



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

Beverly Eaves Perdue
Governor

B. Keith Overcash, P.E.
Director

Dee Freeman
Secretary

Enter XX or Calendar Date

Mr. Joseph F. Wilk, Jr.
Vice President and General Manager
Molded Fiber Glass Company / North Carolina
PO Box 2728
Morganton, North Carolina 28680

Dear Mr. Wilk:

SUBJECT: Air Quality Permit No. 06218T15
Facility ID: 1200094
Molded Fiber Glass Company / North Carolina
Morganton, North Carolina
Burke County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for a significant modification of a Title V permit received August 14, 2009, we are forwarding herewith Air Quality Permit No. 06218T15 to Molded Fiber Glass Company / North Carolina, 213 Reep Drive, 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.

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,

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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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 (Enter XX or Permit Issuance Date) until (Enter XX or Permit Expiration Date), 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. Jeff Twisdale at (919) 715-6260.

Sincerely yours,

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

Enclosure

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

Insignificant Sources Pursuant to 15A NCAC 2Q .0503(8)

1. **I-Preformer:** Natural gas-fired preformers
2. **I-Tank-01:** One resin storage tank (6,000 gallon capacity)*
3. **I-Tank-02:** One resin storage tank (6,000 gallon capacity)*
4. **I-Tank-03:** One resin storage tank (5000 gallon capacity)*
5. **I-Tank-04:** One resin storage tank (5000 gallon capacity)*

* Resin storage tanks are affected by work practices for storage operations under the Reinforced Plastics MACT (40 CFR 63, Subpart WWWW), as provided in Section 2.2. A.1.f.

Table of Changes

The following table describes the modifications to the current permit.

Page(s)	Section	Description of Change(s)
Insignificant Activity List	Attachment	Remove affected boilers (ID Nos. I-Boilers) from the insignificant activity list.
1	Permit Cover Page	Amend permit revision numbers and issuance/effective/expiration dates.
2	Table of Contents	Removed Part II and associated Sections.
3-4	Section 1, Table	Remove asterisks (*) and minor modification footnote for Presses 13 and 14 (ID Nos. ES1C-09 and ES1C-10)
4	Section 1, Table	Add affected boilers (ID Nos. ES-B1 and ES-B2) to the list of permitted sources.
12-13	2.1.E. (New)	Add Section to include applicable requirements for the affected boilers (ID Nos. ES-B1 and ES-B2).
23-31	Section 3	Update General Provisions with the most recent revision (version 3.1)
31-32	Part II	Removed Part II and associated Sections.

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
06218T15	06218T14	XXXX	XXXX*

*This permit shall expire on the earlier of XXXX, XX, XXXX or the renewal of permit 06218T14 has been issued or denied.

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 2D and 2Q, and other applicable Laws.

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

Permittee: **Molded Fiber Glass Company /
North Carolina**

Facility ID: **1200094**

Facility Site Location: **213 Reep Drive**
City, County, State, Zip: **Morganton, Burke County, North Carolina 28655**

Mailing Address: **PO Box 2728**
City, State, Zip: **Morganton, North Carolina 28680**

Application Number: **1200094.09A**
Complete Application Date: **August 14, 2009**

Primary SIC Code: **3089**
Division of Air Quality, **Asheville Regional Office**
Regional Office Address: **2090 Highway 70**
Swannanoa, North Carolina 28778

Permit issued this the XX day of XXXXXX, XXXX

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

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

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

SECTION 3: 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
Open Molding and Gel Coat Application Operations			
ES1A MACT WWWW	fiberglass reinforced plastic molding operations (open molding utilizing nonatomizing guns)	NA	NA
ES4 MACT WWWW	one dry-filter type spray booth (Gel coat spray booth) installed on gel coat application operations	NA	NA
Closed and Compression Molding Operations			
ES1B-01 MACT WWWW	fiberglass reinforced plastic molding operations (Press 1 – one closed molding press)	NA	NA
ES1C-01 MACT WWWW	fiberglass reinforced plastic molding operations (Press 11 – one 2,850 ton compression molding press)	NA	NA
ES1C-02 MACT WWWW	fiberglass reinforced plastic molding operations (Press 9 – one 1,000 ton compression molding press)	NA	NA
ES1C-08 MACT WWWW	fiberglass reinforced plastic molding operations (Press 12 – one 2,875 ton compression molding press)	NA	NA
ES1C-09 MACT WWWW	fiberglass reinforced plastic molding operations (Press 13 – one 3,000 ton compression molding press)	NA	NA
ES1C-10 MACT WWWW	fiberglass reinforced plastic molding operations (Press 14 – one 2,850 ton compression molding press)	NA	NA
ES1D MACT WWWW	closed molding mixing process	CD1	Fabric filter (47 square feet of filter area)
Coating/Painting Operations			
ES2 MACT PPPP	one dry-filter type paint spray booth and one paint drying oven (natural gas-fired, 2.5 million Btu per hour heat capacity) installed on fiberglass reinforced plastic painting operations	NA	NA
ES3 MACT PPPP	one dry-filter type paint spray booth installed on fiberglass reinforced plastic painting operations	NA	NA
ES5-02 MACT PPPP	one dry-filter type spray booth	NA	NA
ES5-04 MACT PPPP	one electrical, infrared curing oven	NA	NA

Sanding/Trimming/Drilling/Routing Operations			
ES6	fiberglass reinforced plastic sanding and trimming operations	CD6	one cyclone (21 inches in diameter) installed in series with one cartridge filter (420 square feet of filter area)
ES8	drilling, routing, trimming, and sanding operations	CD8	one cyclone installed in series with one cartridge filter (1,792 square feet of filter area)
Boilers			
ESB1 112(j)	one natural gas-fired boiler (3.35 million Btu per hour maximum heat input rate)	NA	NA
ESB2 112(j)	one natural gas-fired boiler (5.10 million Btu per hour maximum heat input rate)	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. Open molding and gel coat application operations consisting of:
Open molding utilizing non-atomizing guns (ID No. ES1A); and,
One dry-filter type paint spray booth (gel coat spray booth) installed on gel coat application operations (ID No. ES4).**

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
Hazardous Air Pollutants	See Section 2.2 A.1. <i>(Reinforced Plastic Composites Production MACT)</i>	15A NCAC 2D .1111 40 CFR 60, Subpart WWWW
Volatile Organic Compounds	See Section 2.2 B.1.	15A NCAC 2Q .0317 PSD Avoidance
Volatile Organic Compounds	See Section 2.2 B.2.	15A NCAC 2D .0958
Toxic Air Pollutants	State Enforceable Only See Section 2.2 B.3.	15A NCAC 2D .1100
Toxic Air Pollutants	State Enforceable Only See Section 2.2 B.4.	15A NCAC 2Q .0705

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

- a. Emissions of particulate matter from the affected sources (**ID Nos. ES1A and ES4**) 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 .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 the spray booths (**ID No. ES1A and ES4**) shall be controlled by dry filters and adequate ductwork. To assure compliance, the Permittee shall perform inspections and maintenance. At a minimum, the inspection and maintenance requirement shall include:
 - i. a weekly inspection of the spray booth's dry filters noting the condition; and
 - ii. an annual inspection of the associated ductwork noting structural integrity.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and dry 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; and
 - iii. the results of any maintenance performed on any filters.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 dry filters or ductwork 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 affected open molding operation (**ID Nos. ES1A and ES4**) 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 .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 [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) 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.

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

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

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

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

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

B. Closed compression molding operations consisting of:

- Press 1 – one closed molding press (ID No. ES1B-01);**
 - Press 11 – one 2,850-ton compression molding press (ID No. ES1C-01);**
 - Press 9 – one 1,000-ton compression molding press (ID No. ES1C-02);**
 - Press 12 – one 2,875-ton compression molding press (ID No. ES1C-08);**
 - Press 13 – one 3,000-ton compression molding press (ID No. ES1C-09); and,**
 - Press 14 – one 2,850-ton compression molding press (ID No. ES1C-10).**
- Closed molding mixing process (ID No. ES1D).**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	See Section 2.2 A.1. <i>(Reinforced Plastic Composites Production MACT)</i>	15A NCAC 2D .1111 <i>40 CFR 60, Subpart WWWW</i>
Volatile Organic Compounds	See Section 2.2 B.1.	15A NCAC 2Q .0317 PSD Avoidance
Volatile Organic Compounds	See Section 2.2 B.2.	15A NCAC 2D .0958
Toxic Air Pollutants	State Enforceable Only See Section 2.2 B.3.	15A NCAC 2D .1100
Toxic Air Pollutants	State Enforceable Only See Section 2.2 B.4.	15A NCAC 2Q .0705

C. Coating/painting operations consisting of:

- One dry-filter type paint spray booth and natural gas-fired one paint drying oven installed on fiberglass reinforced plastic painting operations (ID No. ES2),**
- One dry-filter type paint spray booth installed on fiberglass reinforced plastic painting operations (ID No. ES3),**
- One spray finishing line consisting of:**
 - One dry-filter type spray booth (ID No. ES5-02); and,**
 - One electrical, infrared curing oven (ID No. ES5-04).**

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	ES2, ES3, and ES5-02, only $E=4.10P^{0.67}$ where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Sulfur Dioxide	ES2, only 2.3 pounds per million Btu	15A NCAC 2D .0516

Regulated Pollutant	Limits/Standards	Applicable Regulation
Visible Emissions	ES2, ES3, and ES5-02, only 20 percent opacity	15A NCAC 2D .0521
Hazardous Air Pollutants	Initial compliance date: April 19, 2007 (<i>Surface Coating of Plastic Parts MACT</i>)	15A NCAC 2D .1111 40 CFR 63, Subpart PPPP
Volatile Organic Compounds	See Section 2.2 B.1.	15A NCAC 2Q .0317 PSD Avoidance
Volatile Organic Compounds	See Section 2.2 B.2.	15A NCAC 2D .0958
Toxic Air Pollutants	State Enforceable Only See Section 2.2 B.3	15A NCAC 2D .1100
Toxic Air Pollutants	State Enforceable Only See Section 2.2 B.4.	15A NCAC 2Q .0705

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

- a. Emissions of particulate matter from the affected sources (**ID Nos. ES2, ES3, and ES5-02**) 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 = 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 the spray booths sources (**ID Nos. ES2, ES3, and ES5-02**) shall be controlled by dry filters and adequate ductwork. To assure compliance, the Permittee shall perform inspections and maintenance. At a minimum, the inspection and maintenance requirement shall include:
- i. a weekly inspection of the spray booths' dry filters noting the condition; and
 - ii. an annual inspection of the associated ductwork noting structural integrity.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and dry 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; and
 - iii. the results of any maintenance performed on any filters.
- 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 dry filters or ductwork 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 combustion sources (**ID No. ES2**) 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 .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 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 combustion of natural gas in these sources.

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

- a. Visible emissions from the affected emission sources (**ID Nos. ES2, ES3, and ES5-02**) 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 .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 [15A NCAC 2Q .0508(f)]

- c. To assure compliance, once a month the Permittee shall observe the emission points of this source for any visible emissions above normal. If visible emissions from this source are observed to be above normal, the Permittee shall either:
- i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) 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.

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

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

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

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

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

4. 15A NCAC 2D .1111: Maximum Achievable Control Technology (MACT) – Surface Coating of Plastic Parts and Products (40 CFR Part 63, Subpart PPPP)

- a. For the surface coating operations (**ID Nos. ES2, ES3, ES5-02, and ES5-04**), the Permittee shall comply with all applicable provisions, including the Notification Requirements per 40 CFR 63.4510, contained in Environmental Management Commission Standard 15 A NCAC 2D .1111 “Maximum Achievable Control Technology” (MACT) as promulgated in 40 CFR Part 63, Subpart PPPP. The initial compliance date for existing sources under the standard is **April 19, 2007**.

D. Sanding/trimming/drilling/routing operations consisting of:

**Fiberglass reinforced plastic sanding and trimming operations (ID No. ES6) with associated cartridge filter and cyclone (ID No CD6); and,
Drilling, routing, trimming, and sanding operations on one robotic cab production line (ID No. ES8) with associated cyclone and cartridge filter (ID No. CD8).**

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

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

- c. Particulate matter emissions from the fiberglass reinforced plastic sanding and trimming operations (**ID No. ES6**) shall be controlled by one cyclone and one cartridge filter. Particulate matter emissions from the drilling, routing, trimming, and sanding operations (**ID No. ES8**) shall be controlled by one cyclone and one cartridge filter. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer, if any. At a minimum, the inspection and maintenance requirement shall include:

- i. a monthly external inspection of the ductwork, cyclone, and cartridge filters noting the structural integrity;
- and
- ii. an annual internal inspection of the cartridge filters noting structural integrity and the condition of the filter. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, cyclone, or cartridge 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; and
 - iii. the results of any maintenance performed on any control device.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

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

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

- a. Visible emissions from the fiberglass reinforced plastic sanding and trimming operations (**ID No. ES6**) and the drilling, routing, trimming, and sanding operations (**ID No. ES8**) 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 .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 [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. If visible emissions from this source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) 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.

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

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

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

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

of this permit must be clearly identified.

E. Two (2) natural gas-fired boilers (3.35 and 5.10 million Btu per hour maximum heat input) (ID Nos. ESB1 and ESB2, respectively)

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	0.60 pounds per million Btu	15A NCAC 2D .0503
Sulfur dioxide	2.3 pounds per million Btu	15A NCAC 2D .0516
Opacity	Shall not be more than 20% opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20% opacity 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% opacity.	15A NCAC 2D .0521
HAPs	Best Combustion Practices	15A NCAC 2D .1109 [CAA § 112(j)]

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 the affected boilers (**ID Nos. ESB1 and ESB2**) into the atmosphere shall not exceed 0.60 pounds per million Btu heat input.

Testing [15A NCAC 2D .2601]

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

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas in these sources.

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

- a. Emissions of sulfur dioxide from the affected boilers (**ID Nos. ES-B1 and ESB2**) 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 found in Section 3. 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 .0516.

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

- c. No monitoring/recordkeeping/reporting is required for natural gas from the firing of natural gas in these sources.

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

- a. Visible emissions from the affected boilers (**ID Nos. ESB1 and EB2**) 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.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.

4. 15A NCAC 2D .1109: CAA § 112(j); Case-by-Case MACT for Boilers & Process Heaters

- a. The Permittee shall use best combustion practices when operating the affected boilers (**ID Nos. ESB1 and ESB2**). The initial compliance date for this work practice standard and the associated monitoring, recordkeeping, and reporting requirements is **<ENTER DATE THREE YEARS AFTER PERMIT ISSUANCE>**. These conditions need not be included on the annual compliance certification until after the initial compliance date.

Monitoring/Recordkeeping

- b. To assure compliance, the Permittee shall perform an annual boiler inspection and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
 - i. Inspect the burner, and clean or replace any components of the burner as necessary;
 - ii. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and,
 - iii. Inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.

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

- 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 of each recorded action;
 - ii. The results of each inspection; and,
 - iii. The results of any maintenance performed on the boilers.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these records are not maintained.

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

- d. No reporting is required for hazardous air pollutants from the firing of natural gas in these sources.

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

A. Open molding and gel coat application operations consisting of:

Open molding utilizing non-atomizing guns (ID No. ES1A); and,
One dry-filter type paint spray booth (gel coat spray booth) installed on gel coat application operations (ID No. ES4).

Fiberglass reinforced plastic molding operations consisting of:

Press 1 – one closed molding press (ID No. ES1B-01);
Press 11 – one 2,850-ton compression molding press (ID No. ES1C-01);
Press 9 – one 1,000-ton compression molding press (ID No. ES1C-02);
Press 12 – one 2,875-ton compression molding press (ID No. ES1C-08);
Press 13 – one 3,000-ton compression molding press (ID No. ES1C-09); and,
Press 14 – one 2,850-ton compression molding press (ID No. ES1C-10).

Closed molding mixing process (ID No. ES1D).

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous air pollutants	Organic HAP Emission Limits for Open Molding Operations (ID Nos. ES1A and ES4) Work Practices for Closed Molding, Cleaning, Storage, and BMC Manufacturing Operations	15A NCAC 2D .1111 40 CFR 63, Subpart WWWW

1. 15A NCAC 2D .1111: Maximum Achievable Control Technology (MACT) – 40 CFR Part 63, Subpart WWWW; Reinforced Plastic Composites Production

Applicability [§63.5790]

- a. Operations listed in §63.6790(c) are specifically excluded from the emission limits and work practice standards provided in this section of the permit, including the following:
 - i. Application of mold sealing and release agents;
 - ii. Mold stripping and cleaning;
 - iii. Repair of parts not manufactured at the source, including non-routine manufacturing of parts;
 - iv. Personal activities that are not part of the manufacturing operations (such as hobby shops on military bases);
 - v. Prepreg materials as defined in §63.5935;
 - vi. Non-gel coat surface coatings;
 - vii. Application of putties, polyputties and adhesives;
 - viii. Repair or production materials that do not contain resin or gel coat;
 - ix. Research and development operations as defined in Section 112(c)(7) of the Clean Air Act;
 - x. Polymer casting; and,
 - xi. Closed molding operations (except for compression/injection molding).

Open Molding – Emission Limits [§63.5805(b), §63.5835(a), §63.5810, Table 3]

- b. Emissions of organic HAP from the open molding operations (ID Nos. ES1A and ES4) shall not exceed the emission limits provide in the following table:

Operation Type	Application Method	Organic HAP Emission Limit
Open Molding – CR/HS*	Mechanical Resin Application	113 lbs/ton
	Filament Application	171 lbs/ton
	Manual Resin Application	123 lbs/ton

Open Molding – non-CR/HS*	Mechanical Resin Application	88 lbs/ton
	Filament Application	188 lbs/ton
	Manual Resin Application	87 lbs/ton
Open Molding – tooling	Mechanical Resin Application	254 lbs/ton
	Manual Resin Application	157 lbs/ton
Open Molding – low-flame spread/low-smoke products	Mechanical Resin Application	497 lbs/ton
	Filament Application	270 lbs/ton
	Manual Resin Application	238 lbs/ton
Open Molding – shrinkage controlled resins	Mechanical Resin Application	354 lbs/ton
	Filament Application	215 lbs/ton
	Manual Resin Application	180 lbs/ton
Open Molding – gel coat	Tooling gel coating	440 lbs/ton
	White/off-white pigmented gel coating	267 lbs/ton
	All other pigmented gel coating	377 lbs/ton
	CR/HS* or high performance gel coat	605 lbs/ton
	Fire retardant gel coat	854 lbs/ton
	Clear production gel coat	522 lbs/ton

*“CR/HS” means corrosion resistant and/or high strength.

- c. The Permittee shall demonstrate compliance with the organic HAP emissions limits above at the open molding operations (**ID Nos. ES1A and ES4**) in accordance with any of the following compliance options:
- i. Demonstrate that an individual resin or gel coat, as applied, meets the applicable emission limit, as provided in §63.5810(a).
 - A. Calculate the actual organic HAP emissions factor for each different process stream within each operations type using the appropriate equations in Table 1 of the subpart or site-specific organic HAP emissions factors discussed in §63.5796. If the actual organic HAP emission factor is less than the emission limit provided in Section 2.2. A.1.a above, the Permittee has demonstrated compliance with the emission limit for that individual process stream.
 - B. If any individual resin or gel coat is used in this compliance demonstration and is ALSO used in any of the averaging calculations described in (ii) through (iv) below, then all process streams using that individual resin or gel coat must also be included in the averaging calculations.
 - ii. Demonstrate that, on average, each combination of operation type and resin application method or gel coat type meets the individual organic HAP emissions limits, as provided in §63.5810(b).
 - A. Group the process streams by the operation type and resin application method or gel coat type and then calculate a weighted average emission factor based on the amounts of each individual resin or gel coat used for the last 12 months. If the weighted average emission factor is less than the corresponding emission limit provided in Section 2.2. A.1.a above, the Permittee has demonstrated compliance with the emission limit for that combination of operation type and resin application method or gel coat type.
 - B. The Permittee may, but is not required to, include process streams where compliance was demonstrated as provided in (i) above, subject to the limitations described in Section 2.2. A.1. b.i.B above.
 - C. The Permittee should not include process streams for which compliance is demonstrated according to Section 2.2. A.1.b.iv. below.
 - iii. Demonstrate compliance with a weighted average emission limit, as provided in §63.5810(c).
 - A. Calculate the weighted average organic HAP emissions limit for all open molding operations for the previous consecutive 12-month period. A separate weighted average organic HAP emissions limit shall be calculated for each calendar month.
 - B. Calculate the weighted average organic HAP emissions factor for all open molding operations for the previous consecutive 12-month period. If the weighted average emission factor is less than the weighted average organic HAP emissions limit, the Permittee has demonstrated compliance with the HAP emission limits.

- iv. For resins of the same type, demonstrate compliance with the emission limit for one application method, and use the same resin(s) for all application methods of that resin type, as provided in §63.5810(d).
 - A. This compliance option is limited to resins of the same type and may be used for CR/HS, non-CR/HS, and tooling-type resins.
 - B. For any combination of manual resin application, mechanical resin application, or filament application, the Permittee may elect to meet the emission limit for any one of these application methods and use the same resin(s) in all of the resin application methods. Table 7 of the subpart presents the possible combinations based on a facility selecting the application process that results in the highest allowable organic HAP content resin. If the resin organic HAP content is less than the applicable value shown in Table 7, the Permittee has demonstrated compliance with the HAP emission limits.
 - C. The Permittee may also use a weighted average organic HAP content for each application method as described the §63.5810(d)(2).
 - D. The Permittee may simultaneously use the averaging calculations in (ii) or (iii) above to demonstrate compliance for any operations and/or resins not included in the compliance demonstrations provided in (iv). However, any resins included in the compliance demonstrations provided in (iv) may not be included in any of the averaging calculations described in (ii) or (iii) above.

The Permittee shall complete all necessary compliance demonstrations, as described above, within 30 days after the end of each calendar month. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the required compliance demonstration is not completed, a record of the required compliance demonstration is not retained, or if the Permittee cannot demonstrate compliance with the emission limit(s) using any of the compliance demonstration methods described above.

Work Practice Standards [§63.5805(b), §63.5835(a), Table 4]

- d. Closed and Compression Molding. At closed and compression molding presses (**ID Nos. ES1B-01, ES1C-01, ES1C-02, ES1C-08, ES1C-09, and ES1C-10**), the Permittee shall uncover, unwrap, or expose only one charge per mold cycle per press.
 - i. For machines with multiple molds, one charge means sufficient material to fill all molds for one cycle;
 - ii. For machines with robotic loaders, no more than one charge may be exposed prior to the loader;
 - iii. For machines fed by hoppers, sufficient material may be uncovered to fill the hopper. Hoppers must be closed when not adding materials.
 - iv. Materials may be uncovered to feed to slitting machines. Materials must be recovered after slitting.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if more molding compound is exposed per mold cycle than is permitted above.
- e. Cleaning Operations. The Permittee shall not use cleaning solvents that contain HAP at the affected sources, except that:
 - i. Styrene may be used as a cleaner in closed systems; and,
 - ii. Organic HAP containing cleaners may be used to clean cured resin from application equipment. Application equipment includes any equipment that directly contacts resin.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if it uses cleaning solvents that contain HAP at the affected sources, except as provided in (i) and (ii) above.
- f. Storage Operations.
The Permittee shall keep containers that store HAP-containing materials closed or covered except during the addition or removal of materials. Bulk HAP-containing material storage tanks may be vented as necessary for safety. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if HAP-containing materials are not closed or covered as required above.
- g. Mixing and Bulk Molding Compounding.
 - i. The mixer (**ID No. ES1D**) shall be equipped with covers with no visible gaps, except that gaps of up to 1 inch are permissible around mixer shafts and any required instrumentation.
 - ii. The Permittee shall close any mixer vents when actual mixing is occurring, except that venting is allowed during

addition of materials, or as necessary prior to adding materials or opening the cover for safety.

- iii. The Permittee shall keep the mixer covers closed while actual mixing is occurring except when adding materials or changing covers to the mixing vessels.
- iv. Containers of 5 gallons or less may be open when active mixing is taking place, or during periods when they are in process (i.e., they are actively being used to apply resin).

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the mixer is not operated as required above.

Recordkeeping [§63.5895(c)-(d), §63.5915(c)-(d), §63.5920]

- h. The Permittee shall retain the following records:
 - i. For open molding operations for which the Permittee demonstrating compliance in accordance with Section 2.2. A.1. c.i. of this permit:
 - A. Organic HAP content of resins and gel coats; and,
 - B. Operation where the resin is used.
 - ii. For open molding operations for which the Permittee demonstrating compliance in accordance with Section 2.2. A.1. ii., iii., or iv. of this permit:
 - A. Resin and gel coat usages;
 - B. Organic HAP content of resins and gel coats; and,
 - C. Operation where the resin is used.
 - iii. For open molding operations, retain all data, assumptions, and calculations used to determine organic HAP emission factors or average organic HAP contents.

Resin use records may be based on purchase records if the Permittee can reasonable estimate how the resin is applied. The organic HAP content records may be based on MSDS or on resin specifications supplied by the resin supplier. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the records listed above are not retained.

- i. The Permittee shall retain a certified statement that the Permittee is in compliance with the work practice requirements provided in Section 2.2. A.1. d.-g. of this permit. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the records listed above are not retained.

Reporting [§63.5895(d), §63.5910, Table 14]

- j. *Semiannual Compliance Reports*. The Permittee shall submit a semiannual compliance report by **January 30th** (covering the previous period between July 1st and December 31st) and **July 30th** (covering the previous period between January 1st and June 30th). The semiannual compliance report shall include the following information:
 - i. Company name and address;
 - ii. Statement by the Responsible Official with the official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
 - iii. Start and end dates of the compliance period covered in the report;
 - iv. For open molding operations for which the Permittee demonstrating compliance in accordance with Section 2.2. A.1. c.i. of this permit, include a list of resins and gel coats and identify their application methods;
 - v. If the Permittee changed compliance options for the open molding operation, as provided in Section 2.2. A.1. c. of this permit, during the reporting period included a statement as such.
 - vi. If there were no deviations from the organic HAP content limitations at the open molding operation or the work practice standards provided in Section 2.2. A.1. b.-g. of this permit, include a statement as such; and,
 - vii. If there were deviations from the organic HAP content limitations at the open molding operation or work practice standards provided in Section 2.2. A.1. b.-g. include information listed in 40 CFR 63.5910(d).

B. Facility-wide:

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
volatile organic compounds	less than 250 tons per year <i>Avoidance of 15A NCAC 2D .0530</i>	15A NCAC 2Q .0317 PSD Avoidance
volatile organic compounds	work practice standards	15A NCAC 2D .0958
toxic air pollutants	State Enforceable Only see below	15A NCAC 2D .1100
toxic air pollutants	State Enforceable Only “Last MACT” compliance demonstration	15A NCAC 2Q .0705

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

- a. In order to avoid applicability of this regulation, facility-wide VOC emissions shall be less than 250 tons of VOCs per consecutive 12-month period.

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

- b. Each calendar month, the Permittee shall determine the total VOC emissions for the previous calendar month using the following calculations:
 - i. Styrene emissions from closed molding operations (E_1) (**ID Nos. ES1B-01, ES1C-01, ES1C-02, ES1C-08, ES1C-09, and ES1C-10**) and mixing operations (**ID No. ES1D**) shall be calculated as follows:

$$E_1 = P_i * S_i * L_S + P_j * S_j * L_S + P_k * S_k * L_S + \dots$$

where:

- E_1 = emission rate of styrene (in lbs/month)
- P = the usage of each styrene-containing material (i, j, k, etc) at the closed molding operations and mixing operation during the previous calendar month (in lbs material/month)
- S = the styrene content for the material (i, j, k, etc) (in lbs styrene/lb material)
- L_S = the approved styrene loss factor (0.02 lbs styrene lost/lb styrene)

- ii. VOC emissions from open molding and gel coat application operations (E_2) (**ID Nos. ES1A and ES4**) shall be calculated in accordance with the attached table (See Table on Page 18 of this permit):
- iii. Methyl ethyl ketone (MEK) emissions from the use of methyl ethyl ketone peroxide (MEKP) catalyst at the facility (E_3) shall be calculated as follows:

$$E_3 = MEKP * L_{MEK}$$

where:

- E_3 = emission rate of MEK (in lbs/month)
- MEKP = the usage of MEKP catalyst during the previous calendar month (in lbs material/month)
- L_{MEK} = the approved MEK loss factor (0.03 lbs MEK lost/lb MEKP)

- iv. Calculate cumulative VOC emissions from all other sources (including spray booths, ovens, non-styrene emissions from closed molding and mixing operations, combustion, etc.) (E_4).
- v. Total VOC emissions (E_{VOC}) from all sources shall be calculated by summing E_1 , E_2 , E_3 , and E_4 , as calculated above.

The required calculations, as provided above, shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the required monthly emissions calculations are not completed and recorded as required in this condition.

- c. Each calendar month, the Permittee shall calculate the VOC emissions for the previous consecutive 12-month period by summing the monthly emissions (E_{VOC}), as calculated in Section 2.2 B.1 b.v, for the previous 12 calendar months. The required calculation shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the required calculation is not completed and recorded, or if the calculated VOC emissions exceed the limit provided in Section 2.2 B.1.a. of this permit.

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

- d. The Permittee shall submit a summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities within 30 days after each calendar year half, due and postmarked on or before **January 30** for the preceding six-month period between July and December and **July 30** for the preceding six-month period between January and June. The report shall contain the following:
 - i. The monthly product usage and VOC content for each material used for the previous 17 months;
 - ii. The monthly VOC emissions for each of the previous 17 months; and,
 - iii. The 12-month rolling VOC emissions for each of the 12-month periods over the previous 17 months.

Unified Emission Factors for Open Molding of Composites

July 23, 2001

Emission Rate in Pounds of Styrene Emitted per Ton of Resin or Gelcoat Processed

Styrene content in resin/gelcoat, % ⁽¹⁾	<33 ⁽²⁾	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	>50 ⁽²⁾
Manual	$0.126 \times \% \text{styrene} \times 2000$	83	89	94	100	106	112	117	123	129	134	140	146	152	157	163	169	174	180	$((0.286 \times \% \text{styrene}) - 0.0529) \times 2000$
Manual w/ Vapor Suppressed Resin VSR ⁽³⁾	Manual emission factor [listed above] $\times (1 - (0.50 \times \text{specific VSR reduction factor for each resin/suppressant formulation}))$																			
Mechanical Atomized	$0.169 \times \% \text{styrene} \times 2000$	111	126	140	154	168	183	197	211	225	240	254	268	283	297	311	325	340	354	$((0.714 \times \% \text{styrene}) - 0.18) \times 2000$
Mechanical Atomized with VSR ⁽³⁾	Mechanical Atomized emission factor [listed above] $\times (1 - (0.45 \times \text{specific VSR reduction factor for each resin/suppressant formulation}))$																			
Mechanical Atomized Controlled Spray ⁽⁴⁾	$0.130 \times \% \text{styrene} \times 2000$	86	97	108	119	130	141	152	163	174	185	196	207	218	229	240	251	262	273	$0.77 \times ((0.714 \times \% \text{styrene}) - 0.18) \times 2000$
Mechanical Controlled Spray with VSR	Mechanical Atomized Controlled Spray emission factor [listed above] $\times (1 - (0.45 \times \text{specific VSR reduction factor for each resin/suppressant formulation}))$																			
Mechanical Non-Atomized	$0.107 \times \% \text{styrene} \times 2000$	71	74	77	80	83	86	89	93	96	99	102	105	108	111	115	118	121	124	$((0.157 \times \% \text{styrene}) - 0.0165) \times 2000$
Mechanical Non-Atomized with VSR ⁽³⁾	Mechanical Non-Atomized emission factor [listed above] $\times (1 - (0.45 \times \text{specific VSR reduction factor for each resin/suppressant formulation}))$																			
Filament application	$0.184 \times \% \text{styrene} \times 2000$	122	127	133	138	144	149	155	160	166	171	177	182	188	193	199	204	210	215	$((0.2746 \times \% \text{styrene}) - 0.0298) \times 2000$
Filament application with VSR ⁽³⁾	$0.120 \times \% \text{styrene} \times 2000$	79	83	86	90	93	97	100	104	108	111	115	118	122	125	129	133	136	140	$0.85 \times ((0.2746 \times \% \text{styrene}) - 0.0298) \times 2000$
Gelcoat Application	$0.445 \times \% \text{styrene} \times 2000$	294	315	336	356	377	398	418	439	460	481	501	522	543	564	584	605	626	646	$((1.03646 \times \% \text{styrene}) - 0.195) \times 2000$
Gelcoat Controlled Spray Application ⁽⁴⁾	$0.325 \times \% \text{styrene} \times 2000$	215	230	245	260	275	290	305	321	336	351	366	381	396	411	427	442	457	472	$0.73 \times ((1.03646 \times \% \text{styrene}) - 0.195) \times 2000$
Gelcoat Non-Atomized Application ⁽⁶⁾	SEE Note 9 below	196	205	214	223	232	241	250	259	268	278	287	296	305	314	323	332	341	350	$((0.4506 \times \% \text{styrene}) - 0.0505) \times 2000$
Covered-Cure after Roll-Out	Non-VSR process emission factor [listed above] $\times (0.80 \text{ for Manual } < \text{or} > 0.85 \text{ for Mechanical})$																			
Covered-Cure without Roll-Out	Non-VSR process emission factor [listed above] $\times (0.50 \text{ for Manual } < \text{or} > 0.55 \text{ for Mechanical})$																			

Emission Rate in Pounds of Methyl Methacrylate Emitted per Ton of Gelcoat Processed

MMA content in gelcoat, % ⁽⁶⁾	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	≥ 20
Gel coat application ⁽⁷⁾	15	30	45	60	75	90	105	120	135	150	165	180	195	210	225	240	255	270	285	$0.75 \times \% \text{MMA} \times 2000$

Notes

- 1 Including styrene monomer content as supplied, plus any extra styrene monomer added by the molder, but before addition of other additives such as powders, fillers, glass,...etc.
- 2 Formulas for materials with styrene content < 33% are based on the emission rate at 33% (constant emission factor expressed as percent of available styrene), and for styrene content > 50% on the emission rate based on the extrapolated factor equations; these are not based on test data but are believed to be conservative estimates. The value for "% styrene" in the formulas should be input as a fraction. For example, use the input value 0.30 for a resin with 30% styrene content by wt.
- 3 The VSR reduction factor is determined by testing each resin/suppressant formulation according to the procedures detailed in the **CFA Vapor Suppressant Effectiveness Test**.
- 4 SEE the **CFA Controlled Spray Handbook** for a detailed description of the controlled spray procedures.
- 5 The effect of vapor suppressants on emissions from filament winding operations is based on the **Dow Filament Winding Emissions Study**.
- 6 Including MMA monomer content as supplied, plus any extra MMA monomer added by the molder, but before addition of other additives such as powders, fillers, glass,...etc.
- 7 Based on gelcoat data from **NMMA Emission Study**.
- 8 SEE the July 17, 2001 EECS report **Emission Factors for Non-Atomized Application of Gel Coats used in the Open Molding of Composites** for a detailed description of the non-atomized gelcoat testing.
- 9 Use the equation $((0.4506 \times \% \text{styrene}) - 0.0505) \times 2000$ for gelcoats with styrene contents between 19% and 32% by wt.; use the equation $0.185 \times \% \text{styrene} \times 2000$ for gelcoats with less than 19% styrene content by wt.

2. 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 volatile organic compounds, or emit volatile organic compounds as a product of chemical reactions, and whose emissions of VOC are greater than 15 pounds per day; the Permittee shall:
- i. store all material, including waste material, containing volatile organic compounds in tanks or in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
 - ii. clean up spills of volatile organic compounds as soon as possible following proper safety procedures,
 - iii. store wipe rags containing volatile organic compounds in closed containers,
 - iv. not clean sponges, fabric, wood, paper products, and other absorbent materials with volatile organic compounds,
 - v. transfer solvents containing volatile organic compounds 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 volatile organic compounds 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. [15A NCAC 2D .0958(c)]
- b. When cleaning parts with a solvent containing a volatile organic compound, 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. [15A NCAC 2D .0958(d)]

Monitoring

- 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 volatile organic compounds. 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

- 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

- 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.

STATE-ONLY REQUIREMENT:

- 3. 15A NCAC 2D .1100: TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REQUIREMENT -**
Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
Facility-wide	Ethyl acetate	775.96 pounds/hr
Facility-wide	Methyl ethyl ketone	492 pounds/hr 1300.8 pounds/day
Facility-wide	Toluene diisocyanate (2, 4, and 2,6 isomers)	0.083 pounds/hr 0.175 pounds/day
Facility-wide	Xylene	360 pounds/hr 945.12 pounds/day
Facility-wide	Toluene	409.2 pounds/hr 2167.2 pounds/day
Closed Molding Operation (ID No ES1B-01, EPN12)	Styrene	0.05 pounds/hr
Closed Molding Operation (ID No ES1B-01, EPN13)	Styrene	0.05 pounds/hr
Open Molding Operation (ID No ES1A, EPN24)	Styrene	0.61 pounds/hr
Open Molding Operation (ID No ES1A, EPN25)	Styrene	0.61 pounds/hr
Open Molding Operation (ID No ES1A, EPN26)	Styrene	0.61 pounds/hr
Dry Filter Spray Booth (ID No ES4, EPN40)	Styrene	2.41 pounds/hr
Closed Molding Mixing Operation (ID No ES1D, EPN45)	Styrene	5.1 pounds/hr
Closed Molding Mixing Operation (ID No ES1D, EPN49)	Styrene	0.784 pounds/hr
Compression Molding Presses (ID No ES1C, EPN50)	Styrene	4.403 pounds/hr
Compression Molding Presses (ID No ES1C, EPN51)	Styrene	4.403 pounds/hr
Compression Molding Presses (ID No ES1C, EPN52)	Styrene	4.28 pounds/hr
Compression Molding Presses (ID No ES1C, EPN53)	Styrene	4.28 pounds/hr

- a. To ensure compliance with the hourly emission limit at the open molding operation (**ID No. ES1A**), resin usage at the open molding operation shall not exceed 41.2 pounds/hr (limit assumes a maximum styrene content of 39% by weight). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1100 if the hourly resin usage at the affected source exceeds this limitation.
- b. The Permittee shall submit a summary report to the Regional Supervisor of monitoring and recordkeeping activities postmarked on or before January 30th of each calendar year for the preceding six-month period between July and December and July 30th of each calendar year for the preceding six-month period between January and June. The semiannual report shall include the following information:
 - i. a summary page listing worst-case emission rates of each toxic air pollutant compared to the above limits;
 - ii. the maximum hourly resin usage rate at the open molding operation (**ID No. ES1A**) during the reporting period; and,
 - iii. a list of all instances of deviations from the requirements of 15A NCAC 2D .1100, as provided above.

STATE-ONLY REQUIREMENT:

4. 15A NCAC 2Q .0705: EXISTING SOURCES AND SIC CALLS

- a. In accordance with 15A NCAC 2Q .0705(b), for sources at a facility subject to a MACT standard, excluding the MACT for combustion sources, a permit application shall be required demonstrating compliance with 15A NCAC 2D .1100 by the same deadline that the facility is required to comply with the last MACT applicable to the facility.

The "Last MACT" applicable to the Permittee is the Surface Coating of Plastic Parts MACT (40 CFR 63, Subpart PPPP), which has an initial compliance date for existing sources of **April 19, 2007**. The Permittee has already satisfied this requirement by submitting a compliance demonstration for 15A NCAC 2D .1100 as part of Application No. 1200094.06B, received by the DAQ on October 31, 2006.

SECTION 3 - GENERAL CONDITIONS (version 3.1)

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

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

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

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

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

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

F. **Circumvention** - STATE ENFORCEABLE ONLY

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

G. **Permit Modifications**

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

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

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

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

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

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

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

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

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

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

H. **Changes Not Requiring Permit Modifications**

1. Reporting Requirements

Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:

- a. changes in the information submitted in the application;
- b. changes that modify equipment or processes; or
- c. changes in the quantity or quality of materials processed.

If appropriate, modifications to the permit may then be made by the DAQ to reflect any necessary changes in the permit conditions. In no case are any new or increased emissions allowed that will cause a violation of the emission limitations specified herein.

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

a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.

b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:

- i. the changes are not a modification under Title I of the Federal Clean Air Act;
- ii. the changes do not cause the allowable emissions under the permit to be exceeded;
- iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
- iv. the Permittee shall attach the notice to the relevant permit.

c. The written notification shall include:

- i. a description of the change;
- ii. the date on which the change will occur;
- iii. any change in emissions; and

- iv. any permit term or condition that is no longer applicable as a result of the change.
- d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 2Q .0523(b)]

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

 - a. the change affects only insignificant activities and the activities remain insignificant after the change; or
 - b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 2Q .0523(c)]

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

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

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

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

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

Excess Emissions

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

Permit Deviations

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

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

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

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

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

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

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

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

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

L. Need to Halt or Reduce Activity Not a Defense [15A NCAC 2Q .0508(i)(4)]

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

M. Duty to Provide Information (submittal of information) [15A NCAC 2Q .0508(i)(9)]

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

N. **Duty to Supplement** [15A NCAC 2Q .0507(f)]

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

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

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

P. **Compliance Certification** [15A NCAC 2Q .0508(n)]

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

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

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

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

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

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

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

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

1. the information contained in the application or presented in support thereof is determined to be incorrect;
2. the conditions under which the permit or permit renewal was granted have changed;
3. violations of conditions contained in the permit have occurred;

4. the EPA requests that the permit be revoked under 40 CFR 70.7(g) or 70.8(d); or
5. the Director finds that termination, modification, or revocation and reissuance of the permit is necessary to carry out the purpose of NCGS Chapter 143, Article 21B.

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

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

U. **Property Rights** [15A NCAC 2Q .0508(i)(8)]

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

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

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

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

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

W. **Annual Fee Payment** [15A NCAC 2Q .0508(i)(10)]

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

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

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

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

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

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

A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in

accordance with all applicable provisions of 15A NCAC 2Q .0100 and .0300.

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

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

BB. Financial Responsibility and Compliance History [15A NCAC 2Q .0507(d)(4)]

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

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

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

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

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

EE. Prevention of Accidental Releases General Duty Clause - Section 112(r)(1) -

FEDERALLY-ENFORCEABLE ONLY

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

FF. Title IV Allowances [15A NCAC 2Q .0508(i)(1)]

This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. Air Pollution Emergency Episode [15A NCAC 2D .0300]

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

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

The Director of the DAQ may require the Permittee to register a source of air pollution. If the Permittee is required to register a source of air pollution, this registration and required information will be in accordance with 15A NCAC 2D .0202(b).

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

In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 2D .0400 to be exceeded at any point beyond the premises on which the source is located. When controls more stringent than named in the applicable emission standards in this permit are required to prevent violation of the ambient air quality standards or are required to create an offset, the permit shall contain a condition requiring these controls.

JJ. General Emissions Testing and Reporting Requirements [15A NCAC 2Q .0508(i)(16)]

If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ in support of a permit application or to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 2D .2600 and follow the procedures outlined below:

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

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

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

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

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

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

As required by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f). "Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

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

1. For modifications made pursuant to 15A NCAC 2Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 2Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 2Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth St., Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
 - a. a description of the change at the facility;
 - b. the date on which the change will occur;
 - c. any change in emissions; and
 - d. any permit term or condition that is no longer applicable as a result of the change.

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

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

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

ATTACHMENT

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
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
NAA	Non-Attainment Area
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
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound