



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

date, 2010

Mr. Charles K. Conner  
Plant Manager  
SGL Carbon, LLC  
307 Jamestown Road  
Morganton, NC 28655

Dear Mr. Conner:

**SUBJECT: Air Quality Permit No. 03287T28**  
**Facility ID: 1200028**  
**SGL Carbon, LLC**  
**Morganton, North Carolina**  
**Burke County**  
**Fee Class: Title V**  
**NSR Status: Major**

In accordance with your completed Air Quality Permit Application for **renewal with an associated modification and administrative amendment** of your Title V permit received **November 29, 2005 and February 25, 2008, respectively**, we are forwarding herewith Air Quality Permit No. **03287T28** to SGL Carbon, LLC, Jamestown Road, Morganton, 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.

Permitting Section  
1641 Mail Service Center, Raleigh, North Carolina 27699-1641  
2728 Capital Blvd., Raleigh, NC 27604  
Phone: 919-715-6237 \ FAX: 919-733-5317 \ Internet: [www.daq.state.nc.us](http://www.daq.state.nc.us)

One  
North Carolina  
*Naturally*

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

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

**The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to the emission source(s) and air pollution control device(s) described in this permit must be covered under an Air Quality Permit issued by the Division of Air Quality prior to construction unless the Permittee has fulfilled the requirements of GS 143-215-108A(b) and received written approval from the Director of the Division of Air Quality to commence construction. Failure to receive an Air Quality Permit or written approval prior to commencing construction is a violation of GS 143-215.108A and may subject the Permittee to civil or criminal penalties as described in GS 143-215.114A and 143-215.114B.**

This Air Quality Permit shall be effective from **date, 2010** until **date, 2015**, 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 Mr. Mark J. Cuilla at (919) 733-1499 or Mark.Cuilla@ncdenr.gov.

Sincerely yours,

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

c: Gregg Worley, EPA Region 4 (with review)  
Asheville Regional Office  
Central Files

**Insignificant Activities under 15A NCAC 2Q .0503(8)**

Emission Source ID	Emission Source Description
<b>I-IF01.1 through I-IF01.5 and I-IF02.1 through I-IFO2.2</b>	Ten electric induction graphitizing furnaces with nitrogen purging system
<b>I-Kiln</b>	One electrically heated softwood lumber kiln (10' x 10' x 12')
<b>I-Oilheaters.1 through I-Oilheaters.4</b>	Four <b>natural gas-fired</b> hot oil heaters (1.269 million Btu per hour maximum heat input capacity, each)
<b>I-PIOperations</b>	Pitch impregnation autoclaves and liquid ring vacuum pump
<b>I-Pitchtanks</b>	Pitch tank maintenance operations
<b>I-Railcar</b>	Pitch railcar unloading
<b>I-STK.2</b>	Coal tar pitch and petroleum pitch storage tank (Tank No. 2)
<b>I-STK.3</b>	Coal tar pitch and petroleum pitch storage tank (Tank No. 3)
<b>I-STK-13</b>	Coal tar pitch and petroleum pitch storage tank (Tank No. 13)
<b>I-STK.26</b>	Coal tar pitch and petroleum pitch storage tank (Tank No. 26)
<b>I-STK.27</b>	Coal tar pitch and petroleum pitch storage tank (Tank No. 27)
<b>I-STK.32</b>	Coal tar pitch and petroleum pitch storage tank (Tank No. 32)
<b>I-STK.33</b>	Coal tar pitch and petroleum pitch storage tank (Tank No. 33)
<b>I-STK.34</b>	Coal tar pitch and petroleum pitch storage tank (Tank No. 34)
<b>I-STK.51</b>	Coal tar pitch and petroleum pitch storage tank (Tank No. 51)
<b>I-Weld</b>	Miscellaneous welding operations

## ATTACHMENT

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

Page(s)	Section	Description of Change(s)
Attachment	Insignificant activities	-edited equipment descriptions per current ESM guidelines
Cover	-	-amended all dates and permit revision numbers
All	Header	-amended permit revision number
3-7	Equipment table	-edited equipment descriptions per current ESM guidelines -added and removed equipment per permit application as requested -removed references to LPG firing -corrected control device orientations where needed
8	2.1 A 2.1 A (table)	-edited applicable equipment list -clarified 2D .0515 emission limits/standards -added reference to CAM applicability
9	2.1 A.1.a 2.1 A.1.b	-added ID numbers and updated shell language -updated shell language
9-10	2.1 A.1.c	-added ID numbers
10	2.1 A.1.d 2.1 A.2.a 2.1 A.2.b	-updated shell language -added ID numbers -updated shell language
10-11	2.1 A.2.c	-added ID numbers and updated shell language
11	2.1 A.2.d 2.1 B 2.1 B (table)	-updated shell language -edited applicable equipment list -clarified 2D .0515 emission limits/standards -added ID numbers and references to CAM and NC air toxics
12	2.1 B.1.a 2.1 B.1.b 2.1 B.1.c 2.1 B.1.d	-added ID numbers and updated shell language -updated shell language -added ID numbers and updated shell language -updated shell language
13	2.1 B.2.a 2.1 B.2.b 2.1 B.2.c 2.1 B.2.d	-added ID numbers -updated shell language -added ID numbers and updated shell language -updated shell language
14	2.1 C 2.1 C (table)  2.1 C.1.a 2.1 C.1.b	-edited applicable equipment list -clarified 2D .0515 emission limits/standards -added reference to NC air toxics -added ID numbers and updated shell language -updated shell language
14-15	2.1 C.1.c	-added ID numbers and updated shell language
15	2.1 C.1.d 2.1 C.2.a 2.1 C.2.b 2.1 C.2.c 2.1 C.3.a 2.1 C.3.b	-updated shell language -added ID numbers -updated shell language -added ID numbers and updated shell language -added ID numbers -updated shell language
16	2.1 C.3.c 2.1 C.3.d 2.1 D 2.1 D (table)	-added ID numbers and updated shell language -updated shell language -edited applicable equipment list -clarified 2D .0515 emission limits/standards

Page(s)	Section	Description of Change(s)
17	2.1 D.1.a 2.1 D.1.b 2.1 D.1.c 2.1 D.1.d 2.1 D.2.a 2.1 D.2.b	-added ID numbers and updated shell language -updated shell language -updated shell language -added “no reporting” language -added ID numbers -updated shell language
17-18	2.1 D.2.c	-added ID numbers and updated shell language
18	2.1 D.2.d 2.1 E 2.1 E (table)	-updated shell language -edited applicable equipment list -clarified 2D .0515 emission limits/standards -added reference to CAM applicability
19	2.1 E.1.a 2.1 E.1.b 2.1 E.1.c 2.1 E.1.d 2.1 E.1.e	-updated shell language -updated shell language -updated shell language -updated shell language -updated shell language
20	2.1 E.2.b 2.1 E.2.c 2.1 E.2.d	-updated shell language -updated shell language -updated shell language
21	2.1 F (table)  2.1 F.1.a	-clarified 2D .0515 emission limits/standards -added reference to CAM applicability -updated shell language
22	2.1 F.1.b 2.1 F.1.d 2.1 F.1.e 2.1 F.1.f	-updated shell language -updated shell language -updated shell language -updated shell language
24	2.1 G 2.1 G (table)  2.1 G.1.a 2.1 G.1.b	-edited applicable equipment list -clarified 2D .0515 emission limits/standards -added reference to CAM applicability -added ID numbers and updated shell language -updated shell language
25	2.1 G.1.c 2.1 G.1.d 2.1 G.1.e	-added ID numbers and updated shell language -moved operating restriction to this Section from another -updated shell language
26	2.1 G.2.c 2.1 G.2.d 2.1 G.2.e	-updated shell language -added ID numbers and updated shell language -updated shell language
28	2.1 H (table)  2.1 H.1.a 2.1 H.1.b	-clarified 2D .0515 emission limits/standards -added reference to CAM applicability -added ID numbers and updated shell language -updated shell language
28-29	2.1 H.1.c	-added ID numbers
29	2.1 H.1.d	-updated shell language
30	2.1 H.2.c 2.1 H.2.d 2.1 H.2.e	-updated shell language -updated shell language -updated shell language
31	2.1 I 2.1 I (table)  2.1 I.1.a	-edited applicable equipment list -clarified 2D .0515 emission limits/standards and added ID numbers -added ID numbers and updated shell language
32	2.1 I.1.b 2.1 I.1.c 2.1 I.1.d 2.1 I.2.a 2.1 I.2.b	-updated shell language -added ID numbers and updated shell language -updated shell language -added ID numbers -updated shell language

Page(s)	Section	Description of Change(s)
33	2.1 I.2.c 2.1 I.3.b 2.1 I.3.c 2.1 I.3.d 2.1 I.3.e	-added ID numbers and updated shell language -added ID numbers -updated shell language -added ID numbers and updated shell language -updated shell language
34	2.1 J 2.1 J (table)  2.1 J.1.a 2.1 J.1.b	-edited applicable equipment list -clarified 2D .0515 emission limits/standards -added reference to NC air toxics requirements -added ID numbers and updated shell language -updated shell language
35	2.1 J.1.c 2.1 J.1.d 2.1 J.2.a 2.1 J.2.b 2.1 J.2.c	-added ID numbers and updated shell language -updated shell language -added ID numbers -updated shell language -added ID numbers and updated shell language
36	2.1 J.3.a 2.1 J.3.b 2.1 J.3.c 2.1 J.3.d	-added ID numbers -updated shell language -added ID numbers and updated shell language -updated shell language
37	2.1 K 2.1 K (table)	-edited applicable equipment list -clarified 2D .0515 emission limits/standards -added reference to CAM applicability
38	2.1 K.1.a 2.1 K.1.b 2.1 K.1.c 2.1 K.1.d	-added ID numbers and updated shell language -updated shell language -added ID numbers -updated shell language
39	2.1 K.2.a 2.1 K.2.b 2.1 K.2.c 2.1 K.2.d	-added ID numbers -updated shell language -added ID numbers and updated shell language -updated shell language
40	2.1 L 2.1 L (table) 2.1 L.1.a 2.1 L.1.b 2.1 L.1.c 2.1 L.1.d	-edited applicable equipment list -clarified 2D .0515 emission limits/standards -added ID numbers and updated shell language -updated shell language -updated shell language -added "no reporting" language
41	2.1 L.2.a 2.1 L.2.b 2.1 L.2.c 2.1 L.2.d	-added ID numbers -updated shell language -added ID numbers and updated shell language -updated shell language
42	2.1 M 2.1 M (table)  2.1 M.1.a 2.1 M.1.b	-edited applicable equipment list -clarified 2D .0515 emission limits/standards -added reference to CAM applicability -added ID numbers and updated shell language -updated shell language
43	2.1 M.1.c 2.1 M.1.d 2.1 M.2.b	-added ID numbers -updated shell language -updated shell language
44	2.1 M.2.c 2.1 M.2.d 2.1 N 2.1 N (table)	-updated shell language -updated shell language -edited applicable equipment list -clarified 2D .0515 emission limits/standards -added reference to CAM applicability

Page(s)	Section	Description of Change(s)
45	2.1 N.1.a 2.1 N.1.b 2.1 N.1.c 2.1 N.1.d	-added ID numbers and updated shell language -updated shell language -added ID numbers and updated shell language -updated shell language
46	2.1 N.2.b 2.1 N.2.c 2.1 N.2.d	-updated shell language -updated shell language -updated shell language
47	2.1 O 2.1 O.1.c	-edited applicable equipment list -updated shell language
48	2.1 O.2.b 2.1 O.2.c 2.1 O.2.d	-updated shell language -updated shell language -updated shell language
49	2.1 P 2.1 P (table) 2.1 P.1.a 2.1 P.1.b	-edited applicable equipment list -clarified 2D .0515 emission limits/standards -added ID numbers and updated shell language -updated shell language
49-50	2.1 P.1.c	-added ID numbers
50	2.1 P.1.d 2.1 P.2.a 2.1 P.2.b	-updated shell language -added ID numbers -updated shell language
50-51	2.1 P.2.c	-added ID numbers and updated shell language
51	2.1 P.2.d 2.1 Q 2.1 Q.1.a 2.1 Q.1.b	-updated shell language -edited applicable equipment list -corrected applicable fuel types -corrected applicable fuel types
52	2.1 Q.1.c 2.1 Q.1.d 2.1 Q.2.a 2.1 Q.2.b 2.1 Q.2.c 2.1 Q.3.b 2.1 Q.3.c 2.1 Q.4	-added ID numbers and updated shell language -corrected applicable fuel types -added ID numbers -updated shell language -added ID numbers and updated shell language -updated shell language -added ID numbers and updated shell language -corrected rule title
53	2.2 A.2	-added facility-wide modeled emission rates for worst-case stack for hydrogen sulfide and benzene
54	2.2 A.3	-added TPER for nickel metal and nickel, soluble compounds
55	2.2 C 2.2 C.1.a	-edited applicable equipment list -added ID numbers
56	2.2 C.1.b 2.2 D 2.2 D.1.b	-modified quarterly reporting to semi-annual -edited applicable equipment list -modified quarterly reporting to semi-annual
57-58	2.2 E	-added CAM requirements for ESP
58-61	2.2 F	-added CAM requirements for applicable fabric filters
61	2.3 A	-updated shell language
62-72	General Conditions	-updated shell conditions (v3.1)



Division of Air Quality

## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
03287T28	03287T27	date, 2010	date, 2015

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:** **SGL Carbon Corporation**

**Facility ID:** 1200028

**Facility Site Location:** 307 Jamestown Road  
**City, County, State, Zip:** Morganton, Burke County, North Carolina, 28655  
**Mailing Address:** 307 Jamestown Road  
**City, State, Zip:** Morganton, North Carolina 28655

**Application Number:** 1200028.05B and 1200028.08A  
**Complete Application Date:** November 29, 2005 and February 25, 2008

**Primary SIC Code:** 3624

**Division of Air Quality,  
Regional Office Address:** Asheville Regional Office  
2090 Highway 70  
Swannanoa, North Carolina 28778

Permit issued this the xxxx day of xxxxx, 2009

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

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- 2.2 - Multiple Emission Source(s) Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
- 2.3 - Permit Shield for Nonapplicable Requirements

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
<b>Extrusion Department - Building 2</b>			
ES-1A.1 ES-1A.2	Two extrusion fines milling operations utilizing Raymond Mills (Nos. RM14 and RM15), respectively	CD-1A-DC2186	One fabric filter (1,588 square feet of filter area)
ES-1B	<b>Three</b> extrusion mix coolers: -No. 1h-02S1SC (System #1 South Cooler) -No. 1h-02S2SC (System #2 South Cooler) <b>-No. 1h-02S1NC (System #1 North Cooler)</b>  One molding operation (No. 1h-15AS2EH)	CD-1B-02-ESP	One electrostatic precipitator (4,877 square feet of collecting plate area)
ES-1C	Building #2 materials handling operations	CD-1C-DC225	One fabric filter (2,120 square feet of filter area)
ES-1D	System #2 Milling Process/Material Storage consisting of:  -Raw coke handling operations (No. 1F) -Two bin drawoffs (Nos. BD201 and 202) -One conveyor screw (No. CS257) -One double roll crusher (No. DRC263) -One hammermill (No. HM260) -One Rotex elevator (No. RX261) -One Rotex screen (No. RX262) -The exhausts from five weigh scale collection sources (Nos. SC201 through 205) -Five weigh car collection sources (Nos. WC201 through 205)	CD-1D-DC254	One fabric filter (6,426 square feet of filter area)
ES-1E.1 ES-1E.2 ES-1E.3 ES-1E.4 ES-1E.5	-System #1 extrusion mixer -System #2 extrusion mixer -System #1 milling operations -System #1 weigh car -System #1 scale bin exhausts	CD-02-DFT3-36	One cartridge-type filter (9,144 square feet of filter area)
ES-1G	Scrap stock crushing operation	CD-1G-DC220	One fabric filter (3,848 square feet of filter area)
ES-1H.1 ES-1H.2	Two pitch storage tanks (100,000 gallons capacity each) and associated pitch loading operations	CD-1H-DR290A	One natural gas-fired thermal oxidizer (1.6 million Btu per hour maximum heat input capacity)
ES-1I.1 through ES-1I.22	Twenty-two 1000-pound extrusion mixers [Sixteen System #1 (Nos. 1 through 16) and six System #2 (Nos. 17 through 22)]	NA	NA
ES-1J.1 through ES-1J.3	Three 1,000 pound Sigma mixers (2,000 pounds per hour total maximum design process weight rate) <b>with associated internally vented fabric filters, one each</b>	CD-1B-02-ESP	<b>One electrostatic precipitator (4,877 square feet of collecting plate area)</b>

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-1K	One vibratory mold press with shrouded conveyor from existing mixers	CD-1B-02-ESP	One electrostatic precipitator (4,877 square feet of collecting plate area)
ES-1L.1 ES-1L.2	One Sigma Blade Mixer One rotary cooler	CD-1B-02-ESP	One electrostatic precipitator (4,877 square feet of collecting plate area)
ES-1M-A	Porous Carbon Processing – Primary Milling (100 HP Mill) and associated product collector and vibrating screener (No. 1)	CD-1M-APC	One fabric filter (1,104 square feet of filter area)
	One coke day bin (No. 2) One magnetic grate (No. 3) Fines and oversize coke collection bins (No. 4) One control feeder hopper (No. 5)	CD-1M-AFR	One fabric filter (458 square feet of filter area)
ES-1M-B	Porous Carbon Processing – Secondary Milling (20 HP Mill) and associated product collector and vibrating screener (No. 1)	CD-1M-BPC	One fabric filter (372 square feet of filter area)
	Crushing equipment (No. 2) Mix hoppers (No. 3) One fully enclosed tubular conveyor (No. 4) One surge hopper (No. 5) Fines and oversize mix ball collection bins (No. 6) One collection hopper and weigh feeder (No. 7) One V-blender and dispense hopper (No. 8)	CD-1M-BFR	One fabric filter (458 square feet of filter area)
<b>Baking Department</b>			
ES-2A	One steel shot blast electrode cleaning machine (Building 56)	CD-2A-DC-5624	One fabric filter (1,260 square feet of filter area)
ES-2B	One small-round cleaning operation and media preparation serving baking furnace Nos. 10 through 19 (Building 13)	CD-2B-DC427	One fabric filter (3,090 square feet of filter area)
ES-2C ES-2M	Two steel shot blast electrode cleaning operations (Building 47)	CD-2C-DC425	One cartridge-type fabric filter (4,944 square feet of filter area)
ES-2D-50 through ES-2D-52	Three car bottom-type natural gas-fired carbon electrode baking/rebaking furnaces (twelve 1.69 million Btu per hour maximum heat input capacity burners each)	CD-2D-55F	One natural gas-fired thermal oxidizer (6.5 million Btu per hour maximum heat input capacity)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-2E-57F61  ES-2E-57F62 through ES-2E-57F65  ES-2E-57F66 and ES-2E-57F67	One <b>natural gas-fired</b> pit-type baking/rebaking furnace (twenty-four 0.5 million Btu per hour maximum heat input capacity and six 0.9 million Btu per maximum hour heat input capacity burners)  Four <b>natural gas-fired</b> pit-type carbon electrode baking furnaces (six 2.7 million Btu per hour maximum heat input capacity and three 1.03 million Btu per hour maximum heat input capacity burners each, all located in Building 57)  Two <b>natural gas-fired</b> pit type carbon electrode baking/rebaking furnaces (nine 1.50 million Btu per hour maximum heat input capacity and three 0.33 million Btu per hour maximum heat input capacity burners each, in located in Building 5)	CD-2E-57F61 CD-2E-57F62 CD-2E-57F63 CD-2E-57F64 CD-2E-57F65 CD-2E-57F66 CD-2E-57F67	Seven <b>natural gas-fired</b> thermal oxidizer (5.4, 3.1, 3.1, 3.1, 5.4, 4.9, and 4.9 million Btu per hour maximum heat input capacity, respectively)
ES-2F	Furnace packing media recycling processes (Building 55)	CD-2F-DC5524	One fabric filter (6,500 square feet of filter area)
ES-2G	Fugitive emissions from ES-2H recirculation furnaces/nine movable hoods with ductwork to return fugitive emissions to the furnace for thermal oxidation	NA	NA
ES-2H-10 through ES-2H-19	Ten <b>natural gas-fired</b> baking furnaces (16.38 million Btu per hour maximum heat input capacity, each)	CD-2H-04E4	One direct-flame <b>natural gas-fired</b> thermal oxidizer (16.38 million Btu per hour maximum heat input capacity)
ES-2I	Pit furnace Sagger handling operations	CD-2I-DC05	One cartridge-type fabric filter (12,192 square feet of filter area)
ES-2J01 ES-2J02	Two sand receiving silos	CD-BK-SR01 CD-BK-SR02	Two fabric filters (278 square feet of filter area, one each)
ES-2K	Rebaked stock cleaning operation	CD-2D-DC01	One cartridge-type fabric filter (8,128 square feet of filter area)
ES-2L-DC05	Building No. 5 Sagger can unloading station	CD-2F-DC5524	One fabric filter (6,500 square feet of filter area)
<b>Pitch Impregnation Department</b>			
ES-4A-1 through ES-4A-4  ES-4A-5 through ES-4A-7	Four <b>natural gas-fired</b> pitch impregnation preheaters (1.69 million Btu per hour maximum heat input capacity, each)  Three pitch tanks	CD-4A	One <b>natural gas-fired</b> thermal oxidizer (3.14 million Btu per hour maximum heat input capacity)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
<b>Graphite Department</b>			
ES-5A	Graphite Department Equipment consisting of: -By-products material bagging machine (No. BYP) -One small band saw (No. C16143) -One sample grinder (No. C2302) -Rail hoods (No. C2304) -One large cleaning machine (No. C2315) -One bucket elevator (No. C2330) -One chip bin hood (No. C2331) -One "L" core drill (No. C2346) -One "T" core drill (No. C2347) -One large band saw (No. C2348) -Miscellaneous graphite machining operations (No. MISC) consisting of: -Rahn-Mayer Lathe #2508 (No. 1) -Sirco PA36 Lathe #2574 (No. 2) -Beco Lathe (No. 3) -Gisholt Turret Lathe #2512 (No. 4) -20" American Tracer Lathe #2533 (No. 5) -Gisholt Turret Lathe #2510 (No. 6) -Libby Lathe #2525 (No. 7) -20" American Lathe #2534 (No. 8) -Bullard Mill #2526 (No. 9) -Beyer Drill-Matic (No. 10) -Morris Radial Drill (No. 11) -Cincinnati Milling Machine #2560 (No. 12) -Band Saw (No. 13) -Do-All Band Saw #2506 (No. 14) -Do-All Band Saw (No. 15) -Laidlaw Band Saw #2561 (No. 16) -Mazak Lathe #2575 (No. 17) -Railcar loading operation (No. RC)	CD-5A-DC2324	One fabric filter (10,260 square feet of filter area)
ES-5M	-Supersack unloading		
ES-5E.1 through ES-5E.12	Twelve electric lengthwise graphitizing (LWG) furnaces (Building 24) with nitrogen purging capability as batch demands warrant use	NA	NA
ES-5I	Packing media recycling process line	CD-5I-DC2474	One fabric filter (11,016 square feet of filter area)
ES-5J	Stock machining and conveying line	CD-5J-DC5803	One fabric filter (813 square feet of filter area)
ES-5L	LWG media crusher system (Building 10)	CD-5L-DC101	One fabric filter (1,829 square feet of filter area)
D-406	LWG media storage bin	CD-5M-BV101	One fabric filter (400 square feet of filter area, Building 24)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
<b>Finishing Department - Building 11</b>			
ES-6A	Graphite finishing operation	CD-6A-DC1164a	One simple cyclone
		CD-6A-DC1164b	One fabric filter (8,652 square feet of filter area)
ES-6B	Carpentry shop woodworking operation	CD-6B	One fabric filter (200 square feet of filter area)
<b>Salvage Department - Building 25</b>			
ES-7B.1	G&L Vertical Boring Mill	CD-7B-DC2502	One fabric filter (1,056 square feet of filter area)
ES-7B.2	Hill-Acme Grinder (No. 2547)		
ES-7C	Bullard Vertical Boring Mill (Building 25C)	CD-7C-DC2578	One fabric filter (170 square feet of filter area)
<b>Boilers</b>			
ES-CB230	One natural gas-fired extrusion boiler (12.041 million Btu per hour maximum heat input capacity)	NA	NA
ES-PB-233 (NSPS, Subpart Dc)	One natural gas-fired (12.247 million Btu per hour maximum heat input capacity)	NA	NA

## SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

**A. Two extrusion lines milling operations (ID Nos. ES-1A.1 and ES-1A.2) with associated fabric filter (ID No. CD-1A-DC2186)**

**Building #2 materials handling operations (ID No. ES-1C) with associated fabric filter (ID No. CD-1C-DC225)**

**System #2 Milling Process/Material Storage (ID No. ES-1D) consisting of:**

- Raw coke handling operations (No. 1F)
- Two bin drawoffs (Nos. BD201 and BD202)
- One conveyor screw (No. CS257)
- One double roll crusher (No. DRC263)
- One hammermill (No. HM260)
- One Rotex elevator (No. RX261)
- One Rotex screen (No. RX262)
- The exhausts from five weigh scale collection sources (Nos. SC201 through SC205)
- Five weigh car collection sources (Nos. WC201 through WC205)

**with associated fabric filter (ID No. CD-1D-DC254)**

**System #1 and System #2 extrusion mixers (ID Nos. ES-1E.1 and ES-1E.2)**

**System #1 milling operations (ID No. ES-1E.3)**

**System #1 weigh car (ID No. ES-1E.4)**

**System # 1 scale bin exhausts (ID No. ES-1E.5)**

**with associated cartridge-type filter (ID No. CD-02-DFT3-36)**

**One stock crushing operation (ID No. ES-1G) with associated fabric filter (ID No. CD-1G-DC220)**

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	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	40 percent opacity	15A NCAC 2D .0521
Particulate matter	<b>(ID Nos. CD-1D-DC254 and CD-02-DFT3-36 only)</b> <b>See Section 2.2 F</b>	15A NCAC 2D .0614

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

- a. Emissions of particulate matter from these sources (**ID Nos. ES-1A.1, ES-1A.2, ES-1C, ES-1D-SC201 through ES-1D-SC205, ES-1D-WC201 through ES-1D-WC205, ES-1D-BD201 and ES-1D-BD202, ES-1D-CS257, ES-1D, HM260, ES-1D-RX261 through ES-1D-RX263, ES-1D-1F, ES-1E.1 through ES-1E.5, and ES-1G**) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E = allowable emission rate in pounds per hour

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 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 A.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (**ID Nos. ES-1A.1, ES-1A.2, ES-1C, ES-1D-SC201 through ES-1D-SC205, ES-1D-WC201 through ES-1D-WC205, ES-1D-BD201 and ES-1D-BD202, ES-1D-CS257, ES-1D, HM260, ES-1D-RX261 through ES-1D-RX263, ES-1D-1F, ES-1E.1 through ES-1E.5, and ES-1G**) shall be controlled by the fabric filters (**ID Nos. CD-1A-DC2186, CD-1C-DC225, CD-1D-DC254, CD-02-DFT3-36 (cartridge-type), and CD-1G-DC220**) as described above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions; and
  - ii. monthly preventative maintenance (PM) on the cartridge-type fabric filters (**ID No. CD-02-DFT3-36**) including checking filter cartridges, screw flights, drive units, pressure drop readings, checkerboard panel for any alarms and/or problems which may have been detected, checking for fatigue cracks in the collector housing and fan housing, checking pulse valves for proper operation, checking screw and rotary valves for proper operation, checking fan bearings, belts, and sheaves;
  - iii. monthly preventative maintenance (PM) on bag-type fabric filters (**ID Nos. CD-1A-DC2186, CD-1C-DC225, CD-1D-DC254, and CD-1G-DC220**) including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
  - iv. annual internal inspections (for each 12 month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, fabric filters, and cartridge-type filter are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on any control device; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.
 The Permittee shall be deemed in noncompliance with 15A NCAC 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 any control device within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

- a. Visible emissions from these sources (**ID Nos. ES-1A.1, ES-1A.2, ES-1C, ES-1D-SC201 through ES-1D-SC205, ES-1D-WC201 through ES-1D-WC205, ES-1D-BD201 and ES-1D-BD202, ES-1D-CS257, ES-1D, HM260, ES-1D-RX261 through ES-1D-RX263, ES-1D-1F, ES-1E.1 through ES-1E.5, and ES-1G**) 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 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 A.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-1A.1, ES-1A.2, ES-1C, ES-1D-SC201 through ES-1D-SC205, ES-1D-WC201 through ES-1D-WC205, ES-1D-BD201 and ES-1D-BD202, ES-1D-CS257, ES-1D, HM260, ES-1D-RX261 through ES-1D-RX263, ES-1D-1F, ES-1E.1 through ES-1E.5, and ES-1G**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (Method 9) for 12 minutes** is below the limit given in Section 2.1 A.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.

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

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

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

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

**B. Three extrusion mix coolers:**

**-(ID No. ES-1B-1h-02S1SC [System #1 South Cooler])**

**-(ID No. ES-1B-1h-02S2SC [System #2 South Cooler])**

**-(ID No. ES-1B-1h-02S1NC [System #1 North Cooler])**

**One molding operation (ID No. ES-1B-1h15AS2EH)**

**One vibratory mold press (ID No. ES-1K)**

**with associated electrostatic precipitator (ID No. CD-1B-02-ESP)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Particulate matter	<b>(ID Nos. ES-1B-1h-02S1SC, ES-1B-1h-02S2SC, ES-1B-1h-02S1NC, and ES-1B-1h15AS2EH only)</b> (For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	<b>(ID Nos. ES-1B-1h-02S1SC, ES-1B-1h-02S2SC, ES-1B-1h-02S1NC, and ES-1B-1h15AS2EH only)</b> 40 percent opacity	15A NCAC 2D .0521
Toxic air pollutants	<b>State-enforceable only</b> <b>See Section 2.2 A.3</b>	15A NCAC 2Q .0711
Particulate matter	<b>See Section 2.2 E</b>	15A NCAC 2D .0614

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

- a. Emissions of particulate matter from these sources (**ID Nos. ES-1B-1h-02S1SC, ES-1B-1h-02S2SC, ES-1B-1h-02S1NC, and ES-1B-1h15AS2EH**) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E = allowable emission rate in pounds per hour

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 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 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (**ID Nos. ES-1B-1h-02S1SC, ES-1B-1h-02S2SC, ES-1B-1h-02S1NC, and ES-1B-1h15AS2EH**) shall be controlled by the electrostatic precipitator (**ID No. CD-1B-02-ESP**). To assure compliance **and that the proper number of plates are operating**, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there **are** no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
  - ii. an annual (for each 12-month period following the initial inspection) internal inspection of the electrostatic precipitator's structural integrity including a complete internal cleaning of all internal structures and steam cleaning of all internal parts.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and electrostatic precipitator are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the electrostatic precipitator; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

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

- a. Visible emissions from these sources (**ID Nos. ES-1B-1h-02S1SC, ES-1B-1h-02S2SC, ES-1B-1h-02S1NC, and ES-1B-1h15AS2EH**) 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 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 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-1B-1h-02S1SC, ES-1B-1h-02S2SC, ES-1B-1h-02S1NC, and ES-1B-1h15AS2EH**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (Method 9) for 12-minutes is below the limit given in Section 2.1 B.2.a above.

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

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

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

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

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

**C. Two pitch storage tanks and associated pitch loading operations (ID Nos. ES-1H.1 and ES-1H.2) with associated natural gas-fired thermal oxidizer (ID No. CD-1H-DR290A)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	40 percent opacity	15A NCAC 2D .0521
Volatile organic compounds	No applicable requirements	15A NCAC 2D .0949
Toxic air pollutants	<b>State-enforceable only</b> <b>See Section 2.2 A.3</b>	15A NCAC 2Q .0711

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

- a. Emissions of particulate matter from these sources (**ID Nos. ES-1H.1 and ES-1H.2**) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 C.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (**ID Nos. ES-1H.1 and ES-1H.2**) shall be controlled by one natural gas-fired thermal oxidizer (**ID No. CD-1H-DR290A**). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there **are** no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of the system ductwork and material collection unit for leaks; and
  - an annual (for each 12-month period following the initial inspection) internal inspection of the primary heat exchanger and associated inlet/outlet valves to ensure structural integrity.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and thermal oxidizer are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. **The logbook** shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the thermal oxidizer; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- e. The Permittee shall submit the results of any maintenance performed on the thermal oxidizer 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 .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-1H.1 and ES-1H.2**) 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 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 C.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/reporting is required for sulfur dioxide emissions from **the firing of natural gas in these sources (ID Nos. ES-1H.1 and ES-1H.2)**.

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

- a. Visible emissions from these sources (**ID Nos. ES-1H.1 and ES-1H.2**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

**Testing** [15A NCAC 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 C.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-1H.1 and ES-1H.2**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - demonstrate that the percent opacity from the emission points of the emission source in accordance with **15A NCAC 2D .2601 (Method 9) for 12-minutes** is below the limit given in Section 2.1 C.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.

- 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:
- the date and time of each recorded action;
  - the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - the results of any corrective actions performed.

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

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

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

**D. 22 extrusion mixers (ID Nos. ES-1I.1 through ES-1I.22)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	<p>(For process rates up to 30 tons per hour)  <math>E = 4.10 \times P^{0.67}</math>            (For process rates greater than 30 tons per hour)  <math>E = 55.0 \times P^{0.11} - 40</math>            Where E = allowable emission rate in pounds per hour            P = process weight in tons per hour</p>	15A NCAC 2D .0515
Visible emissions	40 percent opacity	15A NCAC 2D .0521

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

- a. Emissions of particulate matter from these sources (**ID Nos. ES-1I.1 through ES-1I.22**) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 D.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. The Permittee shall maintain production records **such that the process rates "P" in tons per hour, as specified by the formulas contained above can be derived** and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.
- d. **No reporting is required for particulate matter from these sources (ID Nos. ES-1H.1 and ES-1H.2).**

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

- a. Visible emissions from these sources (**ID Nos. ES-1H.1 and ES-1H.2**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

### **Testing** [15A NCAC 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 D.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-1H.1 and ES-1H.2**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (Method 9) for 12-minutes** is below the limit given in Section 2.1 D.2.a above.

If the above-normal emissions are not corrected per 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.

- 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:
- the date and time of each recorded action;
  - the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - the results of any corrective actions performed.

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

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

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

**E. Three Sigma mixers (ID Nos. ES-1J.1 through ES-1J.3) with internally vented fabric filters, one each, used during initial raw material transfer and dry mixing and electrostatic precipitator (ID No. CD-1B-02-ESP) used during evolution of pitch volatiles at appropriate temperatures (i.e., 120° to 150°C)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Odor	<b>State enforceable only</b> <b>See Section 2.2 A.1</b>	15A NCAC 2D .1806
Toxic air pollutants	<b>State-enforceable only</b> <b>See Section 2.2 A.3</b>	15A NCAC 2Q .0711
Particulate matter	<b>See Section 2.2 E</b>	<b>15A NCAC 2D .0614</b>

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

- a. Emissions of particulate matter from these sources (**ID Nos. ES-1J.1 through ES-1J.3**) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 E.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (**ID Nos. ES-1J.1 through ES-1J.3**) shall be controlled by **internally vented fabric filters and one** electrostatic precipitator (**ID No. CD-1B-02-ESP**) as described above. To assure compliance **and that the proper number of plates are operating**, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include **the following**:
- i. a **monthly visual inspection of the system ductwork and material collection unit for leaks; and**
  - ii. an annual (for each 12-month period following the initial inspection) internal inspection of **the electrostatic precipitator's structural integrity** including a complete internal cleaning of all internal structures and steam cleaning of all internal parts.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and electrostatic precipitator are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on **any control device**; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 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 **any control device** within 30 days of a written request by the DAQ.

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

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

- a. Visible emissions from these sources (**ID Nos. ES-1J.1 through ES-1J.3**) 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 E.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-1J.1 through ES-1J.3**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action take 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 (Method 9) for 12-minutes is below the limit given in Section 2.1 E.2.a above.

If the above-normal emissions are not corrected per 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.

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

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

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

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

**F. Porous Carbon Process consisting of:**

**One sigma blade mixer (ID No. ES-1L.1) and rotary cooler (ID No. ES-1L.2) and associated electrostatic precipitator (ID No. CD-1B-02-ESP)**

**Primary milling (ID No. ES-1M-A) and associated fabric filters (ID No. CD-1M-APC and CD-1M-AFR)**

**Secondary milling (ID No. ES-1M-B) and associated fabric filters (ID No. CD-1M-BPC and CD-1M-BFR)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Odor	(ID Nos. ES-1L.1 and ES-1L.2 only) <b>State enforceable only</b> <b>See Section 2.2 A.1</b>	15A NCAC 2D .1806
Toxic air pollutants	(ID Nos. ES-1L.1 and ES-1L.2 only) <b>State enforceable only</b> <b>See Section 2.2 A.3</b>	15A NCAC 2Q .0711
Volatile organic compounds	(ID Nos. ES-1L.1 and ES-1L.2 only) <b>See Section 2.2 B</b>	15A NCAC 2D .0958
Particulate matter	(ID No. CD-1B-02-ESP only) <b>See Section 2.2 E</b>  (ID Nos. CD-1M-APC, CD-1M-AFR, CD-1M-BPC, and CD-1M-BFR only) <b>See Section 2.2 F</b>	15A NCAC 2D .0614

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

- a. Emissions of particulate matter from these sources (ID Nos. ES-1L.1, ES-1L.2, ES-1M-A and ES-1M-B) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (**ID Nos. ES-1M-A and ES-1M-B**) shall be controlled by the fabric filters (**ID No. CD-1M-APC, CD-1M-AFR, CD-1M-BPC, and CD-1M-BFR**) as described above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions; and
  - ii. monthly preventative maintenance (PM) on bag-type fabric filters including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
  - iii. annual (for each 12 month period following the initial inspection) internal inspections of each fabric filter noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and fabric filters are not inspected and maintained.

- d. Particulate matter emissions from this source (**ID Nos. ES-1L.1 and ES-1L.2**) shall be controlled by the electrostatic precipitator (**ID No. CD-1B-02-ESP**) as described above. To assure compliance **and that the proper number of plates are operating**, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include **the following**:
- i. **a monthly visual inspection of the system ductwork and material collection unit for leaks; and**
  - ii. **an annual (for each 12-month period following the initial inspection) internal inspection, including a complete internal cleaning of all internal structures and steam cleaning of all internal parts.**

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and electrostatic precipitator are not inspected and maintained.

- e. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on **any control device**; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.

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

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

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

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

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

- a. Visible emissions from these sources (**ID Nos. ES-1L.1, ES-1L.2, ES-1M-A and ES-1M-B**) 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 F.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-1L.1, ES-1L.2, ES-1M-A and ES-1M-B**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action take 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 (Method 9) for 12 minutes is below the limit given in Section 2.1 F.2.a above.

If the above-normal emissions are not corrected per 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.

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

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

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

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

**G. One steel shot blast electrode cleaning machine (ID No. ES-2A) with associated fabric filter (ID No. CD-2A-DC-5624)**

**Two steel shot blast electrode cleaning operations (ID Nos. ES-2C and ES-2M) with associated cartridge-type fabric filter (ID No. CD-2C-DC425)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	(ID No. ES-2A only) 40 percent opacity  (ID Nos. ES-2C and ES-2M only) 20 percent opacity	15A NCAC 2D .0521
Fugitive emissions	Work practice standards	15A NCAC 2D .0541
Particulate matter	<b>See Section 2.2 F</b>	15A NCAC 2D .0614

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

- a. Emissions of particulate matter from these sources (**ID Nos. ES-2A, ES-2C, and ES-2M**) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (**ID Nos. ES-2A, ES-2C, and ES-2M**) shall be controlled by one fabric filter (**ID No. CD-2A-DC-5624**) and one cartridge-type fabric filter (**ID No. CD-2C-DC-425**) as described above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, fabric filter, and cartridge-type fabric filter noting the structural integrity and visible emissions;
  - ii. monthly preventative maintenance (PM) on the cartridge-type fabric filter (**ID No. CD-2C-DC-425**) including checking filter cartridges, screw flights, drive units, pressure drop readings, checkerboard panel for any alarms and/or problems which may have been detected, checking for fatigue cracks in the collector housing and fan housing, checking pulse valves for proper operation, checking screw and rotary valves for proper operation, checking fan bearings, belts, and sheaves;
  - iii. monthly preventative maintenance (PM) on the bag-type fabric filter (**ID No. CD-2A-DC-5624**) including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
  - iv. annual internal inspections (for each 12 month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, fabric filter, and cartridge-type filter are not inspected and maintained.
- d. The Permittee may only operate one shot blast electrode cleaning operation (**ID Nos. ES-2C and ES-2M**) at any given time.
- e. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on any control device; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

- a. Visible emissions from this source (**ID No. ES-2A**) 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 these sources (**ID Nos. ES-2C and ES-2M**) 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 G.2.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- d. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-2A, ES-2C, and ES-2M**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (Method 9) for 12-minutes is below the limit given in Section 2.1 G.2.a or b above.

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

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

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

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

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

**3. 15A NCAC 2D .0541: CONTROL OF EMISSIONS FROM ABRASIVE BLASTING**

- a. The Permittee shall ensure that any abrasive blasting operation conducted outside or conducted indoors and vented to the atmosphere is performed in accordance with the requirements set forth in 15A NCAC 2D .0521 "Control of Visible Emissions." For the purposes of this Rule, the visible emissions readings for the abrasive blasting performed outside a building shall be taken at a spot approximately 1 meter above the point of abrasive blasting with a viewing distance of approximately 5 meters.
- b. An abrasive blasting conducted under one of the following conditions is not required to be conducted within a building. Otherwise, all abrasive blasting operations shall be conducted within a building:
  - i. when the item to be blasted exceeds 8 feet in any dimension;
  - ii. when the surface being blasted is situated at its permanent location or not further away from its permanent location than is necessary to allow the surface to be blasted; or
  - iii. when the abrasive blasting operation is conducted at a private residence or a farm and the visible emissions created by this abrasive blasting operation do not migrate beyond the property boundary of the private residence or farm on which the abrasive blasting is being conducted.
- c. The Permittee of any abrasive blasting operation conducted in accordance with (b)(ii) or (b)(iii) of this condition, outside a building, shall take the appropriate measures to ensure that the fugitive dust emissions created by the abrasive blasting operation do not migrate beyond the property boundaries in which the abrasive blasting is being conducted. Appropriate measures include the following:
  - i. the addition of a wet suppressant to the abrasive blasting material,
  - ii. wet abrasive blasting,
  - iii. hydroblasting,
  - iv. shrouded blasting, or
  - v. shrouded hydroblasting.

**H. Small-round cleaning operation and media preparation (ID No. ES-2B) with associated fabric filter (ID No. CD-2B-DC427)**

**Furnace packing media recycling processes (ID No. ES-2F) and Building No. 5 Sagger can unloading station (ID No. ES-2L-DC05) with associated fabric filter (ID No. CD-2F-DC5524)**

**Pit furnace Sagger handling operations (ID No. ES-2I) with associated cartridge-type fabric filter (ID No. CD-2I-DC05)**

**Two sand receiving silos (ID Nos. ES-2J01 and ES-2J02) with associated fabric filters (ID Nos. CD-BK-SR01 and CD-BK-SR02) respectively**

**Rebaked stock cleaning operation (ID No. ES-2K) with associated cartridge-type fabric filter (ID No. CD-2D-DC01)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	(ID Nos. ES-2I, ES-2J01, ES-2J02, ES-2K, and ES-2L-DC05 only) 20 percent opacity  (ID Nos. ES-2B and ES-2F only) 40 percent opacity	15A NCAC 2D .0521
Particulate matter	(ID Nos. CD-2F-DC5524 and CD-2I-DC05 only) <b>See Section 2.2 F</b>	15A NCAC 2D .0614

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

- a. Emissions of particulate matter from these sources (ID Nos. ES-2B, ES-2F, ES-2I, ES-2J01, ES-2J02, ES-2K, and ES-2L-DC05) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 H.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (ID Nos. ES-2B, ES-2F, ES-2I, ES-2J01, ES-2J02, ES-2K, and ES-2L-DC05) shall be controlled by four fabric filters (ID Nos. CD-2B-DC427, CD-2F-DC5524, CD-BK-SR01, and CD-BK-SR02) and two cartridge-type filters (ID Nos. CD-2I-DC05 and CD-2D-DC01) as described above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, fabric filters, and cartridge-type filters noting the structural integrity and visible emissions;
- ii. monthly preventative maintenance (PM) on the cartridge-type fabric filters (**ID Nos. CD-2I-DC05 and CD-2D-DC01**) including checking filter cartridges, screw flights, drive units, pressure drop readings, checkerboard panel for any alarms and/or problems which may have been detected, checking for fatigue cracks in the collector housing and fan housing, checking pulse valves for proper operation, checking screw and rotary valves for proper operation, checking fan bearings, belts, and sheaves;
- iii. monthly preventative maintenance (PM) on the bag-type fabric filters (**ID Nos. CD-2B-DC427, CD-2F-DC5524, CD-BK-SR01, and CD-BK-SR02**) including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
- iv. annual internal inspections (for each 12 month period following the initial inspection) of each control device noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and fabric filters are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on any control device; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 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 any control device 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 sources (**ID Nos. ES-2I, ES-2J01, ES-2J02, ES-2K, and ES-2L-DC05**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.
- b. Visible emissions from the sources (**ID Nos. ES-2B and ES-2F**) 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]

- 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 H.2.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- d. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-2B, ES-2F, ES-2I, ES-2J01, ES-2J02, ES-2K, and ES-2L-DC05**) for any visible emissions above normal. The weekly observations must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12-minutes is below the limit given in Section 2.1 H.2.a and b above.

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

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

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

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

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

- I. Three car bottom-type natural gas-fired carbon electrode baking/rebaking furnaces (ID Nos. ES-2D-50 through ES-2D-52) with associated natural gas-fired thermal oxidizer (ID No. CD-2D-55F)**

**One natural gas-fired pit-type baking/rebaking furnace (ID No. ES-2E-57F61) with associated natural gas-fired thermal oxidizer (ID No CD-2E-57F61)**

**Six natural gas-fired pit-type carbon electrode baking/rebaking furnaces (ID Nos. S-2E-57F62 through ES-2E-57F67) with associated natural gas-fired thermal oxidizers (ID Nos. CD-2E-57F62 through CD-2E-05F67)**

**Ten natural gas-fired baking furnaces (ID Nos. ES-2H-10 through ES-2H-19) with associated direct-flame natural gas-fired thermal oxidizer (ID No. CD-2H-04E4)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu	15A NCAC 2D .0516
Visible emissions	(ID Nos.ES-2E-57F61 through ES-2E-57F67 only) 20 percent opacity  (ID Nos. ES-2D-50 through ES-2D-52 and ES-2H-10 through ES-2H-19 only) 40 percent opacity	15A NCAC 2D .0521
Toxic air pollutants	<b>State-enforceable only</b> <b>See Section 2.2 A.2</b>	15A NCAC 2D .1100

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

- a. Emissions of particulate matter from these sources (ID Nos. ES-2D-50 through ES-2D-52, ES-2E-57F61 through ES-2E-57F67, and ES-2H-10 through ES-2H-19) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 I.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (ID Nos. ES-2D-50 through ES-2D-52, ES-2E-57F61 through ES-2E-57F67, and ES-2H-10 through ES-2H-19) shall be controlled by the natural gas-fired thermal oxidizers (ID No. CD-2D-55F, CD-2E-57F61 through CD-2E-57F67, and CD-2H-04E4) as described above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection units for leaks; and
  - ii. an annual (for each 12-month period following the initial inspection) internal inspection of the primary heat exchangers and associated inlet/outlet valves to ensure structural integrity. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and thermal oxidizers are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the thermal oxidizers; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- e. The Permittee shall submit the results of any maintenance performed on the thermal oxidizers 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 .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from these sources (ID Nos. ES-2D-50 through ES-2D-52, ES-2E-57F61 through ES-2E-57F67, and ES-2H-10 through ES-2H-19) 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 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 I.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/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources (ID Nos. ES-2D-50 through ES-2D-52, ES-2E-57F61 through ES-2E-57F67, and ES-2H-10 through ES-2H-19).

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

- a. Visible emissions from these sources (ID Nos. ES-2E-57F61 through ES-2E-57F67) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.
- b. Visible emissions from these sources (ID Nos. ES-2D-50 through ES-2D-52 and ES-2H-10 through ES-2H-19) 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]

- 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 I.3.a or b above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- d. To assure compliance, once a week the Permittee shall observe the emission points of these sources (ID Nos. ES-2D-50 through ES-2D-52, ES-2E-57F61 through ES-2E-57F67, and ES-2H-10 through ES-2H-19) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (Method 9) for 12-minutes is below the limits given in Section 2.1 I.3.a and b above.

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

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

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

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

**J. Four natural gas-fired pitch impregnation preheaters (ID Nos. ES-4A-1 through ES-4A-4), and Three pitch impregnation tanks (ID Nos. ES-4A-5 through ES-4A-7) with associated natural gas-fired thermal oxidizer (ID No. CD-4A)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	40 percent opacity	15A NCAC 2D .0521
Toxic air pollutants	<b>State-enforceable only</b> <b>See Section 2.2 A.3</b>	15A NCAC 2Q .0711

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

- a. Emissions of particulate matter from these sources (**ID Nos. ES-4A-1 through ES-4A-7**) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 J.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (**ID Nos. ES-4A-1 through ES-4A-7**) shall be controlled by the **natural gas-fired** thermal oxidizer (**ID No. CD-4A**). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there **are** no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
  - i. **a monthly visual inspection of the system ductwork and material collection unit for leaks; and**
  - ii. **an annual (for each 12-month period following the initial inspection) internal inspection of the primary heat exchanger and associated inlet/outlet valves to ensure structural integrity.** The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and thermal oxidizers are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the thermal oxidizers; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- e. The Permittee shall submit the results of any maintenance performed on the thermal oxidizers 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 .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-4A-1 through ES-4A-7**) 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 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 J.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from **the firing of natural gas in these sources (ID Nos. ES-4A-1 through ES-4A-7).**

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

- a. Visible emissions from these sources (**ID Nos. ES-4A-1 through ES-4A-7**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 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 J.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-4A-1 through ES-4A-7**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (**Method 9**) for 12-minutes is below the limits given in Section 2.1 J.1.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.

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

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

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

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

**K. Graphite Department equipment (ID No. ES-5A) including:**

- By-products material bagging machine (No. BYP),
- One small band saw (No. C16143),
- One sample grinder (No. C2302),
- Rail hoods (No. C2304),
- One large cleaning machine (No. C2315),
- One bucket elevator (No. C2330),
- One chip bin hood (No. C2331),
- One "L" core drill (No. C2346),
- One "T" core drill (No. C2347),
- One large band saw (No. C2348),
- Miscellaneous graphite machining operations (No. MISC) consisting of:
  - Rahn-Mayer Lathe #2508 (No. 1)
  - Sirco PA36 Lathe #2574 (No. 2)
  - Beco Lathe (No. 3)
  - Gisholt Turret Lathe #2512 (No. 4)
  - 20" American Tracer Lathe #2533 (No. 5)
  - Gisholt Turret Lathe #2510 (No. 6)
  - Libby Lathe #2525 (No. 7)
  - 20" American Lathe #2534 (No. 8)
  - Bullard Mill #2526 (No. 9)
  - Beyer Drill-Matic (No. 10)
  - Morris Radial Drill (No. 11)
  - Cincinnati Milling Machine #2560 (No. 12)
  - Band Saw (No. 13)
  - Do-All Band Saw #2506 (No. 14)
  - Do-All Band Saw (No. 15)
  - Laidlaw Band Saw #2561 (No. 16)
  - Mazak Lathe #2575 (No. 17), and
- Railcar loading operation (No. RC); and
- Supersack unloading (ID No. ES-5M)
- with associated fabric filter (ID No. CD-5A-DC2324)

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter	<b>See Section 2.2 F</b>	15A NCAC 2D .0614

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

- a. Emissions of particulate matter from these sources (ID Nos. ES-5A and ES-5M) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 K.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (ID Nos. ES-5A and ES-5M) shall be controlled by the fabric filter (ID No. CD-5A-DC2324). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filter noting the structural integrity and visible emissions; and
  - ii. monthly preventative maintenance (PM) on the bag-type fabric filter including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
  - iii. annual (for each 12 month period following the initial inspection) internal inspections of the fabric filter noting the structural integrity and the condition of the filter.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and fabric filter are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the fabric filter; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

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

- a. Visible emissions from these sources (**ID Nos. ES-5A and ES-5M**) 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 K.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-5A and ES-5M**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (Method 9) for 12 minutes is below the limit given in Section 2.1 K.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.

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

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

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

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

**L. Twelve electric lengthwise graphitizing (LWG) furnaces (ID Nos. ES-5E.1 through ES-5E.12)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Toxic air pollutants	<b>State-enforceable only</b> <b>See Section 2.2 A.2</b>	15A NCAC 2D .1100
Particulate matter	<b>See Section 2.2 C</b>	15A NCAC 2Q .0317 (PSD Avoidance)
Sulfur dioxide	<b>See Section 2.2 D</b>	15A NCAC 2Q .0317 (PSD Avoidance)

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

- a. Emissions of particulate matter from these sources (ID Nos. ES-5E.1 through ES-5E.12) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 L.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. The Permittee shall maintain production records such that the process rates "P" in tons per hour, as specified by the formulas contained above can be derived and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.
- d. No reporting is required for particulate emissions from these sources (ID Nos. ES-5E.1 through ES-5E.12).

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

- a. Visible emissions from these sources (**ID Nos. ES-5E.1 through ES-5E.12**) 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 L.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-5E.1 through ES-5E.12**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (**Method 9**) for 12-minutes is below the limit given in Section 2.1 L.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.

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

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

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

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

**M. One packing media recycling process line (ID No. ES-5I) with associated fabric filter (ID No. CD-5I-DC2474)**

**One stock machining and conveying line (ID No. ES-5J) with associated fabric filter (ID No. CD-5J-DC5803)**

**One LWG media crusher system (ID No. ES-5L) with associated fabric filter (ID No. CD-5L-DC101)**

**One LWG media storage bin (ID No. D-406) with associated fabric filter (ID No. CD-5M-BV101)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Particulate matter	<b>(ID Nos. ES-5I and ES-5J only)</b> <b>See Section 2.2 C</b>	15A NCAC 2Q .0317 (PSD Avoidance)
Particulate matter	<b>(ID Nos. CD-5I-DC2474 and CD-5J-DC5803 only)</b> <b>See Section 2.2 F</b>	15A NCAC 2D .0614

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

- a. Emissions of particulate matter from these sources **(ID Nos. ES-5I, ES-5J, ES-5L, and D-406)** shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 M.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources (**ID Nos. ES-5I, ES-5J, ES-5L, and D-406**) shall be controlled by the fabric filters (**ID Nos. CD-5I-DC2474, CD-5J-DC5803, CD-5L-DC101, and CD-5M-BV101**) as described above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions;
  - ii. monthly preventative maintenance (PM) on bag-type fabric filters including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
  - iii. annual internal inspections (for each 12 month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and fabric filters are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the fabric filters; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

- a. Visible emissions from these sources (**ID Nos. ES-5I, ES-5J, ES-5L, and D-406**) 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 M.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-5I, ES-5J, ES-5L, and D-406**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - demonstrate that the percent opacity from the emission points of the emission source in accordance with **15A NCAC 2D .2601 (Method 9) for 12-minutes** is below the limit given in Section 2.1 M.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.

- 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:
- the date and time of each recorded action;
  - the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - the results of any corrective actions performed.

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

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

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

**N. Graphite finishing operation (ID No. ES-6A) with associated cyclone (ID No. CD-6A-DC1164a) in series with one fabric filter (CD-6A-DC1164b)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	40 percent opacity	15A NCAC 2D .0521
Particulate matter	<b>(ID No. CD-6A-DC1164b only)</b> <b>See Section 2.2 F</b>	<b>15A NCAC 2D .0614</b>

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

- a. Emissions of particulate matter from this source (**ID No. ES-6A**) shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 N.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from this source (**ID No. ES-6A**) shall be controlled by **one cyclone (ID No. CD-6A-DC1164a)** and **one fabric filter (ID No. CD-6A-DC1164b)** as described above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there **are** no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions;
  - ii. monthly preventative maintenance (PM) on bag-type fabric filters including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
  - iii. annual internal inspections (for each 12 month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and fabric filter are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the fabric filter; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

- a. Visible emissions from this source (**ID No. ES-6A**) 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 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 N.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of this source (**ID No. ES-6A**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (Method 9) for 12-minutes** is below the limit given in Section 2.1 N.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.
- d. The results of the monitoring shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. the results of any corrective actions performed.

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

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

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

**O. Carpentry shop woodworking operation (ID No. ES-6B) with associated fabric filter (ID No. CD-6B)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Adequate ductwork and properly designed collectors	15A NCAC 2D .0512
Visible emissions	40 percent opacity	15A NCAC 2D .0521

**1. 15A NCAC 2D .0512: PARTICULATES FROM MISCELLANEOUS WOOD PRODUCTS FINISHING PLANTS**

- a. The Permittee shall not cause, allow, or permit particulate matter caused by the working, sanding, or finishing of wood to be discharged from any stack, vent, or building into the atmosphere without providing, as a minimum for its collection, adequate duct work and properly designed collectors. In no case shall the ambient air quality standards be exceeded beyond the property line.

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

- b. Particulate matter emissions from this source (**ID No. ES-6B**) shall be controlled by one fabric filter (**ID No. CD-6B**). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer, if any. In addition to the manufacturer's inspection and maintenance recommendations, or if there **are** no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions;
  - ii. monthly preventative maintenance (PM) on bag-type fabric filters including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
  - iii. annual internal inspections (for each 12 month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0512 if the ductwork and fabric filter are not inspected and maintained.

- c. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
- i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the fabric filter; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0512 if these records are not maintained.

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

- d. The Permittee shall submit the results of any maintenance performed on the fabric filter within 30 days of a written request by the DAQ.

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

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

- a. Visible emissions from this source (**ID Nos. ES-6B**) 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 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 O.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of this source (**ID No. ES-6B**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (Method 9) for 12-minutes is below the limit given in Section 2.1 O.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.
- d. The results of the monitoring shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

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

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

**P. One G&L Vertical Boring Mill (ID No. ES-7B.1), and Hill-Acme Grinder (ID No. ES-7B.2), with associated fabric filter (ID No. CD-7B-DC2502)**

**One Bullard Vertical Boring Mill (ID No. ES-7C) with associated fabric filter (ID No. CD-7C-DC2578)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(For process rates up to 30 tons per hour) $E = 4.10 \times P^{0.67}$ (For process rates greater than 30 tons per hour) $E = 55.0 \times P^{0.11} - 40$ Where E =allowable emission rate in pounds per hour P =process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	40 percent opacity	15A NCAC 2D .0521

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

- a. Emissions of particulate matter from these sources **(ID Nos. ES-7B.1, ES-7B.2, and ES-7C)** shall not exceed an allowable emission rate as calculated by the following equations:

(For process rates up to 30 tons per hour)

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

(For process rates greater than 30 tons per hour)

$$E = 55.0 \times P^{0.11} - 40$$

Where E =allowable emission rate in pounds per hour

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 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 P.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. Particulate matter emissions from these sources **(ID Nos. ES-7B.1, ES-7B.2, and ES-7C)** shall be controlled by the fabric filters **(ID Nos. CD-7B-DC2502 and CD-7C-DC2578)** as described above. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- weekly external inspection of any pneumatic conveyors, screw conveyors, elevators, ductwork, and the fabric filters noting the structural integrity and visible emissions;

- ii. monthly preventative maintenance (PM) on bag-type fabric filters including recording pressure drop readings, checking collector housing and fan housing for cracks, checking blow down system, checking fan sheaves, belts, and bearings, checking screw conveyor for proper operation, checking pump valves for proper operation, checking bins for content levels; and
- iii. annual internal inspections (for each 12 month period following the initial inspection) of each fabric filter noting the structural integrity and the condition of the filters.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and fabric filters are not inspected and maintained.

- d. The results of inspection and maintenance shall be maintained in a **logbook** (written or electronic format) on-site and made available to an authorized representative upon request. The **logbook** shall record the following:
  - i. the date and time of each recorded action;
  - ii. the results of each inspection;
  - iii. the results of any maintenance performed on the fabric filters; and
  - iv. any variance from manufacturer's recommendations, if any, and corrections made.
 The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

- a. Visible emissions from these sources (**ID Nos. ES-7B.1, ES-7B.2, and ES-7C**) 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 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 P.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of these sources (**ID Nos. ES-7B.1, ES-7B.2, and ES-7C**) for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and 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 (Method 9) for 12-minutes** is below the limit given in Section 2.1 P.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.

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

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

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

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

**Q. Two natural gas-fired extrusion boilers (ID Nos. ES-CB230 and ES-PB-233)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	(ID No. ES-CB230 only) 0.41 pounds per million Btu heat input	15A NCAC 2D .0503
	(ID No. ES-PB-233 only) 0.45 pounds per million Btu heat input	
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
NA	(ID No. ES-PB-233 only) Recordkeeping only; monthly fuel records	15A NCAC 2D .0524 (40 CFR 60 Subpart Dc)
Nitrogen oxides	<b>See Section 2.2 E</b>	15A NCAC 2Q .0317 (PSD Avoidance)

**1. 15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**

- a. Emissions of particulate matter from the combustion of **natural gas**, that are discharged from this source (**ID No. ES-CB230**) into the atmosphere shall not exceed 0.41 pounds per million Btu heat input.
- b. Emissions of particulate matter from the combustion of **natural gas**, that are discharged from this source (**ID No. ES-PB-233**) into the atmosphere shall not exceed 0.45 pounds per million Btu heat input.

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

- c. If emissions testing is required, the testing shall be performed in accordance 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 Q.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- d. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in these sources (ID Nos. ES-CB230 and ES-PB-233).

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

- a. Emissions of sulfur dioxide from these sources (ID Nos. ES-CB230 and ES-PB-233) 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 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 Q.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/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources (ID Nos. ES-CB230 and ES-PB-233).

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

- a. Visible emissions from these sources (ID Nos. ES-CB230 and ES-PB233) 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 Q.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in these sources (ID Nos. ES-CB230 and ES-PB-233).

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

- a. For this source (ID No. ES-PB233) the Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions."

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

- b. The Permittee shall keep monthly records of the amount of **natural gas** fired in this source (**ID No. ES-PB233**).

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

### A. Facility-wide affected sources

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	<b>State-enforceable only</b> Odorous emissions must be controlled	15A NCAC 2D .1806
Toxic air pollutants	<b>State-enforceable only</b> Toxic air pollutant emissions shall not exceed their modeled acceptable ambient levels	15A NCAC 2D .1100
Toxic air pollutants	<b>State-enforceable only</b> A permit shall be required PRIOR to exceeding the representative TPER	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 2D .1100: CONTROL OF TOXIC AIR POLLUTANTS** - Pursuant to 15A NCAC 2D .1100 "Control of Toxic Air Pollutants," and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

Emission Source(s)	Toxic Air Pollutant(s)	Emission Limit(s)
Facility-wide	Hydrogen Sulfide	67.44 lbs/day
Facility-wide	Benzene	174.62 lbs/year

#### State-enforceable only

3. **15A NCAC 2Q .0711: EMISSION RATES REQUIRING A PERMIT** – 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 2D .0711. The facility shall be operated and maintained in such a manner that emissions of any TAPs from the facility, including fugitive emissions, will not exceed TPERs listed in 15A NCAC 2Q .0711.
- a. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
- b. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D .1100 "Control of Toxic Air Pollutants".

- c. In accordance with the approved application, the Permittee shall maintain records of operational information (written or electronic format) demonstrating that the TAP emissions do not exceed the TPERs as listed below:

Pollutant (CAS Number)	TPERs Limitations			
	Carcinogens (lbs/year)	Chronic Toxicants (lbs/day)	Acute Systemic Toxicants (lbs/hour)	Acute Irritants (lbs/hour)
Carbon disulfide (75-15-0)		3.9		
Methylene chloride (75-09-2)	1600		0.39	
Methyl ethyl ketone (78-93-3)		78		22.4
Nickel metal (7440-02-40)		0.13		
Nickel, soluble compounds, as nickel		0.13		
Toluene (108-88-3)		98		14.4
Trichlorofluoromethane (75-69-4)			140	
Xylene (1330-20-7)		57		16.4

## B. Facility-wide Affected Sources

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile organic compounds	Work Practice Standards	15A NCAC 2D .0958

### 1. 15A NCAC 2D .0958: WORK PRACTICES FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS

- a. Pursuant to 15A NCAC 2D .0958, for all sources that use volatile organic compounds (VOC) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture VOCs, or emit VOCs as a product of chemical reactions, and whose emissions of VOCs are greater than 15 pounds per day; the Permittee shall:
- store all material, including waste material, containing VOCs in tanks or in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
  - clean up spills of VOCs as soon as possible following proper safety procedures,
  - store wipe rags containing VOCs in closed containers,
  - not clean sponges, fabric, wood, paper products, and other absorbent materials with VOCs,
  - transfer solvents containing VOCs used to clean supply lines and other coating equipment into closable containers and close such containers immediately after each use, or transfer such solvents to closed tanks, or to a treatment facility regulated under section 402 of the Clean Water Act,

- vi. clean mixing, blending, and manufacturing vats and containers containing VOCs by adding cleaning solvent and close the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be transferred into a closed container, a closed tank or a treatment facility regulated under section 402 of the Clean Water Act.
- b. When cleaning parts with a solvent containing a VOC, the Permittee shall:
  - i. flush parts in the freeboard area,
  - ii. take precautions to reduce the pooling of solvent on and in the parts,
  - iii. tilt or rotate parts to drain solvent and allow a minimum of 15 seconds for drying or until all dripping has stopped, whichever is longer,
  - iv. not fill cleaning machines above the fill line,
  - v. not agitate solvent to the point of causing splashing.

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

- c. To assure compliance with paragraphs a. and b. above, the Permittee shall, at a minimum, perform a visual inspection once per month of all operations and processes utilizing VOCs. The inspections shall be conducted during normal operations. If the required inspections are not conducted the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

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

- d. The results of the inspections 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 inspection; and
  - ii. the results of each inspection noting whether or not noncompliant conditions were observed.
 If the required records are not maintained the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

**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. Twelve electric lengthwise graphitizing (LWG) furnaces (ID Nos. ES-5E.1 through ES-5E.12)**

**One packing media recycling department (ID No. ES-5I) with associated fabric filter (ID No. CD-5I-DC2474)**

**One stock machining and conveying line (ID No. ES-5J) with associated fabric filter (ID No. CD-5J-DC5803)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
PM <sub>10</sub>	Less than 15 tons per year <b>combined emissions</b>	15A NCAC 2Q .0317 (PSD Avoidance)

**1. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS  
for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. To comply with this permit and avoid the applicability of 15A NCAC 2D .0530, "Prevention of Significant Deterioration," as requested by the Permittee, PM<sub>10</sub> emissions from these sources **(ID No. ES-5E.1 through ES-5E.12, ES-5I, ES-5J) combined**, shall be less than 15 tons per consecutive 12-month period.
- i. To ensure enforceability of this limit the following restrictions shall apply:
- A. total usage of petroleum coke shall not exceed 11,400,000 pounds per consecutive 12-month period, and
- B. total monthly 80-ton batches of petroleum coke processed by this source **(ID No. ES-5I)** shall not exceed 150.
- b. **The Permittee shall submit a summary report 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 PM<sub>10</sub> emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months,
- ii. the total weight in pounds of petroleum coke (including packing media) processed in these sources **(ID Nos. ES-5E.1 through ES-5E.12)**, and
- iii. the total weight in pounds of petroleum coke processed in this source **(ID No. ES-5I)**.  
**All instances of deviations from the requirements of this permit must be clearly identified.**

**D. Twelve electric lengthwise graphitizing (LWG) furnaces (ID Nos. ES-5E.1 through ES-5E.12)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	Less than 459.4 tons per year <b>combined emissions</b>	15A NCAC 2Q .0317 (PSD Avoidance)

**1. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS  
for 15A NCAC 2D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**

- a. To comply with this permit and avoid the applicability of 15A NCAC 2D .0530, "Prevention of Significant Deterioration," as requested by the Permittee, sulfur dioxide emissions from these sources **(ID Nos. ES-5E.1 through ES-5E.12)** shall be less than 459.4 tons per consecutive 12-month period.
- b. **The Permittee shall submit a summary report 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 sulfur dioxide emissions from these sources **(ID Nos. ES-5E.1 through ES-5E.12)** for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.  
**All instances of deviations from the requirements of this permit must be clearly identified.**

**E. Three extrusion mix coolers:**

-(ID No. ES-1B-1h-02S1SC [System #1 South Cooler]);

-(ID No. ES-1B-1h-02S2SC [System #2 South Cooler]);

-(ID No. ES-1B-1h-02S1NC [System #1 North Cooler]);

One molding operation (ID No. ES-1B-1h15AS2EH);

Three 1000-pound Sigma mixers (ID Nos. ES-1J.1 through ES-1J.3),

One vibratory mold press (ID No. ES-1K); and

One Sigma Blade Mixer (ID No. ES-1L.1) and One rotary cooler (ID No. ES-1L.2),  
with associated electrostatic precipitator (ID No. CD-1B-02-ESP)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Compliance Assurance Monitoring	15A NCAC 2D .0614

**1. 15A NCAC 2D .0614: COMPLIANCE ASSURANCE MONITORING**

- a. For the above described emission sources, as required by 40 CFR 64 and 15A NCAC 2D .0614, the Permittee shall comply with the following monitoring and recordkeeping requirements for particulate matter, including parameters to be monitored, parameter ranges, and performance criteria.

	Indicator
I. Indicator	Indicator Lights
Measurement Approach	Indicator Light Operation is measured daily.
II. Indicator Range	An excursion is defined as a parameter outside of normal (design) specifications. The ESP is equipped with two banks of lights (one light per cell) indicating proper operation while fully illuminated or blinking. Normal operation is established as 12-15 lights per bank active at all times. An excursion is defined as having more than 3 lights per bank not illuminated. Excursions trigger an inspection, corrective action, and a recordkeeping requirement.
QIP Threshold	The QIP threshold is five excursions in a 6-month reporting period.

	<b>Indicator</b>
<b>III. Performance Criteria</b>	
A. Data Representativeness	Measurements are being made at the ESP indicator light panels.
B. Verification of Operational Status	Instruments are checked daily for proper operation.
C. QA/QC Practices	Calibrate, maintain, and operate instrumentation using procedures that take into account manufacturer's specifications.
D. Monitoring Frequency	Measurements are recorded daily.
Data Collection Procedures	Recordings are manually recorded in a logbook daily.
Averaging Periods	NA

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

- b. 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 including any monitoring malfunctions as defined in 64.7(c) and required in 64.9(a)(2)(ii).

**F. System #2 Milling Process/Material Storage (ID No. ES-1D) consisting of:**

- Raw coke handling operations (No. 1F);
  - Two bin drawoffs (Nos. BD201 and BD202),
  - One conveyor screw (No. CS257),
  - One double roll crusher (No. DRC263),
  - One hammermill (No. HM260),
  - One Rotex elevator (No. RX261),
  - One Rotex screen (No. RX262),
  - The exhausts from five weigh scale collection sources (Nos. SC201 through SC205), and
  - Five weigh car collection sources (Nos. WC201 through WC205),
- with associated fabric filter (ID No. CD-1D-DC254)

System #1 and System #2 extrusion mixers (ID Nos. ES-1E.1 and ES-1E.2),  
 System #1 milling operations (ID No. ES-1E.3),  
 System #1 weigh car (ID No. ES-1E.4), and  
 System #1 scale bin exhausts (ID No. ES-1E.5)  
 with associated cartridge-type filter (ID No. CD-02-DFT3-36)

Primary milling (ID No. ES-1M-A) and associated fabric filters (ID No. CD-1M-APC and CD-1M-AFR)

Secondary milling (ID No. ES-1M-B) and associated fabric filters (ID No. CD-1M-BPC and CD-1M-BFR)

One steel shot blast electrode cleaning machine (ID No. ES-2A) with associated fabric filter (ID No. CD-2A-DC-5624)

**Two steel shot blast electrode cleaning operations (ID Nos. ES-2C and ES-2M) with associated cartridge-type fabric filter (ID No. CD-2C-DC425)**

**Furnace packing media recycling processes (ID No. ES-2F) and Building No. 5 Sagger can unloading station (ID No. ES-2L-DC05) with associated fabric filter (ID No. CD-2F-DC5524)**

**Pit furnace Sagger handling operations (ID No. ES-2I) with associated cartridge-type fabric filter (ID No. CD-2I-DC05)**

**Graphite Department equipment (ID No. ES-5A) including:**

- By-products material bagging machine (No. BYP);**
- One small band saw (No. C16143);**
- One sample grinder (No. C2302);**
- Rail hoods (No. C2304);**
- One large cleaning machine (No. C2315);**
- One bucket elevator (No. C2330);**
- One chip bin hood (No. C2331);**
- One "L" core drill (No. C2346);**
- One "T" core drill (No. C2347);**
- One large band saw (No. C2348);**
- Miscellaneous graphite machining operations (No. MISC) consisting of:**
  - Rahn-Mayer Lathe #2508 (No. 1)**
  - Sirco PA36 Lathe #2574 (No. 2)**
  - Beco Lathe (No. 3)**
  - Gisholt Turret Lathe #2512 (No. 4)**
  - 20" American Tracer Lathe #2533 (No. 5)**
  - Gisholt Turret Lathe #2510 (No. 6)**
  - Libby Lathe #2525 (No. 7)**
  - 20" American Lathe #2534 (No. 8)**
  - Bullard Mill #2526 (No. 9)**
  - Beyer Drill-Matic (No. 10)**
  - Morris Radial Drill (No. 11)**
  - Cincinnati Milling Machine #2560 (No. 12)**
  - Band Saw (No. 13)**
  - Do-All Band Saw #2506 (No. 14)**
  - Do-All Band Saw (No. 15)**
  - Laidlaw Band Saw #2561 (No. 16)**
  - Mazak Lathe #2575 (No. 17); and**
- Railcar loading operation (No. RC); and**
- Supersack unloading operations (ID No. ES-5M),**  
**with associated fabric filter (ID No. CD-5A-DC2324)**

**One packing media recycling process line (ID No. ES-5I) with associated fabric filter (ID No. CD-5I-DC2474)**

**One stock machining and conveying line (ID No. ES-5J) with associated fabric filter (ID No. CD-5J-DC5803)**

**Graphite finishing operation (ID No. ES-6A) with associated cyclone in series with one fabric filter (CD-6A-DC1164)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	Compliance Assurance Monitoring	15A NCAC 2D .0614

### 1. 15A NCAC 2D .0614: COMPLIANCE ASSURANCE MONITORING

- a. For the above described emission sources, as required by 40 CFR 64 and 15A NCAC 2D .0614, the Permittee shall comply with the following monitoring and recordkeeping requirements for particulate matter, including parameters to be monitored, parameter ranges, and performance criteria.

	Indicator
I. Indicator	Pressure drop
Measurement Approach	Pressure drop across the fabric filters is measured with differential pressure gauges daily.
II. Indicator Range	An excursion is defined as a pressure drop other than normal*. Excursions trigger an inspection, corrective action, and a recordkeeping requirement.
QIP Threshold	None selected.
III. Performance Criteria	
A. Data Representativeness	Pressure taps are located at each fabric filter inlet and outlet. The gauge has a minimum accuracy of 0.5 inches of water.
B. Verification of Operational Status	NA
C. QA/QC Practices	The pressure gauge is checked daily for operation.
D. Monitoring Frequency	Pressure drop is daily.
Data Collection Procedures	Pressure gauge readings are manually recorded daily.
Averaging Periods	NA

\* "Normal" pressure drop ranges or number of indicator lights are as follows:

<b>CD-1D-DC254</b>	1.2 to 5.2 inches of water
<b>CD-02-DFT3-36</b>	4 to 8 indicator lights
<b>CD-2A-DC-5624</b>	1-5 inches of water
<b>CD-2C-DC425</b>	2.1 to 6.1 inches of water
<b>CD-2F-DC5524</b>	4.7 to 8.7 inches of water
<b>CD-2I-DC05</b>	4 to 8 indicator lights
<b>CD-5A0DC2324</b>	0.2 to 4.2 inches of water
<b>CD-5I-DC2474</b>	1 to 4.1 inches of water
<b>CD-5J-DC5803</b>	3 to 7 inches of water
<b>CD-6A-DC1164</b>	3.6 to 7.6 inches of water

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

- b. Within 30 days of startup of these sources (**ID Nos. ES-1M-A and ES-1M-B**), the Permittee shall submit an administrative amendment to this permit for control devices (**ID Nos. CD-1M-APC, CD-1M-AFR, CD-1M-BPC and CD-1M-BFR**) indicating the “normal” pressure drop ranges for each device.
- c. 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 including any monitoring malfunctions as defined in 64.7(c) and required in 64.9(a)(2)(ii).

### **2.3 - Permit Shield for Nonapplicable Requirements**

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

- A. Provided the Porous Carbon Process and associated controls are properly operated and maintained, 15A NCAC 2Q .0317 for 15A NCAC 2D .0530 (PSD) is not applicable these sources (**ID Nos. ES-1M-A and ES-1M-B**) because the **after control** PM/PM<sub>10</sub> emissions will remain under 25/15 tpy.

## SECTION 3 - GENERAL CONDITIONS (v3.1)

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>CEM</b>	Continuous Emission Monitor
<b>CFR</b>	Code of Federal Regulations
<b>CAA</b>	Clean Air Act
<b>CAIR</b>	<b>Clean Air Interstate Rule</b>
<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>	<b>Non-Attainment Area</b>
<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