OOO)	One portable screener conveyor (36 inches wide)	RS-71	One water spray
RPCS-N72	One portable screener diesel engine (130 hp capacity)	NA	NA
RPCS-F73 (NSPS, Subpart OOO)	One portable screener conveyor (42 inches wide)	RS-73	One water spray
Coal handling and storage equipment			
CCB-1	One coal conveyor belt	NA	NA
CCB-2 and CCB-3	Two kiln coal conveyor belts (30 inches wide each)	NA	NA
CCH-1	One railcar unloading hopper (85 tons per hour choke type)	NA	NA
CCH-2	One kiln feed coal hopper (100 tons per hour capacity)	NA	NA
CCS	Coal storage areas with a combined maximum permitted capacity of 25,000 tons at any given time	NA	NA

Lightweight aggregate kilns and associated air pollution control equipment			
ES-7	<p>One lightweight aggregate rotary expansion kiln with clinker cooler (20 tons per hour of crushed argillite maximum permitted capacity) fired with coal, No. 2 fuel oil including recycled No. 2 fuel oil, natural gas or non-RCRA regulated waste fuel¹ (96.7² million Btu per hour permitted heat input)</p> <p>¹[The non-RCRA regulated waste fuel is any fuel that meets the requirements of Section 2.2 C.1.f.] ²[This is a facility-wide cap, which represents the combined heat input to both kilns; ID Nos. ES-7 and ES-8]</p>	CD-7B	One reverse air bagfilter (29,154 square feet of filter area) with evaporative cooling and bleed-in air flue gas cooling system and a flue gas desulfurizing process consisting of lime slurry injection system (600 gallons per hour injection rate)
ES-8 (NSPS, Subpart UUU)	<p>One lightweight aggregate rotary expansion kiln with clinker cooler (40 tons per hour of crushed argillite maximum permitted capacity), fired with coal, No. 2 fuel oil including recycled No. 2 fuel oil, natural gas or non-RCRA regulated waste fuel¹ (96.7² million Btu per hour permitted heat input)</p> <p>¹[The non-RCRA regulated waste fuel is any fuel that meets the requirements of Section 2.2 C.1.f.] ²[This is a facility-wide cap, which represents the combined heat input to both kilns; ID Nos. ES-7 and ES-8]</p>	CD-8B	One reverse air bagfilter (34,984 square feet of filter area) with evaporative cooling and bleed-in air flue gas cooling system and a flue gas desulfurizing process consisting of lime slurry injection system (600 gallons per hour injection rate)
ES-LS1	One hydrated lime storage silo (31.25 tons storage capacity) supplying lime to a dual-feed lime injection system	CD-7B or CD-8B	Two reverse air bagfilters (29,154 and 34,984 square feet of filter area, respectively) with evaporative cooling and bleed-in air flue gas cooling system and a flue gas desulfurizing process consisting of lime slurry injection system (600 gallons per hour injection rate each)
ST1, ST2, and ST3	Three 10,000 gallons capacity each storage tanks storing non-RCRA regulated waste fuels	NA	NA
ST4, ST5, and ST6	Three 20,000 gallons capacity each storage tanks storing non-RCRA regulated waste fuels	NA	NA
PMPHSE	One fuel pump house with associated pumps and piping	NA	NA

* May be constructed in future

+ This emission source can process both raw material and finished product

Note. The Permittee may install additional water sprays at the facility, as needed, without modifying the permit.

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

- A. **Raw material, nonmetallic mineral processing operations (ID Nos. RCS-1 through RCS-37, RM, RCL-1, and RCL-2) with associated water sprays (ID Nos. RCS-1S through RCS-8S, RCS-33S, RCS-34S, and RCL-2S) as described above**

Finishing product, nonmetallic mineral processing operations (FCS-2 through FCS-5, FCS-8, FCS-10 through FCS-14, FCS-17, FCS-19, FCS-20, FCS-22 through FCS-30, FCS-36, FCS-38 through FCS-43, FCS-C1 through FCS-C5, FP, and DSC-1) with associated water sprays (ID Nos. FCS-1S through FCS-4S, FCS-6S, FCS-8S, FCS-38S, FCS-39S, FCS-43S, FCS-C2S, FCS-C3S, FCS-C4S, and DSC-2B) and bagfilter (ID No. DSC-1B) as described above

Portable screening and conveying, nonmetallic mineral processing operation (ID No. PS-1, PSC-1 through PSC-5, and PSH-1) with associated water spray (ID No. PS-1S), and One portable screener diesel engine (ID No. PSG-1)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(ID Nos. RCS-1 through RCS-3B, FCS-2, and FCS-3) Crushers shall be equipped with wet suppression control	15A NCAC 2D .0511
Particulate matter	(ID No. DSC-1) $E = 4.10 \times P^{0.67}$ Where E=allowable emission rate in pounds per hour P=process weight rate in tons per hour	15A NCAC 2D .0515
Sulfur dioxide	(ID No. PSG-1 only) 2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	(RCS-2, RCS-6 through RCS-21, RCS-23 through RCS-31, RM, FCS-2, FCS-4, FCS-10, FCS-12, FCS-14, FCS-17, FCS-22 through FCS-25, FCS-27, FCS-41, PSG-1, and FP) 40 percent opacity (FCS-5, FCS-11, FCS-26, FCS-28, FCS-C5, and DSC-1) 20 percent opacity	15A NCAC 2D .0521

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	<p>(RCS-1 and RCS-3B) 15 percent opacity</p> <p>(RCS-4, RCS-5, RCS-22, RCS-35, RCS-36, RCL-1, RCL-2, FCS-3, FCS-8, FCS-13, FCS-19, FCS-20, FCS-29, FCS-30, FCS-36, FCS-38 through FCS-40, FCS-42, FCS-43, FCS-C1 through FCS-C4, PS-1, PSC-1 through PSC-5, and PSH-1) 10 percent opacity</p> <p>(RCS-32 through RCS-34 and RCS-37) 0 percent opacity</p> <p>(ID No. RCS-3B only) Reporting and Recordkeeping [40 CFR 60.676(a)]</p>	15A NCAC 2D .0524 (40 CFR 60, Subpart 000)
Fugitive non-process dust emissions	See Section 2.2 A	15A NCAC 2D .0540
Particulate matter	See Section 2.2 B	15A NCAC 2D .0501(e)
Toxic air pollutants	State enforceable only See Section 2.2 C	15A NCAC 2D .1100

1. 15A NCAC 2D .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 the crushers **(ID Nos. RCS-1, RCS-2, RCS-3B, FCS-2, and FCS-3)** with wet suppression **(ID Nos. RCS-1S, RCS-4S, RCS-5S, FCS-6S, and FCS-3S)** as described above in the equipment table.
- c. The Permittee shall control emissions from conveyors, screens, and transfer points, such that the applicable opacity standards are not exceeded.

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

- d. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. **If the results of this test are above the limit given in Sections 2.1 A.1.a-c above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0511.**

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

- e. To assure compliance, once a day, the Permittee shall observe the wet suppression systems **(ID Nos. RCS-1S, RCS-4S, RCS-5S, FCS-6S, and FCS-3S)** installed on the crushers **(ID Nos. RCS-1, RCS-2, RCS-3B, FCS-2, and FCS-3)** for proper operation. **The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement.** If the observations are not performed, crushers with malfunctioning wet suppression systems are not immediately shut down or malfunctioning wet suppression systems are not repaired within 24 hours, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0511.

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

- f. 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 2D .0511 if these records are not maintained.

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

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

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

- a. Emissions of particulate matter from **this source (ID No. DSC-1)** shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

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

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

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

Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with **15A NCAC 2D .0501(c)(3) and** 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 2D .0515.

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

- c. Particulate matter emissions from **this source (ID No. DSC-1)** shall be controlled by **one** bagfilter (**ID No. DSC-1B**) **installed on the inlet and water spray (ID No. DSC-2B) on the screw auger dust unloading system.** To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there **are** no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual **(for each 12 month period following the initial inspection)** internal inspection of the bagfilter's structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and bagfilter (**ID No. DSC-1B**) are not inspected and maintained.
- d. The results of the inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the bagfilter (**ID No. DSC-1B**); and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- e. **The Permittee shall submit the results of any maintenance performed on the bagfilter (ID No. DSC-1) within 30 days of a written request by the DAQ.**

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

3. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from this source (**ID No. PSG-1**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of diesel fuel in this source (**ID No. PSG-1**).

4. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISIONS

- a. Visible emissions from **these** sources (**ID Nos. FCS-5, FCS-11, FCS-26, FCS-28, FCS-C5, and DSC-1**) 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. RCS-2, RCS-6 through RCS-21, RCS-23 through RCS-31, RM, FCS-2, FCS-4, FCS-10, FCS-12, FCS-14, FCS-17, FCS-22 through FCS-25, FCS-27, FCS-41, PSG-1, and FP**) 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 2D .0501(c)(8)]

- c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.4.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- d. To assure compliance, once a week the Permittee shall observe **the emission points of these sources (ID Nos. RCS-2, RCS-6 through RCS-21, RCS-23 through RCS-31, RM, FCS-2, FCS-4, FCS-5, FCS-10, FCS-11, FCS-12, FCS-14, FCS-17, FCS-22 through FCS-28, FCS-41, FCS-C5, DCS-1, PSG-1, and FP)** for any visible emissions above normal. The weekly observation must be made for each of the calendar year periods to ensure compliance with this requirement. If visible emissions from these sources (**ID Nos. RCS-2, RCS-6 through RCS-21, RCS-23 through RCS-31, RM, FCS-2, FCS-4, FCS-5, FCS-10, FCS-11, FCS-12, FCS-14, FCS-17, FCS-22 through FCS-28, FCS-41, FCS-C5, DCS-1, PSG-1, and FP**) 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 sources (**ID Nos. RCS-2, RCS-6 through RCS-21, RCS-23 through RCS-31, RM, FCS-2, FCS-4, FCS-5, FCS-10, FCS-11, FCS-12, FCS-14, FCS-17, FCS-22 through FCS-28, FCS-41, FCS-C5, DCS-1, PSG-1, and FP**) in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 A.4.a or b 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 2D .0521.

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

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

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

5. 15A NCAC 2D .0524: NSPS 40 CFR PART 60 SUBPART OOO

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR Part 60 Subpart OOO, including Subpart A “General Provisions.”

Emission Limitations [15A NCAC 2D .0524]

- b. Visible emissions from **these sources (ID Nos. RCS-1 and RCS-3B)** shall not be more than 15 percent opacity.
- c. Visible emissions from these sources **(ID Nos. RCS-4, RCS-5, RCS-22, RCS-35, RCS-36, RCL-1, RCL-2, FCS-3, FCS-8, FCS-13, FCS-19, FCS-20, FCS-29, FCS-30, FCS-36, FCS-38 through FCS-40, FCS-42, FCS-43, FCS-C1 through FCS-C4, PS-1, PSC-1 through PSC-5, and PSH-1)**¹ shall not be more than 10 percent opacity each.
- d. Visible emissions these sources **(ID Nos. RCS-32 through RCS-34 and RCS-37)** shall not be more than 0 percent opacity **each**.

¹Visible emissions due to physical dumping (such as using trucks, front end loaders, rail cars, etc.) of raw materials or finished products into the feed hoppers **(ID Nos. RCS-36, RCL-1, and PSH-1)** are not subject to this opacity limit, as per 40 CFR Subpart OOO. However, feed hoppers **(ID Nos. RCS-36, RCL-1, and PSH-1)** themselves are subject to this standard.

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

- e. If emissions testing is required, the testing shall be performed in accordance with **15A NCAC 2D .0501(c)(8) and General Condition JJ**. If the results of this test are above the limit given in Section **2.1 A.5.b through d** above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.
- f. Per 40 CFR 60.675(b)(2), the Permittee shall determine compliance with the opacity standard in Section **2.1 A.5.b** above, for **this source (ID No. RCS-3B)** using Method 9 and the procedures in 40 CFR 60.11. Specifically, the Permittee shall demonstrate initial compliance with the opacity standard within 60 days after achieving the maximum production rate at which **this source (ID No. RCS-3B)** will be operated but no later than 180 days after initial startup of **this source (ID No. RCS-3B)**.

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

- g. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. RCS-1, RCS-3B, RCS-4, RCS-5, RCS-22, RCS-32 through RCS-37, RCL-1, RCL-2, FCS-3, FCS-8, FCS-13, FCS-19, FCS-20, FCS-29, FCS-30, FCS-36, FCS-38 through FCS-40, FCS-42, FCS-43, FCS-C1 through FCS-C4, PS-1, PSC-1 through PSC-5, and PSH-1**) for any visible emissions above normal. The weekly observation must be made for each of the calendar year periods to ensure compliance with this requirement. If visible emissions from these sources (**ID Nos. RCS-1, RCS-3B, RCS-4, RCS-5, RCS-22, RCS-32 through RCS-37, RCL-1, RCL-2, FCS-3, FCS-8, FCS-13, FCS-19, FCS-20, FCS-29, FCS-30, FCS-36, FCS-38 through FCS-40, FCS-42, FCS-43, FCS-C1 through FCS-C4, PS-1, PSC-1 through PSC-5, and PSH-1**) 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 2D .0501(c)(8) is below the limit given in Section 2.1 B.5.b through d 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 2D .0524.

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

- h. 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 with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.
 The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

Reporting [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0524]

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

B. Two lightweight aggregate kilns including clinker coolers (ID Nos. ES-7 and ES-8) with associated bagfilters (ID Nos. CD-7B and CD-8B)

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

Regulated 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	15A NCAC 2D .0511
Sulfur dioxide	2.3 pounds per million Btu (combined emissions from combustion of fuel and aggregate)	15A NCAC 2D .0516
Visible emissions	(ID No. ES-7 only) 40 percent opacity	15A NCAC 2D .0521
Particulate matter	(ID No. ES-8 only) 0.092 gm/dscm [0.04 gr/dscf] 10 percent opacity	15A NCAC 2D .0524 (40 CFR 60, Subpart UUU)
Malfunction abatement plan	(ID No. ES-7 only) As defined in specific conditions	15A NCAC 2D .0535
Particulate matter Sulfur dioxide	Compliance Assurance Monitoring	15A NCAC 2D .0614

Regulated Pollutant	Limits/Standards	Applicable Regulation
Nitrogen oxides	(ID Nos. ES-7 and ES-8) 416 tons per any consecutive 12-month period (ID No. ES-8 only) 135.4 tons per any consecutive 12-month period	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	(ID No. ES-8 only) 343.2 tons per any consecutive 12-month period	15A NCAC 2Q .0317 (PSD Avoidance)
Particulate matter	(ID No. ES-8 only) 36.8 tons per any consecutive 12-month period	15A NCAC 2Q .0317 (PSD Avoidance)
PM ₁₀	(ID No. ES-8 only) 26.8 tons per any consecutive 12-month period	15A NCAC 2Q .0317 (PSD Avoidance)
Fugitive non-process dust emissions	See Section 2.2 A	15A NCAC 2D .0540
Particulate matter and sulfur dioxide	See Section 2.2 B	15A NCAC 2D .0501(e)
Toxic air pollutant emissions	State-enforceable only See Section 2.2 C	15A NCAC 2D .1100

1. 15A NCAC 2D .0511: PARTICULATES FROM LIGHTWEIGHT AGGREGATE PROCESSES

- a. Particulate matter from any stack serving **these sources (ID Nos. ES-7 and ES-8)** shall be reduced by at least 95 percent by weight before being discharged to the atmosphere. The 95 percent reduction shall be by air pollution control devices. [15A NCAC 2D .0511]

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ. If the results of this test are below the percent reduction requirement given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0511.
- c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the percent reduction requirements above by testing **each** bagfilter **(ID Nos. CD-7B and CD-8B)** for particulate matter removal efficiency in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 – General Condition JJ. Testing shall be completed by **[date two years from permit issuance], one per year**, of issuance of permit unless an alternative date is approved by the DAQ. If the test results indicate that the particulate matter emission control efficiency is greater than or equal to 99%, the Permittee is not required to perform the additional testing on any kiln for particulate matter emission control efficiency for the remaining duration of the permit, otherwise the Permittee shall perform testing for particulate matter emission control efficiency on these bagfilters **(ID Nos. CD-7B and CD-8B)** once every year for the remaining duration of the permit. If the results of any test are below the percent reduction requirement given in Section 2.1 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0511.

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

- d. Particulate matter emissions from **these sources (ID Nos. ES-7 and ES-8)** shall be controlled by **bagfilters (ID Nos. CD-7B and CD-8B) as described above**. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer’s inspection and maintenance recommendations, or if there **are** no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
 - i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual **(for each 12 month period following the initial inspection)** internal inspection of the bagfilters’ **(ID Nos. CD-7B and CD-8B)** structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0511 if these requirements are not met.
- e. The results of inspection and maintenance activities 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 **(ID Nos. CD-7B and CD-8B)**; and
- iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0511 if these records are not maintained.

- f. The maximum temperature of the flue gas entering each bagfilter **(ID Nos. CD-7B and CD-8B)** shall not exceed 450°F measured as a 15-minute rolling average. The temperature at the inlet of each bagfilter **(ID Nos. CD-7B and CD-8B)** shall be monitored and recorded continuously. Audible and/or visual high temperature alarms with a set point at or below 450°F shall be installed and maintained. In the event that the temperature exceeds 450°F (even if the set point may be below this value), the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0511.
- g. The pressure drop across each bagfilter **(ID Nos. CD-7B and CD-8B)** shall not be less than one nor more than nine inches of water gauge (WG) measured as a 15-minute rolling average. The pressure drop across each bagfilter **(ID Nos. CD-7B and CD-8B)** shall be monitored and recorded continuously. Audible and/or visual alarms with set points at or above one and at or below 9 inches WG shall be installed and maintained. In the event that the pressure drop falls outside the prescribed range, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0511, if the Permittee does not take immediate action as stated in the Malfunction Abatement Plan to include shutting down the kiln **(ID Nos. ES-7 and ES-8)** and to record that such action was taken. Failure to take immediate corrective action and to record that such action was taken shall not be considered a malfunction unless it can comply with the requirements of 15A NCAC 2D .0535.
- h. Each kiln **(ID Nos. ES-7 and ES-8)** shall be operated such that a negative (-) pressure, based on a 15-minute rolling average of each minute of operation, is maintained at each kiln when firing any non-RCRA regulated waste fuel including recycled No. 2 fuel oil. Instrumentation shall be capable of and calibrated to measure and record a minimum operating pressure reading range of at least minus (-) 0.1 to positive (+) 1.0 inches of WG. Instrumentation calibration shall be maintained in accordance with the manufacturer's recommended calibration procedures and operating specifications. Operation of the kiln negative operating pressure requirement shall be in accordance with the following requirements:
 - i. the Permittee shall install and operate a kiln operating pressure monitoring and recording system. The operating pressure of each kiln **(ID Nos. ES-7 and ES-8)** shall be recorded for each minute of kiln operation during fuel combustion operations. The kiln breach operating pressure alarm settings for all fuel combustion shall be set at minus (-) 0.1 inches WG. The operating negative pressure above this limit shall trigger a non-continuous alarm to alert the kiln operator that the kiln negative operating pressure is at a level conducive to allowing fugitive emissions to occur at the kiln inlet and seals and that corrective actions as specified in the kiln standard operating procedures (SOP) manual shall be initiated. These corrective measures may include, but shall not be limited to cutoff of the raw material feed and automatic shut-off and any non-RCRA regulated waste fuel to kiln, combustion of a cleaner fuel, or cutoff of fuels, within conditions of safety, to the kiln;
 - ii. the Permittee shall maintain records of each continuous alarm event and the corrective actions taken. Failure to take immediate corrective action or to record that such action was taken shall be considered a violation of the permit. Each failure to follow the standard operating procedures manual for corrective actions regarding the kiln negative (-) operating pressure alarm requirements shall be considered a violation of the air permit and shall not be considered a malfunction unless meeting the requirements of 15A NCAC 2D .0535;
 - iii. each violation of a kiln negative (-) operating pressure requirement shall be reported, in writing, to the Regional Supervisor within 72 hours of its occurrence, only if the Permittee does not follow the kiln SOP manual for corrective action for each violation of a negative operating pressure and the corrective actions are not implemented in accordance with the kiln SOP manual. Each report shall include the kiln ID number, the type of fuel being combusted, the duration of the violation, the corrective actions taken, and the recorded kiln operating pressures for each hour the kiln operated in violation of this permit requirement.

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

- i. The Permittee shall submit the results of any maintenance performed on the bagfilters (**ID Nos. CD-7B and CD-8B**) within 30 days of a written request by the DAQ.
- j. The Permittee shall submit a summary report of monitoring and recordkeeping activities **postmarked on or before** January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.
- k. The Permittee shall report the minimum kiln operating pressure as recorded under the requirements of Section 2.1 B.1.h above for each kiln (**ID Nos. ES-7 and ES-8**) **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.
- l. Each violation of the kilns negative (-) operating pressure requirement shall be reported, in writing, to the Regional Supervisor within 72 hours of its occurrence. Each report shall include the kiln ID number, the type of fuel being combusted, the duration of the violation, the corrective actions taken, and the recorded kiln operating pressures for each hour the kiln operated in violation of this permit requirement.

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

- a. Emissions of sulfur dioxide from **these sources (ID Nos. ES-7 and ES-8)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

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

- b. If emissions testing is required, the testing shall be performed in accordance with **15A NCAC 2D .0501(c)(4) and 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 2D .0516.

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

- c. To assure compliance, the Permittee shall have installed on the exhaust stack of each kiln (**ID Nos. ES-7 and ES-8**) a sulfur dioxide continuous emissions monitoring (CEM) system including any required diluent monitor system. The CEM shall be constructed, installed and operated in accordance with the following requirements:
 - i. the CEM systems 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 and any written manufacturers specifications or recommendations as approved by the Division in the Quality Assurance Plan (QAP). A CEM system that simultaneously serves more than one stack shall meet the requirements of Appendices B and F and the QAP for the multiple stacks operating mode;
 - ii. **compliance with the sulfur dioxide emission standard shall be demonstrated based on a three hour rolling average of the sulfur dioxide exhaust gas concentration measured by the CEM systems. If any 3-hour block average exceeds 2.3 pounds per million BTU heat input, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.**
 - iii. the dry lime injection system and/or lime slurry injection system shall be properly maintained and operated as necessary to comply with the emission limit of Section 2.1 B.2.a. A visible or an audible warning system shall be installed on the CEM system. The CEM system shall alert the Permittee as to when CEM readings are 90% of the sulfur dioxide emission rate as included in Section 2.1 B.2.a. In the event that a visible or audible warning system is not installed on the CEM system or becomes not functional, the Permittee shall repair the alarm system within 24 hours or the Permittee shall be deemed in noncompliance with the requirements of Section 2.1 B.2.a. Failure of the dry lime injection system and lime slurry system to control sulfur dioxide emissions to levels below the emission limit, as stated in Section 2.1 B.2.c.ii above, shall require the following actions:
 - A. coal to the kiln (**ID Nos. ES-7 and ES-8**) shall immediately be shut-off and the kiln (**ID Nos. ES-7 and ES-8**) switched to No. 2 fuel oil including recycled No. 2 oil or **natural gas**;

- B. the Permittee shall reduce kiln (**ID Nos. ES-7 and ES-8**) operations and standard fuel combustion as necessary to maintain compliance with the emission limitations and permit requirements for sulfur dioxide until such time as the failed lime injection or lime slurry injection system is properly operating;
- C. the Permittee shall maintain a written record containing the date, time of lime injection system failure and or lime slurry injection system failure, kiln and bagfilter number, the corrective actions or repairs necessary to enable proper operation of the lime injection system and or lime slurry injection system, the amount of time the lime injection system and or lime slurry injection system were off-line, and the sulfur dioxide emissions in pounds per million Btu heat input as recorded during the time the lime injection system and or lime slurry injection system were not operational. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if these records are not maintained.

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

- d. The Permittee shall submit a sulfur dioxide emissions report containing a summary of the three-hour rolling averages and maximum sulfur dioxide emissions, and a CEM performance report as required by the QAP postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The form and content of the report shall be in accordance with the guidelines set forth in 40 CFR 60.7(d). All instances of deviations from the requirements of this permit must be clearly identified. The reports and any revised QAP information shall be submitted to the Division of Air Quality, Technical Services Section, Stationary Source Compliance Branch, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641.
- e. The Permittee shall submit any excess sulfur dioxide emission reports as measured by the continuous emission monitor 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. If there are no excess emissions, the Permittee shall submit a report stating that no excess emissions occurred during the semiannual reporting period.
- f. These monitors 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:

$$\%MD = [(Total\ Monitor\ Downtime^*) / (Total\ Source\ Operating\ Time^{**})] \times 100$$

* 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 quarterly report as such.

** If a source operates less than 2200 hours during any quarter, the source may calculate the %MD using all operating data for the current and the preceding quarters until 2200 hours of data are obtained.

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from this source (**ID No. ES-7**) 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 a 24-hour period. In no event shall the six-minute average exceed 90 percent opacity. [15A NCAC 2D .0521(c)]

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

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

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of this source (**ID No. ES-7**) for any visible emissions above normal. The weekly observation must be made for each of the calendar year periods to ensure compliance with this requirement. If visible emissions from this source (**ID No. ES-7**) 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 this emission source (**ID No. ES-7**) in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 B.3.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 2D .0521.

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

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

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

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

4. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. For **this source (ID No. ES-8)**, the Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 “New Source Performance Standards (NSPS)” as promulgated in 40 CFR Part 60 Subpart UUU, including Subpart A, “General Provisions.” [15A NCAC 2D .0524]

Emission Limitations [15A NCAC 2D .0524]

- b. Particulate matter emissions from **this source (ID No. ES-8)** shall not exceed 0.092 gm/dscm [0.04 gr/dscf].
- c. Visible emissions from **this source (ID No. ES-8)** shall not exceed 10 percent opacity.

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

- d. If emissions testing is required, the testing shall be performed in accordance with **15A NCAC 2D .0501(c)(8) and** General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.4.b or c above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- e. To assure compliance with the emission limit in Section 2.1 B.4.c above, once a week the Permittee shall observe the emission points of this source (**ID No. ES-8**) for any visible emissions above normal. The weekly observation must be made for each of the calendar year periods to ensure compliance with this requirement. If visible emissions from this source (**ID No. ES-8**) 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-8**) in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 B.4.c 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 2D .0524.
- f. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.
- g. For kiln (**ID No. ES-8**), the monitoring/recordkeeping requirements in Section 2.1 B.1.e and f above shall be sufficient to assure compliance with the particulate matter emission limit of Section 2.1 B.4.b above. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the monitoring/recordkeeping requirements in Section 2.1 B.1.e and f above are not complied with.

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

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

**5. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid applicability of 15A NCAC 2D .0530(g), **these sources (ID Nos. ES-7 and ES-8)** shall discharge into the atmosphere combined total nitrogen oxides emissions not to exceed 416 tons per any consecutive 12-month period. To ensure emissions of nitrogen oxides do not exceed the limitation above, the following restrictions shall apply:
 - i. the combined heat input to **these sources (ID Nos. ES-7 and ES-8)** shall not exceed 96.7 million Btu per hour.
 - ii. the total coal burned in **these sources (ID Nos. ES-7 and ES-8)** shall not exceed 32,157 tons per any consecutive 12-month period.
- b. In order to avoid the applicability of 15A NCAC 2D .0530(g), **this source (ID No. ES-8)** shall discharge into the atmosphere nitrogen oxides emissions not to exceed 135.4 tons per any consecutive 12-month period. To ensure emissions of nitrogen oxides do not exceed the limitation above, the heat input to **this source (ID No. ES-8)** shall not exceed 439,096 million Btu per any consecutive 12-month period.
- c. In order to avoid the applicability of 15A NCAC 2D .0530(g), **this source (ID No. ES-8)** shall discharge into the atmosphere sulfur dioxide emissions not to exceed 343.2 tons per any consecutive 12-month period. To ensure emissions of sulfur dioxide do not exceed the limitation above, the heat input to **this source (ID No. ES-8)** shall not exceed 439,096 million Btu per any consecutive 12-month period.
- d. In order to avoid the applicability of 15A NCAC 2D .0530(g), **this source (ID No. ES-8)** shall discharge into the atmosphere particulate matter emissions not to exceed 36.8 tons per any consecutive 12-month period. To ensure emissions of particulate matter do not exceed the limitation above, the maximum amount of raw materials (argillite) processed in **this source (ID No. ES-8)** shall not exceed 236,074 tons per any consecutive 12-month period.
- e. In order to avoid the applicability of 15A NCAC 2D .0530(g), **this source (ID No. ES-8)** shall discharge into the atmosphere PM₁₀ emissions not to exceed 26.8 tons per any consecutive 12-month period. To ensure emissions of PM₁₀ do not exceed the limitation above, the maximum amount of raw materials (argillite) processed in **this source (ID No. ES-8)** shall not exceed 236,074 tons per any consecutive 12-month period.

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

- f. 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.5.a through e above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- g. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits given in Section 2.1 B.5.a and b above by testing one of these sources² (**ID Nos. ES-7 and ES-8**) while combusting each fuel currently in use by the facility or within 6 months of utilizing a fuel that has not been included in testing within the previous 12 month period: coal, non-RCRA regulated waste fuel, recycled No. 2 oil, and natural gas, each year for the nitrogen oxides in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 – General Condition JJ. Testing shall commence within one year of issuance of the permit unless an alternate date is approved by the DAQ. For the first stack test event, the Permittee shall demonstrate compliance with the limits given in Section 2.1 B.5.a and b by using the higher of the emission factor for nitrogen oxides, derived through the stack test or the value given in Section 2.1 B.5.j³. The emission factor for nitrogen oxides used in the demonstration of compliance with the Section 2.1 B.5.a and b for the first compliance demonstration shall be used for comparison with the emission factor observed for the next stack test event, and higher of the value of emission factor for nitrogen oxides shall be used to demonstrate compliance with the limits given in Section 2.1 B.5.a and b. The Permittee shall follow the above procedures for all remaining stack test events. If the results of any tests are above the limits given in Section 2.1 B.5.a and b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

² The Permittee shall test one different source (**ID Nos. ES-7 and ES-8**) every year.

³ The Permittee shall develop the emission factor for nitrogen oxides emission rate of the sources (**ID Nos. ES-7 and ES-8**), while firing non-RCRA regulated waste fuel, during the first stack event (as the emission factor for this fuel has not yet been established as per the limits included in Section 2.1 B.5.j. This emission factor shall be used for the comparison with the emission factor observed during the next annual stack test event to obtain the higher emission factor for demonstration of compliance with the limits given in Section 2.1 B.5.a and b, while combusting with non-RCRA regulated waste fuel.

- h. The Permittee shall demonstrate compliance with the facility wide (**ID Nos. ES-7 and ES-8**) total heat input rate and heat input rate to kiln (**ID No. ES-8**) given in Section 2.1 B.5.a through e above by using any of the following options:
 - i. performing F-factor heat input calculations (as detailed in Solite's June 29, 2000 proposal letter, Roberts to Landis), or
 - ii. monitoring heat input to the kiln using measured fuel heat content (either direct analysis or vendor certifications) and a flow device (for instance, mass flow meters for liquid fuels, belt scales or auger meters for coal, etc.) as approved by the DAQ.
 - A. for coal feeds under this option, the Permittee may use a monthly average (no less frequent) coal heat value obtained from individual coal shipments received at the facility. The calculated average shall be a weighted average based on the weight of each coal shipment.
 - B. for liquid waste fuels under this option, the Permittee shall determine the Btu value of each burn tank (or tanker truck) prior to its use as a kiln fuel. This value may be obtained from direct laboratory measurement on the blended burn tank (or tanker) of a calculation of the blended fuel using individual shipment Btu values (obtained from direct measurement or vendor certifications).
- i. If the results of any calculations or estimation (of facility wide (**ID Nos. ES-7 and ES-8**) heat input or heat input to kiln (**ID No. ES-8**)) indicate that the facility wide total heat input to all kilns (**ID Nos. ES-7 and ES-8**) or heat input to kiln (**ID No. ES-8**) exceed the limits given in Section 2.1 B.5.a through e above, and if the Permittee does not take immediate action as stated in the Malfunction Abatement Plan to include shutting down the kiln and to record that such action was taken, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530. Failure to take immediate corrective action and to record that such action was taken shall not be considered a malfunction unless it can comply with the requirements of 15A NCAC 2D .0535.

- j. The Permittee may demonstrate compliance with the nitrogen oxides limit for the kiln (**ID No. ES-8**) in Section 2.1 B.5.b above, by installing a CEM on the kiln (**ID No. ES-8**) stack, instead of the procedure included in this Section (i.e., using heat input calculations). For nitrogen oxides CEM, the Permittee shall comply with the requirements of Section 2.1 B.2.c.i and Section 2.1 B.2.d through f, as applicable.
- k. The Permittee may demonstrate compliance with the sulfur dioxide limit for the kiln (**ID No. ES-8**) in Section 2.1 B.5.c above, by using the procedure included in Section 2.1 B.2.c (i.e., using sulfur dioxide CEM), instead of the procedure included in this Section (i.e., using heat input calculations). For sulfur dioxide CEM, the Permittee shall comply with the requirements of Section 2.1 B.2.c through f as applicable.
- l. The Permittee shall demonstrate compliance with the raw materials (argillite) processing limitation for the kiln (**ID No. ES-8**) in Section 2.1 B.5.d. and e above, by recording the weight of argillite, by conveyor weight scale for all raw materials conveyed to the kiln (**ID No. ES-8**). Kiln production tonnage losses due to conveyor spillage and which do not enter the kiln may be deducted from the kiln production tonnage limitation only after the spillage weight is documented by weigh scale and properly recorded in the kiln production records. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.

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

- m. The Permittee shall maintain monthly records (written or in electronic format) of coal, fuel oil, natural gas, and non-RCRA regulated waste fuel, combusted in the kilns and nitrogen oxides emissions using the emission factors; 1.0 pounds per million Btu for coal, and 0.14 pounds per million Btu for oil and natural gas, and the emission factor as developed in Section 2.1 B.5.f for non-RCRA regulated waste fuel. The Permittee shall also maintain facility wide heat input calculations, associated measurements, and analytical results. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the above records are not maintained.

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

- n. The Permittee shall submit a summary report of monitoring and recordkeeping activities **postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June.** The report shall contain the following:
 - i. the monthly nitrogen oxides emissions for **these sources (ID Nos. ES-7 and ES-8)**, and sulfur dioxide, particulate matter and PM₁₀ emissions for **this source (ID No. ES-8)** for the previous **17** months. The emissions for each of these pollutants must be calculated for each of the 12-month periods over the previous **17** months;
 - ii. the monthly quantities of coal, oil, natural gas, and non-RCRA regulated waste fuel combusted for the previous **17** months;
 - iii. the monthly facility wide heat input calculations, measurements, and analytical results;
 - iv. the facility wide total tons of raw materials (argillite) processed for **this source (ID No. ES-8)** for the previous **17** months. The raw materials (argillite) processing shall be reported for each of the 12-month periods over the previous **17** months; and
 - v. all instances of deviations from the requirements of this permit must be clearly identified.

6. 15A NCAC 2D .0614: COMPLIANCE ASSURANCE MONITORING

- a. Per 40 CFR 64 and 15A NCAC 2D .0614, the Permittee shall comply with the following.
- b. **Background**
 - i. **Emission Unit.**
 - (A) Description. One 20 ton per hour lightweight aggregate kiln with clinker cooler, and One 40 ton per hour lightweight aggregate kiln with clinker cooler
 - (B) Identification. **ID Nos. ES-7 and ES-8**, respectively
 - ii. **Applicable Regulation, Emission Limit, and Monitoring Requirements.**
 - (A) Regulation and associated emission limits:
 - 1. 15A NCAC 2D .0511 – particulate matter emissions shall be reduced by at least 95% by weight by the bagfilters

2. 15A NCAC 2D .0516 – sulfur dioxide emissions shall be less than 2.3 pounds per million Btu (combined emissions from combustion of fuel and aggregate)
 3. 15A NCAC 2D .0521 – visible emissions from **ES-7** shall be less than 40%
 4. 15A NCAC 2D .0524 – particulate matter emissions from **ES-8** shall be less than 0.092 gm/dscf (0.04 gr/dscf)
 5. 15A NCAC 2D .0524 – visible emissions from **ES-8** shall be less than 10%
 6. 15A NCAC 2Q .0317 – sulfur dioxide emissions from **ES-8** shall be less than 343.2 tons per any consecutive 12-month period
 7. 15A NCAC 2Q .0317 – particulate matter emissions from **ES-8** shall be less than 36.8 tons per any consecutive 12-month period
 8. 15A NCAC 2Q .0317 – PM₁₀ emissions from **ES-8** shall be less than 26.8 tons per any consecutive 12-month period
 9. 15A NCAC 2D .0501(e) – Particulate matter and sulfur dioxide emissions shall be less than the national ambient air quality standards.
- (B) Control Technology. Two bagfilters (29,154 and 34,984 square feet of filter area; **ID Nos. CD-7B and CD-8B**, respectively)

c. **Monitoring Approach.** The key elements of the monitoring approach for particulate matter and sulfur dioxide, including parameters to be monitored, parameter ranges and performance criteria are presented in the following table. The selected performance indicators are the pressure drops across the bagfilter, visible emissions, and mass sulfur dioxide emission rate.

	PM₁₀ Indicator 1	PM₁₀ Indicator 2	SO₂ Indicator
I. Indicator	Visible emissions	Pressure drop	SO ₂ mass emission rate
Measurement Approach	Visible emissions from the fabric filter will be monitored daily using EPA Reference Method 22-like procedures	Pressure drop across the fabric filter is continuously measured with a differential pressure gauge	SO ₂ emissions are monitored continuously with CEMs on each source.
II. Indicator Range	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection and corrective action.	An excursion is defined as a pressure drop outside the normal operating range of 1 to 9 inches of water. Excursions trigger an inspection and corrective action.	An excursion is defined as SO ₂ emissions greater than the 2.3 pounds per million Btu emission limit for each source. Excursions trigger an inspection and corrective action.
QIP Threshold	The QIP threshold is five excursions in a 6-month period.	None selected.	None selected.

	PM₁₀ Indicator 1	PM₁₀ Indicator 2	SO₂ Indicator
III. Performance Criteria			
A. Data Representativeness	Measurements are being made at the emission point (fabric filter outlet).	Pressure taps are located at the fabric filter inlet and outlet. The gauge has a minimum accuracy of 0.5 inches of water.	Measurements are being made at the emission point (fabric filter outlet) in compliance with 40 CFR 60, Appendix B.
B. Verification of Operational Status	NA	Audible or visual alarms with set points <1.0 and >9.0 inches of water.	Audible alarm system with set point at 90% of the 2.3 pounds per million Btu emission limit.
C. QA/QC Practices	The observer will be familiar with Reference Method 22 and follow Method 22-like procedures.	The pressure gauge is checked daily for operation according to manufacturer's criteria for operation and maintenance.	CEM meets QA/QC procedures of 40 CFR 60, Appendix F (daily CEM calibration, quarterly audits, and annual RATA testing).
D. Monitoring Frequency	Observations are done daily.	Pressure drop is monitored continuously.	Readings are taken once every 15-minutes (four data points per hour).
Data Collection Procedures	VE observations are documented by the observer.	Pressure gauge readings are recorded continuously, once per minute.	Readings are recoded continuously in the DAHS.
Averaging Periods	NA	15-minute average	1-hour average

d. **Justification**

- i. **Background.** The pollutants specific emission units are one 20 ton per hour lightweight aggregate rotary expansion kiln with clinker cooler (**ID No. ES-7**) and one 40 tons per hour lightweight aggregate rotary expansion kiln with clinker cooler (**ID No. ES-8**). These kilns are currently controlled by two bagfilters (29,514 and 34,984 square feet of filter area, **ID Nos. CD-7B and CD-8B**, respectively).
- ii. **Rationale for Selection of Performance Indicators.** Visible emissions was selected as the performance indicator because it is a good indicator of proper operation and maintenance of the filter units. When the filter unit is operating properly, there will not be any visible emissions in the exhaust outlet. Any increase in visible emissions indicates reduced performance of the filter units; therefore, the presence of visible emissions is used as a performance indicator.

In general, filters are designed to operate at a relatively constant pressure drop. Monitoring pressure drop provides a means of detecting a change in operation that could lead to an increase in emissions. An increase in pressure drop can indicate that the cleaning cycle is not frequent enough, cleaning equipment is damaged/broken, the bags are becoming blinded, or the airflow has increased. A decrease in pressure drop may indicate broken or loose bags, but this is also indicated by the presence of visible emissions, indicator No. 1. A pressure drop across the filter units also serves to indicate that there is airflow through the control device.

The current Title V permit mandates CEMS SO₂ monitoring for compliance with the 15A NCAC 2D .0516 SO₂ emission limit. The Title V permit establishes the current monitoring requirements as a presumptively acceptable monitoring approach for the kilns. The concept of presumptively acceptable is established in the CAM rule. Therefore, the current SO₂ CEMS based monitoring approach mandated in the current Title V permit is established for CAM compliance.

iii. Rationale for Selection of Indicator Ranges. The selected indicator range for indicator No. 1 is no visible emissions. When an excursion occurs, corrective action will be initiated, beginning with an evaluation of the occurrence to determine the action required to correct the situation. All excursions will be documented and reported. An indicator range of no visible emissions was selected because: (1) an increase in visible emissions is indicative of an increase in particulate emissions; and (2) a monitoring technique which does not require a Method 9 certified observer is desired. Although Reference Method 22 applies to fugitive sources, the visible/no visible emissions observation technique of RM-22 can be applied to ducted emissions; i.e., Method 22-like observations. The Selected QIP threshold for fabric filter emissions is five excursions in a 6-month reporting period. This level is 3 percent of the total visible emissions observations. If the QIP threshold is exceeded in a semiannual reporting period, a QIP will be developed and implemented.

The selected indicator range for indicator No. 2 is a pressure drop outside the normal operating range of 1 to 9 inches of water. An excursion triggers an inspection and corrective actions. All excursions will be documented and reported. The pressure drop is monitored continuously and recorded once per minute. The Permittee is warned both audibly and visually as the pressure drop leaves the normal operating range.

The selected indicator range for indicator No. 3 is a direct measurement of SO₂ mass emissions in pound per million Btu. Since the CEMS provides this direct measurement in the units of the applicable emission limit, no additional control system inspection and maintenance work practice standards are warranted for compliance demonstration purposes. An excursion triggers an inspection and corrective actions. All excursions will be documented and reported. The SO₂ mass emissions are measured continuously and recorded once per 15-minutes (four data points per hour). The Permittee is audibly warned when SO₂ emissions are 90% of the emission limit.

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

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

C. Coal handling and storage equipment including:

- one railcar unloading hopper (ID No. CCH-1);
- one kiln feed coal hopper (ID No. CCH-2);
- one coal conveyor belt (ID No. CCB-1);
- two kiln coal conveyor belts (ID Nos. CCB-2 and CCB-3); and
- coal storage areas (ID No. CCS)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10 \times P^{0.67}$ Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	40 percent opacity	15A NCAC 2D .0521
Fugitive non-process dust emissions	See Section 2.2 A	15A NCAC 2D .0540
Particulate matter	See Section 2.2 B	15A NCAC 2D .0501(e)
Toxic air pollutants	State-enforceable only See Section 2.2 C	15A NCAC 2D .1100

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

- a. Emissions of particulate matter from these sources (**ID Nos. CCH-1, CCH-2, CCB-1, CCB-2, CCB-3, and CCS**) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

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

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

Testing [15A NCAC 2D .0501(c)(3)]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501 (c)(3) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. The Permittee shall maintain production records **such that the process rates “P” in tons per hour, as specified by the formulas contained above (or the formulas contained in 15A NCAC 2D .0515) can be derived** and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 of the production records are not maintained or the types of materials and finishes are not monitored.

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

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

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

- a. Visible emissions from these sources (**ID Nos. CCH-1, CCH-2, CCB-1, CCB-2, CCB-3, and CCS**) 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. [15A NCAC 2D .0521(c)]

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission **points of these sources (ID Nos. CCH-1, CCH-2, CCB-1, CCB-2, CCB-3, and CCS)** for any visible emissions above normal. **The weekly observation must be made for each of the calendar year periods to ensure compliance with this requirement.** If visible emissions from these sources (**ID Nos. CCH-1, CCH-2, CCB-1, CCB-2, CCB-3, and CCS**) are observed to be above normal, the Permittee shall either:
- 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**
 - demonstrate that the percent opacity from the emission points of the emission sources (ID Nos. CCH-1, CCH-2, CCB-1, CCB-2, CCB-3, and CCS) in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 C.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 in noncompliance with 15A NCAC 2D .0521.

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

- d. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.
 The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

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

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

D. Portable riprap screening and conveying, nonmetallic mineral processing operations including:

- one grizzly feeder (ID No. RPCS-F70) with associated water spray (ID No. RS-70);
- two portable screener conveyors (ID Nos. RPCS-F71 and RPCS-F73) with associated water sprays (ID Nos. RS-71 and RS-73, respectively); and
- one portable screener diesel engine (ID No. RPCS-N72)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Emissions from conveyors, screens, and transfer points shall be controlled such that the applicable opacity standards are not exceeded	15A NCAC 2D .0510
Sulfur dioxide	(ID No. RPCS-N72 only) 2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	(ID Nos. RPCS-F70 and RPCS-N72) 20 percent opacity	15A NCAC 2D .0521
Visible emissions	(ID Nos. RPCS-F71 and RPCS-F73) 10 percent opacity	15A NCAC 2D .0524 (40 CFR 60, Subpart OOO)
Fugitive non-process dust emissions	See Section 2.2 A	15A NCAC 2D .0540
Particulate matter	See Section 2.2 B	15A NCAC 2D .0501(e)
Toxic air pollutants	State-enforceable only See Section 2.2 C	15A NCAC 2D .1100

1. 15A NCAC 2D .0510: PARTICULATES FROM SAND, GRAVEL OR CRUSHED STONE OPERATIONS

- 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 these sources (ID Nos. RPCS-F70, RPCS-F71, and RPCS-F73) such that the applicable opacity standards are not exceeded.

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

- c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test are above the limit given in Sections 2.1 D.1.a and b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0510.

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

- d. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. RPCS-F70, RPCS-F71, and RPCS-F73**) for any visible emissions above normal. The weekly observation must be made for each of the calendar year periods to ensure compliance with this requirement. If visible emissions from these sources (**ID Nos. RPCS-F70, RPCS-F71, and RPCS-F73**) are observed to be above normal, the Permittee shall either:
- 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
 - demonstrate that the percent opacity from the emission points of the emission source (**ID Nos. RPCS-F70, RPCS-F71, and RPCS-F73**) in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 D.4.b 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 2D .0510.

Recordkeeping [15A NCAC 2Q .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:
- the date and time of each recorded action;
 - 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
 - the results of any corrective actions performed.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0510 if these records are not maintained.

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

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

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

- a. Emissions of sulfur dioxide from this source (**ID No. RPCS-N72**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with the standard.

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and 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 2D .0516.

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

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of diesel fuel in this source (**ID No. RPCS-N72**).

3. 15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these sources (**ID Nos. RPCS-F70 and RPCS-N72**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(d)]

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

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

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. RPCS-F70 and RPCS-N72**) for any visible emissions above normal. **The weekly observation must be made for each of the calendar year periods to ensure compliance with this requirement.** If visible emissions from these sources (**ID Nos. RPCS-F70 and RPCS-N72**) 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 sources (**ID Nos. RPCS-F70 and RPCS-N72**) in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 D.3.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 2D .0521.

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

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

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

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

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

4. 15A NCAC 2D .0524: NSPS 40 CFR PART 60 SUBPART OOO

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS)" as promulgated in 40 CFR Part 60 Subpart OOO, including Subpart A "General Provisions." [15A NCAC 2D .0524]

Emission Limitations [15A NCAC 2D .0524]

- b. Visible emissions from these sources (**ID Nos. RPCS-F71 and RPCS-F73**) shall not be more than 10 percent opacity each.

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

- c. If emissions testing is required, the testing shall be performed in accordance with **15A NCAC 2D .0501(c)(8)** and General Condition JJ. If the results of this test are above the limit given in Section 2.1 D.4.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- d. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. RPCS-F71 and RPCS-F73**) for any visible emissions above normal. **The weekly observation must be made for each of the calendar year periods to ensure compliance with this requirement.** If visible emissions from these sources (**ID Nos. RPCS-F71 and RPCS-F73**) 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 sources (ID Nos. RPCS-F71 and RPCS-F73) in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 D.4.b 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 2D .0524.

Recordkeeping [15A NCAC 2Q .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 2D .0524 if these records are not maintained.

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

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

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/or standards for the emission source(s) described above.

Regulated 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 2D .0540

1. 15A NCAC 2D .0540: PARTICULATES FROM FUGITIVE NON-PROCESS DUST EMISSION SOURCES

- a. For the purpose of this Rule the following definitions apply:
 - i. “Fugitive non-process dust emissions” 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 complain 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 Section 2.2. A.1.e below; 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 Section 2.2 A.1.e below if:
 - i. ambient air quality measurements o dispersion modeling acceptable to the DAQ show violation or a potential for a violation of an air quality standard for particulates in 15A NCAC 2D .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 Section 2.2 A.1.e above;
 - 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 the 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. Raw material, nonmetallic mineral processing operations (ID Nos. RCS-1 through RCS-37, RM, RCL-1, and RCL-2) with associated water sprays (ID Nos. RCS-1S through RCS-8S, RCS-33S, RCS-34S, and RCL-2S) as described above

Finishing product, nonmetallic mineral processing operations (FCS-2 through FCS-5, FCS-8, FCS-10 through FCS-14, FCS-17, FCS-19, FCS-20, FCS-22 through FCS-30, FCS-36, FCS-38 through FCS-43, FCS-C1 through FCS-C5, FP, and DSC-1) with associated water sprays (ID Nos. FCS-1S through FCS-4S, FCS-6S, FCS-8S, FCS-38S, FCS-39S, FCS-43S, FCS-C2S, FCS-C3S, FCS-C4S, and DSC-2B) and bagfilter (ID No. DSC-1B) as described above

**Portable screening and conveying, nonmetallic mineral processing operation (ID No. PS-1, PSC-1 through PSC-5, and PSH-1) with associated water spray (ID No. PS-1S), and
One portable screener diesel engine (ID No. PSG-1)**

Two lightweight aggregate kilns including clinker coolers (ID Nos. ES-7 and ES-8) with associated bagfilters (ID Nos. CD-7B and CD-8B)

Coal handling and storage equipment including:

- **one railcar unloading hopper (ID No. CCH-1);**
- **one kiln feed coal hopper (ID No. CCH-2);**
- **one coal conveyor belt (ID No. CCB-1);**
- **two kiln coal conveyor belts (ID Nos. CCB-2 and CCB-3); and**
- **coal storage areas (ID No. CCS)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter (TSP and PM ₁₀) and sulfur dioxide	Compliance with national ambient air quality standards	15A NCAC 2D .0501(e)

1. 15A NCAC 2D .0501(e): COMPLIANCE WITH NATIONAL AMBIENT AIR QUALITY STANDARDS

- a. Raw materials (argillite) storage (**ID No. RM**) shall not exceed a maximum of 380,000 tons at any one time.
- b. Finished product storage (**ID No. FP**) shall not exceed a maximum of 165,000 tons at any one time.
- c. Coal storage (**ID No. CCS**) shall not exceed a maximum of 25,000 tons at any one time.
- d. The maximum amount of raw materials (argillite) processed in all kilns (**ID Nos. ES-7 and ES-8**) shall not exceed a total of 350,400 tons per any consecutive 12-month period. In addition, the maximum amount of raw materials (argillite) processed in kiln (**ID No. ES-8**) shall not exceed 40 tons per hour and 236,074 tons per any consecutive 12-month period.
- e. The total coal combusted in all kilns (**ID Nos. ES-7 and ES-8**) shall not exceed 32,157 tons per any consecutive 12-month period.
- f. On days when the portable screening and conveying operation is not operated, operation of the raw materials (argillite) (except argillite feed from the storage silos to the kilns) and lightweight aggregate finished product operations and processes (except dust silo and dust silo loadout) shall not exceed eleven hours per day⁴. As an alternative, the Permittee can limit the raw materials (argillite) operations throughput to 3,300 tons per day at a maximum crushing capacity of 300 tons per hour, and finished product operations to 2,475 tons per day at a maximum crushing capacity of 225 tons per hour.

⁴ Neither the operating hours limit nor the throughput (or production) limit apply to emission sources (**ID Nos. RCS-32, RCS-33, RCS-35, RCS-36, RCL-1, and RCL-2**).

- g. On days when the portable screening and conveying operations is operated, operation of the raw materials (argillite) (except argillite feed from the storage silos to the kilns) and lightweight aggregate finished product operations and processes (except dust silo and dust silo loadout) shall not exceed eleven hours per day. As an alternative, depending upon the type of material to be processed, the raw materials (argillite) (except argillite feed from the storage silos to the kilns) operation shall be limited to a combined throughput of 3,300 tons per day of feed to the raw materials operation primary jaw crusher (**ID No. RCS-1**) and portable screener feed hopper (**ID No. PSH-1**), and the finished product operation shall be limited to a combined throughput of 2,475 tons per day of feed to the finished product operation primary jaw crusher (**ID No. FCS-1**) and portable screener feed hopper (**ID No. PSH-1**).
- h. The moisture content of the clinker, prior to crushing in the finish crusher (**ID No. FCS-41 or FCS-21**) shall not be less than 1.5 percent by weight.
- i. The raw materials (argillite) (**ID No. RM**) and finished product storage areas (**ID No. FP**) shall not be located:
 - i. within 100 meters of the nearest property boundary or fence line, whichever is closest to the storage area with the exception that the railroad tracks shall constitute the storage area limit, in that no raw material or finished product storage areas shall be located or placed north (office/tank farm side) of the railroad tracks at any time;
 - ii. except for and along the railroad tracks, the Permittee shall install and maintain one or more 100 meter markers, as necessary or requested, to ensure and demonstrate that the 100 meter limitation between the storage areas and the nearest property boundary or fence line, whichever is closer, is not encroached upon inadvertently or otherwise.

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

- j. Compliance with the raw materials (argillite) processing limitation shall be determined by recording of the weight of argillite, by conveyor weight scale for all raw materials conveyed to each kiln (**ID Nos. ES-7 and ES-8**), and by weight scale (installed on the discharge of the hopper) or bucket weighing device (installed on front end loader) for all raw materials conveyed to portable screener feed hopper (**ID No. PSH-1**). Kiln production tonnage losses due to conveyor spillage and which do not enter a kiln may be deducted from the respective kiln production tonnage limitation only after the spillage weight is documented by weigh scale and properly recorded in the kiln production records.
- k. Compliance with the coal processing limitation shall be determined by one of the following methods:
 - i. recording of the weight of coal, by conveyor weight scale for total coal combusted in all kilns,
 - ii. maintaining records of the year beginning and year ending inventories of coal storage, combined with records of each shipment of coal received at the facility during the compliance period, or
 - iii. other means as approved by the DAQ.
- l. Compliance with the raw materials (argillite) and finished products storage areas, and coal storage area limitations shall be determined using the daily production, process, and sales records of the materials (argillite) processed at the facility. The calculated inventories of these materials shall be adjusted as necessary by performing a physical inventory of the materials stored at the facility.
- m. Kiln production records for each kiln shall be recorded, maintained on-site, and available upon request for DAQ review and inspection.
- n. The Permittee shall perform calibrations on each weigh belt scale in accordance with the manufacturer's specifications, used for raw materials processing and coal processing sources and record each event. The calibrations records shall be maintained on-site, and available upon request for DAQ to review and inspection.
- o. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0501(e) if these records (as included in Section 2.2 B.1.j through n above) are not maintained.

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

- p. The Permittee shall submit a summary report of monitoring and recordkeeping activities **postmarked on or before** January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 - i. the maximum number of hours of operation per day for raw materials (argillite) operations and finished product operations or maximum daily throughput totals, including materials processed through portable screener feed hopper (**ID No. PSH-1**) (depending on the chosen compliance method detailed in Section 2.2 B.1.f above);
 - ii. the maximum total tons of raw materials (argillite) and finished products, and coal stored on-site;
 - iii. the facility wide total tons of raw materials (argillite) processed and coal combusted for the previous 14 months. The raw materials (argillite) processing and coal combusted shall be reported for each of the 1 month periods over the previous 14 months; and
 - iv. the monthly particulate matter emissions for the previous 14 months from each permitted source. The emissions must be calculated for each of the 12-month periods over the previous 14 months;All instances of deviations from the requirements of this permit must be clearly identified.

State-enforceable only**C. 15A NCAC 2D .1100: CONTROL OF TOXIC AIR POLLUTANTS**

Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following emission limits shall not be exceeded from all sources, including fugitive sources, at the facility:

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Primary crusher (ID No. RCS-1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000542 lb/yr 0.00319 lb/yr 4.88 X 10 ⁻⁶ lb/yr 1.61 X 10 ⁻⁵ lb/yr 0.00008 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Secondary crusher (ID No. RCS-2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.012 lb/yr 0.00319 lb/yr 0.000108 lb/yr 0.000355 lb/yr 0.00177 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/yr
Secondary crusher (ID No. RCS-3B)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.024 lb/yr 0.00319 lb/yr 0.000216 lb/yr 0.000711 lb/yr 0.00353 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/yr
Screen (ID No. RCS-4)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0165 lb/yr 0.00319 lb/yr 0.000148 lb/yr 0.000489 lb/yr 0.00243 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Screen (ID No. RCS-5)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.033 lb/yr 0.00319 lb/yr 0.000297 lb/yr 0.000977 lb/yr 0.00485 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. RCS-6)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00105 lb/yr 0.00319 lb/yr 9.94 X 10 ⁻⁶ lb/yr 0.0000311 lb/yr 0.00015 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyor (ID No. RCS-7)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0007 lb/yr 0.00319 lb/yr 0.0000063 lb/yr 0.0000207 lb/yr 0.0001 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. RCS-8)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0007 lb/yr 0.00319 lb/yr 0.0000063 lb/yr 0.0000207 lb/yr 0.0001 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. RCS-9)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0007 lb/yr 0.00319 lb/yr 0.0000063 lb/yr 0.0000207 lb/yr 0.0001 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. RCS-10)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00105 lb/yr 0.00319 lb/yr 9.44 X 10 ⁻⁶ lb/yr 0.0000311 lb/yr 0.00015 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. RCS-11)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0007 lb/yr 0.00319 lb/yr 0.0000063 lb/yr 0.0000207 lb/yr 0.0001 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyors (ID Nos. RCS-13 and RCS-16) (combined total emissions from both conveyors)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0042 lb/yr 0.00319 lb/yr 0.0000378 lb/yr 0.000124 lb/yr 0.00062 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. RCS-14)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0007 lb/yr 0.00319 lb/yr 0.0000063 lb/yr 0.0000207 lb/yr 0.0001 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyor (ID No. RCS-15)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0021 lb/yr 0.00319 lb/yr 0.0000189 lb/yr 0.0000622 lb/yr 0.00031 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. RCS-17)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0021 lb/yr 0.00319 lb/yr 0.0000189 lb/yr 0.0000622 lb/yr 0.00031 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. RCS-22)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0007 lb/yr 0.00319 lb/yr 0.0000063 lb/yr 0.0000207 lb/yr 0.0001 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. RCS-KB) (combined total emissions from all kiln belts)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00641 lb/yr 0.00695 lb/yr 0.0000577 lb/yr 0.00019 lb/yr 0.00094 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Conveyor (ID No. RCS-31)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0021 lb/yr 0.00319 lb/yr 0.0000189 lb/yr 0.0000622 lb/yr 0.00031 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. RCS-35)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00382 lb/yr 0.00695 lb/yr 0.0000343 lb/yr 0.000113 lb/yr 0.00056 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Hopper (ID No. RCS-36)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0000312 lb/yr 0.00695 lb/yr 2.81 X 10 ⁻⁷ lb/yr 9.25 X 10 ⁻⁷ lb/yr 0.000005 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Hopper (ID No. RCL-1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0000312 lb/yr 0.00695 lb/yr 2.81 X 10 ⁻⁷ lb/yr 9.25 X 10 ⁻⁷ lb/yr 0.000005 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Conveyor (ID No. RCL-2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00382 lb/yr 0.00695 lb/yr 0.0000343 lb/yr 0.000113 lb/yr 0.00056 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Secondary crusher (ID No. FCS-2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0068 lb/yr 0.00319 lb/yr 0.0000612 lb/yr 0.000201 lb/yr 0.001 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Secondary screens (ID Nos. FCS-19 and FCS-20) (combined total emissions from both screens)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00935 lb/yr 0.00319 lb/yr 0.0000841 lb/yr 0.000277 lb/yr 0.00138 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Secondary crusher (ID No. FCS-3)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0068 lb/yr 0.00319 lb/yr 0.0000612 lb/yr 0.000201 lb/yr 0.001 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Secondary screens (ID Nos. FCS-29 and FCS-30) (combined total emissions from both screens)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00935 lb/yr 0.00319 lb/yr 0.0000841 lb/yr 0.000277 lb/yr 0.00138 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-4)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000394 lb/yr 0.00319 lb/yr 0.0000354 lb/yr 0.0000117 lb/yr 0.00006 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyors (ID No. FCS-5 and FCS-11) (combined total emissions from both conveyors)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00138 lb/yr 0.00319 lb/yr 1.24 X 10 ⁻⁵ lb/yr 0.0000409 lb/yr 0.0002 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-8)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000394 lb/yr 0.00319 lb/yr 3.54 X 10 ⁻⁶ lb/yr 0.0000117 lb/yr 0.00006 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-10)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00157 lb/yr 0.00319 lb/yr 1.42 X 10 ⁻⁵ lb/yr 0.0000466 lb/yr 0.00023 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyors (ID Nos. FCS-12 and FCS-17) (combined total emissions from both conveyors)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00138 lb/yr 0.00319 lb/yr 1.24 X 10 ⁻⁵ lb/yr 0.0000409 lb/yr 0.0002 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-13)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000787 lb/yr 0.00319 lb/yr 7.08 X 10 ⁻⁶ lb/yr 0.0000233 lb/yr 0.00012 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-14)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000394 lb/yr 0.00319 lb/yr 3.54 X 10 ⁻⁶ lb/yr 0.0000117 lb/yr 0.00006 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-C1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000197 lb/yr 0.00319 lb/yr 0.00000177 lb/yr 0.00000583 lb/yr 0.00003 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyor (ID No. FCS-C2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000394 lb/yr 0.00319 lb/yr 3.54 X 10 ⁻⁶ lb/yr 0.0000117 lb/yr 0.00006 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-C3)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000394 lb/yr 0.00319 lb/yr 3.54 X 10 ⁻⁶ lb/yr 0.0000117 lb/yr 0.00006 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-C4)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000394 lb/yr 0.00319 lb/yr 3.54 X 10 ⁻⁶ lb/yr 0.0000117 lb/yr 0.00006 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-C5)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000394 lb/yr 0.00319 lb/yr 3.54 X 10 ⁻⁶ lb/yr 0.0000117 lb/yr 0.00006 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Quarry	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.0032 lb/yr 0.00319 lb/yr 2.88 X 10 ⁻⁵ lb/yr 9.49 X 10 ⁻⁵ lb/yr 0.00047 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Quarry Haul Roads	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.136 lb/yr 0.00319 lb/yr 0.00123 lb/yr 0.00404 lb/yr 0.02 lb/day 5.23 X 10 ⁻⁶ lb/day 0.00873 lb/day
Coal car hopper (ID No. CCH-1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000115 lb/yr 0.00695 lb/yr 0.0000195 lb/yr 3.19 X 10 ⁻⁵ lb/yr 0.0000007 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Coal car belt (ID No. CCB-1)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000169 lb/yr 0.00695 lb/yr 0.0000287 lb/yr 4.71 X 10 ⁻⁶ lb/yr 0.0000015 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Storage silo (ID No. RCS-18)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00392 lb/yr 0.00319 lb/yr 3.52 X 10 ⁻⁵ lb/yr 1.16 X 10 ⁻⁴ lb/yr 0.00058 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Storage silo (ID No. RCS-19)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00392 lb/yr 0.00319 lb/yr 3.52 X 10 ⁻⁵ lb/yr 1.16 X 10 ⁻⁴ lb/yr 0.00058 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Storage silo (ID No. RCS-20)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00392 lb/yr 0.00319 lb/yr 3.52 X 10 ⁻⁵ lb/yr 1.16 X 10 ⁻⁴ lb/yr 0.00058 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Storage silo (ID No. FCS-22)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00353 lb/yr 0.00319 lb/yr 0.000423 lb/yr 1.64 X 10 ⁻⁴ lb/yr 0.00035 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Storage silo (ID No. FCS-23)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00353 lb/yr 0.00319 lb/yr 0.000423 lb/yr 1.64 X 10 ⁻⁴ lb/yr 0.00035 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Storage silo (ID No. FCS-24)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00353 lb/yr 0.00319 lb/yr 0.000423 lb/yr 1.64 X 10 ⁻⁴ lb/yr 0.00035 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Storage silo (ID No. FCS-25)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00353 lb/yr 0.00319 lb/yr 0.000423 lb/yr 1.64 X 10 ⁻⁴ lb/yr 0.00035 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Loadout bin (ID No. FCS-28)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00353 lb/yr 0.00319 lb/yr 0.000424 lb/yr 1.64 X 10 ⁻⁴ lb/yr 0.00035 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Surge hopper (ID No. FCS-26)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00881 lb/yr 0.00319 lb/yr 0.00106 lb/yr 0.000409 lb/yr 0.00087 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Surge hopper (ID No. FCS-27)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00881 lb/yr 0.00319 lb/yr 0.00106 lb/yr 0.000409 lb/yr 0.00087 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-36)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000197 lb/yr 0.00319 lb/yr 1.77 X 10 ⁻⁶ lb/yr 5.83 X 10 ⁻⁶ lb/yr 0.00003 lb/day 5.24 X 10 ⁻⁶ lb/day 0.00873 lb/day
Conveyor (ID No. FCS-38)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000305 lb/yr 0.00695 lb/yr 2.75 X 10 ⁻⁶ lb/yr 9.03 X 10 ⁻⁶ lb/yr 0.00004 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Conveyor (ID No. FCS-39)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000611 lb/yr 0.00695 lb/yr 5.49 X 10 ⁻⁶ lb/yr 1.81 X 10 ⁻⁵ lb/yr 0.00014 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Conveyor (ID No. FCS-40)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000611 lb/yr 0.00695 lb/yr 5.49 X 10 ⁻⁶ lb/yr 1.81 X 10 ⁻⁵ lb/yr 0.00014 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Hopper (ID No. FCS-41)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.002 lb/yr 0.00695 lb/yr 0.000018 lb/yr 5.91 X 10 ⁻⁵ lb/yr 0.0022 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Conveyor (ID No. FCS-42)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000122 lb/yr 0.00695 lb/yr 1.1 X 10 ⁻⁶ lb/yr 3.61 X 10 ⁻⁶ lb/yr 0.00014 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Conveyor (ID No. FCS-43)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000611 lb/yr 0.00695 lb/yr 5.49 X 10 ⁻⁶ lb/yr 1.81 X 10 ⁻⁵ lb/yr 0.00027 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Dust silo (ID No. DS1-B)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000522 lb/yr 0.00695 lb/yr 0.000138 lb/yr 0.0000357 lb/yr 0.00002 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Dust silo (ID No. DS2-B)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.00387 lb/yr 0.00695 lb/yr 0.00103 lb/yr 0.000264 lb/yr 0.00014 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Kiln coal hopper (ID No. CCH-2)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000169 lb/yr 0.00695 lb/yr 0.0000287 lb/yr 0.00000471 lb/yr 0.0000008 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Kiln coal conveyors (ID Nos. CCB-2 and CCB-3) (combined total emissions from both coal conveyors)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.000338 lb/yr 0.00695 lb/yr 0.0000574 lb/yr 9.42 X 10 ⁻⁶ lb/yr 0.0000016 lb/day 1.14 X 10 ⁻⁵ lb/day 0.019 lb/day
Raw materials storage piles (ID No. RM)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.49796 lb/yr 0.0104 lb/yr 0.004476 lb/yr 0.01477 lb/yr 0.07324 lb/day 0.00001664 lb/day 0.02773 lb/day
Finished product storage piles (ID No. FP)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.2921 lb/yr 0.01014 lb/yr 0.02786 lb/yr 0.01243 lb/yr 0.03192 lb/day 0.00001664 lb/day 0.02773 lb/day
Coal storage piles (ID No. CCS)	Arsenic Beryllium Cadmium Non-specific chromium (VI) compounds, as chromium (VI) equivalent Manganese Mercury Nickel	0.09702 lb/yr 0.0139 lb/yr 0.016453 lb/yr 0.0027 lb/yr 0.00046 lb/day 0.0000228 lb/day 0.038 lb/day
Tank 1 (ID No. ST1)	(acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ acetic acid aniline chloroprene chloroprene cresols 1,4 – dioxane epichlorohydrin Ethylenediamine Ethylenediamine Nitrobenzene Nitrobenzene 1,1,1,2-tetrachloroethane Trichloroethylene	(1.17 lb/hr) (28.1 lb/day) (10257.9 lb/yr) 0.015 lb/hr 0.00087 lb/hr 0.362 lb/hr 8.7 lb/day 0.0003 lb/hr 1.36 lb/day 229.4 lb/yr 0.017 lb/hr 0.41 lb/day 0.0004 lb/hr 0.0096 lb/day 262.8 lb/yr 1392.6 lb/yr

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Tank 2 (ID No. ST2)	(acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ acetic acid aniline chloroprene chloroprene cresols 1,4 – dioxane epichlorohydrin Ethylenediamine Ethylenediamine Nitrobenzene Nitrobenzene 1,1,1,2-tetrachloroethane Trichloroethylene	(1.17 lb/hr) (28.1 lb/day) (10257.9 lb/yr) 0.015 lb/hr 0.00087 lb/hr 0.362 lb/hr 8.7 lb/day 0.0003 lb/hr 1.36 lb/day 229.4 lb/yr 0.017 lb/hr 0.41 lb/day 0.0004 lb/hr 0.0096 lb/day 262.8 lb/yr 1392.6 lb/yr
Tank 3 (ID No. ST3)	(acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ acetic acid aniline chloroprene chloroprene cresols 1,4 – dioxane epichlorohydrin Ethylenediamine Ethylenediamine Nitrobenzene Nitrobenzene 1,1,1,2-tetrachloroethane Trichloroethylene	(1.17 lb/hr) (28.1 lb/day) (10257.9 lb/yr) 0.015 lb/hr 0.00087 lb/hr 0.362 lb/hr 8.7 lb/day 0.00032 lb/hr 1.36 lb/day 229.4 lb/yr 0.017 lb/hr 0.41 lb/day 0.0004 lb/hr 0.0096 lb/day 262.8 lb/yr 1392.6 lb/yr
Tank 4 (ID No. ST4)	(acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ acetic acid aniline chloroprene chloroprene cresols 1,4 – dioxane epichlorohydrin Ethylenediamine Ethylenediamine Nitrobenzene Nitrobenzene 1,1,1,2-tetrachloroethane Trichloroethylene	(1.91 lb/hr) (45.9 lb/day) (16762.9 lb/yr) 0.029 lb/hr 0.0017 lb/hr 0.694 lb/hr 16.65 lb/day 0.00056 lb/hr 2.68 lb/day 454.69 lb/yr 0.034 lb/hr 0.82 lb/day 0.0009 lb/hr 0.022 lb/day 525.6 lb/yr 2720.5 lb/yr

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Tank 5 (ID No. ST5)	(acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ acetic acid aniline chloroprene chloroprene cresols 1,4 – dioxane epichlorohydrin Ethylenediamine Ethylenediamine Nitrobenzene Nitrobenzene 1,1,1,2-tetrachloroethane Trichloroethylene	(1.91 lb/hr) (45.9 lb/day) (16762.9 lb/yr) 0.029 lb/hr 0.0017 lb/hr 0.694 lb/hr 16.65 lb/day 0.00056 lb/hr 2.68 lb/day 454.69 lb/yr 0.034 lb/hr 0.82 lb/day 0.0009 lb/hr 0.022 lb/day 525.6 lb/yr 2720.5 lb/yr
Tank 6 (ID No. ST6)	(acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ acetic acid aniline chloroprene chloroprene cresols 1,4 – dioxane epichlorohydrin Ethylenediamine Ethylenediamine Nitrobenzene Nitrobenzene 1,1,1,2-tetrachloroethane Trichloroethylene	(1.91 lb/hr) (45.9 lb/day) (16762.9 lb/yr) 0.029 lb/hr 0.0017 lb/hr 0.694 lb/hr 16.65 lb/day 0.00056 lb/hr 2.68 lb/day 454.69 lb/yr 0.034 lb/hr 0.82 lb/day 0.0009 lb/hr 0.022 lb/day 525.6 lb/yr 2720.5 lb/yr

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Kilns (ID Nos. ES-7 and ES-8) (combined total emissions from all kilns)	(acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ acetic acid ammonia aniline chloroprene chloroprene cresols 1,4 – dioxane epichlorohydrin Ethylenediamine Ethylenediamine Nitrobenzene Nitrobenzene 1,1,1,2-tetrachloroethane trichloroethylene PCBs Hexachlorodibenzo-p-dioxin Tetrachlorodibenzo-p-dioxin arsenic beryllium cadmium flourides soluble chromate compounds, as chromium (VI) equivalent manganese mercury nickel	(0.77 lb/hr) (18.55 lb/day) (6771.6 lb/yr) 0.85 lb/hr 0.77 lb/hr 0.82 lb/hr 0.775 lb/hr 18.67 lb/day 0.84 lb/hr 19.99 lb/day 8342.9 lb/yr 0.72 lb/hr 17.3 lb/day 0.97 lb/hr 23.4 lb/day 11212.8 lb/yr 10349.3 lb/yr 0.339 lb/yr 0.025 lb/yr* 0.025 lb/yr* 10.23 lb/yr 101.78 lb/yr 149.2 lb/yr 2.09 lb/hr 50.18 lb/day 0.107 lb/day 1.0 lb/day 7.01 lb/day 0.931 lb/day
Pump house (ID No. PMHSE)	(acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ (acetaldehyde as surrogate) ⁵ acetic acid aniline chloroprene chloroprene cresols 1,4 – dioxane epichlorohydrin Ethylenediamine Ethylenediamine Nitrobenzene Nitrobenzene 1,1,1,2-tetrachloroethane Trichloroethylene	(0.12 lb/hr) (2.9 lb/day) (1058.2 lb/yr) 0.12 lb/hr 0.12 lb/hr 0.12 lb/hr 2.88 lb/day 0.12 lb/hr 0.12 lb/hr 1051.2 lb/yr 0.12 lb/hr 2.88 lb/day 0.12 lb/hr 2.88 lb/day 1051.2 lb/yr 1051.2 lb/yr

Emission Source(s)	Pollutant(s)	Emission Limit(s)
Fugitive (tank farm valves)	(acetaldehyde as surrogate) ⁵	(0.03 lb/hr)
	(acetaldehyde as surrogate) ⁵	(0.733 lb/day)
	(acetaldehyde as surrogate) ⁵	(267.7 lb/yr)
	acetic acid	0.03 lb/hr
	aniline	0.03 lb/hr
	chloroprene	0.03 lb/hr
	chloroprene	0.72 lb/day
	cresols	0.03 lb/hr
	1,4 – dioxane	0.03 lb/hr
	epichlorohydrin	262.8 lb/yr
	Ethylenediamine	0.03 lb/hr
	Ethylenediamine	0.72 lb/day
	Nitrobenzene	0.03 lb/hr
Nitrobenzene	0.72 lb/day	
1,1,1,2-tetrachloroethane	262.8 lb/yr	
Trichloroethylene	262.8 lb/yr	

* Emission rate for each kiln

⁵ Acetaldehyde was used as a surrogate pollutant in calculating the maximum emission rate for some volatile organic compounds, emitted from this emission source. The maximum worst-case emission rates of Di(2-ethylhexyl)phthalate, Chlorobenzene, 1,2 Dichlorobenzene, Dichlorodifluoromethane, Ethyl Acetate, n-Hexane, Hexane Isomers, Methyl Chloroform, Methyl Ethyl Ketone, Methyl Isobutyl Ketone, Perchloroethylene, Phenol, Styrene, 1,1,1,2-Tetrachloro-2,2-Difluoroethane, 1,1,1,2-Tetrachloro-1,2-Difluoroethane, 1,1,2-Trichloro-1,2,2-Trifluoroethane, Toluene, Trichlorofluoromethane, and Xylene are all less than the calculated (modeled) emission rates of acetaldehyde.

1. To meet the requirements of 15A NCAC 2D .1100, the Permittee shall comply with the following conditions, stipulations and limitations:
 - a. Compliance with the individual toxic air pollutant emission rates for the raw materials and finished product operations sources (**ID Nos. RCS-1 through RCS-36, RM, RCL-1, RCL-2, FCS-2 through FCS-5, FCS-8, FCS-10 through FCS-14, FCS-17, FCS-19 through FCS-30, FCS-36, FCS-C1 through FCS-C5, FP, DSC-1, PSH-1, PS-1, PSC-1 through PSC-5, and PSG-1**) shall be demonstrated through compliance with the daily operational limits as included in Section 2.2 B.1.f above. In addition, the Permittee shall sample and analyze raw materials once a quarter, and estimate the arsenic emission rates from each raw materials operations source (**ID Nos. RCS-1 through RCS-36, RM, RCL-1 and RCL-2**) and submit within 30 days of each quarter, the results of the sampling and analysis and estimated emission rated to DAQ for demonstration of compliance with modeled emission rates included in the Section 2.2 C Table above.
 - b. The maximum sulfur content of coal combusted in any kiln (**ID Nos. ES-7 and ES-8**) shall not exceed 1.7 percent by weight.
 - c. The combined maximum throughput of tanks (**ID Nos. ST-1 through ST-6**) shall not exceed 8.47 million gallons per consecutive 12-month period. The recordkeeping requirements of Section 2.2 C.1.f.i and ii and 2.2 C.1.g.iii below shall be adequate to demonstrate compliance with this limitation.
 - d. The minimum stack velocity for any bagfilter (**ID Nos. CD-7B and CD-8B**) shall not be less than 7 meters per second each. The stack velocity through each of the bagfilter (**ID Nos. CD-7B and CD-8B**) shall be continuously measured by an annubar or other device installed on the clean side of the bagfilters, and hourly rolling average for stack velocity through each of the bagfilters (**ID Nos. CD-7B and CD-8B**) shall be estimated and recorded. The Permittee shall develop an inspection and maintenance plan including the procedure for calibration of annubar or other device and submit it to DAQ for approval within 60 days of approval of this permit. To assure compliance, the Permittee shall perform inspection and maintenance, and calibration of the annubar and other device, as per the approved annubar cleaning/maintenance procedure. The results of inspection and maintenance activities including the calibration of the equipment 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 annubars; and
 - iv. any variance from manufacturer’s recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1100 if the inspection and maintenance plan including the calibration procedure is not developed or records are not maintained.

- e. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limits of toxic air pollutants as included in Section 2.2 C above by testing one of the kilns (**ID Nos. ES-7 and ES-8**) in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 – General Condition JJ. Testing shall be completed within 90 days of initial operation of lime slurry injection system unless an alternative date is approved by the DAQ. If the test results indicate that the emissions of toxic air pollutants do not exceed the 80% of any emission limits given in Section 2.2 C above, the Permittee is not required to perform any additional testing for toxic air pollutants for the remaining duration of the permit, otherwise the Permittee shall perform testing for toxic air pollutants once every year for the remaining duration of the permit on all kilns (**ID Nos. ES-7 and ES-8**). If the results of any tests are above the limit given in Section 2.2 C above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- f. Any non-RCRA regulated waste fuel shall meet the following limitations:
 - i. the maximum sulfur content and ash content of any non-RCRA regulated waste fuel combusted in kilns (**ID Nos. ES-7 and ES-8**) shall not exceed 0.7%w and 10%w, respectively.
 - ii. any non-RCRA regulated waste fuel shall meet the following toxic air pollutant limits:

Toxic Air Pollutant (as fired)	Constituent Limits
Arsenic	50 ppmw
Beryllium	1500 ppmw
Cadmium	2200 ppmw
Chromium (VI)	572 ppmw
Manganese	5000 ppmw
Mercury	37.75 ppmw
Nickel	5000 ppmw
Polychlorinated biphenyls	<50 ppmw
Acrylonitrile	1.27 %w
Benzene	0.86 %w
Benzidine	0.0125 %w
Formaldehyde	3.63 %w
Vinyl chloride	0.42 %w
Chloride	1 %w

- A. Prior to combustion of any non-RCRA regulated waste fuel received from any vendor, in the kilns (**ID Nos. ES-7 and ES-8**), compliance with the toxic air pollutant constituent limits of Section 2.2 C.1.f.ii above, shall be determined by sampling and chemical analysis, once every quarter, only if a new shipment of non-RCRA regulated waste fuel has been received from that same vendor. The analytical methods for this analysis shall be approved by the DAQ. Once compliance with the toxic air pollutant constituent limits of Section 2.2 C.1.f.ii above has been determined for that particular shipment of the non-RCRA regulated waste fuel, and the results of the laboratory analysis have been recorded and transcribed along with the other recorded measurements to a compliance spreadsheet, that particular shipment may then be utilized as fuel in the kilns.
- B. Non-RCRA regulated waste fuel shall not be recycled as fuel from any storage tank or tanker truck or railcar, containing any shipment of non-RCRA regulated waste fuel for which compliance with the specified non-RCRA regulated waste fuel constituent limitations has not been determined.
- C. The Permittee shall maintain records containing the date, time, number of gallons received in each shipment, storage tank or tanker truck or railcar ID number for each received shipment, and the documented results of chemical analysis for each shipment determining compliance for each specified constituent limit of Section 2.2 C.1.f.ii.
- D. Non-RCRA regulated waste fuel records and documentation shall be maintained on-site and available for inspection by DAQ personnel at all times. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1100 if these records are not maintained.

- E. The DAQ reserves the right to require additional testing and/or monitoring of the non-RCRA regulated waste fuel. The DAQ further has the right to perform testing and/or monitoring of the non-RCRA regulated waste fuel without prior notice.
- g. **Vender Supplied Recycled No. 2 Fuel Oil Requirements** – The Permittee is allowed to use recycled No. 2 fuel oil supplied by a DAQ-approved vendor as follows:
 - i. **Specifications** – The recycled No. 2 fuel oil shall be equivalent to unadulterated fossil fuel by meeting the following criteria:

Constituent/Property	Allowable Level
Arsenic	1.0 ppm maximum
Cadmium	2.0 ppm maximum
Chromium	5.0 ppm maximum
Lead	100 ppm maximum
Total Halogens	1000 ppm maximum
Flash Point	100°F minimum
Sulfur	0.5 % maximum (by weight)
Ash	1.0 % maximum

- ii. The Permittee is responsible for ensuring that the recycled No. 2 fuel oil, **as received at the site**, meets the approved criteria for unadulterated fuel. The Permittee is held responsible for any discrepancies discovered by DAQ as a result of any sampling and analysis of the fuel oil.
- iii. **Recordkeeping Requirements** – The Permittee shall maintain at the facility for a minimum of three years, and shall make available to representatives of the DAQ upon request, accurate records of the following:
 - A. The actual amount of recycled No. 2 fuel oil delivered to, and combusted at the facility on an annual basis; and
 - B. **Each load of recycled No. 2 fuel oil received shall include the following:**
 1. a delivery manifest document clearly showing the shipment content and amount, its place and date of loading, and place and date of destination;
 2. a batch specific analytical report that contains an analysis for all constituents/properties listed above. Analytical results of the samples representative of the recycled oil shipment from the vendor shall be no more than one year old when received;
 3. batch signature information consisting of the following: a batch number, tank identification with batch volume of recycled oil, date and time the batch completed treatment, and volume(s) delivered; and
 4. a certification indicating that the recycled fuel oil does not contain detectable PCBs (<2ppm).
- iv. **Reporting Requirements** – Within 30 days after each calendar year, **regardless of the amount received or combusted**, the Permittee shall submit in writing to the Regional Supervisor, DAQ, the following:
 - A. a summary of the results of the analytical testing for the previous 12 months.
 - B. the total gallons of recycled No. 2 fuel oil from each approved vendor combusted at the facility for the previous 12 months.
- v. The DAQ reserves the right to require additional testing and/or monitoring of the recycled No. 2 fuel oil on an annual basis or without notice.

State-enforceable only

D. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

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

SECTION 3 - GENERAL CONDITIONS

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

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]
1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
 2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.
 3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
 4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
 5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
 6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.
- B. **Permit Availability** [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]
The Permittee shall have available at the facility a copy of this permit and shall retain for the duration of the permit term one complete copy of the application and any information submitted in support of the application package. The permit and application shall be made available to an authorized representative of Department of Environment and Natural Resources upon request.
- C. **Severability Clause** [15A NCAC 2Q .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 2Q .0507(c) and 15A NCAC 2Q .0508(i)(16)]
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

E. **Duty to Comply** [15A NCAC 2Q .0508(i)(2)]

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

F. **Circumvention** - STATE ENFORCEABLE ONLY

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

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.

2. Transfer of Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]

The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q .0524 and 2Q .0505.

3. Minor Permit Modifications [15A NCAC 2Q .0515]

The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.

4. Significant Permit Modifications [15A NCAC 2Q .0516]

The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.

5. Reopening for Cause [15A NCAC 2Q .0517]

The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

1. Section 502(b)(10) Changes [15A NCAC 2Q .0523(a)]

a. "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.

2. Off Permit Changes [15A NCAC 2Q .0523(b)]

The Permittee may make changes in the operation or emissions without revising the permit if:

- a. the change affects only insignificant activities and the activities remain insignificant after the change; or
- b. the change is not covered under any applicable requirement.

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

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

“Excess Emissions” - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200 or .1400 of Subchapter 2D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 2Q .0700. (*Note: Definitions of excess emissions under 2D .1110 and 2D .1111 shall apply where defined by rule.*)

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

Excess Emissions

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

Permit Deviations

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

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

The Permittee shall comply with all other applicable requirements contained in 15A NCAC 2D .0535, including 15A NCAC 2D .0535(c) as follows:

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

J. **Emergency Provisions** [40 CFR 70.6(g)]

The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3 below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
 - b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 2Q .0508(e) and .0513(b)]

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

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 2Q.0508(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 2Q.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 2Q .0507(f)]

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

O. **Retention of Records** [15A NCAC 2Q .0508(f) and 2Q .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 2Q .0508(n)]

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

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

Q. **Certification by Responsible Official** [15A NCAC 2Q .0520]

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

R. **Permit Shield for Applicable Requirements** [15A NCAC 2Q .0512]

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

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 2Q .0519]

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

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

T. **Insignificant Activities** [15A NCAC 2Q .0503]

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

U. **Property Rights** [15A NCAC 2Q .0508(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 2Q .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 2Q .0508(i)(10)]

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

X. **Annual Emission Inventory Requirements** [15A NCAC 2Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 2Q .0207(a) from each emission source within the facility during the previous calendar year. The report shall be in or on such form as may be established by the Director. The accuracy of the report shall be certified by a responsible official of the facility.

Y. **Confidential Information** [15A NCAC 2Q .0107 and 2Q .0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 2Q .0107.

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

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 2Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 2Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.

BB. Financial Responsibility and Compliance History [15A NCAC 2Q .0507(d)(3)]

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

CC. Refrigerant Requirements (Stratospheric Ozone and Climate Protection) [15A NCAC 2Q .0501(e)]

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

DD. Prevention of Accidental Releases - Section 112(r) [15A NCAC 2Q .0508(h)]

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

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

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

FF. Title IV Allowances [15A NCAC 2Q .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 2D .0300]

Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 2D .0300.

HH. Registration of Air Pollution Sources [15A NCAC 2D .0200]

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0200(b).

II. Ambient Air Quality Standards [15A NCAC 2D .0501(e)]

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of 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 2Q .0508(i)(16)]

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application, the Permittee shall perform such testing in accordance with the appropriate EPA reference method(s) as approved by the DAQ and follow the procedures outlined below. The Permittee must request **in writing** and receive approval from the DAQ for an alternate test method or procedure.

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

KK. Reopening for Cause [15A NCAC 2Q .0517]

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to ensure compliance with the applicable requirements.
2. Any permit reopening shall be completed or a revised permit issued within 18 months after the applicable requirement is promulgated. No reopening is required if the effective date of the requirement is after the expiration of the permit term unless the term of the permit was extended pursuant to 15A NCAC 2Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 2Q .0507, .0521, or .1806 shall be followed to reissue the permit. If the State-enforceable only portion of the permit is reopened, the procedures in 15A NCAC 2Q .0300 shall be followed. The proceedings shall affect only those parts of the permit for which cause to reopen exists.
4. The Director shall notify the Permittee at least 60 days in advance of the date that the permit is to be reopened, except in cases of imminent threat to public health or safety the notification period may be less than 60 days.
5. Within 90 days, or 180 days if the EPA extends the response period, after receiving notification from the EPA that a permit needs to be terminated, modified, or revoked and reissued, the Director shall send to the EPA a proposed determination of termination, modification, or revocation and reissuance, as appropriate.

LL. **Reporting Requirements for Non-Operating Equipment** [15A NCAC 2Q .0508(i)(16)]

The Permittee shall maintain a record of operation for permitted equipment noting whenever the equipment is taken from and placed into operation. During operation the monitoring recordkeeping and reporting requirements as prescribed by the permit shall be implemented within the monitoring period.

ATTACHMENT

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CAA	Clean Air Act
DAQ	Division of Air Quality
DENR	Department of Environment and Natural Resources
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound