



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

Michael F. Easley, Governor

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

April 11, 2008

Mr. John Walter  
Plant Manager  
Armacell, LLC  
7600 Oakwood Street Ext.  
Mebane, North Carolina 27302

**SUBJECT: Air Quality Permit No. 08153T14**  
**Facility ID: 6800076**  
**Armacell, LLC**  
**Mebane, Orange County, North Carolina**  
**Fee Class: Title V**

Dear Mr. Walter;

In accordance with your completed Air Quality Permit Application for a significant modification of a Title V permit to meet the previous Part II requirements and received on September 21, 2007, we are forwarding herewith Air Quality Permit No. 08153T14 to Armacell, LLC at 7600 Oakwood Street Extension near Mebane, North Carolina authorizing the operation, as outlined in Part I, and the construction, as outlined in Part II, of the emission sources and associated air pollution control devices specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503 have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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

---

**Permitting Section**

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

One  
North Carolina  
*Naturally*

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

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 April 11, 2008 until March 31, 2010, 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 Michael Smithwick at (919) 715-6248.

Sincerely yours,

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

Enclosure

c: EPA, Region IV  
Mark Lamarre/Armaceil  
RRO  
Central Files

**ATTACHMENT**

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

<b>ID No.</b>	<b>Description</b>
I1	Natural gas-fired boiler; six million Btu per hour heat input
I2	Natural gas-fired quench water evaporator; 0.25 million Btu/hour
I-PE	Polyethylene silo
I-PVC	PVC silo

Attachment - Summary of Changes to Permit

The following changes were made to the Armacell, LLC Air Permit. New Permit No. 08153T14

<b>Page(s)</b>	<b>Section</b>	<b>Description of Change(s)</b>
Attachments	-	- Revised attachment summarizing changes to the Permit.
1	Cover Page	- Updated permit revision numbers and effective date. - Updated permit issuance date.
3 - 24	All, Header	- Updated permit revision number.
21	Part II Section 2.1	- Removed Equipment from Part II relating to Permit Application 6800076.06B

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



**Division of Air Quality**

**AIR QUALITY PERMIT**

<b>Permit No.</b>	<b>Replaces Permit No.</b>	<b>Issue Date</b>	<b>Expiration Date</b>
<b>08153T14</b>	<b>08153T13</b>	<b>April 11, 2008</b>	<b>March 31, 2010</b>

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:** **Armacell LLC**

**Facility ID:** **6800076**

**Facility Site Location:** **7600 Oakwood Street Extension**  
**City, County, State, Zip:** **Mebane, Orange County, North Carolina 27302**  
**Mailing Address:** **7600 Oakwood Street Extension**  
**City, State, Zip:** **Mebane, Orange County, North Carolina 27302**

**Application Number:** **6800076.07A**  
**Complete Application Date:** **September 21, 2007**  
**Primary SIC Code:** **3069**

**Division of Air Quality,**  
**Regional Office Address:** **Raleigh Regional Office**  
**3800 Barrett Drive**  
**Raleigh, North Carolina 27609**

Permit issued this the 11th day of April, 2008

---

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

## Table Of Contents

### **PART I**

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

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

- 2.1- Emission Sources Specific Limitations and Conditions  
(Including specific requirements, testing, monitoring, record keeping, and reporting requirements)
- 2.2- Multiple Emission Source(s) Specific Limitations and Conditions  
(Including specific requirements, testing, monitoring, record keeping, and reporting requirements)
- 2.3-Other Applicable Requirements

SECTION 3: GENERAL PERMIT CONDITIONS

### **PART II**

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

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

## PART I

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

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

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

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

Emission Source ID	Emission Source Description	Control Device ID	Control System Description
<b>Material Mixing</b>			
MX1	Raw material bins	CD-MX	Dust collection system with fabric filter (3,157 square feet of filter area)
MX2	Weigh bins		
MX3	Mixer		
MX4	Compound station		
MX5	Batch station		
MX7	Super sack stands		
MX8	Transporters		
MX6	Day bins	CD-MH	Dust collection system with cartridge type filter (1,920 square feet of filter area)
<b>Curing</b>			
BO1 through B03	Three natural gas-fired batch ovens (0.88 million Btu per hour heat input)	CD-01	Natural gas-fired regenerative thermal oxidizer; 5.0 million Btu per hour heat input
BO4*	Natural gas-fired batch oven (0.88 million Btu per hour heat input)*		
L04	Tube line natural gas-fired high temperature curing oven (7.5 million Btu per hour heat input)		
L02b*	Mat line consisting of one natural gas-fired high temperature cure oven (4.6 million Btu per hour heat input) and one natural gas-fired pre-cure oven (2.6 million Btu per hour heat input) exhausting into three vents*		
L02a*	Mat line consisting of one natural gas-fired high temperature cure oven (4.6 million Btu per hour heat input) and one natural gas-fired pre-cure oven (2.6 million Btu per hour heat input) exhausting to the Mat line stack (ID No. EP-02)*	NA	NA
L01	Tube line natural gas-fired pre-cure oven (10.65 million Btu per hour heat input)	NA	NA

<b>Emission Source ID</b>	<b>Emission Source Description</b>	<b>Control Device ID</b>	<b>Control System Description</b>
<b>Polyethylene Insulation Extrusion System</b>			
PEI	Three polyethylene insulation extruders	NA	NA
SRM	Scrap reclaim machine	DC1	Cartridge filter (1,711 square feet of filter area)
MS	Polyethylene mixing system dust collection system	DC2	Cartridge collector (1,140 square feet of filter area)
ES-Ink1 through ES-Ink8	Eight ink jet printers	NA	NA
ES-Ink9*	Ink jet printer*	NA	NA
ES-Ink10*	Ink jet printer*	NA	NA

\* These emission sources (**ID Nos. BO4, L02a, L02b, ES-Ink9, and ES-Ink10**) are listed as a 15A NCAC 2Q .0501(c)(2) modification. The permit shield described in General Condition R does not apply and compliance certification as described in General Condition P is not required.

## **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. Dust collection system with fabric filter (ID No. CD-MX) installed on:**

- raw material bins (ID No. MX1)
- weigh bins (ID No. MX2)
- mixer (ID MX3)
- compound station (ID No. MX4)
- batch station (ID No. MX5)
- super sack stands (MX7)
- transporter (MX8)

**Dust collection system with cartridge type-filter (ID No. CD-MH) installed on:**

- day bins (MX6)

**Scrap reclaim machine (ID No. SRM) with cartridge filter (ID No. DC1)**

**Polyethylene mixing system dust collection system (ID No. MS) with cartridge filter (ID No. DC2)**

**Ten ink jet printers (ID No. ES-Ink)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate emissions	For process weigh rates less than or equal to 30 tons per hour $E = 4.10 \times P^{0.67}$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Visible emissions	20 percent opacity	15A NCAC 2D .0521

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

- a. Emissions of particulate matter from emission source listed above shall not exceed an allowable emission rate as calculated by the following equation for process weigh rates less than or equal to 30 tons per hour:

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

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

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

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

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

### Monitoring

- c. Particulate matter emissions shall be controlled by fabric and cartridge filters as delineated in the equipment list. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:
- a monthly visual inspection of each collection system ductwork and filter/cartridge housing for leaks; and
  - an annual initial inspection of filter housing structural integrity and filter condition.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and cyclones are not inspected and maintained.

### Recordkeeping

- 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:
- the date and time of each recorded action;
  - the results of each inspection;
  - the results of any maintenance performed on the fabric and cartridge filtration units; and
  - any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- e. The Permittee shall submit the results of any maintenance performed on the fabric and cartridge filtration units 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 each emission unit delineated above shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent 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 percent opacity.

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(8) and General Condition JJ. If the results of this test exceed 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 week the Permittee shall observe the emission points of this source for any visible emissions above normal. The weekly observation must be made for each week of the calendar year period to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
  - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .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. Regenerative thermal oxidizer (ID No. CD01) on:**

- batch oven (ID No. BO1),
- batch oven (ID No. BO2),
- batch oven (ID No. BO3),
- batch oven (ID No. BO4),
- tube line high temperature cure oven (ID No. LO4), and
- mat line high temperature oven and mat line pre-cure oven (ID No. LO2b) exhausting into three vents

**Tube line pre-cure oven (ID No. LO1)**

**Mat line high temperature oven and mat line pre-cure oven (ID No. LO2a) exhausting to the Mat line stack (ID No. EP-02)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Particulate emissions	For process weigh rates less than or equal to 30 tons per hour $E = 4.10 \times P^{0.67}$ Where E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 2D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible emissions	20 percent opacity	15A NCAC 2D .0521
Volatile organic compounds	Facility-wide actual emissions shall not exceed 200 tons per consecutive 12-month period. <b>(See Section 2.2 A.1. - Multiple Emission Sources)</b>	15A NCAC 2Q .0317 NAA NSR AVOIDANCE
HAP	Facility wide emissions shall be less than 10 tons per consecutive 12-month period for any single hazardous air pollutant and less than 25 tons per consecutive 12-month period for all hazardous air pollutants. <b>(See section 2.2 A.1. - Multiple emission Sources)</b>	15A NCAC 2Q .0317 MACT AVOIDANCE
Volatile organic compounds	Work Practice Standards <b>(See Section 2.2 A.2 - Multiple Emission Sources)</b>	15A NCAC 2D .0958
Toxic air pollutants	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded. <b>(See Section 2.2 A.3. - Multiple Emission Sources)</b> <b>State-enforceable only</b>	15A NCAC 2Q .0711
Odors	Odorous emissions must be controlled. <b>(Section 2.2 A.4 - Multiple Emission Sources)</b> <b>State-enforceable only</b>	15A NCAC 2D .1806

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

- a. Emissions of particulate matter from listed emission source shall not exceed an allowable emission rate as calculated by the following equation for sources with process rates less than or equal to 30 tons per hour:

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

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

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

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

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

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

- c. The Permittee shall maintain production records that specify the types of materials processed and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the production records are not maintained or the types of materials are not monitored.

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

- a. Visible emissions from these sources shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

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

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

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

- c. To assure compliance, once a day the Permittee shall observe the emission points of this source for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three (3) days of absent observations per semi-annual period. If visible emissions from this source are observed to be above normal, the Permittee shall either:
- i. take appropriate action to correct the above-normal emissions as soon as practicable within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
  - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 B.2.a. above.

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

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

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

**C. Three polyethylene extruders (ID No. PEI)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Volatile organic compounds	Facility-wide actual emissions shall not exceed 200 tons per consecutive 12-month period. <b>(See Section 2.2 A.1. - Multiple Emission Sources)</b>	15A NCAC 2Q .0317 NAA NSR AVOIDANCE
HAP	(Facility wide emissions shall be less than 10 tons per consecutive 12-month period for any single hazardous air pollutant and less than 25 tons per consecutive 12-month period for all hazardous air pollutants. <b>(See section 2.2 A.1. - Multiple emission Sources)</b>	15A NCAC 2Q .0317 MACT AVOIDANCE
Volatile organic compounds	Work Practice Standards <b>(See Section 2.2 A.2 - Multiple Emission Sources)</b>	15A NCAC 2D .0958
Toxic air pollutants	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded. <b>(See Section 2.2 A.3. - Multiple Emission Sources)</b> <b>State-enforceable only.</b>	15A NCAC 2Q .0711
Odors	Odorous emissions must be controlled. <b>(See Section 2.2 A.4 - Multiple Emission Sources)</b> <b>State-enforceable only</b>	15A NCAC 2D .1806

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

### A. Facility-wide affected emission sources

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile organic compounds	Facility-wide actual emissions shall not exceed 200 tons per consecutive 12-month period.	15A NCAC 2Q .0317 NAA NSR AVOIDANCE
HAP	Facility wide emissions shall be less than 10 tons per consecutive 12-month period for any single hazardous air pollutant and less than 25 tons per consecutive 12-month period for all hazardous air pollutants.	15A NCAC 2Q .0317 MACT AVOIDANCE
Volatile organic compounds	Work Practice Standards	15A NCAC 2D .0958
Toxic air pollutants	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded. <b>State-enforceable only.</b>	15A NCAC 2Q .0711
Odors	Odorous emissions must be controlled. <b>State-enforceable only</b>	15A NCAC 2D .1806

#### 1. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS - Facility Wide NAA NSR and MACT Avoidance

- a. To comply with this Permit and to avoid applicability of 15A NCAC 2D .0531, "Non-Attainment area New Source Review) and 15 A NCAC 2D .1111 "Maximum Achievable Control Technology", as requested by the Permittee, actual volatile organic compound (VOC) emissions from the facility must be less than 200 tons per consecutive 12-month period and facility wide emissions shall be less than 10 tons per consecutive 12-month period for any single hazardous air pollutant and less than 25 tons per consecutive 12-month period for all hazardous air pollutants.

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(17) and General Condition JJ. If the results of this test are above either of the limits given above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531 and/or 15A NCAC 2D .1111.

**Monitoring**

- c. Calculations of facility wide VOC emissions shall be made each month. VOC emissions shall be determined by multiplying the total amount of each type of VOC containing material consumed or used during the month by the VOC content of the material. VOC emissions shall be calculated based on the following maximum material throughputs and emission factor with consideration of thermal oxidizer control efficiency. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531 if the amounts of VOC containing materials are not monitored and recorded.

**Table 1: Hourly and yearly raw material throughputs:**

Line	Maximum material throughput	Maximum Operating hours
Tube line (line L04)	3,608 lbs/hr	8760 hrs/yr
Batch Ovens (BO1, BO2, BO3, BO4)	522.6 lbs/hr total	8760 hrs/yr
Controlled Mat Line (LO2b)	3000 lbs/hr	8760 hrs/yr
Uncontrolled Mat Line (LO2a)	1000 lbs/hr	8760 hrs/yr

**Table 2: Uncontrolled Oven Process Emission Factors:**

Pollutant	Pollutant Type Criteria, HAP, Toxic air pollutant	Emission Factors (lbs emit/lbs raw material)
Total VOCs	Criteria	7.47E-04

VOC emissions shall be calculated as follows:

$$E = \text{SUM} [((A + C_c) \times B \times (1 - 0.975)) + (C_u \times B) + D] \times 8760 \text{ hours}/12 \text{ months} \times 1 \text{ ton}/2000 \text{ lbs}$$

Where: **E**= VOC emissions (tons/month)

**A**= Raw material input (pounds/hour) into ovens (BO1, BO2, BO3, B04) and Tube Line (LO4)

**B**= Emission factor for VOCs (pounds of VOCs/pound of raw material input)

**C<sub>c</sub>**= Raw material input (pounds/hour) into controlled Mat Line vents (LO2b)

**C<sub>u</sub>**= Raw material input (pounds/hour) into uncontrolled Mat Line vent (LO2a)

**D**= VOC emissions from Polyethylene Insulation Extrusion System (pounds/hour)

Control efficiency (97.5%) of thermal oxidizer (CD-01) = (1- 0.975)

**Note:** VOC emissions from Tube Line natural gas-fired pre-cure oven (LO1) are considered negligible

- d. Calculations of facility wide total and individual HAP emissions shall be made each month. HAP emissions shall be determined by multiplying the total amount of each type of HAP containing material consumed or used during the month by the HAP content of the material. HAP emissions shall be calculated based on the following maximum material throughputs and emission factors with consideration of thermal oxidizer control efficiency. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the amounts of HAP containing materials are not monitored and recorded.

**Table 3: Hourly and yearly raw material throughputs:**

Line	Maximum material throughput	Maximum Operating hours
Tube line (line L04)	3,608 lbs/hr	8760 hrs/yr
Batch Ovens (BO1, BO2, BO3, BO4)	522.6 lbs/hr total	8760 hrs/yr
Controlled Mat Line (LO2b)	3000 lbs/hr	8760 hrs/yr
Uncontrolled Mat Line (LO2a)	1000 lbs/hr	8760 hrs/yr

**Table 4: Uncontrolled Oven Process Emission Factors:**

Pollutant	Pollutant Type HAP, Toxic air pollutant	Emission Factors (lbs emit/lbs raw material)
Acrylonitrile	HAP/TAP	7.31E-07
1,3 – Butadiene	HAP/TAP	1.60E-09
Carbon Disulfide	HAP/TAP	4.14E-05
Carbon Tetrachloride	HAP/TAP	2.24E-08
Chloroform	HAP/TAP	2.88E-08
Dimethyl Formaldehyde	HAP	5.02E-04
3,3 – Dichlorobenzidine	HAP	1.12E-07
Ethylbenzene	HAP	8.01E-09
Hydrogen Chloride	HAP/TAP	1.86E-05
Methylene Chloride	HAP/TAP	3.00E-06

Pollutant	Pollutant Type HAP, Toxic air pollutant	Emission Factors (lbs emit/lbs raw material)
Naphthalene	HAP	1.44E-07
Phenol	HAP/TAP	4.86E-05
Styrene	HAP/TAP	7.53E-08
Toluene	HAP/TAP	4.36E-07
Xylene	HAP/TAP	3.37E-08

HAP emissions shall be calculated as follows:

**For each individual HAP emissions:**

$$F_i = \text{SUM} [((G + I_c) \times H \times (1 - 0.975)) + (I_u \times H) + J] \times 8760 \text{ hours/12 months} \times 1 \text{ ton/2000 lbs}$$

**For Total HAP emissions**

$$F = \text{SUM}(F_i)$$

Where: **F**= Total HAP emissions (tons/month)

**F<sub>i</sub>**= Individual HAP emissions (tons/month)

**G**= Raw material input (pounds/hour) into ovens (BO1, BO2, BO3, BO4) and Tube Line (LO4)

**H**= Emission factor for pollutant (pounds of pollutant/pound of raw material input)

**I<sub>c</sub>**= Raw material input (pounds/hour) into controlled Mat Line vent (LO2b)

**I<sub>u</sub>**= Raw material input (pounds/hour) into uncontrolled Mat Line vent (LO2a)

**J**= HAP emissions from Polyethylene Insulation Extrusion System (pounds/hour)

Control efficiency (97.5%) of thermal oxidizer (CD-01) = (1-0.0975)

**Note:** HAP emissions from the Tube Line natural gas-fired pre-cure oven (LO1) are negligible.

- e. The Permittee shall monitor and record the 1-hour average temperature in the combustion chamber of the thermal oxidizer (**ID No. CD-01**) whenever it is use. The Permittee shall not take credit for any emissions reductions from the thermal oxidizer for any 1-hour period during which the average combustion chamber temperature is less than the minimum value of 1500 degrees Fahrenheit.

**Recordkeeping**

- f. Calculations of the total amount of VOC emissions shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531 if the VOC emissions exceed the limit in 2.2 A.1.a above.
- g. Calculations of the total amount of individual and total HAP emissions shall be recorded monthly in a logbook (written or electronic format). The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the individual and total HAP emissions exceed the limit in 2.2 A.1.a above.

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

- h. The Permittee shall submit a semi annual summary report of VOC and HAP emissions postmarked on or before January 30 of each calendar year for the preceding six month period between July and December and July 30 for the calendar year for the preceding six month period between July and December. The report shall contain the following:
  - i. the total monthly VOC, total HAP, and individual HAP emissions for the previous 17 months,
  - ii. the six 12-consecutive month totals for each of the months of the reporting period.
  - iii. total duration of thermal oxidizer use (**ID No. CD-01**) during the previous calendar half.

## 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.
- 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.

### **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-enforceable only****3. 15A NCAC 2Q .0711: PERMIT REQUIREMENTS FOR TOXIC AIR POLLUTANTS**

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

- a. A permit to emit any of the below listed TAPs shall be required for this facility if actual emissions from all sources will become greater than the corresponding TPERs.
- b. PRIOR to exceeding any of these listed TPERs, the Permittee shall be responsible for obtaining a permit to emit TAPs and for demonstrating compliance with the requirements of 15A NCAC 2D.1100 "Control of Toxic Air Pollutants".
- c. The regenerative thermal oxidizer (ID No. CD01) shall operate any time the batch ovens (BO1, BO2, and BO3) or high temperature oven (LO4) is operating. The set point for thermal oxidizer control shall be 1500° F.
- d. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the TAP emissions do not exceed the TPERs as listed below:

<b>Pollutant</b>	<b>Carcinogens (lb/yr)</b>	<b>Chronic Toxicants (lb/day)</b>	<b>Acute Systemic Toxicants (lb/hr)</b>	<b>Acute Irritants (lb/hr)</b>
Acrylonitrile	10			
Butadiene, 1,3-	12			
Carbon disulfide		3.9		
Carbon tetrachloride	460			
Formaldehyde				0.04
Hydrogen chloride (hydrochloric acid)				0.18
Methylene chloride	1600		0.39	
Phenol			0.24	
Styrene			2.7	
Toluene		98		14.4
Xylene		57		16.4
Chloroform	290			

**State-enforceable only****4. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

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

## **SECTION 3 - GENERAL CONDITIONS (v2.20)**

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

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

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

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

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

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

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

D. **Submissions** [15A NCAC 2Q .0507(e) and 2Q .0508(i)(16)]

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

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

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

F. **Circumvention** - STATE ENFORCEABLE ONLY

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

G. **Permit Modifications**

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

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

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

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

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

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

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

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

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

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

H. **Changes Not Requiring Permit Modifications**

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

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

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

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

c. The written notification shall include:

- i. a description of the change;
- ii. the date on which the change will occur;
- iii. any change in emissions; and
- iv. any permit term or condition that is no longer applicable as a result of the change.

- d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
2. Off Permit Changes [15A NCAC 2Q .0523(b)]

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

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

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

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

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

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

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

#### **Excess Emissions**

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

#### **Permit Deviations**

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

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

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

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

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

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

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

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

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

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

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

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

1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.

2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

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

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

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

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

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

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

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

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

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

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

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

3. A permit shield does not apply to any change made at a facility that does not require a permit or permit revision made under 15A NCAC 2Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 2Q .0515.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

6. The DAQ will review emission test results with respect exclusively to the specified testing objectives as proposed by the Permittee and approved by the DAQ. The use of the test results beyond the stated objectives remains subject to the approval of the DAQ.

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

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

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

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

**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).

## ATTACHMENT

**List of Acronyms**

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

## PART II

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

Table 1: The following table contains a summary of all authorized emission sources and associated air pollution control devices and appurtenances associated with Air Quality Permit Application 6800076.06B:

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
BO4	Natural gas-fired batch oven (0.88 million Btu per hour heat input)	CD-01	Natural gas-fired regenerative thermal oxidizer; 5.0 million Btu per hour heat input
L02b	Mat line consisting of one natural gas-fired high temperature cure oven (4.6 million Btu per hour heat input) and one natural gas-fired pre-cure oven (2.6 million Btu per hour heat input) exhausting into three vents	CD-01	Natural gas-fired regenerative thermal oxidizer; 5.0 million Btu per hour heat input
L02a	Mat line consisting of one natural gas-fired high temperature cure oven (4.6 million Btu per hour heat input) and one natural gas-fired pre-cure oven (2.6 million Btu per hour heat input) exhausting to the Mat line stack (ID No. EP-02)	N/A	N/A
ES-Ink9	Ink jet printer	N/A	N/A
ES-Ink10	Ink jet printer	N/A	N/A

These emission sources (ID Nos. BO1, BO2, BO3, LO4, and CD-01) are listed as a 15A NCAC 2Q .0501(c)(2) modification. The permit shield described in General Condition R does not apply and compliance certification as described in General Condition P is not required.

### SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

The air emission source(s) and associated air pollution control device(s) and appurtenances listed in Section 1 are subject to the following specific terms, conditions, and limitations, including the monitoring, recordkeeping, and reporting requirements as specified herein:

1. Any air emission sources or control devices authorized to construct in Section 1 must be constructed and maintained in accordance with the provisions contained herein and operated in accordance with provisions contained in Part I of this permit. The Permittee shall comply with applicable Environmental Management Commission Regulations, including Title 15A NCAC, Subchapter 2D .0501(c)(2), 2D .0531, 2D .1111, 2D .0515, 2D .0521, 2D .0958, 2D .1806, 2Q .0317, and 2D .0700.
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) listed in Section 1 on or before 12 months after commencing operation.
3. **NOTIFICATION REQUIREMENT** - If the proposed operational date is not met, a revised permit is not needed. However, within 15 days after the proposed operational date is not met, the Permittee shall notify in writing the Regional Supervisor of the new proposed operational date. Any existing equipment being replaced is permitted to operate in compliance until the replacement equipment is operational.

## **SECTION 3: GENERAL CONDITIONS**

This section describes terms and conditions applicable to the construction of the air emission source(s) and associated air pollution control device(s) listed in Section 1 and State-only emission sources listed in Part I of the permit. Unless otherwise specified herein all references to the “permit” in this section apply only to Part II of the permit.

### **A. Operating Conditions**

All conditions for the air emission source(s) and associated air pollution control device(s) listed in Section 1 are under Part I of this permit.

### **B. General Provisions**

1. This permit is nontransferable by the Permittee. Future owners and operators must obtain a new Air Quality Permit from the DAQ.
2. This issuance of this permit in no way absolves the Permittee of liability for any potential civil penalties which may be assessed for violations of state law which have occurred prior to the issuance date of this permit.
3. A violation of any term or condition of Part II of this permit shall subject the Permittee to enforcement pursuant to NCGS 143-215.114A, 143-215.114B, and 143-215.114C, including assessment of civil and/or criminal penalties.

### **C. Submissions (reports, test data, monitoring data, notifications, and requests for renewal)**

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.

### **D. Part II Renewal Request**

The Permittee shall request renewal of the emission source(s) and associated air pollution control device(s) listed in Section 1 at the same time as specified in Part I, Section 3 - General Condition K of this permit.

### **E. Annual Fee Payment**

The Permittee shall pay all fees in accordance with 15A NCAC 2Q .0200 and in conjunction with Part I, Section 3 - General Condition W of this Air Quality Permit.

### **F. 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:

1. changes in the information submitted in the application;
2. changes that modify equipment or processes; or
3. 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.

### **G. Termination, Modification, and Revocation of the Permit**

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; or
4. 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.

H. **Inspection and Entry**

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:

1. 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;
2. have access to and copy, at reasonable times, any records that are required to be kept under the conditions of the permit;
3. 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
4. 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.

I. **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.