



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

Michael F. Easley, Governor

William G. Ross, Jr., Secretary
B. Keith Overcash, P.E., Director

July XX, 2007

Mr. Steve Edris,
President
American Rockwool, Incorporated
3711 West Mill Street Extended
Wabash, Indiana 46992 -0237

Dear Mr. Edris:

SUBJECT: Air Quality Permit No. 03578T17
Facility ID: 6400225
American Rockwool, Incorporated
Spring Hope, North Carolina
Nash County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application (6400225.05A) for a renewal of your Title V permit received October 12, 2005, we are forwarding herewith Air Quality Permit No.03578T17 to American Rockwool, Incorporated, 820 East Nash Street, Spring Hope, North Carolina facility authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

The Permittee shall not begin operation of any air emission source affected by the Continuous Assurance Monitoring (CAM) requirements pursuant to 40 CFR Part 64 (ID Nos. MWBC1, MWC1, MWB1, MWBC2, MWC2, and MWB2) until a Title V Air Quality Permit Application is filed and an operation permit is obtained to include a source-specific CAM plan.

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

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you,

Permitting Section

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

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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.

In addition, specific changes and additions as summarized in the attachment below have been made to the permit (note: this list may not include all changes and additions).

This Air Quality Permit shall be effective from MMM DD, YYYY until MMM DD, YYYY, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Joseph Voelker at (919) 715-7218.

Sincerely yours,

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

Enclosure

c: Gregg Worley, EPA Region 4
Raleigh Regional Office
Central Files

Table of Changes

Pages	Section	Description of Changes
Cover Letter	NA	<ul style="list-style-type: none"> Changed permit revision numbers and all associated dates Revised language to current shell language
Cover	NA	<ul style="list-style-type: none"> Changed permit revision numbers and all associated dates
All	Header	<ul style="list-style-type: none"> Changed permit revision number
3	Section 1 Equipment List	Added the term CAM to the emission sources to indicate CAM applicability
3	Section 1 Equipment List	Edited the control device description for the wet scrubbers SC1 and SC2 for the sources MWB1 and 2 to be consistent with the control device descriptions elsewhere in the Equipment List
4	2.1.A.1.d. (2D.0515 monitoring/recordkeeping stipulation)	The language, " <i>The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained</i> " was added for consistency with the current stipulation language.
5	2.1.A.2.f.	The equation as presented in the current permit is dimensionally inconsistent in that the term Sr needed to be in units of weight fraction and not percent by weight as listed. In addition, the equation requested inputs of pound per hour for the rock materials and tons per hour for the coke, introducing unnecessary usage of conversion constants. The equation was revised and corrected. See Regulatory Review for derivation and full details.
6	2.1.A.3.c. and c.i.	Added the language "The Permittee shall establish "normal" within 30 days of re-commencing operation" to paragraph c. and "as soon as practicable" to paragraph c.i. of the 2D .0521 monitoring requirement.
8	2.1.B.1.d.	The language, " <i>The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained</i> " was added for consistency with the current stipulation language.
8	2.1.B.2.c. and c.i.	Added the language "The Permittee shall establish "normal" within 30 days of re-commencing operation" to paragraph c. and "as soon as practicable" to paragraph c.i. of the 2D .0521 monitoring requirement.
12	2.2.B.1.b. and c.	Removed section b. and c. from the stipulation to be consistent with current stipulation language
9	2.2B.3.	Added a CAM stipulation. See CAM Applicability and Chronology discussions.
All	General Conditions	Copied general conditions from current permit shell document (2.19) into revised permit

ATTACHMENT to Permit No. 03578T17

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

Emission Source ID No.	Emission Source Description
IS-ES-001	Open product storage piles
IS-ES-002	Haul roads
IS-ES-003	Front end loader
IS-ES-004	Conveyors and conveyor drop points

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

**State of North Carolina,
Department of Environment,
and Natural Resources**

Division of Air Quality



AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
03578T17	03578T16	July XX, YY	September XX, YY

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: **American Rockwool, Incorporated**
Facility ID: **05/064/00225**

Facility Site Location: **820 East Nash Street**
City, County, State, Zip: **Spring Hope, Nash County, North Carolina 27882**

Mailing Address; **Post Office Box 880**
City, State, Zip: **Spring Hope, North Carolina 27882**

Application Number: **6400225.05A**
Complete Application Date: **October 12, 2005**

Primary SIC Code: **3292**
Division of Air Quality, **Raleigh Regional Office**
Regional Office Address: **1628 Mail Service Center**
Raleigh, North Carolina 27699-1628

Permit issued this the xxth day of XX, 2007

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

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(Including specific requirements, testing, monitoring, recordkeeping, and
reporting requirements)

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(Including specific requirements, testing, monitoring, recordkeeping, and
reporting requirements)

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

PART II

This permit does not contain a Part II Section.

PART I

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

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

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
CUP1 and CUP2 MACT DDD	two coke-fired mineral wool cupolas	BF1 and BF2	two bagfilters (16,000 square feet of filter area each)
MWBC1 and MWBC2 CAM	two mineral wool blow chambers	SC1 and SC2	two gravity spray scrubbers (120 gallons per minute minimum liquid injection rate each)
MWC1 and MWC2 CAM	two mineral wool cleaning processes (product tumblers)	TC1 and TC2; SC1 and SC2	two transfer cyclones (96 inches in diameter each) in series with two gravity spray scrubbers (120 gallons per minute minimum liquid injection rate each)
MWB1 and MWB2 CAM	two mineral wool bagging processes	TC3 and TC4; SC1 and SC2	two transfer cyclones (96 inches in diameter each) in series with two gravity spray scrubbers (120 gallons per minute minimum liquid injection rate each)

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

- A. Two coke-fired mineral wool cupolas (ID Nos. CUP1 and CUP2) with two associated bagfilters (16,000 square feet of filter area each, ID Nos. BF1 and BF2) followed by a common stack (109 feet in height)**

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	$E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
sulfur dioxide	2.3 pounds per million Btu	15A NCAC 2D .0516
visible emissions	20 percent opacity	15A NCAC 2D .0521
odorous emissions	See Section 2.2 B.	15A NCAC 2D .1806
toxic air pollutants	See Section 2.2 B.2	15A NCAC 2Q .0705
hazardous air pollutants	See Section 2.2 A.	15A NCAC 2D .1111 (40 CFR 63 Subpart DDD)

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

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

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

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

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

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

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

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

- c. Particulate matter emissions from the mineral wool cupolas (ID Nos. CUP1 and CUP2) shall be controlled by the bagfilters (ID Nos. BF1 and BF2). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection unit for leaks; and
 - ii. an annual internal inspection of the bagfilter's structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and bagfilters are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the bagfilters; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

- a. Emissions of sulfur dioxide from the mineral wool cupolas (ID Nos. CUP1 and CUP2) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 A. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.
- c. Under the provisions of NCGS 143-215.108, the Permittee shall demonstrate compliance with the emission limit(s) above by testing either of the mineral wool cupolas (**ID No. CUP1 or CUP2**) for sulfur dioxide in accordance with a testing protocol approved by the DAQ. Details of the emissions testing and reporting requirements can be found in Section 3 - General Condition JJ. Testing shall be conducted on either mineral wool cupola (ID No. CUP1 or CUP2), once every six months, such that two tests are conducted during the first 12-month period after the facility recommences operation. The first testing shall be completed and the results submitted within 180 days of recommencing operation, unless an alternate date is approved by the DAQ. A stack test protocol shall be submitted to DAQ at least 45 days prior to testing. Testing shall be conducted while running "representative worst case" raw materials/ products (i.e. highest sulfur content raw materials). If both tests indicate that the emission rate was less than 80% of the limit given in Section 2.1 A. 2. a. above, testing shall be reduced to once every 12-months. If either test indicates an emission rate of 80% of the limit or greater, the Permittee shall continue to test either cupola at least once every 6-months. If the results of this test are above the limit given in Section 2.1 A. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- d. The Permittee shall monitor the sulfur content of the coke by using coke supplier certification per total shipment received. The coke supplier certification shall be recorded in a logbook (written or electronic format) per total shipment and include the following information:
- the name of the coke supplier;
 - the maximum sulfur content of the coke received per total shipment;
 - a statement verifying that the methods used to determine the maximum sulfur content of the coke was accordance with the following:
 - sampling -- ASTM Method D 2234;
 - preparation -- ASTM Method D 2013;
 - gross calorific value (Btu) -- ASTM Method D 5865;
 - moisture content --ASTM Method D 3173;
 - sulfur content -- ASTM Method D 3177 or ASTM Method D 4239; and
 - a certified statement signed by the responsible official that the records of coke supplier certification submitted represent all of the coke fired during the reporting period.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the coke is not monitored and recorded.
- e. The Permittee shall monitor the sulfur content of the raw material and record the results in a logbook (written or electronic format) at least once per month.
- f. The Permittee shall monitor the emission rate of sulfur dioxide using the procedure given below to demonstrate compliance with the emissions limit for sulfur dioxide in Section 2.1 A.2.a. above. The sulfur dioxide emission rate for the two cupolas (**ID Nos. CUP1 and CUP2**) shall be calculated on a daily basis using the following equation:

$$M = 0.02 \left[\frac{\left(C * S_c \right) + \left(SRR * R * S_r \right)}{\left(C * H_c \right) + \left(R * H_r \right)} \right]$$

Where M = uncontrolled sulfur dioxide emission rate (pounds per million Btu heat input)
C = coke feed rate (tons per hour)
S_c = coke sulfur content (percent by weight)
SRR = sulfur release rate from molten rock, defined as 0.4 pounds sulfur released per pound sulfur content in rock
R = rock feed rate (tons per hour)
S_r = sulfur content in rock feed (percent by weight)
H_c = heating value of coke (million Btu per pound)
H_r = heating value of rock (million Btu per pound)

If the above calculations are not performed and recorded, or if M is greater than 2.3 (limit given in Section 2.1 A.2.a. above), the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- g. The Permittee shall submit a summary report of the coke supplier certifications, sulfur content analysis of the raw materials and sulfur dioxide emissions estimations by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

- a. Visible emissions from these mineral wool cupolas (**ID Nos. CUP1 and CUP2**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

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

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

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

- c. To assure compliance, once a day the Permittee shall observe the emission points of this source for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. The Permittee shall establish A_{normal} for the source within 30 days of re-commencing operation. If visible emissions from this source are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable 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 .0501(c)(8) is below the limit given in Section 2.1 A.3. a. above.

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

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

- 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 by January 30 of each calendar year for the

preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

B. Two gravity spray scrubbers (ID Nos. SC1 and SC2, 120 gallons per minute minimum liquid injection each) installed one each on:

- **two mineral wool blow chambers (ID Nos. MWBC1 and MWBC2),**
- **two mineral wool cleaning processes (product tumblers) (ID Nos. MWC1 and MWC2) with two associated transfer cyclones (96 inches in diameter each, ID Nos. TC1 and TC2), and**
- **two mineral wool bagging processes (ID Nos. MWB1 and MWB2) with two associated transfer cyclones (96 inches in diameter each, ID Nos. TC3 and TC4)**

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	$E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	20 percent opacity	15A NCAC 2D .0521
odorous emissions	See Section 2.2 B.	15A NCAC 2D .1806
Toxic air pollutants	See Section 2.2 B.2	15A NCAC 2Q .0705

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

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

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

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

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

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

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

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

- c. Particulate matter emissions from the mineral wool blow chambers (ID Nos. MWBC1 and MWBC2), the mineral wool cleaning processes (ID Nos. MWC1 and MWC2), and the mineral wool bagging processes (ID Nos. MWB1 and MWB2) shall be controlled by the two gravity spray scrubbers (ID Nos. SC1 and SC2). To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer’s inspection and maintenance recommendations, or if there is no manufacturer’s inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and material collection unit for leaks;
 - ii. a weekly recording of the scrubbers’ pressure drops and flow rates; and

iii. an annual internal inspection of the scrubber including inspection of the spray nozzles.

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

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

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

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

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

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

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

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

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

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of this source for any visible emissions above normal. The Permittee shall establish A_{normal} for the source within 30 days of recommencing operation. 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 within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 B.2. a. above.

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

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

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

The Permittee shall be deemed in 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 by January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 40 CFR Part 64: COMPLIANCE ASSURANCE MONITORING (CAM)

- a. The two mineral wool blow chambers (**ID Nos. MWBC1 and MWBC2**) and two cleaning processes (**ID Nos. MWC1 and MWC2**) and the bagging processes (**ID Nos. MWB1 and MWB2**) are affected by the Compliance Assurance Monitoring (CAM) provisions provided in 40 CFR Part 64. **The Permittee shall apply for and obtain a Title V permit revision to include a source-specific CAM Plan prior to operating these emissions sources.** The Permittee shall comply with all requirements of 40 CFR Part 64, including but not limited to the following:
 - i. The CAM Plan shall satisfy the requirements identified in 40 CFR §64.3.
 - ii. The application for a permit modification to incorporate the CAM Plan shall include all elements identified in 40 CFR §64.4.
 - iii. The Permittee shall operate in accordance with the CAM Plan as provided in 40 CFR §64.7.
 - iv. The Permittee shall comply with recordkeeping and reporting requirements pursuant to 40 CFR §64.9. If the Permittee fails to apply for, obtain, and operate in accordance with an approved CAM plan prior to operating the affected emission sources as identified above, the Permittee shall be deemed in non-compliance with 40 CFR Part 64.

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

A. Affected Source - All facilities subject to 40 CFR Part 63, Subpart DDD: NATIONAL EMISSIONS STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR MINERAL WOOL PRODUCTION

The above emission sources are subject to these limits and/or standards:

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous air pollutants (HAPs)	Emissions limitations and monitoring requirements as specified in rule for mineral wool cupolas.	40 CFR 63 Subpart DDD

Applicability [40 CFR 63.1175]

- 1. The **two coke-fired mineral wool cupolas (ID Nos. CUP1 and CUP2)** shall comply with all requirements of 15A NCAC .1111 “Maximum Achievable Control Technology” and 40 CFR Part 63, Subpart DDD “National Emission Standards for Hazardous Air Pollutants for Mineral Wool Production.”

Definitions and Nomenclature [40 CFR 63.1196]

- 2. For the purpose of this permit the definitions and nomenclature in 40 CFR 63.1196 shall apply.

Regulated Pollutants [40 CFR 63.1196]

- 3. Hazardous air pollutants (HAPs) have the meaning as defined in 40 CFR 63.1196.

40 CFR Part 63 Subpart A “General Provisions” [63.1194]

- 4. The Permittee shall comply with the requirement of 40 CFR 63 Subpart A “General Provisions” according to the applicability of Subpart A to such sources as identified in Table 1 of 40 CFR Part 63, Subpart DDD.

Particulate Emission Standards for Cupolas [40 CFR 63.1178(a)(1)]

- 5. The Permittee shall limit emissions of particulate matter (PM) from each existing, new, or reconstructed cupola to 0.05 kilograms of PM per megagram (0.1 pounds of PM per ton) of melt or less. [40 CFR 63.1178(a)(1)]

Requirements for Compliance with the Particulate Standards [63.1181]

- 6. To comply with the PM standards, the Permittee must meet the following requirements:
 - (a) Install, adjust, maintain, and continuously operate a bag leak detection system for each fabric filter.
 - (b) Begin corrective actions specified in the operations, maintenance, and monitoring plan required by 63.1187

of this subpart within one hour after the alarm on a bag leak detection system sounds. Complete the corrective action in a timely manner.

- (c) Develop and implement a written QIP consistent with compliance assurance monitoring requirements of 40 CFR 64.8(b) through (d) when the alarm on a bag leak detection system sounds for more than five percent of the total operating time in a six-month reporting period.

Bag Leak Detection System Operating Limits for Each Cupola [40 CFR 63.1178(b)(1)]

- 7. The bag leak detection system limits include the following:
 - (a) Begin within one hour after the alarm on a bag leak detection system sound, and complete in a timely manner, corrective actions as specified in the operations, maintenance, and monitoring plan required by 63.1187.
 - (b) When the alarm on a bag leak detection system sounds for more than five percent of the total operating time in a six-month reporting period, develop and implement a written quality improvement plan (QIP) consistent with the compliance assurance monitoring requirements of 64.8(b)-(d) of 40 CFR Part 64.

Bag Leak Detection System Specifications [40 CFR 63.1184]

- 8. A bag leak detection system must meet the following requirements:
 - (a) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.
 - (b) The sensor on the bag leak detection system must provide output of relative PM emissions.
 - (c) The bag leak detection system must have an alarm that will sound automatically when it detects an increase in relative PM emissions greater than present level.
 - (d) The alarm must be located in an area where appropriate personnel can hear it.
 - (e) For a positive-pressure fabric filter, each compartment or cell must have a bag leak detector. For a negative-pressure or induced-air fabric filter, the bag leak detector must be installed downstream of the fabric filter. If multiple bag leak detectors are required (for either type of fabric filter), detectors may share the system instrumentation and alarm.
 - (f) Each triboelectric bag leak detection system must be installed, operated, adjusted, and maintained such that follows EPA's "Fabric Filter Bag Leak Detection Guidance" (EPA-454/R-98-015, September 1997). Other bag leak detection systems must be installed, operated, adjusted, and maintained so that they follow the manufacturer's written specifications and recommendations.
 - (g) After initial adjustment, the range, averaging period, alarm set points, or alarm delay time may not be adjusted except as specified in the operations, maintenance, and monitoring plan required by 63.1187 of this subpart. In no event may the range be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless the responsible official as defined in 63.2 of the general provisions in Subpart A of this part certifies in writing to Administrator that the fabric filter has been inspected and found to be in good working order.

Operations, Maintenance, and Monitoring Plan [40 CFR 63.1187]

- 9. An operations, maintenance, and monitoring plan must be submitted to the Administrator for review and approval as part of the application for the Title V permit. The operations, maintenance, and monitoring plan must include the following:
 - (a) Process and control device parameters which will be monitored to determine compliance along with the established operating levels or ranges for each process or control device.
 - (b) A monitoring schedule.
 - (c) Procedures for properly operating and maintaining control devices used to meet the standards in 63.1178 and 63.1179 of this subpart.
 - (d) Procedures for keeping records to document compliance.
 - (e) Corrective actions which the Permittee will take if the process or control device parameters vary from the levels developed during performance testing. For bag leak detection system alarms, example corrective actions that may be included in the operations, maintenance, and monitoring plans include:
 - (i) Inspecting the fabric filter for air leaks, torn or broken bags, or filter media, or any other condition that may cause an increase in emissions.
 - (ii) Sealing off defective bags or filter media.
 - (iii) Replacing defective bags or filter media, or otherwise repairing the control device.
 - (iv) Sealing off a defective fabric filter compartment.

- (v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.
- (vi) Shutting down the process producing particulate emissions.

Notification Requirements [63.1191]

10. The Permittee must submit written notifications to the Administrator as required by Section 63.9(b)-(h) of the general provisions in Subpart A of this part. These notifications include the following:
 - (a) Notification of the compliance status.

Recordkeeping Requirements [63.1191]

11. The Permittee meet the following recordkeeping requirements:
 - (a) Maintain files of all information required by 63.10(b) of the general provisions in Subpart A of this part, including all notifications and reports.
 - (b) Maintain records on the following information:
 - (i) Cupola production (melt) rate
 - (ii) All bag leak detection system alarms. Include the date and time of the alarm, when corrective actions were initiated, the cause of the alarm, an explanation of the corrective actions taken, and when the cause of the alarm was corrected.
 - (c) All records must be maintained for a minimum of five years following the date of each occurrence, measurement, corrective action, maintenance, record, or report. The most recent two years of records must be retained at the facility. The remaining three years of records may be retained off site.

Reporting Requirements [63.1192]

12. The Permittee prepare and submit the following reports to the Administrator as required by this subpart and 63.10 of the general provisions in Subpart A of this part. These reports include, but are not limited to, the following:
 - (a) A startup, shutdown, and malfunction plan as described in 63.6(e)(3) of the general provisions in subpart A of this part, that contains specific procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for the malfunctioning process and control systems used to comply with the emission standards. In addition to the information required by 63.6(e)(3), the plan must contain the following:
 - (i) Procedures to determine and record what caused the malfunction when it began and ended.
 - (ii) Corrective actions which will be taken if a process equipment or control device malfunctions, including procedures for recording the actions taken to correct the malfunction or minimize emissions.
 - (iii) An inspection and maintenance schedule for each process and control device that is consistent with the manufacturer’s instructions and recommendations for routine and long-term maintenance.
 - (b) A report of each event as required by 63.10(b) of the general provisions in subpart A of this part, including a report if an action taken during a start-up, shutdown, or malfunction is inconsistent with the procedures of the plan as described in 63.6(e)(3) of the general provisions in Subpart A of this part.
 - (c) An operations, maintenance, and monitoring plan as specified in 63.1187 of this subpart.
 - (d) A semiannual report as required by 63.10(e)(3) of the general provisions in subpart A of this part if measured emissions exceed the applicable standard or a monitored parameter varies from the level established during performance testing. The report must contain the information specified in 63.10(c) of the general provisions, as well as the relevant records required by 63.1192(b) of this Subpart.
 - (e) A semiannual report stating that no excess emissions or deviations of monitored parameters occurred during the reporting period as required by 63.10(e)(3)(v) of the general provisions in Subpart A of this part if no deviations have occurred.

STATE-ONLY REQUIREMENTS

B. Facility-wide affected sources

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
odors	odorous emissions must be controlled; State-enforceable only	15A NCAC 2D .1806
toxic air pollutants	State enforceable only	15A NCAC 2Q .0705

State enforceable-only

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

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

State enforceable-only

2. 15A NCAC 2Q .0705: "EXISTING FACILITIES AND SIC CALLS"

- a. Pursuant to 15A NCAC 2Q .0705(b), the Permittee shall submit a permit application and obtain an air quality permit indicating compliance with 15A NCAC 2D .1100 prior to recommencing operations at the facility. The permit application shall include an evaluation for all toxic air pollutants covered under rule 15A NCAC 2D .1104 for all sources at the facility, excluding those sources exempt from evaluation under 15A NCAC 2Q .0702. The Permittee shall notify Regional Supervisor of the intent to recommence operations no later than thirty (30) days prior to the date of commencement.

SECTION 3 - GENERAL CONDITIONS

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

A. General Provisions [NCGS 143-215 and 15A NCAC 2Q .0508(i)(16)]

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

B. Permit Availability [15A NCAC 2Q .0507(k) and .0508(i)(9)(B)]

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

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

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

D. Submissions [15A NCAC 2Q .0507(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

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. Section 502(b)(10) Changes [15A NCAC 2Q .0523(a)]
 - a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
 - b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
 - i. the changes are not a modification under Title I of the Federal Clean Air Act;
 - ii. the changes do not cause the allowable emissions under the permit to be exceeded;
 - iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
 - iv. the Permittee shall attach the notice to the relevant permit.
 - c. The written notification shall include:
 - i. a description of the change;
 - ii. the date on which the change will occur;
 - iii. any change in emissions; and
 - iv. any permit term or condition that is no longer applicable as a result of the change.

- d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
2. Off Permit Changes [15A NCAC 2Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
 - a. the change affects only insignificant activities and the activities remain insignificant after the change;
or
 - b. the change is not covered under any applicable requirement.
3. Emissions Trading [15A NCAC 2Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 2D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 2Q .0523(c).

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

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

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

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

Excess Emissions

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

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

- CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 2Q .0501(e)]
1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
 2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
 3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.
- DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 2Q .0508(h)]
If the Permittee is required to develop and register a Risk Management Plan with EPA pursuant to Section 112(r) of the Clean Air Act, then the Permittee is required to register this plan in accordance with 40 CFR Part 68.
- EE. **Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) -**
FEDERALLY-ENFORCEABLE ONLY
Although a risk management plan may not be required, if the Permittee produces, processes, handles, or stores any amount of a listed hazardous substance, the Permittee has a general duty to take such steps as are necessary to prevent the accidental release of such substance and to minimize the consequences of any release.
- FF. **Title IV Allowances** [15A NCAC 2Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.
- GG. **Air Pollution Emergency Episode** [15A NCAC 2D .0300]
Should the Director of the DAQ declare an Air Pollution Emergency Episode, the Permittee will be required to operate in accordance with the Permittee's previously approved Emission Reduction Plan or, in the absence of an approved plan, with the appropriate requirements specified in 15A NCAC 2D .0300.
- HH. **Registration of Air Pollution Sources** [15A NCAC 2D .0200]
The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0202(b).
- II. **Ambient Air Quality Standards** [15A NCAC 2D .0501(e)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.
- JJ. **General Emissions Testing and Reporting Requirements** [15A NCAC 2Q .0508(i)(16)]
If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application, the Permittee shall perform such testing in accordance with the appropriate EPA reference method(s) as approved by the DAQ and follow the procedures outlined below. The Permittee must request **in writing** and receive approval from the DAQ for an alternate test method or procedure.
1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
 2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.

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

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

1. A permit shall be reopened and revised under the following circumstances:
 - a. additional applicable requirements become applicable to a facility with remaining permit term of three or more years;
 - b. additional requirements (including excess emission requirements) become applicable to a source covered by Title IV;
 - c. the Director or EPA finds that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
 - d. the Director or EPA determines that the permit must be revised or revoked to 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.

ATTACHMENT

List of Acronyms

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