



North Carolina Department of Environment and Natural Resources  
Division of Air Quality

Beverly Eaves Perdue  
Governor

B. Keith Overcash, P.E.  
Director

Dee Freeman  
Secretary

ENTER DATE

Mr. John Gargaro  
Regional Operations Manager  
Hanson Brick East, LLC, dba Hanson Brick  
Hanson Brick - Monroe  
Post Office Box 5012  
Monroe, North Carolina 28111

Dear Mr. Gargaro:

SUBJECT: Air Quality Permit No. 03752T31  
Facility ID: 9000028  
Hanson Brick East, LLC, dba Hanson Brick -Monroe  
Union County  
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for a significant modification of a Title V permit, received November 9, 2009, we are forwarding herewith Air Quality Permit No. 03752T31 to Hanson Brick East, LLC dba Hanson Brick – Monroe, located in Monroe, 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. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of

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**Permitting Section**

1641 Mail Service Center, Raleigh, North Carolina 27699-1641  
2728 Capital Blvd., Raleigh, North Carolina 27604  
Phone: 919-715-6235 / FAX 919-733-5317 / Internet: [www.ncair.org](http://www.ncair.org)

One  
North Carolina  
*Naturally*

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 **ENTER DATE** until **April 30, 2011\***, 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 Ms. Fern Paterson, P.E. at (919) 715-6242.

Sincerely yours,

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

Enclosure

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

**\* This permit shall expire on the earlier of April 30, 2011 or the date of the renewal of Permit No. 03752T30 has been issued or denied.**

**ATTACHEMENT I:****Summary of Changes to the Existing Permit (Permit No. 03752T30)**

<b>Page(s)</b>	<b>Section</b>	<b>Description of Change(s)</b>
1	Permit Cover Page	Amend permit revision numbers and issuance/effective dates.
3	Section 1, Table	Add case-by-case MACT designations to affected tunnel kilns ( <b>ID Nos. 1AK, 2AK, 3AK, 1LK, 2LK, and 3LK</b> ).
5	Section 2.1.A., Table	Add case-by-case MACT to the table of applicable requirements.
8-11	Section 2.1.A.5.	Add Section to include applicable case-by-case MACT requirements for the affected tunnel kilns.
25-33	Section 3	Update General Provisions with the most recent revision (v. 3.1)

**ATTACHEMENT II:  
Insignificant Activities Pursuant to 15A NCAC 2Q .0503(8)**

<b>Emission Source ID</b>	<b>Emission Source Description</b>
<b>COATINGS PROCESSING – Rotary Drum Mixer Process</b>	
I-S1	Storage silo #1 (100 tons) w/auger-type feeder fed by pump truck; feeds I-1RDCH and/or I-2RDCH hopper feeders, can be reversed to purge the silo by transporting the material into a bat can
I-S2	Storage silo #2 (100 tons) w/auger-type feeder fed by pump truck; feeds I-1RDCH and/or I-2RDCH hopper feeders, can be reversed to purge the silo by transporting the material into a bat can
I-CH-1	Coatings hopper feeder #1 and auger feeder, fed by tractor; feeds I-1-RDCH and/or I-2-RDCH hoppers/feeders (20 tons) controlled by bagfilter (2,032 square feet of filter area, ID No. CD-9)
I-1RDCH	#1 Rotary drum coatings hopper/feeder; Shamrock 5 ton weigh hopper (s/n B80099) with 24" wide belt feeder (s/n 040116B14) fed by I-S-1, I-S-2, and I-CH-1, feeds I-1RDCHM (20 tons) controlled by bagfilter (2,032 square feet of filter area, ID No. CD-9)
I-1RDCHM	#1 Rotary drum coatings mixer, Shamrock 5 ton rotary blender fed by I-1RDCH, feeds I-1RDCC-1 conveyor (5 tph) controlled by bagfilter (2,032 square feet of filter area, ID No. CD-9)
I-1RDCC-1	#1 Rotary drum coatings conveyor #1, fed by I-1RDCHM, feeds I-1RDCC-2 conveyor (24" wide) controlled by bagfilter (2,032 square feet of filter area, ID No. CD-9)
I-1RDCC-2	#1 Rotary drum coatings conveyor #2, fed by I-1RDCC-1, loads into 1 ton super sacks (24" wide) controlled by bagfilter (2,032 square feet of filter area, ID No. CD-9)
I-2RDCH	#2 Rotary drum coatings hopper/feeder; fed by I-S-1, I-S-2, and I-CH-1, feeds I-2RDCHM (20 tons) controlled by bagfilter (2,032 square feet of filter area, ID No. CD-9)
I-2RDCHM	#2 Rotary drum coatings mixer; fed by I-2RDCH; feeds I-2RDCC-1 conveyor (8 tons per hour) controlled by bagfilter (2,032 square feet of filter area, ID No. CD-9)
I-2RDCC-1	#2 Rotary drum coatings conveyor #1, fed by I-2RDCHM, feeds I-2RDCC-2 conveyor (24" wide) controlled by bagfilter (2,032 square feet of filter area, ID No. CD-9)
I-2RDCC-2	#2 Rotary drum coatings conveyor #2, fed by I-2RDCC-1, loads into 1-ton super sacks (24" wide) controlled by bagfilter (2,032 square feet of filter area, ID No. CD-9)
<b>COATINGS PROCESSING – Coatings Hammermill Process</b>	
I-1CPDH	Coatings hopper (4 tons)
I-1CPH	Coatings hammermill, fed by I-1CPC-1, feeds I-1CPC-2 (3 tons)
I-1CPC-1	Coatings processing conveyor #1, fed by I-1CPDH, feeds I-1CPH (18" wide)
I-1CPC-2	Coatings processing conveyor #2, fed by I-1CPH, feeds the floor or container (18" wide)
<b>COATINGS PROCESSING – Mud Slurry Mixing Process</b>	
I-1MSM	#1 Mud slurry mixer, fed by forklift, feeds by bottom dump into bat can (2.5 tons/batch, 3 batches/hour)
<b>COATINGS PROCESSING – Rotary Coatings Dryer Process</b>	
I-2CPDH	#2 Coatings hopper, fed by front end loader, feeds I-2CPC-1 (5 tons)
I-2CPC-1	#2 Coatings conveyer #1, fed by I-2CPDH, feeds 1RCD (13" wide)

<b>Emission Source ID</b>	<b>Emission Source Description</b>
<b>COATINGS PROCESSING – Coatings Ribbon Mixer Process</b>	
I-1CPRM	Coatings mixing ribbon mixer
<b>COATINGS PROCESSING – Coatings Cone Mixer Process</b>	
I-1CMDH	Coatings mixing dump hopper (2 tons)
I-1CMC-1	Coatings mixing conveyor #1 (24" wide)
I-1CPCM	Coatings processing cone mixer (6 tph)
<b>STORAGE TANKS</b>	
I-AST1	One 500 gallon above ground gasoline storage tank
I-AST2	One 185 gallon above ground kerosene storage tank
I-AST3A	One 525 gallon above ground waste oil storage tank
I-AST3B	One 24,000 gallon above ground vehicle wash water storage tank
I-AST4	One 10,000 gallon above ground diesel storage tank
I-AST5	One 10,000 gallon above ground diesel fuel storage tank
I-AST7 & I-AST8	Two 30,000 gallon above ground diesel fuel storage tanks
I-AST11	One 3,000 gallon above ground hydraulic oil storage tank
I-AST21	One 4,000 gallon above ground hydraulic oil storage tank
I-AST12A	One 1,000 gallon above ground brick oil storage tank
I-AST12B	One 70 gallon above ground brick oil storage tank
I-AST14A, I-AST15A, & I-AST17A	Three 55 gallon above ground brick oil tanks (drums)
I-AST14B1, I-AST14B2, I-AST15B, I-AST17B & I-AST26	Five 55 gallon above ground vacuum pump oil tanks (drums)
I-AST18	One 275 gallon above ground hydraulic oil storage tank
I-AST22	One 500 gallon above ground brick oil tank
I-AST19A & I-AST19B	Two 280 gallon above ground hydraulic oil tanks

<b>Emission Source ID</b>	<b>Emission Source Description</b>
<b>GRINDING ROOM</b>	
I-2H1	Monroe clay hopper/feeder (300 tph)
I-2H2	Anson clay hopper with Pugmill feeder (100 tph)
I-C-Alt	Conveyor from I-1PC to C-4 (300 tph)
I-1H1	Hopper/feeder (300 tph)
I-1PC	Primary crusher (300 tph)
I-C-5	Conveyor from C-4 to crushed material storage building or to C-6 (300 tph)
I-R-1 & I-R-2	Reclaimers 1 & 2 from stockpile onto I-C-17 (300 tph)
I-C-17	Conveyor from I-R-1 and I-R-2 to I-C-18 (300 tph)
I-C-18	Conveyor from I-C-17 to I-C-19 (300 tph)
I-C-19	Conveyor from I-C-18 to I-2H4 (300 tph)
I-2H4	Triple surge hopper/feeder, including belt feeders: C-20, C-21, C-22, from I-C-19 to I-C-90-2, I-C-75-2, and I-C-23 (300 tph)
I-C-23	Conveyor from I-2H4 to I-C-70-1 or to ground storage stockpile and/or I-C-24 (100 tph)
I-C-24	Conveyor from I-C-23 to ground storage tank in 91 Making Room (100 tph)
I-EC-9	Conveyor from I-BC-1 to I-C-90-2 (150 tph)
I-GSH-1	Ground storage hopper to I-BC-1 (8 tons)
I-GSH-2	Ground storage hopper to I-BC-2 (8 tons)
I-BC-1	Bucket conveyor (150 tph)
I-BC-2	Bucket conveyor (150 tph)
<b>70 MAKING ROOM</b>	
I-C-70-1	Conveyor from I-C-23 or I-C-75-2 to I-70GST (24" wide)
<b>75 MAKING ROOM</b>	
I-C-75-1	Conveyor from I-C-90 to I-75GST (24" wide)
I-C-75-2	Conveyor that feeds I-75GST making room or I-C-70-1 (24" wide)
<b>90 MAKING ROOM</b>	
I-C-90-2	Conveyor from I-2H4 or I-EC-9 to I-C-90-1 (24" wide)
I-C-90-1	Conveyor from I-C-90-2 to I-90GST (24" wide)

<b>Emission Source ID</b>	<b>Emission Source Description</b>
<b>91 MAKING ROOM</b>	
I-ES91CAE	Coatings application equipment
<b>BRICK TUNNEL DRYERS</b>	
I-1AD, I-2AD & I-3AD	Three brick tunnel dryers, one associated with Kiln 1AK, one associated with Kiln 2AK, and one associated with Kiln 3AK
I-1LD & I-2LD	Two brick tunnel dryers, one associated with Kiln 1LK and one associated with Kiln 2LK
<b>MISCELLANEOUS SOURCES</b>	
I-VAP	One propane vaporizer system (1.56 million Btu per hour heat input)

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 2D .1100, "Control of Toxic Air Pollutants" or 15A NCAC 2Q .0711, "Emission Rates Requiring a Permit".



## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
03752T31	N/A	ENTER DATE	April 30, 2011*

\* This permit shall expire on the earlier of April 30, 2011 or the date of the renewal of Permit No. 03752T30 has been issued or denied

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:** **Hanson Brick East, LLC**

**dba Hanson Brick**

**Facility ID:**

**9000028**

**Facility Site Location:**

**2304 Brickyard Road and Highway 74**

**City, County, State, Zip:**

**Monroe, Union County, NC 28111**

**Mailing Address:**

**Post Office Box 5012**

**City, State, Zip:**

**Monroe, North Carolina 28111**

**Application Number:**

**9000028.09A**

**Complete Application Date:**

**November 9, 2009**

**Primary SIC Code:**

**3251**

**Division of Air Quality,**

**Mooresville Regional Office**

**Regional Office Address:**

**919 North Main Street**

**Mooresville, North Carolina 28115**

Permit issued this the **ENTER DATE**, 2010

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
1LK and 2LK <b>Case-By-Case MACT</b>	Two natural gas/propane/No. 2 fuel oil-fired tunnel type brick kilns (18.5 and 20 million Btu per hour maximum heat input rates and 7.16 tons per hour fired-brick production capacity each)	N/A	N/A
1AK and 2AK <b>Case-By-Case MACT</b>	Two natural gas/propane/No. 2 fuel oil-fired tunnel type brick kilns (13 million Btu per hour maximum heat input and 4.68 tons per hour fired-brick production capacity; and 15.5 million Btu per hour maximum heat input and 4.68 tons per hour fired-brick production capacity, respectively)	N/A	N/A
3AK <b>Case-By-Case MACT</b>	One natural gas/propane/No. 2 fuel oil-fired tunnel type brick kiln (18.5 million Btu per hour maximum heat input and 6.69 tons per hour fired-brick production capacity)	N/A	N/A
3LK <b>Case-By-Case MACT</b>	One natural gas/propane/No. 2 fuel oil-fired tunnel type brick kiln (45.6 million Btu per hour maximum heat input and 22.8 tons per hour fired-brick production capacity)	CD-8	One dry limestone adsorber (7 cascades, up to an estimated 221 pounds per hour limestone consumption)
3LD	One natural gas-fired brick dryer (2.1 million Btu per hour maximum heat capacity and 22.8 tons per hour throughput capacity)		
1RCD	One natural gas-fired rotary drum coating dryer (2.1 million Btu per hour heat capacity and 3.0 tons per hour throughput capacity)	CD-1	One wet impingement type scrubber (7.5 to 15 gallons per minute liquid injection rate)
C-0 C-1 C-2 C-3 C-4 and C-14 through C-16 <b>NSPS OOO</b>	Eight conveyors including: <ul style="list-style-type: none"> <li>• one 36" width; 300 tph capacity</li> <li>• one 30" width; 300 tph capacity</li> <li>• one 30" width; 100 tph capacity</li> <li>• one 30" width; 300 tph capacity</li> <li>• one 30" width; 300 tph capacity</li> <li>• three 30" width; 240 tph capacity</li> </ul>	N/A	N/A
2PSS <b>NSPS OOO</b>	One primary scalping screen (4' by 12'; 300 tons per hour capacity) located in Building 2	N/A	N/A
2PC <b>NSPS OOO</b>	One primary crusher (300 tons per hour capacity) located in Building 2	N/A	N/A
2SS <b>NSPS OOO</b>	One scalping screen (240 tons per hour capacity) located in Building 5	CD-5	One fabric filter (3,704 square feet of filter area)
2HM <b>NSPS OOO</b>	One impactor (240 tons per hour capacity) located in Building 5	CD-5	One fabric filter (3,704 square feet of filter area)

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
2VS-1A and 2VS-2A <b>NSPS OOO</b>	Two vibrating screens (5 feet x 7 feet, 75 tons per hour capacity) located in Building 5	CD-5	
2VS-3, 2VS-4 and 2VS-5 <b>NSPS OOO</b>	Three vibrating screens (5 feet x 8 feet, 30 tons per hour capacity) located in Building 5	CD-5	
C-6 through C-13 <b>NSPS OOO</b>	Eight conveyors (30" widths and 240 tons per hour capacity) located in Building 5	CD-5	
70CAE	One coatings application making room (58.8 tons per hour throughput capacity) for Kiln Nos. 1AK, 2AK, and 3AK	CD-2	One fabric filter (360 square feet of filter area) <sup>1</sup>
75CAE	One coatings application making room (58.8 tons per hour throughput capacity) for Kiln Nos. 1AK, 2AK, and 3AK	CD-3	One fabric filter (360 square feet of filter area) <sup>1</sup>
90CAE	One coatings application making room (81.8 tons per hour throughput capacity) for Kiln Nos. 1LK and 2LK	CD-4	One fabric filter (360 square feet of filter area) <sup>1</sup>
91CAE	One coatings application making room (81.8 tons per hour throughput capacity) for Kiln No. 3LK	CD-7	One fabric filter (4,500) square feet of filter area) <sup>1</sup>
ES-75SRH	Spillage receiving hopper for making room #75 (8 ton total capacity)	CD-BV-75SRH	Cartridge type bin vent filter (95 square feet of filter area)
ES-91SRH	Spillage receiving hopper for making room #91 (8 ton total capacity)	CD-BV-91SRH	Cartridge type bin vent filter (95 square feet of filter area)

<sup>1</sup> The dust capture and fabric filters (**ID Nos. CD-2, CD-3, CD-4 and CD-7**) shall be used as necessary to abate particulate emissions. Wet suppression and no controls may be employed subject to applicable emissions standards, monitoring and recordkeeping requirements.

## 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) listed below are subject to the following specific terms, conditions, and limitations, including the monitoring, recordkeeping, and reporting requirements as specified herein:

- A. Six natural gas/propane/No. 2 fuel oil-fired tunnel type brick kilns including:
- Kiln 1LK (18.5 million Btu per hour maximum heat input, 7.16 tons per hour fired-brick production capacity, ID No. 1LK);
  - Kiln 2LK (20 million Btu per hour maximum heat input, 7.16 tons per fired-hour brick production capacity, ID No. 2LK);
  - Kiln 1AK (13 million Btu per hour maximum heat input, 4.68 tons per fired-hour brick production capacity, ID No. 1AK);
  - Kiln 2AK (15.5 million Btu per hour maximum heat input, 4.68 tons per hour fired-brick production capacity, ID No. 2AK);
  - Kiln 3AK (18.5 millions Btu per hour maximum heat input, 6.69 tons per hour fired-brick production capacity, ID No. 3AK); and
  - Kiln 3LK (45.6 million Btu per hour maximum heat input, 22.8 tons per hour fired-brick production capacity, ID No. 3LK) controlled by one dry limestone adsorber (7 cascades, up to an estimated 221 pounds per hour limestone consumption, ID No. CD-8), and one natural gas-fired brick dryer (ID No. 3LD)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter including PM <sub>10</sub>	$E = 4.10 P^{0.67}$  where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu	15A NCAC 2D .0516(a)
Visible emissions	20 percent opacity (ID No. 3LK) 40 percent opacity (all other kilns)	15A NCAC 2D .0521(d) 15A NCAC 2D .0521(c)
Carbon monoxide	less than 250 tons per year (ID Nos. 1LK, 2LK, 1AK, 2AK, 3AK and 3LK)	15A NCAC 2Q .0317 (PSD Avoidance)
Filterable PM	<b>Affected Sources: ID Nos. 1LK, 2LK, 1AK, 2AK, and 3AK</b> Implement best work practices.  <b>Affected Source: ID No. 3LK</b> 0.17 lbs/ton	15A NCAC 2D .1109
HCl-equivalent	27.0 lbs/hr from all six tunnel kilns, combined	15A NCAC 2D .1109
Odorous emissions	See Section 2.2.A.1 - Multiple Emission Sources - <b>State-enforceable only</b>	15A NCAC 2D .1806
Toxic air pollutants	See Section 2.2.A.2 - Multiple Emission Sources - <b>State-enforceable only</b>	15A NCAC 2D .1100
Toxic air pollutants	See Section 2.2.A.3 - Multiple Emission Sources - <b>State-enforceable only</b>	15A NCAC 2Q .0711

1. 15A NCAC 2D .0515: PARTICULATE EMISSIONS FROM MISCELLANEOUS INDUSTRIAL PROCESSES
- a. Emissions of particulate matter from the brick tunnel kilns and associated dryer (ID Nos. 1LK, 2LK, 3LK, 1AK, 2AK, 3AK, and 3LD) that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equation:

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

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 .2601]

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

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

- c. To assure compliance, the Permittee shall perform an inspection of the brick tunnel kilns and associated dryer (**ID Nos. 1LK, 2LK, 3LK, 1AK, 2AK, 3AK and 3LD**) in accordance with the following:
- Every six months, perform a visual inspection of the brick tunnel kilns' emissions ductwork systems for leaks, holes, or disrepair; and
  - Every six months, perform a visual inspection of the brick tunnel kilns' fuel combustion system.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if inspections of the kiln systems ductwork and fuel combustion systems are not performed.

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

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log 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 particulate emissions; and
  - The results of any corrective actions performed.
- The Permittee shall be deemed in non-compliance with Section 2.1 A.1.a. if records of the monitoring results are not maintained.

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

- e. The Permittee shall submit, in writing a summary report of the observations by 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 the six natural gas/propane/No. 2 fuel oil-fired brick tunnel kilns and dryer (**ID Nos. 1LK, 2LK, 3LK, 1AK, 2AK, 3AK and 3LD**) and 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. 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 .0516.

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

- c. No monitoring, recordkeeping, or reporting is required to show compliance with this regulation.

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

- a. Visible emissions from the brick tunnel kilns (**ID Nos. 1LK, 2LK, 1AK, 2AK, and 3AK**) 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.
- b. Visible emissions from the brick tunnel kiln and associated dryer (**ID No. 3LK and 3LD**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

**Testing** [15A NCAC 2D .2601]

- c. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 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 .0521.

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

- d. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - 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 .2601 is below the limit given in Section 2.1 A.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)]

- e. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log 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 non-compliance with Section 2.1.A.3.a. if records of the monitoring results 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.

**4. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS FOR LIMITATION TO AVOID 15A NCAC 2D. 0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. In order to avoid classification as a major stationary source pursuant to 15A NCAC 2D .0530(g), as requested by the Permittee, carbon monoxide (CO) emissions from the kilns and associated dryers (**ID Nos. 1AK, 2AK, 3AK, 1LK, 2LK, 3LK, and ES-3LD**) shall be less than 250 tons per consecutive 12-month period.
  - i. To ensure enforceability of this limit, the annual production of fired brick shall not exceed 370,000 tons.

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1-A.4.a., the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

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

- c. The facility-wide production of fired brick shall be limited to 370,000 tons of fired brick for any consecutive twelve month period, such that CO emissions shall not exceed 250 tons for any consecutive 12-month period. Calculations shall be made monthly for each kiln and associated dryer. The monthly calculations shall be recorded in a log (written or electronic format). These records shall be kept onsite and made available to DAQ personnel upon request. The Permittee shall be classified as a major stationary source pursuant to 15A NCAC 2D .0530 if CO emissions exceed the limit in Section 2.1-A.4.a.

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

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding 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 CO emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

**5. 15A NCAC 2D .1109: CAA § 112(j); Case-by-Case MACT for Brick Manufacturers**

- a. The initial compliance date for the emissions standards, work practice standards, and associated monitoring, recordkeeping, and reporting requirements listed below is **<ENTER DATE THREE YEARS AFTER PERMIT ISSUANCE>**. These conditions need not be included on the annual compliance certification until after the initial compliance date.

**Emissions Standards** [15A NCAC 2D .1109]

- b. Emissions of the following regulated pollutants shall not exceed the emissions limits listed below:

- i. **Filterable PM:**

- (A) 0.17 lbs/ton for the large tunnel kiln (**ID No. 3LK**).

- (B) The small tunnel kilns (**ID Nos. 1AK, 2AK, 3AK, 1LK, and 2LK**) shall comply with work practice standards.

- ii. **HCl-equivalent:** 27.0 lbs/hr from all tunnel kilns (**ID Nos. 1AK, 2AK, 3AK, 1LK, 2LK, and 3LK**). HCl-equivalent is defined by the following equation:

$$E = E_{\text{HCl}} + E_{\text{HF}} * (\text{RfC}_{\text{HCl}} / \text{RfC}_{\text{HF}})$$

Where:

E = HCl-equivalent emission rate (in lbs/hr)

$E_{\text{HCl}}$  = HCl emission rate (in lbs/hr);

$E_{\text{HF}}$  = HF emission rate (in lbs/hr);

$\text{RfC}_{\text{HCl}}$  = Reference concentration for HCl (20  $\mu\text{g}/\text{m}^3$ ); and

$\text{RfC}_{\text{Cl}_2}$  = Reference concentration for HF (14  $\mu\text{g}/\text{m}^3$ ).

- iii. **Routine Maintenance Periods:** The limits above apply at all times except for periods of routine maintenance during which the Permittee may bypass the DLA (**ID No. CD-8**) and continue operating the kiln (**ID No. 3LK**) for up to 4 percent of the annual operating uptime. The Permittee must minimize HAP emissions during the bypass period and must minimize the time period during which the kiln is operating and the control device is offline.

The Permittee shall follow the procedures in 15A NCAC 2D. 0535 for any excess emissions that occur during periods of startup, shutdown, or malfunction.

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

- c. The Permittee shall conduct an initial compliance test for all pollutants listed in Section 2.1 A.5.b. above within 180 days of the initial compliance date, unless the NC DAQ – SSCB approves a previously conducted performance test as an equivalent compliance demonstration. Testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3.
  - i. Measure pollutant emission concentrations while operating at the maximum production level, as follows:
    - (A) **Particulate Matter:** PM testing is only required at the large tunnel kiln (**ID No. 3LK**). Use Method 5 in 40 CFR 60, Appendix A.
    - (B) **HF & HCl:** HF and HCl testing is required for all the tunnel kilns, unless an alternative test plan is approved by the NC DAQ – SSCB for demonstrating compliance with the total HCl-equivalent emission limitation in Section 2.1.A.5.b.ii. Use **either** of the following methods:
      - (1) Use Method 26 or 26A in 40 CFR 60, Appendix A. Method 26A may only be used when no acid PM (e.g., HF or HCl dissolved in water droplets emitted by sources controlled by a wet scrubber) is present.
      - (2) Use Method 320 of 40 CFR 63, Appendix A. Follow the analyte spiking procedures of Section 13 of Method 320 unless you can demonstrate that the complete spiking procedure has been conducted at a similar source.
  - ii. Establish the operating limit for the limestone feeder setting at the DLA (**ID No. CD-8**) using data from the limestone feeder during the performance test. Establish the limestone feeder setting at least one week prior to the performance test and maintain the feeder setting for the one-week period that precedes the performance test and during the performance test.
  - iii. Document the source and grade of limestone used at the DLA (**ID No. CD-8**) during the performance test using records of limestone purchase.

Performance tests may not be conducted during periods of startup, shutdown, or malfunction. The Permittee shall

be deemed in non-compliance with 15A NCAC 2D .1109 if the required tests are not conducted, or if the results of the emissions tests exceed the limits in Section 2.1 A.5.b. above.

**Work Practice Standards** [15A NCAC 2Q .0508(f)]

- d. The Permittee shall perform annual inspection and maintenance of the small tunnel kilns (**ID Nos. 1AK, 2AK, 3AK, 1LK, and 2LK**) as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
- i. Conduct a visual inspection of the ductwork system for each tunnel kiln for leaks, holes, or disrepair; and,
  - ii. Inspect each burner, and clean or replace any components of the burner as necessary;
  - iii. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.

The Permittee shall conduct at least one inspection per calendar year to demonstrate compliance with this requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if the affected tunnel kilns not inspected and maintained as required above.

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

- e. The Permittee shall maintain a pressure drop across the DLA (**ID No. CD-8**) at the large tunnel kiln (**ID No. 3LK**).
- i. The Permittee shall install, operate, and maintain a pressure measurement device at the DLA.
  - ii. Once per calendar day, the Permittee shall record the pressure drop across the DLA. The record shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these monitoring and recordkeeping requirements are not met or if the Permittee does not maintain a pressure drop across the DLA, except during routine maintenance periods as provided for in Section 2.1.5.b.iii. of this permit.

- f. The Permittee shall maintain an adequate amount of limestone in the limestone hopper, storage bin (located at the top of the DLA), and DLA (**ID No. CD-8**) at all times.
- i. Once per day, the Permittee shall verify that the limestone hopper and storage bin at the DLA (**ID No. CD-8**) contain adequate limestone and record the results.
  - ii. The record of the daily check shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these monitoring and recordkeeping requirements are not met or if the Permittee does not maintain an adequate amount of limestone as provided above.

- g. The Permittee shall use the same grade of limestone at the DLA (**ID No. CD-8**) from the same source as was used during the performance test. The Permittee shall maintain records of the source and grade of limestone used. The records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these records are not maintained
- h. The Permittee shall maintain the limestone feeder setting at the DLA (**ID No. CD-8**) at or above the level established during the performance test.
- i. Once per day, the Permittee shall check and record the limestone feeder setting to verify that it is being maintained at or above the level established during the performance test.
  - ii. The record of the daily check shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these monitoring and recordkeeping requirements are not met or if the Permittee does not maintain the limestone feeder setting as provided above.

- i. The Permittee shall maintain no visible emissions from the DLA stack (**ID No. CD-8**). The Permittee perform visible emissions observations as follows:
- (A) Conduct a daily Method 22 test (40 CFR 60, Appendix A). The duration of each Method 22 test must be at least 15 minutes. If VE are observed during any daily VE test, promptly initiate and complete corrective actions according to the site-specific OM&M plan.
  - (B) If no VE are observed in 30 consecutive daily Method 22 tests for any kiln stack, the Permittee may decrease the frequency of Method 22 testing from daily to weekly. If VE are observed during any weekly test, promptly initiate and complete corrective actions, resume Method 22 testing of that kiln stack on a daily basis, and maintain that schedule until no VE are observed in 30 consecutive daily tests, at which time the Permittee may again decrease the frequency of Method 22 testing to a weekly basis.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if the required visible emissions observations are not performed or if visible emissions are detected.

- j. Once per calendar month, the Permittee shall ensure that the limestone feed system on a DLA (**ID No. CD-8**) replaces limestone at least as frequently as the schedule set during the performance test. Create and maintain a record of the monthly check in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if this requirement is not met.

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

- k. The Permittee shall maintain records of the production rates on a fired-product basis for each affected tunnel kiln (**ID Nos. 1AK, 2AK, 3AK, 1LK, 2LK, and 3LK**). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these records are not maintained.
- l. The results of inspection and maintenance at the small tunnel kilns (**ID Nos. 1AK, 2AK, 3AK, 1LK, and 2LK**) 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 of each recorded action;
  - ii. The results of each inspection; and,
  - iii. The results of any maintenance performed on the tunnel kilns.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these records are not maintained.
- m. The results of the visible emissions observations at the large tunnel kiln (**ID No. 3LK**) shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log 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 non-compliance with 15A NCAC 2D .1109 if records of the monitoring results are not maintained.
- n. The Permittee shall maintain a record of each period when the large tunnel kiln is operated while bypassing the DLA (**ID No. CD-8**) in order to perform routine maintenance. The records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request, and shall include:
  - i. The start date and start time of the routine maintenance;
  - ii. The stop date and stop time of the routine maintenance;
  - iii. A description of the maintenance activities; and,
  - iv. The total time the kiln has operated in by-pass, and the total percentage of the operating time the kiln has operated in bypass for the previous 12-month period.The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1109 if these records are not maintained or if the percentage of time the kiln operates in bypass exceeds 4% of the annual operating time.

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

- o. The Permittee must submit a Notification of Compliance Status within 60 days following the completion of the final required performance test. The Notification of Compliance Status must include the following information:
  - i. For the small tunnel kilns (**ID Nos. 1AK, 2AK, 3AK, 1LK, and 2LK**), a summary of the initial inspection required in Section 2.1.A.5.d. of this permit;
  - ii. A summary of the results of all performance tests conducted to demonstrate initial compliance as required in Section 2.1.A.5.c. of this permit;
  - iii. The limestone feeder setting value established for the DLA (**ID No. CD-8**) during the performance test;
  - iv. The source and grade of limestone used at the DLA (**ID No. CD-8**) during the performance test; and,
  - v. A description of any routine maintenance that the Permittee will perform on the DLA (**ID No. CD-8**), during which the Permittee will continue operating the large tunnel kiln (**ID No. 3LK**) while bypassing the control device.
- p. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding 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. Company name, facility ID number, and address;
  - ii. Statement by the Responsible Official with that official's name, title, and signature certifying that, based on

- information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete;
- iii. A description of routine maintenance performed while the DLA (**ID No. CD-8**) was offline and the large tunnel kiln (**ID No. 3LK**) was operating, including the following:
    - (A) The date and time when the DLA was shutdown and restarted.
    - (B) Identification of the number of hours that the kiln operated while the DLA was offline.
    - (C) The *total* amount of time (in hours and % of total operating time) that the associated kiln operated during the current semiannual compliance period and during the previous semiannual compliance period.
  - iv. For each deviation from a limitation (emission limit, operating limit, or work practice standard), include the following information:
    - (A) The total operating time of each affected source during the reporting period.
    - (B) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
  - v. If there were no deviations from any of the applicable limitations, a statement that there were no deviations during the reporting period.

**B. One natural gas-fired rotary drum coating dryer (2.1 million Btu per hour heat input rate, 3.0 tons per hour throughput capacity, ID No. 1RCD) controlled by one wet impingement type scrubber (7.5 to 15 gallons per minute liquid injection rate, ID No. CD-1)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter including PM <sub>10</sub>	$E = 4.10 P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu	15A NCAC 2D .0516(a)
Visible emissions	40 percent opacity	15A NCAC 2D .0521(c)
Odorous emissions	See Section 2.2.A.1 - Multiple Emission Sources - <b>State-enforceable only</b>	15A NCAC 2D .1806

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

- a. Emissions of particulate matter from the rotary drum coating dryer (**ID No. 1RCD**) shall not exceed an allowable emission rate as calculated by the following equation:

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

$$P = \text{process weight in tons per hour}$$

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

- b. **Testing** [15A NCAC 2D .2601]  
If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1.B.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.
- c. **Monitoring** [15A NCAC 2Q .0508(f)]  
To assure compliance, the Permittee shall inspect and maintain the rotary drum coating dryer (**ID No. 1RCD**) and the wet impingement type scrubber (**ID No. CD-1**) in accordance with the following:
  - i. Every three months, perform a visual inspection of the rotary drum coating dryer's ductwork system for leaks, holes, or disrepair,
  - ii. Every three months, read the meter monitoring the liquid injection flow to the scrubber;
  - iii. Every twelve months, perform a visual inspection of the scrubber's structural integrity; and
  - iv. Every twelve months, calibrate all associated instrumentation including the flow meter measuring the liquid injection rate to the scrubber.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if inspections of the dryer systems ductwork and scrubber are not performed.

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

The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log 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 particulate emissions; and
- iii. The results of any corrective actions performed.

The Permittee shall be deemed in non-compliance with Section 2.1 B.1.a. of this permit if records of the monitoring results are not maintained.

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

- e. The Permittee shall submit, in writing a summary report of the observations by 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 the rotary drum coating dryer (**ID No. 1RCD**) 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. 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/Reporting** [15A NCAC 2Q .0508(f)]

- c. No monitoring, record keeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas in the rotary drum coating dryer (**ID Nos. 1RCD**).

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

- a. Visible emissions from the rotary drum coating dryer (**ID No. 1RCD**) 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 .2601]

- b. If emission testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 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 month the Permittee shall observe the emission points of this source for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:

- 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 .2601 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 log (written or electronic format) on-site and made available to an authorized representative upon request. The log 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 non-compliance with Section 2.1.B.3.a. if records of the monitoring results are not maintained.

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

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

**C. One NSPS affected scalping screen and one NSPS affected crusher (300 tons per hour maximum processing capacity each, ID Nos. 2PSS and 2PC, respectively)**

The following table provides a summary of limits and/or standards for the clay crushing, grinding, and screening emission units.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	10 percent opacity for the screen and 15 percent opacity for the crusher, OR no visible emissions from the building enclosing the affected facilities	15A NCAC 2D .0524 (40 CFR 60.670, Subpart OOO)
Odors	See Section 2.2.A.1 - Multiple Emission Sources <b>- State-enforceable only</b>	15A NCAC 2D .1806

**1. 15A NCAC 2D .0524: NSPS 40 CFR PART 60, SUBPART OOO - STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS.**

- a. The Permittee shall comply with all applicable provisions, notification, testing, reporting, record keeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60.670, Subpart OOO, including Subpart A "General Provisions."

**Emission Standard(s)** [15A NCAC 2D .0524]

- b. For the NSPS affected scalping screen (**ID No. 2PSS**) subject to the 10 percent opacity limit, and for the NSPS affected crusher (**ID No. 2PC**) subject to a 15 percent opacity limit, the Permittee shall meet the requirements of this Subpart by demonstrating compliance with 40 CFR 60.672(b), and (c) for each individual affected facility OR by complying with the 40 CFR 60.672(e) limit of no visible emissions from the un-vented Building No. 2.

**Testing** [15A NCAC 2D .2601]

- c. Initial compliance or when subsequent additional testing is required, shall be in accordance with the requirements of 15A NCAC 2D .0524 (40 CFR 60.670, Subpart OOO), 15A NCAC 2D .2601 and General Condition JJ when determining compliance of each individual affected facility with 40 CFR 60.672(a), (b) and (c) **OR** Method 22 testing, in accordance with the requirements of 15A NCAC 2D .0524 (40 CFR 60.670 (Subpart OOO), 15A NCAC 2D .0501(c)(18) and General Condition JJ when determining compliance with the "no visible emissions" standard of 40 CFR 60.672(e). If test results exceed the applicable limit(s) as given in Section 2.1 C.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- d. Monitoring to assure compliance with the applicable emissions standard(s) of Section 2.1 C.1.a. of this permit shall be performed by the Permittee as follows:
- i. Observation of the building enclosure containing affected facilities:
    - A. Observe Building No. 2 each month for any fugitive visible emissions. Should any visible emissions be observed, each affected facility enclosed in Building No. 2 shall be deemed to be in noncompliance with 15A NCAC 2D .0524 **UNLESS** a compliance demonstration for the NSPS affected sources enclosed in the buildings is performed in accordance with the following;
    - B. An approved Method 9 opacity determination meeting the requirements of 40 CFR 60.670 (Subpart OOO, 15A NCAC 2D .2601 is performed for each enclosed affected facility and visible emissions are demonstrated to comply with the applicable limit(s) given in 60.672(b) and (c). If compliance for the affected facility cannot be demonstrated, then the affected facility shall be deemed to be in noncompliance with 15A NCAC 2D .0524, **OR**
  - ii. Observation of an individual affected facility enclosed in Building No. 2:
    - A. After the initial performance test required under 40 CFR 60.670, the Permittee shall observe each individual affected facility each month for any visible emissions which exceed normal. Should monthly observed emissions of an enclosed affected facility exceed the established normal visible emissions for that affected facility, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0524, **UNLESS**,
    - B. An approved Method 9 (or Method 22 if observing an affected facilities building enclosure) opacity determination meeting the requirements of 40 CFR 60.670 (Subpart OOO, 15A NCAC 2D .2601 is performed for each enclosed affected facility and visible emissions are demonstrated to comply with the applicable limit(s) given in 60.672(b) and (c). If compliance for the affected facility cannot be demonstrated, then the affected facility shall be deemed to be in noncompliance with 15A NCAC 2D .0524.

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

- e. Results of monitoring shall be maintained in a log (written or electronic form). The following shall be recorded in the log:
- i. The results of the observation to establish normal emissions;
  - ii. The results of the monthly building fugitive emissions observation or the monthly visible emissions observations for each affected facility;
  - iii. If option 2.1 C.1.c.ii.A. is followed, the observation to establish normal should be recorded for each affected facility within Building No. 2.
  - iv. Whether the observed emissions source was the building or each affected facility within the building, the date and time of each observation, and
  - v. If any emissions were observed from the building or whether any emissions observed exceeded normal, the time and any resulting action(s) taken to reduce emissions exceeding an applicable limit, and
  - vi. The date, time, and type of all corrective actions performed to prevent such an exceedance from reoccurring and a copy of any Method 9 or Method 22 opacity testing performed for the purpose of demonstrating compliance with the applicable emissions limit(s).

The Permittee shall be deemed in non-compliance with Section 2.1.C.1.a. if records of the monitoring results are not maintained.

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

- f. The Permittee shall submit a written summary report of the all monitoring and record keeping activities as follows:
- i. A report of any changes in existing facilities as specified in 40 CFR 60.676 - Reporting and record keeping, including equipment being replaced and the replacement equipment of affected facilities. This report shall be submitted to the Administrator as required.
  - iii. A summary report of monitoring and record keeping activities by 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.
  - iii. A report of any non-complying emissions for all emissions which exceed the no visible emission limit of 40 CFR 60.672(e) or the applicable opacity limit(s) of 40 CFR 60.672(b) and (c) as established using Method 9 or 22 compliance demonstrations conducted on an affected facility or building, along with the determined cause of exceedance and the resulting corrective action taken.

- D. Eight NSPS affected conveyors including one 36 inch wide conveyor (ID No. C-0, 300 tons per hour capacity), three 30 inch wide conveyors (ID Nos. C-1, C-3 and C-4, 300 tons per hour capacity each), one 30 inch wide conveyor (ID**

**No. C-2, 100 tons per hour capacity), and three 30 inch wide conveyors (ID Nos. C-14 through C-16, 240 tons per hour capacity each)**

The following table provides a summary of limits and/or standards for the clay crushing, grinding, and screening emission units.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible emissions	10 percent opacity for the conveyors	15A NCAC 2D .0524 (40 CFR 60.670, Subpart OOO)
Odors	See Section 2.2.A.1 - Multiple Emission Sources - <b>State-enforceable only</b>	15A NCAC 2D .1806

**1. 15A NCAC 2D .0524: NSPS 40 CFR PART 60, SUBPART OOO - STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS**

- a. The Permittee shall comply with all applicable provisions, notification, testing, reporting, record keeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60.670, Subpart OOO, including Subpart A "General Provisions."

**Emission Standard(s)** [15A NCAC 2D .0524]

- b. For the eight NSPS affected conveyers (**ID No. C-0 through C-4, C-14 through C-16**) subject to the 10 percent opacity limit, the Permittee shall meet the requirements of this Subpart by demonstrating compliance with 40 CFR 60.672(b) for each individual affected facility OR by complying with the 40 CFR 60.672(e) limit of "no visible emissions" from the un-vented Building Nos. 0, 1, 2, 4, and 5.

**Testing** [15A NCAC 2D .2601]

- c. Initial compliance or when subsequent additional testing is required, shall be in accordance with the requirements of 15A NCAC 2D .0524 (40 CFR 60.670, Subpart OOO), 15A NCAC 2D .2601 and General Condition JJ when determining compliance of each individual affected facility with 40 CFR 60.672 (b). If test results exceed the applicable limit as given in Section 2.1.D.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- d. Monitoring of each affected conveyor to assure compliance with the applicable emissions standard(s) of 2.1 D.1.a. shall be performed by the Permittee as follows:
- i. After the initial performance test required under 40 CFR 60.670, the Permittee shall observe each individual affected facility each month for any visible emissions which exceed normal. Should monthly observed emissions of an enclosed affected facility exceed the established normal visible emissions for that affected facility, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0524, **UNLESS**,
  - ii. An approved Method 9 opacity determination meeting the requirements of 40 CFR 60.670 (Subpart OOO, 15A NCAC 2D .2601 is performed for each affected facility and visible emissions are demonstrated to comply with the applicable limit(s) given in 60.672(b). If compliance for the affected facility cannot be demonstrated, then the affected facility shall be deemed to be in noncompliance with 15A NCAC 2D .0524.

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

- e. Results of monitoring shall be maintained in a log (written or electronic form). The following shall be recorded in the log:
- i. The results of the observation to establish normal emissions;
  - ii. The results of the monthly visible emissions observations for each affected facility;
  - iii. The observation to establish normal should be recorded for each affected facility,
  - iv. The date and time of each observation, and
  - v. The time and any resulting action(s) taken to reduce emissions exceeding an applicable limit, and
  - vi. The date, time, and type of all corrective actions performed to prevent such an exceedance from reoccurring and a copy of any Method 9 opacity testing performed for the purpose of demonstrating compliance with the applicable emissions limit.

The Permittee shall be deemed in non-compliance with Section 2.1.D.1.a. if records of the monitoring results are not maintained.

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

- f. The Permittee shall submit a written summary report of the all monitoring and record keeping activities as follows:
  - i. A report of any changes in existing facilities as specified in 40 CFR 60.676 - Reporting and record keeping, including equipment being replaced and the replacement equipment of affected facilities. This report shall be submitted to the Administrator as required.
  - ii. A summary report of monitoring and record keeping activities by 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.
  - iii. A report of any non-complying emissions for all emissions which exceed the applicable opacity limit of 40 CFR 60.672(b) as established using Method 9 compliance demonstrations conducted on an affected facility, along with the determined cause of exceedance and the resulting corrective action taken.

**E. One NSPS affected scalping screen, one NSPS affected impactor, five NSPS affected vibrating screens, and eight NSPS affected conveyors (ID Nos. 2SS, 2HM, 2VS-1A, 2VS-2A, 2VS-3, 2VS-4, 2VS-5, and C-6 though C-13) controlled by one fabric filter (3,704 square feet of filter area, ID No. CD-5)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter and visible emissions	0.05 grams per dry standard cubic meter and 7 percent opacity from the fabric filter emission point	15A NCAC 2D .0524 (40 CFR 60.670, Subpart OOO)
Odors	See Section 2.2.A.1 - Multiple Emission Sources - <b>State-enforceable only</b>	15A NCAC 2D .1806

**1. 15A NCAC 2D .0524: NSPS 40 CFR PART 60, SUBPART OOO - STANDARDS OF PERFORMANCE FOR NONMETALLIC MINERAL PROCESSING PLANTS.**

- a. The Permittee shall comply with all applicable provisions, notification, testing, reporting, record keeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60.670, Subpart OOO, including Subpart A "General Provisions."

**Emission Standard(s)** [15A NCAC 2D .0524]

- b. For the NSPS affected conveyers (**ID Nos. C-6 through C-13**), the NSPS affected screens (**ID Nos. 2SS, 2VS-1A, 2VS-2A, 2VS-3, 2VS-4, and 2VS-5**), and the NSPS impactor (**ID No. 2HM**) with emissions controlled by fabric filter (**ID No. CD-5**), the Permittee shall meet the requirements of this Subpart by demonstrating compliance with the 40 CFR 60.672(a) limit of 0.05 grams of particulate matter per dry standard cubic meter and 7 percent opacity from the vented fabric filter (**ID No. CD-5**).

**Testing** [15A NCAC 2D .2601]

- c. Initial compliance or when subsequent additional testing is required, shall be in accordance with the requirements of 15A NCAC 2D .0524 (40 CFR 60.670, Subpart OOO), 15A NCAC 2D .2601 and General Condition JJ when determining compliance of each individual affected facility with 40 CFR 60.672(a) in accordance with the requirements of 15A NCAC 2D .0524 (40 CFR 60.670, Subpart OOO). If test results exceed the applicable limit(s) as given in Section 2.1.E.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- d. Monitoring of the fabric filter (**ID No. CD-5**) to assure compliance with the applicable emissions standard(s) of Section 2.1.E.1.a. shall be performed by the Permittee as follows:
  - i. After the initial performance test required under 40 CFR 60.670, the Permittee shall observe each individual affected facility each month for any visible emissions which exceed normal. Should monthly observed emissions of an enclosed affected facility exceed the established normal visible emissions for that affected facility, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0524, **UNLESS** a compliance demonstration is performed following an approved Method 9 opacity determination meeting the requirements of 40 CFR 60.670 (Subpart OOO, 15A NCAC 2D .2601 for the fabric filter and visible emissions are demonstrated

to comply with the applicable limit(s) given in 60.672 (a). If compliance for the fabric filter cannot be demonstrated, then each affected facility shall be deemed to be in noncompliance with 15A NCAC 2D .0524.

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

- e. Results of monitoring shall be maintained in a log (written or electronic form). The following shall be recorded in the log:
  - i. The results of the observation to establish normal emissions,
  - ii. The results of the monthly fabric filter emissions observations,
  - iii. The date and time of each observation,
  - iv. If any emissions observed from the fabric filter exceeded “normal,” the time and any resulting action(s) taken to reduce emissions exceeding an applicable limit, and
  - v. The date, time, and type of all corrective actions performed to prevent such an exceedance from reoccurring and a copy of any Method 9 opacity testing performed for the purpose of demonstrating compliance with the applicable emissions limit(s).

The Permittee shall be deemed in non-compliance with Section 2.1.E.1.a. if records of the monitoring results are not maintained.

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

- f. The Permittee shall submit a written summary report of the all monitoring and record keeping activities as follows:
  - i. A report of any changes in existing facilities as specified in 40 CFR 60.676 - Reporting and record keeping, including equipment being replaced and the replacement equipment of affected facilities. This report shall be submitted to the Administrator as required.
  - ii. A summary report of monitoring and record keeping activities by 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.
  - iii. A report of any non-complying emissions for all emissions which exceed the applicable opacity limit(s) of 40 CFR 60.672(a) as established using Method 9 compliance demonstrations conducted on an affected facility along with the determined cause of exceedance and the resulting corrective action taken.

**F. Four coatings application-brick making rooms including:**

- Coatings application-brick making room (ID No. 70CAE, 58.8 tons per hour capacity) controlled by fabric filter (ID No. CD-2; 360 square feet of filter area)
- Coatings application-brick making room (ID No. 75CAE, 58.8 tons per hour capacity) controlled by fabric filter (ID No. CD-3; 360 square feet of filter area)
- Coatings application-brick making room (ID No. 90CAE, 81.8 tons per hour capacity) controlled by fabric filter (ID No. CD-4; 360 square feet of filter area)
- Coatings application-brick making room (ID No. 91CAE, 81.8 tons per hour capacity) controlled by fabric filter (ID No. CD-7; 4,500 square feet of filter area)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter including PM <sub>10</sub>	$E = 55 * (P)^{0.11} - 40$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	40 percent opacity 20 percent opacity	15A NCAC 2D .0521(c) 15A NCAC 2D .0521(d)
Odors	See Section 2.2.A.1 - Multiple Emission Sources - <b>State-enforceable only</b>	15A NCAC 2D .1806

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

- a. Emissions of particulate matter from the four coating application rooms (ID Nos. 70CAE, 75CAE, 90CAE, and 91CAE) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 55 \times P^{0.11} - 40 \quad \text{Where } E = \text{allowable emission rate in pounds per hour}$$

P = process weight in tons per hour

Liquid and gaseous fuels and combustion air are not considered as part of the process weight. Particulate matter emissions from the coating application rooms (**ID Nos. 70CAE, 75CAE, 90CAE, and 91CAE**) may be controlled by fabric filters (**ID Nos. CD-2, CD-3, CD-4, and CD-7, respectively**) or wet suppression, or left uncontrolled.

**Testing** [15A NCAC 2D .2601]

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

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

- c. No monitoring, recordkeeping, or reporting is required to show compliance with this regulation.

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

- a. Visible emissions from the three coating application rooms (**ID Nos. 70CAE, 75CAE, and 90CAE**) 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.
- b. Visible emissions from the coating application room (**ID No. 91CAE**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

**Testing** [15A NCAC 2D .2601]

- c. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- d. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
- 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 .2601 is below the limit given in Section 2.1 F.2.a. above.

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

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

- e. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log 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 particulate emissions; and
  - iii. The results of any corrective actions performed.

The Permittee shall be deemed in non-compliance with Section 2.1 F.2.a. if records of the monitoring results are not maintained.

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

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

**G. Two Spillage receiving hoppers including:**

- Spillage receiving hopper for making room #75 (ID No. ES-75SRH, 8 ton total capacity) controlled by cartridge type bin vent filter (ID No. CD-BV-75SRH; 95 square feet of filter area)
- Spillage receiving hopper for making room #91 (ID No. ES-91SRH, 8 ton total capacity) controlled by cartridge type bin vent filter (ID No. CD-BV-91SRH; 95 square feet of filter area)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter including PM <sub>10</sub>	$E = 4.1 * (P)^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521(d)

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

- a. Emissions of particulate matter from Spillage receiving hoppers (ID Nos. ES-75SRH and ES-91SRH) that are discharged into the atmosphere shall not exceed an allowable emission rate as calculated by the following equation:

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

$$P = \text{process weight in tons per hour}$$

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

**Testing** [15A NCAC 2D .2601]

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

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

- c. Particulate matter emissions from the Spillage receiving hoppers (ID Nos. ES-75SRH and ES-91SRH) shall be controlled by bagfilters (ID Nos. CD-BV-75SRH and CD-BV-91SRH). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. A monthly visual inspection of the system ductwork and material collection unit for leaks; 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 or bagfilters are not inspected and maintained.

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

- d. The results of inspections and maintenance for the ductwork and bagfilters 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;
  - iv. The results of maintenance performed on any control device; and
  - v. 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 control devices within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

- a. Visible emissions from the two Spillage receiving hoppers (**ID Nos. ES-75SRH and ES-91SRH**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 G.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. The Permittee shall establish normal for the source in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 is below the limit given in Section 2.1 G.2.a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 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 non-compliance with 15A NCAC 2D .0521 if these records are not maintained.

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

- e. The Permittee shall submit, in writing a summary report of the observations by 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 (Including specific requirements, monitoring/testing, record keeping, and reporting requirements):**

**A. All emission sources**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	Odorous emissions must be controlled; <b>State enforceable only</b>	15A NCAC 2D .1806
Toxic air pollutants	Last MACT toxics evaluation	15A NCAC 2Q .0705
	Toxic air pollutant emissions shall not exceed limits established by modeling; <b>State -enforceable only</b>	15A NCAC 2D .1100
	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded; <b>State-enforceable only</b>	15A NCAC 2Q .0711

**State enforceable-only**

**1. 15A NCAC 2D .1806: “CONTROL AND PROHIBITION OF ODOROUS EMISSIONS”**

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

**State enforceable-only**

**2. 15A NCAC 2Q .0705: “EXISTING FACILITIES AND SIC CALLS”**

- a. As of **October 6, 2006** emissions of toxic air pollutants have been demonstrated on a facility-wide basis (excluding those sources exempt under 15A NCAC 2Q .0702 "Exemptions") that each of the toxic air pollutants (TAPs) emitted from all sources at the facility is either below its respective toxic permit emission rate (TPER) listed in 15A NCAC 2Q .0711 - "Emission Rates Requiring a Permit" or the TAP is in compliance with 15A NCAC 2D .1100 "Control of Toxic Air Pollutants" as described elsewhere in this permit.

**State enforceable-only**

**3. 15A NCAC 2D .1100: “TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REQUIREMENT”**

- a. Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application (AQAB approval memorandum dated January 8, 2008) for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

EMISSION SOURCES	TOXIC AIR POLLUTANTS	EMISSION LIMITS
Brick Tunnel Kiln (ID No. 1AK)	arsenic	1.27 pounds per year
	benzene	1.19E+2 pounds per year
	bis (2-ethylhexyl) phthalate	0.225 pounds per day
	cadmium	0.615 pounds per year
	chlorine	0.146 pounds per day 6.08E-3 pounds per hours
	soluable chromate compounds	5.73E-3 pounds per day
	hydrogen chloride	0.796 pounds per hour
	hydrogen fluoride	96.6 pounds per day 4.02 pounds per hour
	nickel	8.09E-3 pounds per day
	total fluorides	58.0 pounds per day 2.41 pounds per hour

EMISSION SOURCES	TOXIC AIR POLLUTANTS	EMISSION LIMITS
Brick Tunnel Kiln (ID No. 2AK)	arsenic	1.27 pounds per year
	benzene	1.19E+2 pounds per year
	bis (2-ethylhexyl) phthalate	0.225 pounds per day
	cadmium	0.615 pounds per year
	chlorine	0.146 pounds per day 6.08E-3 pounds per hours
	soluable chromate compounds	5.73E-3 pounds per day
	hydrogen chloride	0.796 pounds per hour
	hydrogen fluoride	96.6 pounds per day 4.02 pounds per hour
	nickel	8.09E-3 pounds per day
	total fluorides	58.0 pounds per day 2.41 pounds per hour
Brick Tunnel Kiln (ID No. 3AK)	arsenic	1.82 pounds per year
	benzene	1.70E+2 pounds per year
	bis (2-ethylhexyl) phthalate	0.321 pounds per day
	cadmium	0.879 pounds per year
	chlorine	0.209 pounds per day 8.70E-3 pounds per hours
	soluable chromate compounds	8.19E-3 pounds per day
	hydrogen chloride	1.14 pounds per hour
	hydrogen fluoride	1.38E+2 pounds per day 5.75 pounds per hour
	nickel	1.16E-2 pounds per day
	total fluorides	82.8 pounds per day 3.45 pounds per hour
Brick Tunnel Kiln (ID No. 3LK)	arsenic	4.27 pounds per year
	benzene	4.00E+2 pounds per year
	bis (2-ethylhexyl) phthalate	0.756 pounds per day
	cadmium	2.07 pounds per year
	chlorine	0.491 pounds per day 2.05E-2 pounds per hours
	soluable chromate compounds	1.93E-2 pounds per day
	hydrogen chloride	0.834 pounds per hour
	hydrogen fluoride	32.5 pounds per day 1.35 pounds per hour
	nickel	2.72E-2 pounds per day
	total fluorides	19.5 pounds per day 0.812 pounds per hour
(ID No. 1RCD)	arsenic	3.61E-3 pounds per year
	benzene	3.79E-2 pounds per year
	cadmium	1.98E-2 pounds per year

EMISSION SOURCES	TOXIC AIR POLLUTANTS	EMISSION LIMITS
	soluble chromate compounds	6.92E-5 pounds per day
	nickel	1.04E-4 pounds per day
(ID No. 70CAE)	soluble chromate compounds	7.40E-3 pounds per day
(ID No. 75CAE)	soluble chromate compounds	7.40E-3 pounds per day
(ID No. 90CAE)	soluble chromate compounds	1.03E-2 pounds per day
(ID No. 91CAE)	soluble chromate compounds	1.03E-2 pounds per day

To ensure compliance with the above limits, the following restrictions shall apply:

Kiln ID No.	Maximum Allowable Production Rate (tons of fired brick per hour)	Primary Operating Scenario (POS)	Alternative Operating Scenario #1 (AOS#1)	Alternative Operating Scenario #2 (AOS#2)	Alternative Operating Scenario #3 (AOS#3)
1AK	4.68	4.2	4.68	0	4.68
2AK	4.68	4.2	0	4.68	4.68
3AK	6.69	5.1	6.69	6.69	0
1LK	0	Not operating	Not operating	Not operating	Not operating
2LK	0	Not operating	Not operating	Not operating	Not operating
3LK	15.74	15.74	15.74	15.74	15.74

- i. The brick production rate from each Kiln (ID Nos. 1AK, 2AK, 3AK, 1LK, 2LK, and 3LK) shall not exceed the production limit provided in the above table for the scenario under which it is operating;
- ii. Kilns 1LK and 2LK shall not operate;
- iii. Hydrogen chloride and hydrogen fluoride emissions from the tunnel kiln (**ID No. 3LK**) shall be controlled by the dry limestone adsorber (**ID No. CD-8**) as specified in Section 2.1.A.4. of this permit.

**Testing** [15A NCAC 2D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit(s) given in Section 2.2 A.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1100.

**Monitoring**

- c. The monitoring listed under Section 2.1.A.4 of this permit shall be performed to assure compliance with the emission limits listed in Section 2.2.A.1.a. In addition, the Permittee shall calculate the total fired brick production rate in tons per hour for each kiln.

**Recordkeeping**

- d. The results of the monitoring shall be maintained in a log (written or electronic format) on-site and made available to an authorized representative upon request. The log shall record the estimated hourly total fired brick production for each kiln recorded weekly.
- e. The Permittee, contemporaneously with making a change from one operating scenario to another, shall record in a logbook (written or electronic format) the scenario under which it is operating. [15A NCAC 2Q .0508(j)]

**Reporting**

- f. No reporting is required to show compliance with this regulation.

**State enforceable-only**

**4. 15A NCAC 2Q .0711: “PERMIT REQUIREMENTS FOR TOXIC AIR POLLUTANTS”**

- a. Pursuant to 15A NCAC 2Q .0711 “Emission Rates Requiring a Permit,” for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 2Q .0711. The facility shall be operated and maintained in such a manner that emissions of any listed TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 2Q .0711.

- i. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
- ii. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D.1100 "Control of Toxic Air Pollutants.
- iii. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

<b>TPERs Limitations</b>				
<b>Pollutant (CAS Number)</b>	<b>Carcinogens (lb/yr)</b>	<b>Chronic Toxicants (lb/day)</b>	<b>Acute Systemic Toxicants (lb/hr)</b>	<b>Acute Irritants (lb/hr)</b>
carbon disulfide (75-15-0)		3.9		
p-dichlorobenzene (106-46-7)				16.8
manganese and compounds		0.63		
mercury, aryl and inorganic compounds		0.013		
methyl chloroform (71-55-6)		250		64
methyl ethyl ketone (78-93-3)		78		22.4
methyl isobutyl ketone (108-10-1)		52		7.6
nickel metal (7440-02-0)		0.13		
phenol (108-95-2)			0.24	
styrene (100-42-5)			2.7	
toluene (108-88-3)		98		14.4
xylene (1330-20-7)		57		16.4

### **SECTION 3 - GENERAL CONDITIONS (version 3.1)**

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

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(e) and 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

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

E. **Duty to Comply** [15A NCAC 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 in 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. **Reporting Requirements**  
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
  - a. changes in the information submitted in the application;
  - b. changes that modify equipment or processes; or
  - c. changes in the quantity or quality of materials processed.If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.
2. **Section 502(b)(10) Changes** [15A NCAC 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.
3. **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.
4. **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 corrective measures have been accomplished; and
    - iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 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 2Q .0513(b)]  
This permit is issued for a fixed term of five years for facilities subject to Title IV requirements and for a term not to exceed five years in the case of all other facilities. This permit shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 2Q .0512(b)(1), this permit shall not expire until the renewal permit has been issued or denied. All terms and conditions of this permit shall remain in effect until the renewal permit has been issued or denied.
- L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 2Q .0508(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:

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

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

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

U. **Property Rights** [15A NCAC 2Q .0508(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)(4)]

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

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 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 .0202(b).

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

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 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 or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

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 description of the training and air testing experience of the person directing the test;
  - b. a certification of the test results by sampling team leader and facility representative;
  - c. 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);
  - d. 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;
  - e. all field, analytical, and calibration data necessary to verify that the testing was performed as specified in the applicable test methods;
  - f. example calculations for at least one test run using equations in the applicable test methods and all test results

- including intermediate parameter calculations; and
  - g. 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.

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

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

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

**MM. Fugitive Dust Control Requirement** [15A NCAC 2D .0540] - STATE ENFORCEABLE ONLY

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

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

**NN. Specific Permit Modifications** [15A NCAC 2Q.0501 and .0523]

1. For modifications made pursuant to 15A NCAC 2Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 2Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 2Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth St., Atlanta, GA 30303) in writing at

least seven days before the change is made. The written notification shall include:

- a. a description of the change at the facility;
- b. the date on which the change will occur;
- c. any change in emissions; and
- d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Mandatory Greenhouse Gas Reporting Requirements** [15A NCAC 2Q .0508]  
**FEDERAL-ENFORCEABLE ONLY**

If the Permittee is subject to requirements of 40 CFR 98.2(a), the Permittee shall submit all required reports to the EPA Administrator in accordance with 40 CFR 98.

## ATTACHMENT

### List of Acronyms

<b>AOS</b>	Alternate Operating Scenario
<b>BACT</b>	Best Available Control Technology
<b>Btu</b>	British thermal unit
<b>CAA</b>	Clean Air Act
<b>CAIR</b>	Clean Air Interstate Rule
<b>CEM</b>	Continuous Emission Monitor
<b>CFR</b>	Code of Federal Regulations
<b>CAA</b>	Clean Air Act
<b>DAQ</b>	Division of Air Quality
<b>DENR</b>	Department of Environment and Natural Resources
<b>EMC</b>	Environmental Management Commission
<b>EPA</b>	Environmental Protection Agency
<b>FR</b>	Federal Register
<b>GACT</b>	Generally Available Control Technology
<b>HAP</b>	Hazardous Air Pollutant
<b>MACT</b>	Maximum Achievable Control Technology
<b>NAA</b>	Non-Attainment Area
<b>NCAC</b>	North Carolina Administrative Code
<b>NCGS</b>	North Carolina General Statutes
<b>NESHAPS</b>	National Emission Standards for Hazardous Air Pollutants
<b>NO<sub>x</sub></b>	Nitrogen Oxides
<b>NSPS</b>	New Source Performance Standard
<b>OAH</b>	Office of Administrative Hearings
<b>PM</b>	Particulate Matter
<b>PM<sub>10</sub></b>	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
<b>POS</b>	Primary Operating Scenario
<b>PSD</b>	Prevention of Significant Deterioration
<b>RACT</b>	Reasonably Available Control Technology
<b>SIC</b>	Standard Industrial Classification
<b>SIP</b>	State Implementation Plan
<b>SO<sub>2</sub></b>	Sulfur Dioxide
<b>tpy</b>	Tons Per Year
<b>VOC</b>	Volatile Organic Compound