



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

xx

PROPOSED

Mr. James S. Pridgen
Plant Manager
Bridgestone Americas Tire Operations, LLC
P. O. Box 1139
Wilson, North Carolina 27894-1139

SUBJECT: Air Quality Permit No. 01660T59
Facility ID: 9800043
Bridgestone Americas Tire Operations, LLC
Wilson
Wilson County
Fee Class: Title V

Dear Mr. Pridgen:

In accordance with your completed Air Quality Permit Application for a significant modification received January 28, 2008, of your Title V permit, we are forwarding herewith Air Quality Permit No. **01660T59** to Bridgestone Americas Tire Operations, LLC, located on Firestone Parkway, Wilson, North Carolina authorizing the construction and operation, 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(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 conditions 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

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Mr. James S. Pridgen

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Page 2

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. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding thirty days after issuance.

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

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

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

This Air Quality Permit shall be effective from xx **until September 30, 2012**, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. The Actuals Plantwide Applicability Limitations (Actuals PAL) permit requirements shall be effective from xx until xx.

Should you have any questions concerning this matter, please contact Rahul P. Thaker, P.E., QEP, at (919) 715-6238.

Sincerely yours,

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

Enclosure

c: Gregg Worley, EPA Region 4
Central Files
RRO

ATTACHMENT
Bridgestone Americas Tire Operations, LLC

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

Emission Source I.D.	Emission Source Description
IS-9	LPG storage tank (1,000 gallon capacity)

ATTACHMENT

Bridgestone Americas Tire Operations, LLC

The following changes were made to the Bridgestone Americas Tire Operations, LLC Air Quality Permit No. 01660T58:

Old Page No.	New Page No.	Condition No.	Changes
Insignificant Activity List		Section 1 Table Section 2.4	Remove insignificant activities “IS-1.1, IS-1.2, IS-2.1, IS-2.2, IS-3, IS-7, IS-8” from the list and include them in Section 1 Table and Section 2.4 “Actuals PAL”. In addition, include three new oil storage tanks with ID ES-11, ES-12 and ES-13 in Section 1 Table and Section 2.4.
Various	Various	Entire Permit	Change 2D .0958 requirement from Section 2.2 D.1. to Section 2.2 A.1. Change 2D .1806 requirement from Section 2.2 D.2. to Section 2.2 A.2. Change 2Q .0711 requirement from Section 2.2 D.3. to Section 2.2 A.3. Change 2D .1100 requirement from Section 2.2 D.4. to Section 2.2 A.4. Change 2Q .0317 requirement (MACT avoidance) from Section 2.2 F. to Section 2.2 A.5.
-	Various	Entire Permit	Include new applicable requirement as Section 2.4 “Actuals PAL” throughout the permit in various section tables.
Various	Various	Entire Permit	Update the citation for Testing condition to “15A NCAC 2D .2601”.
7	7	Section 2.1 A.2.c.	Update visible emissions monitoring condition.
10 and 11	10	Section 2.1 B.2.c. and d.	Update visible emissions monitoring conditions.
12	-	Section 2.1 C.2.	Remove this PSD avoidance condition for VOC.
19	19	Section 2.1 F.2.c.	Update visible emissions monitoring condition.
23	22	Section 2.1 H.3.c.	Update visible emissions monitoring condition.
28	-	Section 2.1 J.5.	Remove PSD avoidance condition for VOC only.
33 through 37	-	Section 2.2 A., B., and C.	Remove these PSD avoidance conditions for VOC.
-	39 through 44	Section 2.4	Include this new requirement for Actuals PAL for VOC.
45 through 53	45 through 54	Section 3	Update General Conditions.

State of North Carolina
Department of Environment
and Natural Resources



Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date*	Expiration Date*
01660T59	01660T58	xx	September 30, 2012

* Effective dates for the Actuals Plantwide Applicability Limitations (Actuals PAL) portion of this permit may differ from these dates.

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, unless the Permittee has fulfilled the requirements of GS 143-215-108(b) and received written approval from the Director of the Division of Air Quality to commence construction only.

Permittee: **Bridgestone Americas Tire Operations, LLC**

Facility ID: **9800043**

Facility Site Location: **3001 Firestone Parkway**
City, County, State, Zip: **Wilson, Wilson County, North Carolina 27894**

Mailing Address: **P. O. Box 1139**
City, State, Zip: **Wilson, North Carolina 27894-1139**

Application Numbers: **9800043.08A**
Complete Application Date: **January 28, 2008**
Primary SIC Code: **3011**
Division of Air Quality,
Regional Office Address: **Raleigh Regional Office**
3800 Barrett Drive
Raleigh, North Carolina 27609

Permit issued this the xx.

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

Table of Contents

SECTION 1: PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION CONTROL DEVICES AND APPURTENANCES

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

- 2.1- Emission Sources and Control Devices Specific Limitations and Conditions
(Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
- 2.2- Multiple Emission Sources Specific Limitations and Conditions (Including specific requirements, testing, monitoring, recordkeeping, and reporting requirements)
- 2.3- Permit Shield for Nonapplicable Requirements
- 2.4- Actuals PAL Permit Requirements

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT

List of Acronyms

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 the 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 this permit is based on plans, specifications, operating parameters, and other information as submitted in the Air Quality Permit Application.

SECTION 1- PERMITTED EMISSION SOURCES AND ASSOCIATED AIR POLLUTION CONTROL DEVICES 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⁽¹⁾
RCS-1	chemical bin loading	DC-5	fabric filter; 480 square feet of filter area
CW-1	manual dry chemical weighing system from chemical bins	DC-6	fabric filter; 500 square feet of filter area
RCS-2	pigment bin loading and automated weighing system	DC-3	fabric filter; 480 square feet of filter area
BU-1	carbon black railcar and truck receiving and storage silo	DC-11	fabric filter; 250 square feet of filter area
BT-1	carbon black transfer from storage silo to transfer systems BT-2 and BT-4	DC-8	fabric filter; 250 square feet of filter area
BT-2	carbon black transfer from BT-1 to Banbury 622 mixer	DC-2	fabric filter; 17,600 square feet of filter area
BC-2	Banbury 622 charging		
BD-2	Banbury 622 discharging		
BT-4	carbon black transfer from BT-1 to Banbury 624 mixer	N-1	cartridge filter; 17,600 square feet of filter area
BC-4	Banbury 624 master batch charging		
BD-4	Banbury 624 master batch discharging		
BC-4FM	Banbury 624 remix and final mix charging	N-2	cartridge filter; 14,464 square feet of filter area
BD-4FM	Banbury 624 remix and final mix discharging		
RM-4	Banbury 624 rubber mixing and slab forming	N-3	three-stage dry mist eliminator (total of 2682 square feet of surface area)
BC-1	Banbury 621 charging	DC-4	fabric filter; 1,300 square feet of filter area
BD-1	Banbury 621 final mix discharging area	N/A	N/A
RM-1	Banbury 621 slab cooling and handling	N-5A	indexing roll filter; 200 square feet of effective filter area;
RM-5	Banbury 622 slab cooling and handling	N-5B	in series with a mist eliminator
RMC-1 to RMC-9, RMT-11	ten rubber mills	N/A	N/A
RMT-6 to RMT-10	five rubber mills with associated material recovery	N/A	N/A
RMT-1 to RMT-3	three rubber mills associated with the 10-inch tuber line (ID No. UT-1)	N/A	N/A
RMC-10	rubber mill	N/A	N/A
RMC-11	rubber mill	N/A	N/A
RM-2	Banbury 621 slab dip tank and cooling	N/A	N/A

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description⁽¹⁾
RM-3	Banbury 622 slab dip tank and cooling	N/A	N/A
BC-3	Banbury 273 charging	DC-9	fabric filter; 1,300 square feet of filter area
BD-3	Banbury 273 discharging	N/A	N/A
RM-6	Banbury 273 rubber mixing and slab cooling system	N/A	N/A
CAL-1	one three-roll calender and one four-roll calender	N/A	N/A
C-3	one four roll calender	N/A	N/A
BCO-1 NSPS BBB	No. 1 bead cementing operation	N/A	N/A
BCO-2	No. 2 bead cementing operation	N/A	N/A
UT-1	No. 1 extrusion line undertread cementing utilizing an intermittent spray/wipe application method and associated thread marking equipment	N/A	N/A
UT-2 NSPS BBB BACT	No. 4 extrusion line undertread cementing	N/A	N/A
UT-3 NSPS BBB	No. 5 extrusion line undertread cementing	FI-T ⁽²⁾	natural gas-fired thermal oxidizer; 5.0 million Btu per hour maximum heat input <i>(need not be operating)</i>
SW-3 NSPS BBB	side wall cementing operation	N/A	N/A
TU-1	six extrusion lines	N/A	N/A
TU-2	one extrusion line	N/A	N/A
TUC-3	one extrusion line	N/A	N/A
GT-3	green tire doping operation	N-11	baffled settling chamber; 475 cubic feet <i>(need not be operating)</i>
GT-4	green tire doping operation	N-12	baffled settling chamber; 475 cubic feet <i>(need not be operating)</i>
GT-6 and GT-7 NSPS BBB	two green tire doping operations	N-4	baffled settling chamber; 475 cubic feet <i>(need not be operating)</i>
GT-8 NSPS BBB	green tire doping operation	N-9	baffled settling chamber; 475 cubic feet <i>(need not be operating)</i>
GT-9 NSPS BBB	green tire doping operation	N-13	baffled settling chamber; 475 cubic feet <i>(need not be operating)</i>
GT-10 NSPS BBB	green tire doping operation	N-9	baffled settling chamber; 475 cubic feet <i>(need not be operating)</i>
GT-11 NSPS BBB	green tire doper No. 11	N/A	N/A
GT-12 NSPS BBB	green tire doper No. 12	N/A	N/A
CA-1, CA-2, and CA-3	three curing areas	N/A	N/A

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description⁽¹⁾
PB-1 to PB-7	seven minor-buff spray paint booths equipped with dry filters	N/A	N/A
GA-1	sidewall and tread grinding area	N/A	N/A
PW-1	miscellaneous solvent usage	N/A	N/A
TA-1	tire assembly area	N/A	N/A
FI-1	final inspection area	N/A	N/A
RCM-1	one rubber cement mixing system	N/A	N/A
ST-1, ST-2 ST-3, and ST-4	four 10,000 gallon solvent storage tanks	N/A	N/A
UA-1	one natural gas/No. 2 fuel oil/ No. 6 fuel oil-fired boiler; 121 million Btu per hour maximum heat input	N/A	N/A
UA-2	one natural gas/No. 2 fuel oil/ No. 6 fuel oil-fired boiler; 121 million Btu per hour maximum heat input	N/A	N/A
UA-T1 NSPS DC	temporary, back-up natural gas/No. 2 fuel oil-fired boiler(s) with a maximum permitted heat input rating of no greater than 100 million Btu per hour, total	N/A	N/A
EGDD-1 and EGDD-2 PSD	two diesel-fired peak shaving generators (15.7 million Btu maximum heat input and 1600 kW output, 2300 hp output each)	N/A	N/A
ACDD-1 to ACDD-5 PSD	five diesel engine driven air compressors (4.46 million Btu heat input and 625 hp output each)	N/A	N/A
ES-1.1 and ES-1.2	two aromatic oil storage tanks (15,000 gallon capacity each)	N/A	N/A
ES-2.1 and ES-2.2	two naphthenic oil storage tanks (15,000 gallon capacity each)	N/A	N/A
ES-3	one paraffin wax storage tank (15,000 gallon capacity)	N/A	N/A
ES-4.1 to ES-4.4	four diesel-fired emergency generators (each less than or equal to 600 hp output)	N/A	N/A
ES-4.5 and ES-4.6	two diesel-fired emergency fire pump engines (each 225 hp output)	N/A	N/A
ES-5	Banbury 624 slab dip ventilation system	N/A	N/A
ES-6	spiral layer splicing operation	N/A	N/A
ES-7	one fuel oil storage tank (6,000 gallon capacity)	N/A	N/A
ES-8	one gasoline storage tank (1,000 gallon capacity)	N/A	N/A
ES-10	one triplex sidewall extrusion line	N/A	N/A
ES-11 and ES-12	two, 100,000 gallons No. 6 fuel oil storage tanks each	N/A	N/A
ES-13	one 15,000 gallons rosin oil storage tank	N/A	N/A

⁽¹⁾ Baghouse total fabric filter areas are nominal.

⁽²⁾ The thermal oxidizer may be used to control VOC emissions as an alternative compliance option of NSPS Subpart BBB.

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

2.1- Emission Sources and Control Devices Specific Limitations and Conditions

The emission sources and associated air pollution control devices 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. Chemical bin loading (ID No. RCS-1) with fabric filter (ID No. DC-5),
Manual chemical weighing system (ID No. CW-1) with fabric filter (ID No. DC-6),
Pigment bin loading and automated weighing system (ID No. RCS-2) with fabric filter (ID No. DC-3),
Carbon black rail car and truck receiving and storage silo (ID No. BU-1) with fabric filter (ID No. DC-11),
Carbon black transfer from storage silo to transfer systems BT-2 and BT-4 (ID No. BT-1) with fabric filter (ID No. DC-8), and
Carbon black transfer from BT-1 to Banbury 622 mixer (ID No. BT-2) with fabric filter (ID No. DC-2)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate	particulate emissions shall not exceed the rate prescribed by the process weight equations: For process rates up to 30 tons per hour: $E = 4.10 \times P^{0.67}$ For process rates greater than 30 tons per hour: $E = 55.0 \times P^{0.11} - 40$ Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	visible emissions shall not exceed 20 percent opacity	15A NCAC 2D. 0521
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
volatile organic compounds	See Section 2.2 A.1.	15A NCAC 2D .0958
odors	State-enforceable only: See Section 2.2 A.2.	15A NCAC 2D .1806
toxic air pollutants	State-enforceable only: See Section 2.2 A.3.	15A NCAC 2Q .0711
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

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

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

For process rates up to 30 tons per hour:
 $E = 4.10 \times P^{0.67}$

For process rates greater than 30 tons per hour:
 $E = 55.0 \times P^{0.11} - 40$

Where: E = allowable emission rate in pounds per hour, and

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 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 shall be controlled by a fabric filter as delineated above. To assure compliance, the Permittee shall perform inspection and maintenance. The inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and each baghouse for leaks; and
 - ii. an annual internal inspection of each baghouse for structural integrity and filter fabric condition.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and fabric filters are not inspected and maintained.
- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following for each fabric filter:
- i. the date of each recorded action;
 - ii. the results of each inspection; and
 - iii. the results of any maintenance performed on the fabric 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 each fabric filter within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

- a. Visible emissions from the emission sources listed 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 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 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 the above listed sources during source operation for any visible emissions above normal. The observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from a 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 point(s) of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 A.2. a. above.

If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .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 of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed; and
 - iii. the results of any 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. Banbury 273 rubber mixing and slab cooling (ID No. RM-6) - uncontrolled, Banbury 273 charging (ID No. BC-3) with fabric filter (ID No. DC-9), Banbury 273 discharging (ID No. BD-3) uncontrolled, Banbury 621 slab dip tank and cooling (ID No. RM-2) - uncontrolled, Banbury 621 charging (ID No. BC-1) with fabric filter (ID No. DC-4), Banbury 621 final mix discharging area (ID No. BD-1) - uncontrolled, Banbury 621 slab cooling and handling (ID No. RM-1) and Banbury 622 slab cooling and handling (ID No. RM-5) with an indexing roll filter (ID No. N-5A) in series with a mist eliminator (ID No. N-5B) Banbury 622 slab dip tank and cooling (ID No. RM-3) -uncontrolled, Banbury 622 charging (ID No. BC-2) with fabric filter (ID No. DC-2), Banbury 622 discharging (ID No. BD-2) with fabric filter (ID No. DC-2), Banbury 624 rubber mixing and slab forming (ID No. RM-4) with mist eliminator (ID No. N-3), Carbon black transfer from BT-1 to Banbury 624 mixer (ID No. BT-4)/Banbury 624 master batch charging (ID No. BC-4)/Banbury 624 master batch discharging (ID No. BD-4) with cartridge filter (ID No. N-1), Banbury 624 remix and final mix charging (ID No. BC-4FM)/Banbury 624 remix and final mix discharging (ID No. BD-4FM) with cartridge filter (ID No. N-2), Green tire doping operation (ID No. GT-3) with settling chamber (ID No. N-11, *need not be operating*), Green tire doping operation (ID No. GT-4) with settling chamber (ID No. N-12, *need not be operating*), and Seven minor-buff spray paint booths (ID No. PB-1 through PB-7)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate	<p>particulate emissions shall not exceed the rate prescribed by the process weight equations:</p> <p>For process rates up to 30 tons per hour: $E = 4.10 \times P^{0.67}$</p> <p>For process rates greater than 30 tons per hour: $E = 55.0 \times P^{0.11} - 40$</p> <p>Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour</p>	15A NCAC 2D .0515
visible emissions	visible emissions shall not exceed 20 percent opacity	15A NCAC 2D .0521
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
volatile organic compounds	See Section 2.2 A.1.	15A NCAC 2D .0958

Regulated Pollutant	Limits/Standards	Applicable Regulation
odors	State-enforceable only: See Section 2.2 A.2.	15A NCAC 2D .1806
toxic air pollutants	State-enforceable only: See Section 2.2 A.3.	15A NCAC 2Q .0711
toxic air pollutants	State-enforceable only: See Section 2.2 A.4.	15A NCAC 2D .1100
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

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

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

For process rates up to 30 tons per hour:

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

For process rates greater than 30 tons per hour:

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

Where: E = allowable emission rate in pounds per hour, and

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

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

- c. Particulate matter emissions from sources (ID Nos. BC-1, BC-2, BC-3, BC-4, BC-4A, BD-2, BD-4, BD-4A, and BT-4) shall be controlled by fabric filters or cartridge filters as delineated above. To assure compliance, the Permittee shall perform inspection and maintenance. The inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and each baghouse for leaks; and
 - ii. an annual internal inspection of each baghouse for structural integrity and filter fabric condition.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, fabric filters, and cartridge filters are not inspected and maintained.
- d. Particulate matter emissions from sources (ID Nos. RM-1 and RM-5) shall be controlled by an indexing roll filter followed by a mist eliminator. To assure compliance, the Permittee shall perform inspection and maintenance. The inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and the indexing roll filter and mist eliminator housing for leaks; and
 - ii. an annual internal inspection of the indexing roll filter interior parts for structural integrity and the mist eliminator for build up and/or wear.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork, filter, and mist eliminator are not inspected and maintained.
- e. Particulate matter emissions from source (ID No. RM-4) shall be controlled by a mist eliminator. To assure compliance, the Permittee shall perform inspection and maintenance. The inspection and maintenance requirement shall include the following:
- i. a monthly visual inspection of the system ductwork and the mist eliminator housing for leaks; and
 - ii. an annual internal inspection of the mist eliminator for build up and/or wear.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and mist eliminator are not inspected and maintained.

- f. Particulate matter emissions from the paint spray booths (ID Nos. PB-1 through PB-7) shall be controlled by spray booth filters. To assure compliance, the Permittee shall perform inspections and maintenance. As a minimum, the inspection and maintenance program shall include:
 - i. an annual (for each 12-month period following the initial inspection) inspection of the associated ductwork for structural integrity and the spray booth filters for condition.
The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the ductwork and filters are not inspected and maintained.
- g. 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 for each control device:
 - i. the date of each recorded action;
 - ii. the results of each inspection; and
 - iii. the results of any maintenance performed;The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- h. The Permittee shall submit the results of any maintenance performed on each control unit within 30 days of a written request by the DAQ.
- i. 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 emission sources listed 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 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 B.2.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

Monitoring [15A NCAC 2D .2601]

- c. To assure compliance, once a month, the Permittee shall observe the emission points of control devices (ID Nos. DC-2, DC-4, DC-9, N-1, N-2, N-3, and N-5B) during source operation for any visible emissions above normal. The observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from a source are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.2. a. above.

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

- d. To assure compliance, once every three months, the Permittee shall observe the emission points of sources (ID Nos. BD-1, BD-3, GT-3, GT-4, RM-2, RM-3, RM-6, and PB-1 through PB-7) during source operation for any visible emissions above normal. The observation must be made for each three month period of the calendar year to ensure compliance with this requirement. If visible emissions from a source are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.2. a. above.

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

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

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

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

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

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

C. No. 1 bead cementing operation (ID No. BCO-1)

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	no more than five grams of VOC per bead cemented for each month [60.542(a)(4)]	15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart BBB)
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
volatile organic compounds	See Section 2.2 A.1.	15A NCAC 2D .0958
odors	State-enforceable only: See Section 2.2 A.2.	15A NCAC 2D .1806
Toxic air pollutants	State-enforceable only: See Section 2.2 A..3.	15A NCAC 2Q .0711
Toxic air pollutants	State-enforceable only: See Section 2.2 A..4.	15A NCAC 2D .1100
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

1. 15A NCAC 2D .0524: NSPS FOR THE RUBBER TIRE MANUFACTURING INDUSTRY

- a. Emissions of volatile organic compounds shall be less than **five grams per bead cemented** on a monthly basis.[40CFR60.542(a)(4)]

Monitoring and Recordkeeping [40CFR60.543(e)]

- b. The Permittee shall use the following procedure to determine compliance with the VOC emission per bead limit specified in 2.1 C. 1. a. above by the end of each month for the previous month.
 - i. Determine the density and weight fraction of VOC (including dilution VOC) of each cement from its formulation or by analysis of the cement using EPA reference method 24.
 - ii. Calculate the total mass of VOC used at the affected facility for the month (Mo) as specified below:

- (A) For each affected facility for which cement is delivered in batch or via a distribution system that serves only the affected facility:

$$M_o = \sum_{i=1}^a Lc_i Dc_i Wo_i$$

Where: a = the number of different cements used during the month that are delivered in batch or via a distribution system that serves only a single affected facility

Lc_i = the volume of cement "i" used for a month in liters

Dc_i = the density of cement "i" in grams per liter

Wo_i = weight fraction of VOC in cement "i"

Mo = total mass of VOC used at an affect facility for a month in grams

- (B) For each affected facility for which cement is delivered via a common distribution system that also serves other affected or existing facilities:

- (1) Calculate the total mass of VOC used for all of the facilities served by the common distribution system for the month (M):

$$M = \sum_{i=1}^b Lc_i Dc_i Wo_i$$

Where: b = equals the number of different cements or green tire sprays used during the month that are delivered via a common distribution system that also serves other affected or existing facilities.

Lc_i = the volume of cement "i" used for a month in liters

Dc_i = the density of cement "i" in grams per liter

Wo_i = weight fraction of VOC in cement "i"

M = total mass of VOC used for a month by all facilities served by a common cement distribution system

- (2) Determine the fraction (Fo) of M used at the affected facility by comparing the production records and process specifications for the material cemented at the affected facility for the month to the production records and process specifications for the material cemented at all other facilities served by the common distribution system for the month or by another procedure acceptable to the DAQ.
- (3) Calculate the total monthly mass of VOC used at the affected facility for the month (Mo): Mo = MFo
- iii. Determine the number of beads cemented at the affected facility during the month (Bo) using production records; Bo equals the number of beads that receive an application of cement for the month.
- iv. Calculate the mass of VOC used per bead cemented at the affected facility for the month (Gb):
Gb = Mo/Bo

The Permittee shall be deemed in non-compliance with 15 NCAC 2D .0524 if the required determinations are not completed and documented, or if the mass of VOC used per bead (Gb) exceeds the limit in Section 2.1 C.1.a.

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

- c. The Permittee shall submit a summary report of any exceedances of the mass of VOC emitted per bead cemented (Gb) emission limit which includes the mass of VOC used (Mo) and the number of beads cemented (Bo). The report shall be postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. No. 4 extrusion line undertread cementing (ID No. UT-2)

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	Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period: 3,870 kg (8,531 lb) of VOC per 28 days, 4,010 kg (8,846 lb) of VOC per 29 days, 4,150 kg (9,149 lb) of VOC per 30 days, 4,280 kg (9,436 lb) of VOC per 31 days, or 4,840 kg (10,670 lb) of VOC per 35 days. [60.542(a)(1)(ii)]	15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart BBB)
volatile organic compounds	BACT Limitation: VOC emissions shall not exceed 636 pounds per day and 56.6 tons per consecutive 12 month period	15A NCAC 2D .0530
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
volatile organic compounds	See Section 2.2 A.1.	15A NCAC 2D .0958
odors	State-enforceable only: See Section 2.2 A.2.	15A NCAC 2D .1806
toxic air pollutants	State-enforceable only: See Section 2.2 A.3.	15A NCAC 2Q .0711
toxic air pollutants	State-enforceable only: See Section 2.2 A.4.	15A NCAC 2D .1100
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

1. 15A NCAC 2D .0524: NSPS FOR THE RUBBER TIRE MANUFACTURING INDUSTRY

- a. The Permittee shall maintain total (uncontrolled) VOC use less than or equal to the levels specified below for the No. 4 extrusion line undertread cementing operation (ID No. UT-2).
- i. **3,870 kg (8,531 lb) of VOC per 28 days,**
 - ii. **4010 kg (8,846 lb) of VOC per 29 days,**
 - iii. **4,150 kg (9,149 lb) of VOC per 30 days,**
 - iv. **4,280 kg (9,436 lb) of VOC per 31 days,** or
 - v. **4,840 kg (10,670 lb) of VOC per 35 days** depending upon the duration of the compliance period.
[40CFR60.542(a)(1)(ii)]

Monitoring and Recordkeeping [40CFR60.543(e)]

- b. The Permittee shall use the following procedure to determine compliance with the VOC emission limit specified in 2.1 D.1.a. above by the end of each month for the previous month.
- i. Determine the density and weight fraction of VOC (including dilution VOC) of each cement from its formulation or by analysis of the cement using EPA reference method 24.
 - ii. Calculate the total mass of VOC used at the affected facility for the month (Mo) as specified below:
 - (A) For each affected facility for which cement is delivered in batch or via a distribution system that serves only the affected facility:

$$M_o = \sum_{i=1}^a Lc_i Dc_i Wo_i$$

Where: a = the number of different cements used during the month that are delivered in batch or via a distribution system that serves only a single affected facility
 Lc_i = the volume of cement "i" used for a month in liters
 Dc_i = the density of cement "i" in grams per liter
 Wo_i = weight fraction of VOC in cement "i"
 Mo = total mass of VOC used at an affect facility for a month in grams

- (B) For each affected facility for which cement is delivered via a common distribution system that also serves other affected or existing facilities:

- (1) Calculate the total mass of VOC used for all of the facilities served by the common distribution system for the month (M):

$$M = \sum_{i=1}^b Lc_i Dc_i Wo_i$$

Where: b = equals the number of different cements or green tire sprays used during the month that are delivered via a common distribution system that also serves other affected or existing facilities.

Lc_i = the volume of cement "i" used for a month in liters

Dc_i = the density of cement "i" in grams per liter

Wo_i = weight fraction of VOC in cement "i"

M = total mass of VOC used for a month by all facilities served by a common cement distribution system

- (2) Determine the fraction (Fo) of M used at the affected facility by comparing the production records and process specifications for the material cemented at the affected facility for the month to the production records and process specifications for the material cemented at all other facilities served by the common distribution system for the month or by another procedure acceptable to the DAQ.

- (3) Calculate the total monthly mass of VOC used at the affected facility for the month (Mo): Mo = MFo

iii. Determine the time duration of the monthly time period (Td).

The Permittee shall be deemed in non-compliance with 15 NCAC 2D .0524 if the required determinations are not completed and documented, or if emissions exceed the limit(s) in Section 2.1 D.1.a of this permit.

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

- c. The Permittee shall submit a summary report of any exceedances of the mass of VOC used (Mo) for each monthly time period and the corresponding number of days in the respective time period. Reports shall be 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 .0530: PSD BEST AVAILABLE CONTROL TECHNOLOGY LIMITATIONS

- a. To comply with the best available control technology determination pursuant to 15A NCAC 2D .0530, "Prevention of Significant Deterioration," volatile organic compound (VOC) emissions from the No. 4 extrusion line undertread cementing operation (ID No. UT-2) shall not exceed **636 pounds per day** and **56.6 tons per consecutive 12 month period**.

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

- a. Daily VOC emissions shall be determined by multiplying the total amount of each type of VOC containing material used in the undertread cementing operation each day by the VOC content of the material minus any material reclaimed or shipped offsite for reclamation or disposal. These calculations and the total daily amounts of VOC emissions shall be recorded in an emissions logbook (written or electronic format) for each month no later than the third day of the following month. In addition, the Permittee shall make available to officials of the Division of Air Quality, upon request, copies of the emissions log. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the VOC emissions exceed the limit in 2.1.D.2.a above.

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

- c. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
- i. The monthly VOC emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

E. No. 5 extrusion line undertread cementing (ID No. UT-3) with optional thermal oxidizer (ID No. FI-T)

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 (PCS)*	Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period: 3,870 kg (8,531 lb) of VOC per 28 days, 4,010 kg (8,846 lb) of VOC per 29 days, 4,150 kg (9,149 lb) of VOC per 30 days, 4,280 kg (9,436 lb) of VOC per 31 days, or 4,840 kg (10,670 lb) of VOC per 35 days. [60.542(a)(1)(ii)]	15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart BBB)
volatile organic compounds (ACS)**	equipment design and performance specifications of 40 CFR 60.543(j)(1),(2),(4),(5),and (6) and 95 percent efficient control device	15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart BBB)
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
volatile organic compounds	See Section 2.2 A.1.	15A NCAC 2D .0958
odors	State-enforceable only: See Section 2.2 A.2.	15A NCAC 2D .1806
toxic air pollutants	State-enforceable only: See Section 2.2 A.3.	15A NCAC 2Q .0711
toxic air pollutants	State-enforceable only: See Section 2.2 A.4.	15A NCAC 2D .1100
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

*PCS = Primary Compliance Scenario **ACS = Alternate Compliance Scenario

PCS

1. 15A NCAC 2D .0524: NSPS FOR THE RUBBER TIRE MANUFACTURING INDUSTRY

- a. The Permittee shall maintain total (uncontrolled) VOC use less than or equal to the levels specified below for the No. 5 extrusion line undertread cementing operation (ID No. UT-3):
 - i. **3,870 kg (8,531 lb) of VOC per 28 days,**
 - ii. **4,010 kg (8,846 lb) of VOC per 29 days,**
 - iii. **4,150 kg (9,149 lb) of VOC per 30 days,**
 - iv. **4,280 kg (9,436 lb) of VOC per 31 days, or**
 - v. **4,840 kg (10,670 lb) of VOC per 35 days** depending upon the duration of the compliance period.

[40CFR60.542(a)(1)(ii)]

Monitoring and Recordkeeping [40CFR60.543(e)]

- b. The Permittee shall use the following procedure to determine compliance with the VOC emission limit specified in 2.1 E.1.a. above.
 - i. Determine the density and weight fraction of VOC (including dilution VOC) of each cement from its formulation or by analysis of the cement using EPA reference method 24.
 - ii. Calculate the total mass of VOC used at the affected facility for the month (Mo) by the end of each month for the previous month as specified below:
 - (A) For each affected facility for which cement is delivered in batch or via a distribution system that serves only the affected facility:

$$Mo = \sum_{i=1}^a Lc_i Dc_i Wo_i$$

Where: a = the number of different cements used during the month that are delivered in batch or via a distribution system that serves only a single affected facility
Lc_i = the volume of cement "i" used for a month in liters
Dc_i = the density of cement "i" in grams per liter
Wo_i = weight fraction of VOC in cement "i"
Mo = total mass of VOC used at an affected facility for a month in grams

- (B) For each affected facility for which cement is delivered via a common distribution system that also serves other affected or existing facilities:
(1) Calculate the total mass of VOC used for all of the facilities served by the common distribution system for the month (M):

$$M = \sum_{i=1}^b Lc_i Dc_i Wo_i$$

Where: b = equals the number of different cements or green tire sprays used during the month that are delivered via a common distribution system that also serves other affected or existing facilities.
Lc_i = the volume of cement "i" used for a month in liters
Dc_i = the density of cement "i" in grams per liter
Wo_i = weight fraction of VOC in cement "i"
M = total mass of VOC used for a month by all facilities served by a common cement distribution system

- (2) Determine the fraction (Fo) of M used at the affected facility by comparing the production records and process specifications for the material cemented at the affected facility for the month to the production records and process specifications for the material cemented at all other facilities served by the common distribution system for the month or by another procedure acceptable to the DAQ.
(3) Calculate the total monthly mass of VOC used at the affected facility for the month (Mo):
Mo = MFo

iv. Determine the time duration of the monthly time period (Td).

The Permittee shall be deemed in non-compliance with 15 NCAC 2D .0524 if the required determinations are not completed and documented, or if emissions exceed the limit(s) in Section 2.1 E.1.a of this permit.

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

- c. The Permittee shall submit a summary report of any exceedances of the mass of VOC used (Mo) for each monthly time period and the corresponding number of days in the respective time period. The report shall be 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.

ACS

2. 15A NCAC 2D .0524: NSPS FOR THE RUBBER TIRE MANUFACTURING INDUSTRY

- a. The No. 5 extrusion line undertread cementing operation (ID No. UT-3) cement application and drying area shall be contained in an enclosure that meets the following criteria:
- The drying area shall be enclosed between the application area and the water bath, or to the extent necessary to contain all tire components, for at least 30 seconds after cement application, whichever distance is less.
 - A minimum face velocity of 30.5 meters (100 feet) per minute shall be maintained continuously through each permanent opening into the enclosure when all temporary enclosure openings are closed. The cross-sectional area of each permanent opening shall be divided into at least 12 equal areas, and a velocity measurement shall be performed at the centroid of each equal area with an anemometer or similar velocity monitoring device; the face velocity of each permanent opening is the

- average value of the velocity measurements taken. The monitoring device shall be calibrated and operated according to the manufacturer's instructions.
- iii. Temporary enclosure openings shall remain closed at all times except when worker access is necessary.
 - iv. The total area of all permanent openings into the enclosure shall not exceed the area that would be necessary to maintain the VOC concentration of the exhaust gas stream at 25 percent of the lower explosive limit (LEL) under the following conditions:
 - (A) The facility is operating at the maximum solvent use rate;
 - (B) The face velocity through each permanent opening is 30.5 meters (100 feet) per minute; and
 - (C) All temporary openings are closed.
 - v. All captured VOC are vented to a VOC emission control device that is operated on a continuous basis and that achieves at least a 95 percent destruction or recovery efficiency.

The Permittee shall be deemed in non-compliance with 15 NCAC 2D .0524 if enclosure specifications and VOC destruction or recovery efficiency are not achieved and documented.

Testing [40 CFR 60.543(b)(3)]

- b. The Permittee shall conduct a repeat performance test when directed by the DAQ or when the Permittee elects to operate the capture system or control device at conditions different from the most recent determination of control device efficiency or measurement of capture system retention time or face velocity. The performance test shall be conducted in accordance with the procedures described under 40 CFR 60.543(f)(2)(ii).

Monitoring [40 CFR 60.544(a)(i)]

- c. The Permittee shall install, calibrate, maintain, and operate according to manufacturer's specifications, a temperature monitoring device equipped with a continuous recorder for the temperature of the gas stream in the combustion zone of the incinerator (ID No. FI-T). The temperature monitoring device shall have an accuracy of 1 percent of the temperature being measured in °C or ±0.5 °C, whichever is greater.

Recordkeeping [40 CFR 60.545(a)]

- d. The Permittee shall maintain continuous records of the temperature of the gas stream in the combustion zone of the incinerator and records of all 3-hour periods of operation for which the average temperature of the gas stream in the combustion zone was more than 28 °C (50 °F) below the combustion zone temperature measured during the most recent determination of the destruction efficiency of the thermal incinerator that demonstrated that the affected facility was in compliance.

Reporting [40 CFR 60.546]

- e. In the event a repeat performance test is required pursuant to 2.1 E.2.b, the Permittee shall report to the DAQ:
 - i. the emission control device efficiency (E), the capture system efficiency (Fc), the face velocity through each permanent opening in the capture system with the temporary openings closed, and the overall system emission reduction (R) [40 CFR 60.546(c)(4)], and
 - ii. the average combustion temperature measured at least every 15 minutes and averaged over the performance test period of incinerator destruction efficiency for each thermal incinerator. [40 CFR 60.546(e)(1)]
- f. Every six months the Permittee shall report each 3-hour period of operation for which the average temperature of the gas stream in the combustion zone of a thermal incinerator, as measured by the temperature monitoring device, is more than 28°C (50°F) below the combustion zone temperature measured during the most recent determination of the destruction efficiency of the thermal incinerator that demonstrated that the affected facility was in compliance.
- g. The Permittee shall notify the DAQ 30 days in advance of the date when the Permittee intends to use the VOC use limit of 2.1 E.1.a. instead of the thermal oxidizer. A demonstration using the procedures of 2.1 E.1.a. that the total VOC use at the affected facility has not exceeded the applicable total (uncontrolled) monthly VOC use limit during each of the last six months of operation shall be included with the notification. The owner or operator shall be subject to the applicable percent emission reduction requirement until the demonstration is made.

- F. **Two green tire doping operations (ID Nos. GT-6 and GT-7) with settling chamber (ID No. N-4, need not be operating);
Green tire doping operation (ID No. GT-8) with settling chamber (ID No. N-9, need not be operating);
Green tire doping operation (ID No. GT-9) with settling chamber (ID No. N-13, need not be operating); and
Green tire doping operation (ID No. GT-10) with settling chamber (ID No. N-9, need not be operating)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate	particulate emissions shall not exceed the rate prescribed by the process weight equations: For process rates up to 30 tons per hour: $E = 4.10 \times P^{0.67}$ For process rates greater than 30 tons per hour: $E = 55.0 \times P^{0.11} - 40$ Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	visible emissions shall not exceed 20 percent opacity	15A NCAC 2D. 0521
volatile organic compounds	inside spray - 1.2 grams of VOC per tire, monthly average outside spray - 9.3 grams per tire, monthly average [60.542(a)(5)]	15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart BBB)
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
odors	State-enforceable only: See Section 2.2 A.2.	15A NCAC 2D .1806
toxic air pollutants	State-enforceable only: See Section 2.2 A.3.	15A NCAC 2Q .0711
toxic air pollutants	State-enforceable only: See Section 2.2 A.4.	15A NCAC 2D .1100
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

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

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

For process rates up to 30 tons per hour:

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

For process rates greater than 30 tons per hour:

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

Where: E = allowable emission rate in pounds per hour, and
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 General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the green tire doping operations (ID Nos. GT-6, GT-7, GT-8, GT-9, and GT-10).

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

- a. Visible emissions from the emission sources listed 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 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 F.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 every three months, the Permittee shall observe the emission point(s) of the above listed sources during source operation for any visible emissions above normal. The quarterly observation must be made for each three month period of the calendar year to ensure compliance with this requirement. If visible emissions from this source are observed to be above normal, the Permittee shall either:
- take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 F.2. a. above.

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

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

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

3. 15A NCAC 2D .0524: NSPS FOR THE RUBBER TIRE MANUFACTURING INDUSTRY

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart BBB, including Subpart A "General Provisions." [15A NCAC 2D .0524]
- b. The Permittee shall maintain total (uncontrolled) VOC use less than or equal to the levels specified below for the green tire doping operations (ID Nos. GT-6, GT-7, GT-8, GT-9, and GT-10):
- inside spray - **1.2 grams of VOC per tire, monthly average**
 - outside spray - **9.3 grams per tire, monthly average**
- [40CFR60.542(a)(5)]

Monitoring/Recordkeeping [40 CFR 60.545(f)]

- c. The Permittee shall maintain formulation data or EPA reference method 24 analysis data demonstrating that the green tire spray contains less than 1.0 percent by weight VOC. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained or, the formulation data or EPA reference method 24 analysis data indicate that the green tire spray contains equal or more than 1.0 percent by weight of VOC.

Reporting [40 CFR 60.543(b)(4), 40 CFR 60.546(j), and 15A NCAC 2Q .0508(f)]

- d. The Permittee shall submit to the DAQ within 60 days initially and annually thereafter, formulation data or EPA reference method 24 analysis data demonstrating that the green tire spray contains less than 1.0 percent by weight VOC.
- e. If the spray material formulation changes before the end of the 12-month period, formulation data or Method 24 analysis of the new spray shall be conducted to determine the VOC content of the spray and reported within 30 days of the change to the DAQ.
- f. The Permittee shall comply with all applicable notification requirements in §60.7.
- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

- G. **20 rubber mills (ID Nos. RMT1 through RMT3, RMT6 through RMT11, and RMC1 through RMC11),
Three roll calender and one four roll calender (ID No. CAL-1),
One four roll calender (ID No. C-3),
No. 2 bead cementing operation (ID No. BCO-2),
No. 1 extrusion line undertread cementing operation (ID No. UT-1),
Six extrusion lines (ID No. TU-1),
One extrusion line (ID No. TU-2)
Three curing area (ID Nos. CA-1, CA-2, and CA-3),
Sidewall and tread grinding (ID No. GA-1),
Miscellaneous solvent usage (ID No. PW-1),
Tire Assembly (ID No. TA-1),
Final inspection (ID No. FI-1),
Rubber Cement mixing (ID No. RCM-1), and
Four solvent storage tanks (ID Nos. ST-1 through ST-4)**

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	Actuals PAL Permit Requirements - See Section 2.4	(15A NCAC 2D .0530
volatile organic compounds	See Section 2.2 A.1. (excluding ID No. TU-1 and TU-2)	15A NCAC 2D .0958
odors	State-enforceable only: see Section 2.2 A.2.	15A NCAC 2D .1806
toxic air pollutants	State-enforceable only: see Section 2.2 A.3.	15A NCAC 2Q .0711
toxic air pollutants	State-enforceable only: see Section 2.2 A.4.	15A NCAC 2D .1100
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

- H. **Two natural gas/No. 2 fuel oil/No. 6 fuel oil-fired boilers (ID Nos. UA-1 and UA-2).**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate	particulate emissions shall not exceed 0.262 pounds per	15A NCAC 2D .0503

	million Btu heat input	
sulfur dioxide	sulfur dioxide emissions shall not exceed 2.3 pounds per million Btu heat input	15A NCAC 2D .0516
visible emissions	visible emissions shall not exceed 20 percent opacity	15A NCAC 2D .0521
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

1. 15ANCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

- a. Emissions of particulate matter from the combustion of natural gas, No. 2 fuel oil, and No. 6 fuel oil that are discharged from these boilers into the atmosphere shall not exceed **0.262 pounds per million Btu heat input**. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 2D .2601]

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

Monitoring/Recordkeeping/Reporting

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas, No. 2, and No. 6 fuel oil in this source.

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

- a. Emissions of sulfur dioxide from these boilers 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 H. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

Monitoring/Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0501(c)(4)(A)]

- c. No monitoring/recordkeeping is required for sulfur dioxide emissions from combustion of natural gas and No. 2 fuel oil by these sources.
- d. The maximum sulfur content of any No. 6 fuel oil received and burned in the boilers shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the fuel oil exceeds this limit. [15A NCAC 2Q .0508(bb)]
- e. To assure compliance, the Permittee shall monitor the sulfur content of the No. 6 fuel oil by using fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) on a quarterly basis and include the following information:
- i. the name of the fuel oil supplier;
 - ii. the maximum sulfur content of the fuel oil received during the quarter;
 - iii. the method used to determine the maximum sulfur content of the fuel oil; and
 - iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification represent all of the No. 6 fuel oil fired during the period.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the oil is not monitored and recorded.

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

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

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

- a. Visible emissions from these boilers 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 H.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, the Permittee shall observe the emission points of the above listed sources **daily when combusting No. 6 fuel oil** for any visible emissions above normal. **The Permittee shall be allowed three (3) days of absent observations per semi-annual period per boiler.** The Permittee shall establish “normal” for the source within the first 30 days of combusting No. 6 fuel oil for the first time. 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 boiler in accordance with 15A NCAC 2D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 H.3. a. above.If the above-normal emissions are not corrected per (i) above or if the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.
- d. No monitoring is required for visible emissions from the firing of natural gas and No. 2 fuel oil in these boilers.

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

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed; and
 - iii. the results of any actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.
- f. No recordkeeping is required for visible emissions from the firing of natural gas and No. 2 fuel oil in these boilers.

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

- g. 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.
- h. No reporting is required for visible emissions from the firing of natural gas and No. 2 fuel oil in these sources.

**I. Two diesel engine driven peak shaving generators (ID Nos. EGDD1 and EGDD2); and
Five diesel engine driven air compressors (ID Nos. ACDD-1 through ACDD-5)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	sulfur dioxide emissions shall not exceed 2.3 pounds per million Btu heat input	15A NCAC 2D. 0516
visible emissions	visible emissions shall not exceed 40 percent opacity	15A NCAC 2D. 0521 (f, c)
nitrogen oxides	PSD BACT Limitation: nitrogen oxides emissions shall be less than 75.72 tons per consecutive 12 month period	15A NCAC 2D .0530
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from these generators and compressors 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 I. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

Monitoring/Recordkeeping/Reporting [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0501(c)(4)(A)]

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the combustion of diesel fuel by these sources.

2. 15A NCAC 2D .0521 (f, c): CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from these generators and compressors shall not be more than **40 percent opacity** when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity. [15A NCAC 2D .0521 (f)]

Testing [15A NCAC 2D .2601]

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

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

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of diesel fuel by these sources.

3. 15A NCAC 2D .0530: PSD BEST AVAILABLE CONTROL TECHNOLOGY LIMITATIONS

- a. To comply with the best available control technology (BACT) determination pursuant to 15A NCAC 2D .0530, "Prevention of Significant Deterioration," nitrogen dioxide emissions from the two diesel driven generators (ID Nos. EGDD-1 and EGDD-2) and the five diesel driven compressors (ID Nos. ACDD-1, 2, 3, 4, and 5) shall comply with the following BACT Limits:

PSD Affected Source	Pollutant	BACT Limit
Diesel-driven generator (ID No. EGDD-1)	Nitrogen dioxide	43.76 lbs NOx/hour
Diesel-driven generator (ID No. EGDD-2)	Nitrogen dioxide	43.76 lbs NOx/hour
Diesel-driven compressor (ACDD-1)	Nitrogen dioxide	7.8 lbs NOx/hour
Diesel-driven compressor (ACDD-2)	Nitrogen dioxide	7.8 lbs NOx/hour
Diesel-driven compressor (ACDD-3)	Nitrogen dioxide	7.8 lbs NOx/hour
Diesel-driven compressor (ACDD-4)	Nitrogen dioxide	7.8 lbs NOx/hour

PSD Affected Source	Pollutant	BACT Limit
Diesel-driven compressor (ACDD-5)	Nitrogen dioxide	7.8 lbs NOx/hour

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

- b. In order to ensure compliance with limit above, the facility is limited to the following operational conditions:
- i. The Permittee shall limit operation of the two diesel-fired generators (ID Nos. EGDD-1 and EGDD-2) to 1500 hours total per consecutive twelve-month period,
 - ii. The Permittee shall limit operation of the five diesel-fired compressors (ID Nos. ACDD-1, 2, 3, 4, and 5) to 11,000 hours total per consecutive twelve-month period,

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

- c. The Permittee shall record the total monthly hours of operation for the two diesel engine driven generators and the five diesel engine driven compressors. Tons of NOx per month shall be calculated using the following equation for the diesel engine driven generators by the end of each month for the previous month:

$$43.76 \frac{\text{lbs NOx}}{\text{hour}} \times A \frac{\text{hours}}{\text{month}} \times \frac{1.0 \text{ ton}}{2000 \text{ lbs}} = B \frac{\text{tons NOx}}{\text{month}}$$

Where A = the number of hours per month total for the two diesel engine driven generators

Where B = the number of tons of NOx per month total for the two diesel engine driven generators

Tons of NOx per month shall be calculated using the following equation for the five diesel engine driven compressors:

$$7.80 \frac{\text{lbs NOx}}{\text{hour}} \times C \frac{\text{hours}}{\text{month}} \times \frac{1.0 \text{ ton}}{2000 \text{ lbs}} = D \frac{\text{tons NOx}}{\text{month}}$$

Where C = the number of hours per month total for the five diesel engine driven compressors

Where D = the number of tons of NOx per month total for the five diesel engine driven compressors

These calculations shall be recorded in an emissions logbook (electronic or written) for each month. In addition, the Permittee shall make available to officials of the Division of Air Quality, upon request, copies of the emissions log. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the nitrogen dioxide emissions exceed a limit in 2.1.I.3.a above.

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

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
- i. The monthly nitrogen oxide emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months; and
 - a. The monthly total hours of operation for the generators and for the compressors for the previous 17 months.

J. Temporary, back-up natural gas/No. 2 fuel oil-fired boiler(s) with a maximum permitted heat input rating of no greater than 100 million Btu per hour, total (ID No. UA-T1).

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate	particulate emissions shall not exceed 0.242 pounds per million Btu heat input	15A NCAC 2D .0503

Regulated Pollutant	Limits/Standards	Applicable Regulation
sulfur dioxide	sulfur dioxide emissions shall not exceed 2.3 pounds per million Btu heat input	15A NCAC 2D. 0516
visible emissions	visible emissions shall not exceed 20 percent opacity	15A NCAC 2D. 0521
sulfur dioxide visible emissions (boilers 30 million Btu per hour heat input firing fuel oil)	fuel oil firing 0.5 percent sulfur content fuel oil 20 percent opacity	15A NCAC 2D. 0524 NSPS (40 CFR 60, Subpart Dc)
PM, PM ₁₀ , SO ₂ , CO, and NO _x	See Section 2.1 J.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .0530)
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

1. **15A NCAC 2D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**
 - a. Emissions of particulate matter from the combustion of natural gas and No. 2 fuel oil, that are discharged from the boiler(s) (ID No. UA-T1) into the atmosphere shall not exceed **0.242 pounds per million Btu heat input**. [15A NCAC 2D .0503(a)]

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 limit given in Section 2.1 J. 1. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

Monitoring/Recordkeeping/Reporting
 - c. No monitoring, recordkeeping, or reporting is required for particulate emissions from the firing of No. 2 fuel oil or natural gas by these boilers.

2. **15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES**
 - a. Emissions of sulfur dioxide from these sources 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 J. 2. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

Monitoring/Recordkeeping/Reporting
 - c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from combustion of No. 2 fuel oil or natural gas by the boiler(s).

3. **15A NCAC 2D .0521: CONTROL OF VISIBLE EMISSIONS**
 - a. Visible emissions from any non-NSPS affected boiler, any natural gas-fired boiler, or any fuel oil-fired boiler with a maximum heat capacity less than 30 million Btu per hour 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 J.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, or reporting is required for visible emissions from the firing of No. 2 fuel oil or natural gas in the boiler(s).

4. 15A NCAC 2D .0524: NSPS 40 CFR PART 60 SUBPART Dc

- a. Temporary, back-up boiler(s) (ID No. UA-T1) that meet the criteria listed below are affected sources under the "New Source Performance Standards" (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions":
 - i. The boiler was constructed, reconstructed, or modified after June 9th, 1989; AND,
 - ii. The boiler has a maximum heat input capacity equal to or greater than 10 million Btu per hour.For Subpart Dc-affected boilers, the Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 [15A NCAC 2D .0524]

Emission Limitations [15A NCAC 2D .0524]

- b. The maximum sulfur content of any fuel oil received and fired in the Subpart Dc-affected boiler shall not exceed **0.5 percent by weight**. [40 CFR 60.42c(d)]
- c. For any Subpart Dc-affected fuel oil-fired boiler with a maximum heat input capacity of greater than or equal to 30 million Btu per hour, visible emissions shall not be more than **20 percent opacity** when averaged over a six-minute period, except for one six-minute period per hour of not more than 27 percent opacity. [40 CFR 60.43c(c)]

Testing [15A NCAC 2D .2601]

- d. 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 any limit given in Section 2.1 J.4 b. or c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.
- e. Within 60 days of installing any temporary, back-up boiler firing No. 2 fuel oil and subject to the opacity limitation provided in Section 2.1 J.4 c. above, the Permittee shall conduct a Method 9 test (6-minute average of 24 observations) to determine the opacity of stack emissions. If the Permittee fails to conduct the opacity observation or if the results of the test are above the applicable limit, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524.

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

- f. The Permittee shall retain a copy of the fuel supplier certification for any No. 2 fuel oil fired at the affected boiler(s) (ID No. UA-T1). The fuel supplier certification shall include the following information:
 - i. The name of the oil supplier;
 - ii. The sulfur content of the oil (in % by weight); and,
 - iii. A statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the sulfur content of the oil exceeds the limit provided in Section 2.1 J.4. b of this permit or if fuel supplier certifications are not retained as described above. [40 CFR 60.46c(d), 40 CFR 60.48c(f)]

- g. In addition to any other recordkeeping required by 40 CFR, 60.48c or recordkeeping requirements of the EPA, the Permittee shall record and maintain records of the amounts of each fuel fired during each calendar month in each NSPS affected boiler. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

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

- h. The Permittee shall submit the following written notifications to the Regional Supervisor for any Subpart Dc affected temporary, back-up boiler (ID No. UA-T1):
 - i. An initial notification of the date of actual initial startup of the boiler within 15 days of such date [40 CFR 60.7(a)(3)];
 - ii. An opacity observation notification indicating the anticipated date that the Permittee will be conducting the Method 9 opacity observation, as required in Section 2.1. J.4. e of this permit, at least 30 days prior to such date [40 CFR 60.7(a)(6), 40 CFR 60.8(d)]; and,
 - iii. Performance test results with the results of the Method 9 opacity observation, as required in Section 2.1. J.5. e. of this permit, shall be submitted within 30 days of the test.
- i. *Semiannual Report.* In addition to any other reporting required by 40 CFR 60.48c or notification requirements to the EPA, the Permittee is required to provide a semiannual summary report, acceptable to the Regional Air Quality Supervisor, of the sulfur content of the distillate fuel oil fired, 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. The summary report shall include the following information:
 - i. Fuel supplier certification(s) for distillate fuel oil, as provided in Section 2.1 J.4. f of this permit;
 - ii. A Certified statement signed by the owner or operator that the records of fuel supplier certification(s) submitted represents all of the fuel fired at the affected boiler(s) (ID No. UA-T1) during the semiannual period; and,
 - iii. All instances of deviations from the requirements of this permit must be clearly identified.

**5. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS for
15A NCAC 2D .0530: PSD AVOIDANCE CONDITION**

- a. To avoid applicability of 15A NCAC 2D .0530, "Prevention of Significant Deterioration," as requested by the Permittee, criteria pollutant emissions from the boiler(s) (ID No. UA-T1) shall be less than the following per consecutive 12-month period.

Pollutant	Emission Limit (tons)
particulate (TSP)	25
PM10	15
sulfur dioxide	40
carbon monoxide	100
nitrogen oxides	40

- b. The boiler(s) shall be limited to an annual No. 2 fuel oil usage and/or natural gas usage based on the fuel sulfur content as follows:

$$\sum_{i=1}^{12} \sum_{j=1}^n \frac{(Q_j \times 142 \times S_j)}{2000} + \sum_{i=1}^{12} \frac{(Q_n \times 0.6)}{2000} < 40 \text{ tons}$$

Where:

- i = a month in a consecutive 12 month period
- Q_j = the thousands of gallons of No. 2 fuel oil combusted with S_j sulfur content for month i
- Q_n = the million cubic feet of natural gas combusted for month i
- S_j = sulfur content in percent by weight for No. 2 fuel oil j
- j = denotes all No. 2 fuel oil with the same sulfur content
- n = denotes the number of No. 2 fuel oils combusted with different sulfur content
- SO₂ AP-42 factor, Supplement E (No. 2 fuel oil) = 142 lbs SO₂/1000 gallons
- SO₂ AP-42 factor, Supplement D (natural gas) = 0.6 lbs SO₂/million cubic feet

- c. The boiler(s) shall be limited to an annual No. 2 fuel usage and/or natural gas usage based on the nitrogen dioxide emissions as follows:

$$\sum_{i=1}^{12} \frac{(Q_j \times 20)}{2000} + \sum_{i=1}^{12} \frac{(Q_n \times 100)}{2000} < 40 \text{ tons}$$

Where: i = a month in a consecutive 12 month period
 Q_j = the thousands of gallons of No. 2 fuel oil combusted for month i
 Q_n = the million cubic feet of natural gas combusted for month i
 NO_x AP-42 factor, Supplement E (No. 2 fuel oil) = 20 lbs NO_x/1000 gallons
 NO_x AP-42 factor, Supplement D (natural gas) = 100 lbs NO_x/million cubic feet

- Monitoring/Recordkeeping** [15A NCAC 2Q .0508(f)]
 d. To ensure enforceability of the sulfur dioxide limit, calculation of sulfur dioxide emissions per month shall be made by the end of each month for the previous month. SO₂ emissions shall be determined in accordance with 2.1 J.5.b. The calculations of the total monthly SO₂ emissions, total gallons of No. 2 fuel oil combusted, total cubic feet of natural gas combusted, and each corresponding vendor sulfur content certification (No. 2 fuel oil) must be recorded in a monthly emissions log (written or electronic format).

To ensure enforceability of the nitrogen dioxide limit, calculation of nitrogen dioxide emissions shall be made for each month. NO_x emissions shall be determined in accordance with 2.1 J. 5. c. The calculations of the total monthly NO_x emissions, total gallons of No. 2 fuel oil combusted, and total cubic feet of natural gas combusted, must be recorded in a monthly emissions log (written or electronic format).

In addition, the Permittee shall make available to officials of the Division of Air Quality, upon request, copies of the monthly emissions log. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not retained or if any criteria pollutant emissions exceeds a limit in 2.1.J.5.a above.

- Reporting** [15A NCAC 2Q .0508(f)]
 e. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
 i. The monthly sulfur dioxide and nitrogen oxide emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months;
 ii. The monthly quantities of natural gas and No. 2 fuel oil consumed for the previous 17 months; and
 iii. The average sulfur content of the No. 2 fuel oil.
 f. Within 10 working days after the installation of any boiler(s) (ID No. UA-T1), the Permittee shall notify in WRITING the Air Quality Regional Supervisor, Division of Air Quality, Raleigh Region of the installation. Such notice shall specify the size of the temporary boiler(s), its (their) date(s) of manufacture.

**K. Green tire doper No. 11 (ID No. GT-11)
 Green tire doper No. 12 (ID No. GT-12)**

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	inside spray - 1.2 grams of VOC per tire, monthly average outside spray - 9.3 grams per tire, monthly average [60.542(a)(5)] (ID Nos. GT-11 and GT-12)	15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart BBB)

Regulated Pollutant	Limits/Standards	Applicable Regulation
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
odors	State-enforceable only: see Section 2.2 A.2. (ID Nos. GT-11 and GT-12)	15A NCAC 2D .1806
toxic air pollutants	State-enforceable only: see Section 2.2 A.3. (ID No. GT-11)	15A NCAC 2Q .0711
toxic air pollutants	State-enforceable only: see Section 2.2 A.4. (ID No. GT-11)	15A NCAC 2D .1100
hazardous air pollutants	See Section 2.2 A.5. (ID Nos. GT-11 and GT-12)	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

1. 15A NCAC 2D .0524: NSPS FOR THE RUBBER TIRE MANUFACTURING INDUSTRY

- a. The Permittee shall maintain total (uncontrolled) VOC use less than or equal to the levels specified below for green tire doping operations (ID Nos. GT-11 and GT-12):
 - i. inside spray - **1.2 grams of VOC per tire, monthly average**
 - ii. outside spray - **9.3 grams of VOC per tire, monthly average** [40CFR60.542(a)(5)]

Monitoring/Recordkeeping [40 CFR 60.545(f) and 15A NCAC 2Q .0508(f)]

- b. The Permittee shall maintain formulation data or EPA reference method 24 analysis data demonstrating that the green tire sprays contain less than 1.0 percent by weight of VOC. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained or, the formulation data or EPA reference method 24 analysis data indicate that the green tire sprays contain equal or more than 1.0 percent by weight of VOC.
- c. The Permittee shall comply with all applicable recordkeeping requirements in §60.7. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

Reporting [40 CFR 60.543(b)(4), 40 CFR 60.546(j), and 15A NCAC 2Q .0508(f)]

- d. In addition to any other notification requirements to the Environmental Protection Agency (EPA), the Permittee is required to **NOTIFY** the Regional Supervisor, DAQ, in **WRITING**, of the following:
 - i. the date construction (40 CFR 60.7) or reconstruction (40 CFR 60.15) of an affected facility (ID No. GT-12) is commenced, postmarked no later than 30 days after such date; and the actual date of initial start-up of an affected facility, postmarked within 15 days after such date.
- e. The Permittee shall submit to the DAQ within 60 days initially and annually thereafter, formulation data or EPA reference method 24 analysis data demonstrating that the green tire sprays contain less than 1.0 percent by weight VOC.
- f. If the spray material formulation changes before the end of the 12-month period, formulation data or Method 24 analysis of the new spray shall be conducted to determine the VOC content of the spray and reported within 30 days of the change to the DAQ.
- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

L. Side wall cementing operation (ID No. SW-3)

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	Maintain total (uncontrolled) VOC use less than or equal to the levels specified below, depending upon the duration of the compliance period: 3,220 kg (7,099 lb) of VOC per 28 days,	15A NCAC 2D .0524 NSPS (40 CFR 60, Subpart BBB)

Regulated Pollutant	Limits/Standards	Applicable Regulation
	3,340 kg (7,363 lb) of VOC per 29 days, 3,450 kg (7,606 lb) of VOC per 30 days, 3,570 kg (7,870 lb) of VOC per 31 days, or 4,030 kg (8,885 lb) of VOC per 35 days. [60.542(a)(2)(ii)]	
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
volatile organic compounds	See Section 2.2 A.1.	15A NCAC 2D .0958
odors	State-enforceable only: See Section 2.2 A.2.	15A NCAC 2D .1806
toxic air pollutants	State-enforceable only: See Section 2.2 A.3.	15A NCAC 2Q .0711
toxic air pollutants	State-enforceable only: See Section 2.2 A.4.	15A NCAC 2D .1100
hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

1. 15A NCAC 2D .0524: NSPS FOR THE RUBBER TIRE MANUFACTURING INDUSTRY

- a. The Permittee shall maintain total (uncontrolled) VOC use less than or equal to the levels specified below for the side wall cementing operation (ID No. SW-3):
- i. 3,220 kg (7,099 lb) of VOC per 28 days,
 - ii. 3,340 kg (7,363 lb) of VOC per 29 days,
 - iii. 3,450 kg (7,606 lb) of VOC per 30 days,
 - iv. 3,570 kg (7,870 lb) of VOC per 31 days, or
 - vi. 4,030 kg (8,885 lb) of VOC per 35 days depending upon the duration of the compliance period.
- [40CFR60.542(a)(2)(ii)]

Monitoring/Recordkeeping [40CFR60.543(c)]

- b. The Permittee shall use the following procedure to determine compliance with the VOC emission limit specified in 2.1 L.1.a. above.
- i. Determine the density and weight fraction of VOC (including dilution VOC) of each type of cement from its formulation or by analysis of the cement using EPA reference method 24.
 - ii. Calculate the total mass of VOC used at the affected facility for the month (Mo) as specified below by the end of each month for the previous month.
 - (A) For each affected facility for which cement is delivered in batch or via a distribution system that serves only the affected facility:

$$M_o = \sum_{i=1}^a Lc_i Dc_i Wo_i$$

Where: a = the number of different cements used during the month that are delivered in batch or via a distribution system that serves only a single affected facility
 Lc_i = the volume of cement "i" used for a month in liters
 Dc_i = the density of cement "i" in grams per liter
 Wo_i = weight fraction of VOC in cement "i"
 Mo = total mass of VOC used at an affect facility for a month in grams

- (B) For each affected facility for which cement is delivered via a common distribution system that also serves other affected or existing facilities:
 - (1) Calculate the total mass of VOC used for all of the facilities served by the common distribution system for the month (M):

$$M = \sum_{i=1}^b Lc_i Dc_i Wo_i$$

Where: b = equals the number of different cements or green tire sprays used during the month that are delivered via a common distribution system that also serves other affected or existing facilities.

Lc_i = the volume of cement “i” used for a month in liters

Dc_i = the density of cement “i” in grams per liter

Wo_i = weight fraction of VOC in cement “i”

M = total mass of VOC used for a month by all facilities served by a common cement distribution system

(2) Determine the fraction (Fo) of M used at the affected facility by comparing the production records and process specifications for the material cemented at the affected facility for the month to the production records and process specifications for the material cemented at all other facilities served by the common distribution system for the month or by another procedure acceptable to the DAQ.

(3) Calculate the total monthly mass of VOC used at the affected facility for the month (Mo):
Mo = MFo

iii. Determine the time duration of the monthly time period (Td).

The Permittee shall be deemed in non-compliance with 15 NCAC 2D .0524 if the required determinations are not completed and documented, or if emissions exceed the limit(s) in Section 2.1 L.1.a of this permit.

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

- a. The Permittee shall submit a summary report of any exceedance of the mass of VOC used (Mo) for each monthly time period and the corresponding number of days in the respective time period. The report shall be postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

M. One extrusion line (ID No. TUC-3)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
particulate	particulate emissions shall not exceed the rate prescribed by the process weight equations: For process rates up to 30 tons per hour: $E = 4.10 \times P^{0.67}$ Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 2D .0515
visible emissions	visible emissions shall not exceed 20 percent opacity	15A NCAC 2D. 0521
volatile organic compounds	Actuals PAL Permit Requirements - See Section 2.4	15A NCAC 2D .0530
odors	State-enforceable only: See Section 2.2 A.2.	15A NCAC 2D .1806
toxic air pollutants	State-enforceable only: See Section 2.2 A.3.	15A NCAC 2Q .0711
toxic air pollutants	State-enforceable only: See Section 2.2 A.4.	15A NCAC 2D .1100
Hazardous air pollutants	See Section 2.2 A.5.	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

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

- a. Emissions of particulate matter from the extrusion line (ID No. TUC-3) shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]

For process rates up to 30 tons per hour:

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

Where: E = allowable emission rate in pounds per hour, and
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 General Condition JJ. If the results of this test are above the limit given in Section 2.1 K.1.a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515.

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the extrusion line (ID No. TUC-3).

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

- a. Visible emissions from this extrusion line (ID No. TUC-3) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [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 F.4.a. (ID No. ES40) 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 extrusion line (ID No. TUC-3).

2.2- Multiple Emission Sources Specific Limitations and Conditions

A. Facility wide

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
volatile organic compounds	work practice standards for sources with greater than 15 pounds per day of VOC emissions	15A NCAC 2D .0958
odors	State-enforceable only - odorous emissions must be controlled	15A NCAC 2D .1806
toxic air pollutants	State-enforceable only - facility wide emissions limits for toxic air pollutant emission rates	15A NCAC 2Q .0711
toxic air pollutants	State-enforceable only - individual source emissions limits for compliance with toxic air pollutant acceptable ambient levels	15A NCAC 2D .1100
hazardous air pollutants	less than 10 tons per year of any HAP and less than 25 tons per year of a combination of HAPs	15A NCAC 2Q .0317 (Avoidance of 15A NCAC 2D .1111)

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

- a. Pursuant to 15A NCAC 2D .0958, for all sources that use volatile organic compounds (VOC) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture 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)]

The term “in use” is defined as: A container of solvent, cement, or ink is “in use” if its associated process is operating or the operator or production technician is in the area performing their duties.

Monitoring

- c. To assure compliance with the requirements of 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 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

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

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

STATE-ONLY REQUIREMENT

3. 15A NCAC 2Q .0711: Emission Rates Requiring a Permit

The Permittee has made a demonstration that facility-wide actual emissions of the below listed toxic air pollutants (TAPs) 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. 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:

Pollutant (CAS Number)	TPERs Limitations			
	Carcinogens (lb/year)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hour)	Acute Irritants (lb/hour)
Acetaldehyde (75-07-0)				6.8
Acrolein (107-02-8)				0.02
Benzo(a)pyrene 50-32-8	2.2			
Carbon tetrachloride (56-23-5)	460			
Cresol (1319-77-3)			0.56	
Dichlorodifluoromethane (75-71-8)		10		
1,4-Dioxane (123-91-1)		12		
Ethyl acetate (141-78-6)			36	
Ethylene dichloride (107-06-02)	260			
Formaldehyde (50-00-0)				0.04
Hexane isomers				92
n-Hexane (110-54-3)		23		
Methyl chloroform (71-55-6)		250		64
Methyl ethyl ketone (78-93-3)		78		22.4
Methyl isobutyl ketone (108-10-1)		52		7.6
Nickel metal (7440-02-0)		0.13		
Perchloroethylene	13,000			

(127-18-4)				
Phenol (108-95-2)			0.24	
Styrene (100-42-5)			2.7	
Sulfuric acid (7664-93-9)		0.25	0.025	
Toluene (108-88-3)		98		14.4
Trichloro-1,2,2- trifluoroethane, 1,1,2 (76-13-1)				240
Trichlorofluoromethane (75-69-4)			140	
Trichloroethylene (79-01-6)	4000			
Vinylidene chloride (75-35-4)		2.5		
Xylene (1330-20-7)		57		16.4

STATE-ONLY REQUIREMENT:

4. **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 emission limits shall not be exceeded:

Source ID No.	Acrylonitrile lb/yr	Aniline lb/hr	Benzene lb/yr	1,3 Butadiene lb/yr	Cadmium lb/yr
BT-2, BC-2, BD-2	-	0.17	9.55	32.04	6.27
RCS-2	-	-	-	-	0.24
BC-1	-	0.09	4.77	16.02	3.13
RCS-1	-	-	-	-	0.24
CW-1	-	-	-	-	0.24
BT-1	-	-	-	-	-
BU-1	-	-	-	-	-
BC-3	-	0.05	2.85	9.58	1.87
BD-3	-	0.05	2.85	9.58	1.87
TK-3	-	0.05	2.85	9.58	1.87
RM-2	-	0.09	4.77	16.02	3.13
RM-3	-	0.09	4.77	16.02	3.13
RM-4	-	0.12	6.37	21.36	4.18
BC-4A, BD-4A	-	0.12	6.37	21.36	4.18
BT-4, BC-4, BD-4	-	0.12	6.37	21.36	4.18
RCM-1	-	-	18.24	-	-
UT-2	-	0.30	242.73	573.97	-
UT-1	-	0.34	271.28	641.49	-
UT-3	-	0.25	199.89	472.68	-
SW-3	-	-	41.09	-	-
C-1	-	0.02	13.79	11.51	-
C-2, BCO-1, BCO-2	-	0.02	97.86	11.51	-
C-3	-	0.02	11.82	9.86	-
RMC-1 to RMC-9	354.83	4.27	21.28	-	-
RMC-10, RMC-11, TUC-3	354.83	4.45	26.09	-	-

GT-3	-	-	-	-	-
GT-4	-	-	-	-	-
GT-6, GT-7, TA-1	-	-	-	-	-
GT-8, GT-10, TA-1	-	-	-	-	-
GT9, ASRS-5	-	-	-	-	-
UA-3	-	-	4.30	-	15.91
PB-1, PB2	-	-	15.0	-	-
PB-3	-	-	7.50	-	-
PB-4	-	-	7.50	-	-
BD1	-	0.09	4.77	16.02	3.13
RM-1, RM-5	-	0.17	9.55	32.04	6.27
RMT-1 to RMT-3, RMT-6 to RMT-11	227.16	7.60	76.68	112.19	-
ST-1	-	-	-	-	-
ST-3	-	-	0.11	-	-
FI-1	-	-	37.43	-	-
CA-1, CA-2, CA-3	-	20.16	505.21	77.26	-
GA-1	-	3.26	31.73	211.96	-
TU-1, TU-2	-	-	8.21	-	-

Source ID No.	Carbon Disulfide lb/day	DEHP lb/day	Ethylene Oxide lb/yr	Methylene Chloride lb/yr	Methylene Chloride lb/hr	Arsenic lb/yr
BT-2, BC-2, BD-2	85.45	1.85	-	8126.40	0.94	-
RCS-2	-	-	-	-	-	-
BC-1	42.72	0.93	-	4063.20	0.47	-
RCS-1	-	-	-	-	-	-
CW-1	-	-	-	-	-	-
BT-1	-	-	-	-	-	-
BU-1	-	-	-	-	-	-
BC-3	25.54	0.55	-	2428.58	0.28	-
BD-3	25.54	0.55	-	2428.58	0.28	-
TK-3	25.54	0.55	-	2428.58	0.28	-
RM-2	42.72	0.93	-	4063.20	0.47	-
RM-3	42.72	0.93	-	4063.20	0.47	-
RM-4	56.97	1.23	-	5417.60	0.62	-
BC-4A, BD-4A	56.97	1.23	-	5417.60	0.62	-
BT-4, BC-4, BD-4	56.97	1.23	-	5417.60	0.62	-
RCM-1	-	-	-	5238.99	0.60	-
UT-2	13.57	2.38	-	29,836.66	3.44	-
UT-1	15.16	2.66	-	33,346.86	3.85	-
UT-3	11.17	1.96	-	24,571.37	2.83	-
SW-3	-	-	-	-	-	-
C-1	21.87	3.32	-	19,349.10	2.23	-
C-2, BCO-1, BCO-2	21.87	3.32	-	19,349.10	2.23	-
C-3	18.75	2.84	0	16,584.94	1.91	-
RMC-1 to RMC-9	25.78	10.76	-	2274.30	0.26	-
RMC-10, RMC-11, TUC-3	25.78	10.93	-	2861.19	0.33	-
GT-3	-	-	-	-	-	-
GT-4	-	-	-	-	-	-
GT-6, GT-7, TA-1	-	-	78.28	1764.33	0.20	-
GT-8, GT-10, TA-1	-	-	78.28	1764.33	0.20	-
GT9, ASRS-5	-	-	-	-	-	-
UA-3	-	-	-	-	-	5.08
PB-1, PB2	-	-	-	-	-	-
PB-3	-	-	-	-	-	-
PB-4	-	-	-	-	-	-
BD1	42.72	0.93	0	4063.20	0.47	-
RM-1, RM-5	85.45	1.85	-	8126.40	0.94	-
RMT-1 to RMT-3, RMT-6 to RMT-11	86.59	15.36	-	7907.20	0.91	-
ST-1	-	-	-	-	-	-
ST-3	-	-	-	-	-	-
FI-1	-	-	-	20,955.97	2.42	-
CA-1, CA-2, CA-3	514.58	59.82	117.07	35,438.90	4.09	-
GA-1	5.75	3.59	-	354.51	0.04	-
TU-1, TU-2	-	55.80	-	-	-	-

**5. 15A NCAC 2Q. 0317: AVOIDANCE CONDITIONS for
LIMITATION TO AVOID BEING MAJOR FOR HAZARDOUS AIR POLLUTANTS**

a. In order to remain classified as a minor source for hazardous air pollutants and avoid applicability of this regulation, the facility shall be less than:

- i. **10 tons per year of each hazardous air pollutant**, and
- ii. **25 tons per year of all hazardous air pollutants combined.**

The Permittee shall be deemed in noncompliance with this condition and 2D .1111 (Subpart XXXX entitled “National Emission Standards for Hazardous Air Pollutants for Rubber Tire Manufacturing”) if the HAP emissions exceed this limit.

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

b. To assure that emissions are less than the 10/25 tons per year limits, the Permittee shall maintain monthly consumption records of each material used containing hazardous air pollutants:

- i. Material Safety Data Sheets (MSDS) or formulation data for cements, inks, paints, and solvents in the manufacturing process,
- ii. Usage of production related cements, inks, paints, solvents, and other production materials containing hazardous air pollutants,
- iii. Monthly production throughput data necessary to calculate hazardous air pollutant emissions, and
- iv. Monthly hazardous air pollutant emissions calculations and 12-month rolling total hazardous air pollutant emissions calculations by the end of each month for the previous month.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the HAP emissions are not monitored or records are not maintained.

c. The Permittee shall keep a record of the applicability determination on site at the source for a period of five years after the determination, or until the source becomes an affected source. The determination must include the analysis demonstrating why the Permittee believes the source is unaffected pursuant to 40 CFR Part 63.10(b)(3).

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the records are not maintained.

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

d. The Permittee shall submit a semi-annual report acceptable to the Regional Supervisor, Division of Air Quality, postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:

- i. the pounds of hazardous air pollutants emitted during the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months; and
- ii. the greatest quantity in pounds of an individual hazardous air pollutant emitted during the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

2.3- Permit Shield for Nonapplicable Requirements

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

- A. 40 CFR 60, Subpart Db is not applicable to boilers (ID Nos. UA-1 and UA-2) because they were constructed prior to June 19, 1984 and have not been modified or reconstructed as of April 16, 2002.
- B. 40 CFR 60, Subpart BBB is not applicable to dopers (ID Nos. GT-2, GT-3, and GT-4) and 10 inch undertread line (ID No.UT-1) because they were constructed prior to January 30, 1983 and have not been modified or reconstructed as of April 16, 2002.
- C. 40 CFR 60, Subpart VVV is not applicable to the painting processes at the facility because they are not considered web coating processes that apply polymeric coatings.

2.4- Actuals PAL Permit Requirements

a. The following Actuals Plantwide Applicability Limitations (Actuals PAL) shall not be exceeded:

PAL Pollutant	Actuals PAL Tons Per Rolling 12-Months	Effective Date	Expiration Date	PAL Emissions Units
VOC	505	xx	xx (10 years from effective date)	<p>Mixing Emissions Units BC-1, BD-1, BC-2, BD-2, BC-3, BD-3, BC-4, BD-4, BC-4FM, BD-4FM, RM-1, RM-2, RM-3, RM-4, RM-5, and ES-5</p> <p>Milling Emissions Units RMC-1 through RMC-11, RMT-11, RMT-1 through RMT-3, RMT-6 through RMT-10</p> <p>Calendering Emissions Units CAL-1 and C-3</p> <p>Extrusion Emissions Units UT-1, UT-2, UT-3, SW-3, TU-1, TU-2, TUC-3, and ES-10</p> <p>Bead Cementing Emissions Units BCO-1 and BCO-2</p> <p>Tire Doping Emissions Units GT-3, GT-4, GT-6, GT-7, GT-08, GT-9, GT-10, GT-11, and GT-12</p> <p>Curing Emissions Units CA-1, CA-2, and CA-3</p> <p>Paint Booths Emissions Units PB-1 through PB-7</p> <p>Grinding Emissions Units GA-1</p> <p>Plantwide Coating/Solvent Emissions Units PW-1, TA-1, FI-1, and ES-6</p> <p>Carbon Black and Dry Chemical/Pigment Handling Emissions Units RCS-1, CW-1, RCS-2, BU-1, and BT-1</p> <p>Rubber Cement Mixer/Solvent Storage Tanks Emissions Units RCM-1, ST-1, ST-2, ST-3, and ST-4</p>

				Oil Storage Tanks Emissions Units ES-1.1, ES-1.2, ES-2.1, ES-2.2, ES-3, ES-7, ES-8, ES-11, ES-12, and ES-13 Boilers/Peak Shaving and Emergency Generators/Emergency Fire Pump Engines/Air Compressors Emissions Units UA-1, UA-2, UA-T1, EGDD-1, EGDD-2, ES-4.1 through ES-4.6, and ACDD-1 through ACDD-5
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The Permittee may make modifications or additions to the PAL emissions units in Section 2.4 a. above, without requiring a modification to the PAL provisions of this permit if the emissions from the modified or additional emissions units will be calculated according to the monitoring methods specified in Section 2.4 j. through s. below and the plantwide actual VOC emissions will remain less than 505 tons per rolling 12 months.

- b. If the Permittee applies to renew the PAL permit in accordance with §51.166(w)(10) before the end of the PAL effective period in Section 2.4.a. above, then the PAL permit shall not expire at the end of the PAL effective period. It shall remain in effect until a revised PAL permit is issued by the DAQ. [§51.166(w)(7)(iii)]
- c. Once the PAL permit expires, the Permittee is subject to the requirements in §51.166(w)(9). Upon PAL permit expiration, the DAQ shall decide whether and how the PAL allowable emissions will be distributed and issue a revised permit incorporating allowable limits for each PAL emissions unit, as the DAQ determines is appropriate. The DAQ will retain the ultimate discretion to decide whether and how the allowable emissions will be allocated. [§51.166(w)(7)(v)]

Testing [15A NCAC 2D .2601]

- d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this testing indicate that the VOC emissions on a 12-month rolling basis have exceeded the actual PAL in Section 2.4. a. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.
- e. The Permittee shall revalidate the emission factors and any other data used in Section 2.4. j. through s. below for calculations of VOC emissions through performance testing or other scientifically valid means approved by the DAQ. The Permittee shall perform such revalidation once every five years after the issuance of the PAL permit, in accordance with General Condition JJ. If the Permittee does not perform this revalidation, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530.

If any emission factors included in this Section 2.4 are revised, the applicable provision of the PAL permit may be modified through a modification to the permit to reflect the results of a revalidation. The Permittee shall not rely on the updated emission factors until they are approved by DAQ and incorporated into the permit.

[§51.166(w)(12)(ix)]

Monitoring/Recordkeeping [15A NCAC 02Q .0508(f)]

- f. The Permittee shall record rubber throughput on a monthly basis for the mixing, milling, calendering, extrusion, curing, and grinding PAL emissions units. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.
- g. The Permittee shall keep monthly records in a logbook (written or electronic format) of the amount of natural gas, No. 2 fuel oil, No. 6 fuel oil, and diesel fuel burned in each boiler. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the amount of fuel burned in each boiler is not monitored.

- h. The Permittee shall keep monthly records in a logbook (written or electronic format) of hours of operation for each peak shaving/emergency generator and air compressor. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if these records are not maintained.
- i. The Permittee shall include in emissions calculations for compliance purposes emissions from startups, shutdowns, and malfunctions in Section 2.4. j. through s. below. [§51.166(w)(7)(iv)]
- j. The Permittee shall calculate VOC emissions per month after the end of each month for mixing as follows:

$$\text{VOC, tons/month} = \frac{\Sigma[\text{rubber throughput}_i, \text{ lb} \times \text{emission factor for generic rubber compound}_i, \text{ lb/lb rubber}]}{2000}$$

Where emission factors for generic rubber compounds used at the facility are as below:

- Compound #1 = 6.17×10^{-5} lb/lb rubber
- Compound #2 = 3.91×10^{-5} lb/lb rubber
- Compound #3 = 1.36×10^{-4} lb/lb rubber
- Compound #4 = 3.88×10^{-5} lb/lb rubber
- Compound #5 = 2.15×10^{-4} lb/lb rubber
- Compound #6 = 3.86×10^{-5} lb/lb rubber
- i = 1 through 6

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- k. The Permittee shall calculate VOC emissions per month after the end of each month for milling as follows:

$$\text{VOC, tons/month} = \frac{\Sigma[\text{rubber throughput}_i, \text{ lb} \times \text{emission factor for generic rubber compound}_i, \text{ lb/lb rubber}]}{2000}$$

Where emission factors for generic rubber compounds used at the facility are as below:

- Compound #1 = 8.99×10^{-5} lb/lb rubber
- Compound #2 = 1.10×10^{-4} lb/lb rubber
- Compound #3 = 1.13×10^{-4} lb/lb rubber
- Compound #4 = 8.37×10^{-5} lb/lb rubber
- Compound #5 = 3.14×10^{-4} lb/lb rubber
- Compound #6 = 5.64×10^{-5} lb/lb rubber
- i = 1 through 6

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- l. The Permittee shall calculate VOC emissions per month after the end of each month for calendaring as follows:

$$\text{VOC, tons/month} = \frac{\Sigma[\text{rubber throughput}_i, \text{ lb} \times \text{emission factor for generic rubber compound}_i, \text{ lb/lb rubber}]}{2000}$$

Where emission factors for generic rubber compounds used at the facility are as below:

- Compound #1 = 5.33×10^{-5} lb/lb rubber
- Compound #2 = 5.59×10^{-5} lb/lb rubber
- Compound #3 = 1.17×10^{-4} lb/lb rubber
- Compound #4 = 3.35×10^{-5} lb/lb rubber
- Compound #5 = 1.86×10^{-4} lb/lb rubber
- Compound #6 = 3.34×10^{-5} lb/lb rubber
- i = 1 through 6

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- m. The Permittee shall calculate VOC emissions per month after the end of each month for extrusion as follows:

$$\text{VOC, tons/month} = \frac{\sum[\text{rubber throughput}_i, \text{ lb} \times \text{emission factor for generic rubber compound}_i, \text{ lb/lb rubber}]}{2000}$$

Where emission factors for generic rubber compounds used at the facility are as below:

Compound #1 = 1.48×10^{-5} lb/lb rubber

Compound #2 = 9.37×10^{-6} lb/lb rubber

Compound #3 = 3.25×10^{-5} lb/lb rubber

Compound #4 = 5.67×10^{-6} lb/lb rubber

Compound #5 = 5.15×10^{-5} lb/lb rubber

Compound #6 = 1.23×10^{-5} lb/lb rubber

Compound #7 = 2.92×10^{-5} lb/lb rubber

i = 1 through 7

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- n. The Permittee shall calculate VOC emissions per month after the end of each month for curing as follows:

$$\text{VOC, tons/month} = \frac{\sum[\text{rubber throughput, lb} \times \text{emission factor for tire curing or tire bladder curing, lb/lb rubber}]}{2000}$$

Where emission factor for tire curing emissions units = See confidential information letter dated March 16, 2009, and

emission factor for tire bladder curing emissions units for Compound #7 = 2.36×10^{-4} lb/lb rubber

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- o. The Permittee shall calculate VOC emissions per month after the end of each month for grinding as follows:

$$\text{VOC, tons/month} = \frac{\sum[\text{rubber throughput, lb} \times \text{emission factor for carcass or sidewall/whitewall, lb/lb rubber}]}{2000}$$

Where emission factors for Carcass = 5.21×10^{-4} lb/lb rubber, and

Sidewall/Whitewall = 1.59×10^{-2} lb/lb rubber

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- p. The Permittee shall calculate VOC emissions per month after the end of each month for ethanol producing pigment processes using the emission factors included in the March 16, 2009 confidential information letter.

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- q. The Permittee shall calculate VOC emissions per month after the end of each month for rubber cement mixer, solvent storage tanks, and oil storage tanks as follows:

$$\text{VOC, tons/month} = \frac{\sum[\text{solvent throughput, lb} \times \text{emission factor for rubber cement mixer or solvent storage tanks, lb/lb of solvent}]}{2000}$$

Where emission factors for rubber cement mixer = 4.01×10^{-4} lb/lb solvent, and

solvent storage tanks = 2.83×10^{-3} lb/lb solvent (ST-1, ST-2 and ST-3) and 8.17×10^{-3} lb/lb solvent (ST-4)

The Permittee shall use a combined emission factor (rate) of 0.152 tons VOC per month for all oil storage tanks.

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- r. The Permittee shall calculate VOC emissions per month at the end of each month for each boiler, peak shaving generator, emergency generator, and air compressor, as follows:

$$\text{VOC, tons/month} = \frac{\Sigma\{0.2 \text{ lb}/10^3 \text{ gallon} \times \text{A gallon/month}\} + \{0.28 \text{ lb}/10^3 \text{ gallon} \times \text{B gallon/month}\} + \{5.5 \text{ lb}/10^6 \text{ scf} \times \text{C scf/month}\} + \{2.16 \text{ lb/hr} \times \text{D hour/month}\} + \{0.240 \text{ lb/hr} \times \text{E hour/month}\} + \{0.00251 \text{ lb/hp-hr} \times \text{F hp-hr/month}\}}{2000 \text{ lbs/ton}}$$

Where,

- A = No. 2 fuel oil usage in gallon per month for each boiler.
B = No. 6 fuel oil usage in gallon per month for each boiler.
C = natural gas usage in standard cubic feet per month for each boiler.
D = operating time in hour per month for each diesel-fired peak shaving generator.
E = operating time in hour per month for each diesel-fired air compressor.
F = power output in hp-hr per month for each diesel fired emergency generator or diesel fired emergency fire pump engine (≤ 600 hp)

[§51.166(w)(7)(vi) and §51.166(w)(12)(vi)]

- s. The Permittee shall perform mass balance calculations per month after the end of each month for each coating or solvent used in mixing, calendaring, extrusion, bead cementing, tire doping, curing, paint booths, plantwide coating/solvent storage tanks, and carbon black and dry chemical/pigment handling PAL emissions units. VOC emissions shall be determined by multiplying the total amount of each type of coating or solvent consumed during the month by the VOC content of each coating or solvent. The Permittee shall provide a demonstrated means of validating the published content of VOC that is contained in or created by all materials used in or at the PAL emissions units. The Permittee shall assume that the VOC content is either 100 percent or obtain from the vendor of the material a certificate of analysis confirming the VOC content included in the material safety data sheet (MSDS) or use formulation data. If the vendor of the material provides a range of VOC content for such material, the Permittee shall use the highest value of the range to calculate the VOC emissions unless the DAQ approves the site-specific data (such as Method 24 analysis) showing that another value in the range is more appropriate. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the Permittee does not comply with the requirements of this Section 2.4 s.

[§51.166(w)(7)(vi) and §51.166(w)(12)(iii)]

- t. The Permittee shall record and report maximum potential emissions without considering enforceable emission limitations or operational restrictions for a PAL emissions unit during any period of time that there is no monitoring data, unless another method for determining emissions during such periods is specified in the PAL permit. Notwithstanding the foregoing, the Permittee may consider actual production or operating data in determining its emissions for such a period if the Permittee has written records of such data and if the data are substantially the same as or similar in form or content to the monitoring data required by the PAL permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530 if the Permittee does not comply with the requirements of this Section 2.4 t. [§51.166(w)(12)(vii)]
- u. The Permittee shall determine facility wide VOC emissions per month using the emissions calculations in Section 2.4 j. through s. above. Calculations and the total amount of facility wide VOC emissions 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 12-month rolling facility wide VOC emissions exceed the limit in Section 2.4 a. above or the facility wide VOC emissions are not recorded.
- v. The Permittee shall retain on site a copy of all records necessary to determine compliance with any requirement in §51.166(w) and of the PAL, including a determination of each PAL emissions unit's 12-month rolling total emissions, for 5 years from the date of such record. The records may be retained in electronic

format. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530, if these records are not maintained. [§51.166(w)(7)(viii) and §51.166(w)(13)(i)]

- w. The Permittee shall retain a copy of the following records, for the duration of the PAL effective period plus 5 years:
- i. A copy of the PAL permit application and any applications for revisions to the PAL; and
 - ii. Each annual certification of compliance pursuant to Title V and the data relied on in certifying the compliance. This requirement applies only to the data used to certify compliance with the terms of the actuals PAL permit in this Section 2.4.

The records may be retained in electronic format. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0530, if these records are not maintained.

[§51.166(w)(7)(viii) and §51.166(w)(13)(ii)]

Reporting [15A NCAC 2Q .0508(f), and §51.166(w)(7)(ix) and §51.166(w)(14)]

- x. The Permittee shall submit semi-annual monitoring reports and prompt deviation reports to the reviewing authority in accordance with the applicable Title V operating permit program. The reports shall meet the requirements in paragraphs §51.166(w)(14)(i) through (iii).
- i. Semi-annual report. The semi-annual report shall be submitted to the Regional Air Quality Supervisor 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. This report shall contain the information required in paragraphs §51.166(w)(14)(i)(a) through (g).
 - (A) The identification of Permittee and the permit number.
 - (B) Total annual emissions (tons/year) based on a 12-month rolling total for each month in the reporting period recorded pursuant to paragraph §51.166 (w)(13)(i).
 - (C) All data relied upon, including, but not limited to, any Quality Assurance or Quality Control data, in calculating the monthly and annual PAL pollutant emissions.
 - (D) A list of any PAL emissions units modified or added to the major stationary source during the preceding 6-month period.
 - (E) The number, duration, and cause of any deviations or monitoring malfunctions (other than the time associated with zero and span calibration checks), and any corrective action taken.
 - (F) A notification of a shutdown of any PAL permit monitoring system, whether the shutdown was permanent or temporary, the reason for the shutdown, the anticipated date that the monitoring system will be fully operational or replaced with another monitoring system, and whether the PAL emissions unit monitored by the monitoring system continued to operate, and the calculation of the emissions of the pollutant or the number determined by method included in the permit, as provided by §51.166(w)(12)(vii).
 - (G) A signed statement by the responsible official (as defined by the applicable Title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
 - ii. Deviation report. The Permittee shall promptly submit reports of any deviations or exceedance of the PAL requirements, including periods where no monitoring is available. A report submitted pursuant to §70.6(a)(3)(iii)(B) of this chapter shall satisfy this reporting requirement. The deviation reports shall be submitted within the time limits prescribed by the applicable program implementing §70.6(a)(3)(iii)(B) of 40 CFR. The reports shall contain the following information:
 - (A) The identification of owner and operator and the permit number;
 - (B) The PAL requirement that experienced the deviation or that was exceeded;
 - (C) Emissions resulting from the deviation or the exceedance; and
 - (D) A signed statement by the responsible official (as defined by the applicable Title V operating permit program) certifying the truth, accuracy, and completeness of the information provided in the report.
 - iii. Re-validation results. The Permittee shall submit to the Regional Air Quality Supervisor the results of any re-validation within three months after completion of such revalidation.

SECTION 3 - GENERAL CONDITIONS (version 2.22.1)

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
- 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)(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(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.
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.

ATTACHMENT

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CAA	Clean Air Act
DAQ	Division of Air Quality
DENR	Department of Environment and Natural Resources
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAPS	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