



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

Beverly Eaves Purdue  
Governor

B. Keith Overcash, P.E.  
Director

Dee Freeman  
Secretary

XX XX, 2010

Mr. Erik S. Shore  
Site Manager  
Performance Fibers Operations, Inc.  
7401 Statesville Blvd.  
Salisbury, North Carolina 28147

Dear Mr. Shore:

SUBJECT: **Air Quality Permit No. 03325T42**  
**Facility ID: 03/80/00034**  
**Performance Fibers Operations, Inc.**  
**Salisbury Plant**  
**Rowan County**  
**Fee Class: Title V**

In accordance with your completed Air Quality Permit Application for a significant modification of a Title V permit received **November 1, 2007**, we are forwarding herewith Air Quality Permit No. **03325T42** to Performance Fibers Operations, Inc., 7401 Statesville Blvd., Salisbury, North Carolina, authorizing operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3 of Part I. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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

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**Permitting Section**

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

One  
North Carolina  
*Naturally*

Mr. Erik S. Shore

XX XX, 2010

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

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

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

This Air Quality Permit shall be effective from XX XX, 2010 until October 31, 2015, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Please note the attached summary table that outlines the changes made to the permit. Should you have any questions concerning this matter, please contact Charles F. Yirka at (919) 715-6250.

Sincerely yours,

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

Enclosure

cc: Gregg Worley, EPA Region 4 with review  
Mooresville Regional Office  
Central Files

**Activities Exempted from Permitting Under 15A NCAC 2Q .0503 for Permit 03325T42**

<b>Emission Source ID</b>	<b>Source</b>	<b>Date of Application</b>	<b>Source of Title V Pollutants?</b>
I-CSBT	Chip Storage, Blending, and Transfer (ID Nos. SILO1 through SILO35), (PET systems A, B, C, D and Heterofil/H-16), (ID Nos. STS, CDS, TUF, CH1, and 2), (ID No. FH1 and FH2)	9/24/96 8/9/00	Yes
I-CC1/CD1	Crystallizer and Column Dryer - Heterofil I & II (ID No. CC1 and CD1, respectively)	9/24/96	Yes
I-CC2/CD2	Crystallizer and Column Dryer - Heterofil I (ID No. CC2 and CD2, respectively)	9/24/96	Yes
I-CF1	Core Filter Receiver - Heterofil I (ID No. CF1)	9/24/96	Yes
I-SH1	Sheath Hopper - Heterofil I (ID No. SH1)	9/24/96	Yes
I-PRU	Polymer Recovery Unit (ID No. PRU)	9/24/96	Yes
I-AA2	Adipic Acid Handling (ID No. AA2)	9/24/96	Yes
I-SDS-LS1	Sludge Dewatering Unit (ID No. SDS-LS1)	9/24/96	Yes
I-6	6 MMBtu/hr maximum heat input Natural Gas-Fired Boiler (ID No. 6)	9/24/96	Yes
I-PC1 and I-PC2	Natural gas-fired Pyrolysis Cleaning Ovens - Heterofil I (ID No. PC1 and PC2, 0.3 MMBtu per maximum heat input each)	9/24/96 8/9/00	Yes
I-BO1	Electric Polyester Burn-off Incinerator (Linberg) (ID No. BOI)	9/24/96	Yes
I-FOFT1	One (1) 2.3 Million Gallon No. 6 Fuel Oil Feed Tank	11/10/99	Yes
I-FOFT2, I-FOFT3, I-FOFT4	Three (3) 150, 000 Gallon No. 6 Fuel Oil Feed Tanks	11/10/99	Yes
I-SDE1 and I-SDE2,	Two (2) 250-hp Stationary Diesel Engines	11/10/99	Yes
I-SDE3	One (1) 188-hp Stationary Diesel Engine	11/10/99	Yes
I-H-18-1	Heterofil III Extrusion (Line H-18) - Core Chip Truck Unloading	11/10/99	Yes
I-H-18-2	Heterofil III Extrusion (Line H-18) - Sheath Chip Truck Unloading	11/10/99	Yes

	<b>Source</b>	<b>Date of Application</b>	<b>Source of Title V Pollutants?</b>
I-H-17-1	Heterofil II Extrusion (Line H-17) -Sheath Chip Transfer System	11/10/99	Yes
I-H-17-2	Heterofil II Extrusion (Line H-17) -Sheath Chip Crystallizer/Dryer	11/10/99	Yes
I-SMCO	Site Maintenance and Construction Operations	8/9/00	Yes
I-QA/QC1	Quality Assurance/Quality Control Staple Lab	8/9/00	Yes
I-QA/QC2	Quality Assurance/Quality Control Filament Lab	8/9/00	Yes
I-DGT-1, I-DGT2, I-DGT3	Diethylene Glycol Tanks Storage Tanks #1 and #2 (15,000 gallons capacity, each), Storage Tank #3 (2,500 gallons capacity)	8/9/00	Yes
I-TEGT1, I-TEGT2	Triethylene Glycol Tanks Storage Tanks #1 and #2 (12,000 gallons capacity, each),	8/9/00	Yes
I-FM1	Finish Mixing	8/9/00	No
I-GTS1	UV/Peroxide Groundwater Treatment System	8/9/00	No
I-AD0, I-AD1	One (1) natural gas-fired flare (158 cubic feet per minute gas flow rate, ID No. AD0) installed on a contaminated-water anaerobic digester (84,660 pounds per hour water feed rate, ID No. AD1)	8/9/00	Yes
I-V1-V2	Two (2) virgin ethylene glycol storage tanks (ID No. V1 and V2)		Yes
I-C1-C8	Eight (8) crude ethylene glycol storage tanks (ID Nos. C1 -C8)		Yes
I-REG	Eight (8) recovered ethylene glycol storage tanks (ID Nos. K, R2-R6, HN, and HS)		Yes
Steelman Ovens	Natural gas fired ovens for pack & spinneret cleaning, 1.3 MM BTU/HR each	4/4/05	Yes

**ATTACHMENT**  
**Air Permit 03325T42**  
**Table of Changes**

Old Page No.	New Page No.	Condition No.	Change
Through-out permit	Through-out permit		Updated permit number and headers and relevant dates
Cover Letter	Cover Letter		Corrected permit number, changed facility name and mailing address Changed facility contact, authorized contact and technical contact phone numbers and information as per applicant comments
Table of Contents	Table of Contents		Remove all descriptions regarding Part 1 and Part 2
2	2	NA	Insert language re: expired permit with renewal application pending
4	4	Section 1 Table	Remove Part 1 designation and introductory note above Section 1 as per latest shell change version 3.0 Remove PET Polymer Production H Lines (ID Nos. CPH13 and CPH14) as per applicant comments
5	5	Section 1 Table	Remove Pet Wastewater Operations CPHWW13 and CPHWW14 and streams CPK5, CPK6, CPK10, CPH13 and CPH14 as per applicant comments Remove H-Building Dowtherm Heaters DOWHEATHA, DOWHEATHB, DOWHEATHC, DOWHEATHD, DOWHEATHE, and DOWHEATHF as per applicant comments
6	6	Section 1 Table	Remove Staple Spinning Lines DDO, H13SPIN, H14SPIN, H15SPIN, H16SPIN, H17MONEXH, H18MONEXH, and H21MONEXH as per applicant comments Remove Salt bath and Kolene SALT BATH, KOLENE1, KOLENE2, and R&D as per applicant comments
7	7	2.1 A.	Remove PET Polymer Production H Lines (ID Nos. CPH13 and CPH14) as per applicant comments Table-Insert NNSR avoidance condition for VOC and NOx and reference to 2.2 B.
9	9	2.1 B.	Table-Insert NNSR avoidance condition for VOC and NOx and reference to 2.2 B.
10	10	2.1 C.	Remove Pet Production Operations CPHWW13 and CPHWW14 as per applicant comments Replace 3rd bullet with Five (5) Primary Esterifier Receiver Wastewater Streams from CPK7, CPK13, CPK14, CPK15, & CPK16 with ID numbers CPK7WW, CPK13WW, CPK14WW, CPK15WW, &CPK16WW Table-Insert NNSR avoidance condition for VOC and NOx and reference to 2.2 B.
15	15	2.1 D.	Remove 2 <sup>nd</sup> bullet Six Natural Gas/No.2 Fuel Oil/No. 6 Fuel Oil Dowtherm Heaters HA-HF (ID Nos. DOWHEATHA through DOWHEATHF) Table-Insert NNSR avoidance condition for VOC and NOx and reference to 2.2 B.
17	16	2.1 D.3.a. 2.1 D.3.b.	Remove H-Building Dowtherm Heaters DOWHEATHA, DOWHEATHB, DOWHEATHC, DOWHEATHD, DOWHEATHE, and DOWHEATHF as per applicant comments
19	19	2.1 F.	

19-20	19	2.1 F.	Table-Insert NNSR avoidance condition for VOC and NOx and reference to 2.2 B.
21	20-21	2.1 F.2.a. 2.1 F.2.b.	
21-24	NA	2.1 G.	Remove entire section for G. Pack/Spinneret Cleaning Operation with Salt bath and Kolene SALTBATH, KOLENE1, KOLENE2, and R&D as per applicant comments
24	NA	2.1 H.	Remove entire section for H. Miscellaneous Sources Wet Lay Bruderhaus, Pilot Plant (ID No. PILOTPLT), Finish Lab (ID No. FINLAB), Tire and MGR Research and Development Laboratory (ID No. TMRG)
34	31	2.2 B.	Table-Insert NNSR avoidance condition for VOC and NOx
34-35	31-32	2.2 B. 1.	Insert new NNSR avoidance condition for VOC and NOx
39-48	36-43	Section 3 General Conditions	Replace General Conditions with latest version 3.1 (See condition D. Submissions)

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



Division of Air Quality

## AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
<b>03325T42</b>	03325T41	<b>XX XX, 2010**</b>	November 30, 2008

\*\*This permit shall expire on the earlier of October 31, 2013 or the renewal of permit 03325T43 has been issued or denied.

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

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

**Permittee:** **Performance Fibers Operations, Inc.**  
**Salisbury Plant**

**Facility ID:** 034/80/00034  
**Facility Site Location:** 7401 Statesville Blvd.  
**City, County, State, Zip:** Salisbury, Rowan County, North Carolina 28147

**Mailing Address:** 7401 Statesville Blvd.  
**City, State, Zip:** Salisbury, Rowan County, North Carolina 28147

**Application Number:** 8000034.07A  
**Complete Application Date:** July 16, 2010  
**Primary SIC Codes:** 2824 and 2821

**Division of Air Quality,**  
**Regional Office Address:** Mooresville Regional Office  
919 North Main Street  
Mooresville, North Carolina 28115

Permit issued this the **Xth day of XX, 2010**

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Donald R. van der Vaart, Ph.D., P.E., J.D., Chief, Air Permits Section  
By Authority of the Environmental Management Commission  
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(Including specific requirements, testing, monitoring, record keeping, and reporting requirements)

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(Including specific requirements, testing, monitoring, record keeping, and reporting requirements)

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ATTACHMENT

List of Acronyms

## AIR QUALITY TITLE V OPERATION PERMIT

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
<b>PET Production Operations</b>			
CPK5, CPK6, CPK7, CPK10, CPK13, CPK14, CPK15 (MACT)	<b>PET Polymer Production - K Lines</b> Seven (7) Continuous Polymerization Lines K5, K6, K7, K10, K13, K14, K15 (MACT - JJJ)	N/A	None
CPK16 (MACT)	<b>PET Polymer Production - K Line</b> Continuous Polymerization Line with glycol ejectors, Line K16 (MACT - JJJ)	DOWHEATKB or DOWHEATKC	Dowtherm Heater KB or KC used to control two (2) glycol ejector vacuum pump vents
GRU (MACT)	<b>Glycol Recovery Unit (GRU)</b> consisting of: One (1) Water stripper column, One (1) Swenson Evaporator, One (1) Diethylene glycol distillation column, and One (1) thin film evaporator (MACT-JJJ)	N/A	None
AMO (MACT)	Additive Preparation and Distribution (MACT-JJJ)	N/A	N/A

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
<b>PET Wastewater Operations</b>			
GRUWSOHWW <b>(MACT, Group 1)</b>	GRU Water Stripper Column overhead condensate <b>(MACT-JJJ)</b>	See Note	<b>Note:</b> Stream is routed to Dioxane column for control
CPK13WW, CPK15WW <b>(MACT, Group 1)</b>	Two (2) Primary Esterifier Receiver Wastewater streams from CPK13 and CPK15 <b>(MACT-JJJ)</b>	See Note	<b>Note:</b> Streams are routed to Dioxane column for control
CPK7WW, CPK14WW, CPK16WW <b>(MACT, Group 2)</b>	Three (3) Primary Esterifier Receiver Wastewater streams from CPK7, CPK14, and CPK16 <b>(MACT-JJJ)</b>	See Note	<b>Note:</b> Streams are routed to Dioxane column for control
DIOXFEEDS1 <b>(MACT, Group 1)</b>	Dioxane Column Feed Tank <b>(MACT-JJJ)</b> (200,000 gallon capacity)	N/A	None
DIOX_AUX_S1 <b>(MACT, Group 1)</b>	Dioxane Column Auxiliary Tank (20,000 gallon capacity) <b>(MACT-JJJ)</b>	N/A	None
DC-1 <b>(MACT)</b>	Dioxane Column (Wastewater Stripper Unit) <b>(MACT-JJJ)</b>	OXDZ-DC1	Thermal oxidizer (1.2 million Btu/hour max heat input - natural gas-fired)
<b>Utility Operations</b>			
BOILER1, BOILER2, BOILER3, BOILER4, BOILER5	Five (5) 90 million Btu/hour maximum heat input Natural gas and No. 2/No. 6 fuel oil-fired boilers	N/A	None
DOWHEATKA DOWHEATKB DOWHEATKC DOWHEATKD DOWHEATKE DOWHEATKF	Six (6) 22 million Btu/hour maximum heat input Natural gas and No. 2/No. 6 fuel oil-fired Dowtherm Heaters: KA, KB, KC, KD, KE, KF	N/A	None
<b>Terephthalic Acid Storage Silos</b>			
TASILO1, TASILO2, TASILO3, TASILO4	Four (4) Terephthalic Acid Silo No. 1, No. 2, No. 3, No. 4	TASILO1C1, TASILO2C2, TASILO3C3, TASILO4C4	Bag filter located on each silo

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control Device Description</b>
<b>PET Processing</b>			
SSP1-K17/K18, SSP2-K20	Two (2) Solid State Polycondensation Lines – SSPK17/K18, SSPK20	DOWHEATKB or DOWHEATKC	Dowtherm Heater KC or KB (NOTE: Control of these emissions is NOT required by

			regulation - Emissions are VOLUNTARILY controlled)
SDK5, SDK6, SDK7, SDK10, SDK11, SDK12	Six (6) Conventional Spin/Draw Lines K5, K6, K7, K10, K11, K12	N/A	None
SDK16, SDK17, SDK18, SDK19, SDK21, SDK22, SDK23, SDK24	Eight (8) Second Generation Filament Spin/Draw Lines K16, K17, K18, K19, K21, K22, K23, K24	N/A	None
<b>Pet Production - Ancillary/Support Equipment</b>			
COOLTWR	Cooling Towers (cells 8, 9, and 10)	N/A	None
DOWSYS	Dowtherm Process Heating System	N/A	None
GRUB	Glycol Recovery Unit Bottoms Truck Loading	N/A	None
WWTP	One Aerobic Waste Water Treatment Plant consisting of two (2) 650,000 gallon Influent Equalization tanks, three (3) aeration basins, one (1) digester basin, Two (2) underground clarifier tanks, one (1) above ground clarifier tank and four (4) polisher ponds	N/A	None

## SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

**A. PET Production Operations Consisting of:**

- PET Polymer Production K Lines (ID Nos. CPK5, CPK6, CPK7, CPK10, CPK13, CPK14, CPK15, and CPK16)
- Glycol Recovery Unit (ID No. GRU)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	<i>Facility-wide limit:</i> Volatile organic compound emission shall be less than 100 tons per consecutive 12 month period See 2.2 B.	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR- RACT Avoidance)
Nitrogen Oxides	<i>Facility-wide limit:</i> Nitrogen oxides emissions shall be less than 100 tons per consecutive 12 month period See 2.2 B.	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR- RACT Avoidance)
Hazardous Air Pollutants	Organic HAP emissions shall be no greater than 0.02 Kg per MG of PET produced from all continuous process vents associated with the polymerization reaction section	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	Organic HAP emissions shall be no greater than 0.04 Kg per MG of PET produced from all continuous process vents associated with the esterification vessels in the collection of raw material preparation section	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	General Recordkeeping and Reporting See Section 2.2 Multiple Emission Sources Specific Limitations and Conditions	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	Startup, Shutdown, and Malfunction See Section 2.2 Multiple Emission Sources Specific Limitations and Conditions	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Toxic Air Pollutants	Limits for toxic air pollutants shall not be exceeded - Section 2.2. Multiple Emission Sources Specific Limitations and Conditions; <b><u>State-enforceable only.</u></b>	15A NCAC 2D .1100
Odors	Odorous emissions must be controlled - - Section 2.2. Multiple Emission Sources Specific Limitations and Conditions; <b><u>State-enforceable only.</u></b>	15A NCAC 2D .1806

Toxic Air Pollutants	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded; - Section 2.2. Multiple Emission Sources Specific Limitations and Conditions; <b>State-enforceable only.</b>	15A NCAC 2Q .0711
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**1. 15A NCAC 2D .1111: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANT EMISSIONS: GROUP IV POLYMERS AND RESINS - POLYMERIZATION CONTINUOUS PROCESS VENTS**

**Emissions Standard [40 CFR 63.1316(b)(2)(ii)(A)]**

- a. Except during the periods and limitations described in 40 CFR 63.1310(j) (start-up, shutdown, malfunction, and non-operation), the Permittee shall limit organic HAP emissions from all continuous process vents associated with the polymerization reaction section of the PET process containing greater than 0.005 weight percent total organic HAP to no greater than 0.02 kilogram organic HAP per megagram of PET product, as a whole, from all associated thermoplastic polymer production units.
- b. During the periods and limitations described in 40 CFR 63.1310(j) (start-up, shutdown, malfunction, and non-operation), the Permittee shall limit organic HAP emissions from all continuous process vents associated with the esterification vessels in the collection of raw material preparation section of the PET process containing greater than 0.005 weight percent total organic HAP to no greater than 0.04 kilogram organic HAP per megagram of PET product, as a whole, from all associated thermoplastic polymer production units.

**Monitoring [40 CFR 63.114(a)(3) via 40 CFR 63.1317]**

- c. This facility uses process heaters (ID Nos. DOWHEATKB or DOWHEATKC) of less than 44 megawatts to control emissions from two (2) glycol ejector vacuum pumps on polymerization line CPK16. Thus the firebox temperature shall be monitored with a continuous recorder. This requirement does not apply to gas streams that are introduced with primary fuel or are used as the primary fuel.
  - i. Continuous recorder means a data recording device that either records an instantaneous data value at least once every 15 minutes or records 15-minute or more frequent block average values.
  - ii. Monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
  - iii. The Permittee shall operate the process heaters (ID No.'s DOWHEATKB or DOWHEATKC) such that the daily average firebox temperature remains above 700 degrees Fahrenheit, except as otherwise stated in this permit, while controlling ejector vacuum pump emissions.
- d. 40 CFR 63.1334(f) An excursion means any of the following:
  - i. When organic HAP emissions from all continuous process vents associated with the polymerization reaction section of the PET process containing greater than 0.005 weight percent total organic HAP exceeds 0.02 kilogram organic HAP per megagram of PET product, as a whole, from all associated thermoplastic polymer production units;
  - ii. When organic HAP emissions from all continuous process vents associated with the esterification vessels in the collection of raw material preparation section of the PET process containing greater than 0.005 weight percent total organic HAP to no greater than 0.04 kilogram organic HAP per megagram of PET product, as a whole, from all associated thermoplastic polymer production units.
  - iii. When the daily average value of the process heater firebox temperature is below 700 degrees Fahrenheit while controlling ejector vacuum pump emissions;
  - iv. When the period of process heater operation, while controlling ejector vacuum pump emissions, with the exception noted in vii. below, is four hours or greater in an operating day, and monitoring data are insufficient, as defined in vi. below, to constitute a valid hour of data for at least 75 percent of the operating hours;
  - v. When the period of process heater operation, while controlling ejector vacuum pump emissions, with the exception noted in vii. below, is less than 4 hours in an operating day and more than two of the hours during the period of operation do not constitute a valid hour of data due to insufficient monitoring data, as defined in vi. below.
  - vi. Monitoring data are insufficient to constitute a valid hour of data, as used in iv. and v. above, if measured values are unavailable for any of the 15-minute periods within the hour. For data compression systems approved pursuant to Section 2.2 A.1. monitoring data are insufficient to calculate a valid hour of data if there are less than four data measurements made during the hour.

- vii. The periods listed in (A) through (E) below are not considered to be part of the period of control or recovery device operation, for the purposes of iv. and v. above.
  - (A) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;
  - (B) Start-ups;
  - (C) Shutdowns;
  - (D) Malfunctions; or
  - (E) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

More than one excursion as defined in 40 CFR 63.1334(f) per semi-annual period shall constitute a violation of the requirements of 2.1 A.1.a., except as provided in 40 CFR 63.1334(g).

**Recordkeeping [40 CFR 63.1319]**

- e. See General Recordkeeping provisions of "Multiple Emission Sources" - Section 2.2

**Reporting [40 CFR 63.1320]**

- f. See General Reporting provisions of "Multiple Emission Sources" - Section 2.2

**B. ADDITIVE PREPARATION AND DISTRIBUTION (ID No. AMO)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Volatile Organic Compounds	<i>Facility –wide limit:</i> Volatile organic compound emission shall be less than 100 tons per consecutive 12 month period See 2.2 B.	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR-RACT Avoidance)
Nitrogen Oxides	<i>Facility –wide limit:</i> Nitrogen oxides emissions shall be less than 100 tons per consecutive 12 month period See 2.2 B.	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR-RACT Avoidance)
Hazardous Air Pollutants	Annual emissions from each Group 2 batch vent in the additive preparation and distribution operations shall not exceed 11,800 kg/yr.	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Toxic Air Pollutants	Permit limits for toxic air pollutants shall not be exceeded - Section 2.2. A.2 Multiple Emission Sources Specific Limitations and Conditions; <b><u>State-enforceable only.</u></b>	15A NCAC 2D .1100
Odors	Odorous emissions must be controlled - - Section 2.2. A.3 Multiple Emission Sources Specific Limitations and Conditions; <b><u>State-enforceable only.</u></b>	15A NCAC 2D .1806
Toxic Air Pollutants	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded; - Section 2.2. A.4 Multiple Emission Sources Specific Limitations and Conditions; <b><u>State-enforceable only.</u></b>	15A NCAC 2Q .0711

**1. 15A NCAC 2D .1111: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANT EMISSIONS: GROUP IV POLYMERS AND RESINS - BATCH PROCESS VENTS**

**Emissions Standards/Control Requirements [40 CFR 63.1321]**

- a. [40 CFR 63.1323(d) via 40 CFR 63.1322(g)] Annual emissions from each Group 2 batch vent in the additive preparation and distribution operations (ID No. AMO) shall not exceed 11,800 kg/yr.
- b. [40 CFR 63.1322(g)(1)] The Permittee shall comply with the following requirements.
  - i. The Permittee shall establish a batch mass input limitation that ensures emissions do not exceed 11,800 kg/yr.
  - ii. Over the course of the affected sources “year” as reported in the Notification of Compliance Status in accordance with 40 CFR 63.1335(e)(5)(viii), the Permittee shall not charge a mass of HAP or material to the batch unit operation that is greater than the level established as the batch mass input limitation.
- c. [40 CFR 63.1322(g)(iv)] The Permittee shall comply with 40 CFR 63.1323(i) whenever process changes are made.

**Recordkeeping [40 CFR 63.1326 via 40 CFR 63.1322(g)(1)(iii)]**

- d. The Permittee shall keep the following records readily accessible.
  - i. Records designating the established batch mass input limitation.
  - ii. Records specifying the mass of HAP or material charged to the batch unit operation.

**Reporting [40 CFR 63.1327 via 40 CFR 63.1322(g)(1)(iii)]**

- e. In addition to the reporting requirements above, whenever process changes are made the Permittee shall follow the reporting requirements in 40 CFR 63.1327(b) and (c).

**C. PET Wastewater Operations Consisting of:**

- **GRU Water Stripper Column Overhead Condensate (ID No. GRUWSOHWW)**
- **Two Primary Esterifier Receiver Wastewater Streams from CPK13 and CPK15 (ID Nos. CPK13WW and CPK15WW)**
- **Five (5) Primary Esterifier Receiver Wastewater Streams from CPK7, CPK13, CPK14, CPK15, & CPK16 with ID numbers CPK7WW, CPK13WW, CPK14WW, CPK15WW, &CPK16WW**
- **Dioxane Column Feed Tank (ID No. DIOXFEEDS1)**
- **Dioxane Column Auxiliary Tank (ID No. DIOX\_AUX\_S1)**
- **Dioxane Column Wastewater Stripper Unit (ID No. DC-1) Controlled by a Thermal Oxidizer (ID No. OXDZ-DC1)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Volatile Organic Compounds	<i>Facility –wide limit:</i> Volatile organic compound emission shall be less than 100 tons per consecutive 12 month period See 2.2 B.	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR- RACT Avoidance)
Nitrogen Oxides	<i>Facility –wide limit:</i> Nitrogen oxides emissions shall be less than 100 tons per consecutive 12 month period See 2.2 B.	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR- RACT Avoidance)
Hazardous Air Pollutants	Group 1 wastewater	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	Group 2 wastewater	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins

Hazardous Air Pollutants	Maintenance Wastewater Requirements	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	General Recordkeeping and Reporting See Section 2.2 Multiple Emission Sources Specific Limitations and Conditions	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Hazardous Air Pollutants	Startup, Shutdown, and Malfunction See Section 2.2 Multiple Emission Sources Specific Limitations and Conditions	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Toxic Air Pollutants	Permit limits for toxic air pollutants shall not be exceeded - Section 2.2. A.2 Multiple Emission Sources Specific Limitations and Conditions; <b><u>State-enforceable only.</u></b>	15A NCAC 2D .1100
Odors	Odorous emissions must be controlled - - Section 2.2. A.3 Multiple Emission Sources Specific Limitations and Conditions; <b><u>State-enforceable only.</u></b>	15A NCAC 2D .1806
Toxic Air Pollutants	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded; See Section 2.2. A.4 Multiple Emission Sources Specific Limitations and Conditions; <b><u>State-enforceable only.</u></b>	15A NCAC 2Q .0711

**1. 15A NCAC 2D .1111: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANT EMISSIONS: GROUP IV POLYMERS AND RESINS - GROUP 1 WASTEWATER**

**Emissions Standards/Control Requirements [40 CFR 63.1330]**

- a. [40 CFR 63.132(f) via 40 CFR 63.132(a)(1)(iii)] The Permittee shall not discard liquid or solid organic materials with a concentration of greater than 10,000 parts per million of organic HAPs listed in 40 CFR 63 Subpart G, Table 9 (as determined by analysis of the stream composition, engineering calculations, or process knowledge, according to the provisions of 40 CFR 63.144(b)) from a thermoplastic production process unit to water or wastewater, unless the receiving stream is managed and treated as a Group 1 wastewater stream. This prohibition does not apply to materials from the following activities:
  - i. Equipment leaks,
  - ii. Activities included in maintenance or startup/shutdown/malfunction plans,
  - iii. Spills, or
  - iv. Samples of a size not greater than reasonably necessary for the method of analysis that is used.
- b. [40 CFR 63.133 via 40 CFR 63.132(a)(2)(i)] For each **wastewater tank** that receives, manages, or treats a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the Permittee shall operate and maintain a fixed roof and inspect it as required in 40 CFR 63.133(f), (g), and (h).
- c. [40 CFR 63.136 via 40 CFR 63.132(a)(2)(i)] For each **individual drain system** that receives or manages a Group 1 wastewater stream or a residual removed from a Group 1 wastewater stream, the Permittee shall comply with the following requirements.
  - i. The Permittee shall operate and maintain on each opening in the individual drain system a cover and if vented, route the vapors to a process or through a closed vent system to a control device except that a pressure relief device may be used if it is not used for planned or routine venting of emissions and the device otherwise remains in a closed position.

- (A) The cover and all openings shall be maintained in a closed position at all times that a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream is in the drain system except when it is necessary to use the opening for sampling or removal, or for equipment inspection, maintenance, or repair;
  - (B) Each individual drain system shall be inspected initially, and semiannually thereafter, for improper work practices and control equipment failures, in accordance with the following inspection requirements:
    - (1) Visually inspect cover and all openings to ensure there are no gaps, cracks, or holes semi-annually; and
    - (2) Visually inspect individual drain system for control equipment failures and improper work practices semi-annually.
    - (3) For individual drain systems, improper work practice includes, but is not limited to, leaving open any access hatch or other opening when such hatch or opening is not in use for sampling or removal, or for equipment inspection, maintenance, or repair.
    - (4) For individual drain systems, control equipment failure includes, but is not limited to, any time a joint, lid, cover, or door has a gap or crack, or is broken.
    - (5) When an improper work practice or a control equipment failure is identified, first efforts at repair shall be made no later than 5 calendar days after identification and repair shall be completed within 15 calendar days after identification except as follows.
      - (a) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the repair is technically infeasible without a shutdown, as defined in 40 CFR 63.101 (Subpart F), or if the Permittee determines that emissions of purged material from immediate repair would be greater than the emissions likely to result from delay of repair. The repair of this equipment shall occur by the end of the next shutdown
      - (b) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified, is allowed if the equipment is emptied or is no longer used to treat or manage Group 1 wastewater streams or residuals removed from Group 1 wastewater streams.
      - (c) Delay of repair of equipment for which a control equipment failure or a gap, crack, tear, or hole has been identified is also allowed if additional time is necessary due to the unavailability of parts beyond the control of the Permittee. Repair shall be completed as soon as practical. The Permittee who uses this provision shall document the decision to use a delay of repair due to unavailability of parts. The documentation shall include a description of the failure, the reason additional time was necessary (including a statement of why replacement parts were not kept on site and when the manufacturer promised delivery), and the date when repair was completed.
- d. [40 CFR 63.138(d) via 40 CFR 63.138(b)(2) via 40 CFR 63.138(a)(1)] Design steam stripper option. The Permittee shall operate and maintain the design steam stripper (ID No. DC-1) in such a manner as to meet the following requirements.
    - i. Minimum active column height shall be 5 meters.
    - ii. Design shall be countercurrent flow with a minimum of 10 actual trays.
    - iii. Minimum steam flow rate shall be 0.04 kilograms of steam per liter of wastewater feed to the column.
    - iv. Minimum wastewater feed temperature to the steam stripper shall be 95 degrees C, or a minimum column operating temperature of 95 degrees C.
    - v. Maximum liquid loading shall be 67,100 liters per hour per square meter.
    - vi. Operation shall be at nominal atmospheric pressure.
  - e. [40 CFR 63.139(c)(1) via 40 CFR 63.136(b)] The vent stream from the design steam stripper shall be introduced to the flame zone of the thermal oxidizer (ID No. OXDZ-DC1). The thermal oxidizer shall provide a minimum residence time of 0.5 seconds at a minimum temperature of 760 degrees C (1400 degrees F).

**Process Wastewater Monitoring of Operations [40 CFR 63.143]**

- f. [40 CFR 63.143.(b)] The steam flow rate, wastewater feed mass flow rate, and the wastewater feed temperature or column operating temperature shall be monitored with a continuous recorder.
  - i. Continuous recorder means a data recording device that either records an instantaneous data value at least once every 15 minutes or records 15-minute or more frequent block average values.
  - ii. Monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
- g. [40 CFR 63.143(e)(1)] All bypass lines on the closed vent system from the design steam stripper to the thermal oxidizer (ID No. OXDZ-DC1) shall be sealed closed with a car-seal or lock and key configuration.
  - i. The Permittee shall perform monthly inspections of sealed valves to ensure that they are sealed.

- ii. The Permittee shall document each inspection to ensure that the bypass lines are sealed.
- iii. The Permittee shall submit in the periodic report a summary of all periods in which the seal mechanism is broken, the bypass line valve position has changed, or the key to unlock the bypass line valve was checked out.
- h. [40 CFR 63.143(e)(1)] For the thermal oxidizer (ID No. OXDZ-DC1), the Permittee shall install a temperature monitoring device in the firebox and the temperature monitoring device shall be equipped with a continuous recorder.
  - i. The monitor may be installed in the firebox or in the ductwork immediately down stream of the firebox before any substantial heat exchange is encountered.
  - ii. Continuous recorder means a data recording device that either records an instantaneous data value at least once every 15 minutes or records 15-minute or more frequent block average values.
  - iii. [40 CFR 63.143(g)] Monitoring equipment shall be installed, calibrated, and maintained according to the manufacturer's specifications or other written procedures that provide adequate assurance that the equipment would reasonably be expected to monitor accurately.
- i. [40 CFR 63.1334(f)] An excursion means any of the following:
  - i. When the daily average value of the firebox temperature is below 760 degrees C (1400 degrees F) while processing design steam stripper overhead vapors;
  - ii. When the daily average value of the steam-to-feed ratio is below 0.04 kilograms of steam per liter of wastewater feed to the column.
  - iii. When the daily average value of the column operating temperature or the wastewater feed temperature to the steam stripper is below 95 degrees C.
  - iv. When the period of thermal oxidizer or design steam stripper operation, with the exception noted in vii. below, is four hours or greater in an operating day, and monitoring data are insufficient, as defined in vi. below, to constitute a valid hour of data for at least 75 percent of the operating hours;
  - v. When the period of thermal oxidizer or design steam stripper operation, with the exception noted in vii. below, is less than 4 hours in an operating day and more than two of the hours during the period of operation do not constitute a valid hour of data due to insufficient monitoring data, as defined in vi. below.
  - vi. Monitoring data are insufficient to constitute a valid hour of data, as used in iv. and v. above, if measured values are unavailable for any of the 15-minute periods within the hour. For data compression systems approved pursuant to Section 2.2 A.1. monitoring data are insufficient to calculate a valid hour of data if there are less than four data measurements made during the hour.
  - vii. The periods listed in (A) through (E) below are not considered to be part of the period of control or recovery device operation, for the purposes of iv. and v. above.
    - (A) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;
    - (B) Start-ups;
    - (C) Shutdowns;
    - (D) Malfunctions; or
    - (E) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

More than one excursion per semi-annual period shall constitute a violation of the requirements of 2.1 C.1.a. except as provided in 40 CFR 63.1334(g).

**Recordkeeping Requirements [40 CFR 63.147 via 40CFR 63.1330]**

- j. The Permittee shall keep in a readily accessible location the records specified in paragraphs i through viii below:
  - i. A record that each waste management unit inspection required by this permit was performed.
  - ii. A record that each inspection for control devices required by this permit was performed.
  - iii. Continuous records of the firebox temperature of the thermal oxidizer and steam flow rate, wastewater feed mass flow rate, and the wastewater feed temperature or column operating temperature for the design steam stripper.
  - iv. Documentation of a decision to use a delay of repair due to unavailability of parts shall include a description of the failure, the reason additional time was necessary (including a statement of why replacement parts were not kept on site and when the manufacturer promised delivery), and the date when repair was completed.
  - v. The Permittee shall keep a record of any changes in the location at which the vent stream is introduced into the flame zone of the thermal oxidizer.
  - vi. The Permittee shall keep records of the daily average value of the continuously monitored thermal oxidizer firebox temperature for each operating day as follows.

- (A) The monitoring system shall measure data values at least once every 15 minutes.
- (B) The Permittee shall record either each measured data value; or block average values for 15- minute or shorter periods calculated from all measured data values during each period or at least one measured data value per minute if measured more frequently than once per minute.
- (C) Daily average values of firebox temperature shall be calculated for each operating day, and retained for 5 years, except as specified in paragraphs (E) and (F) below.
- (D) The daily average shall be calculated as the average of all values for a monitored parameter recorded during the operating day.
  - (1) The average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per operating day if operation is not continuous.
  - (2) The operating day shall be from 7:00 A.M. until 7:00 A.M.
- (E) If all recorded firebox temperatures during an operating day are greater than or equal to 760 degrees C (1400 degrees F), the Permittee may record that all firebox temperatures were greater than or equal to 760 degrees C (1400 degrees F) and retain this record for 5 years rather than calculating and recording a daily average for that operating day. For these operating days, the records required in (B) above shall also be retained for 5 years.
- (F) Firebox temperature recorded during the periods identified below shall not be included in any daily average. Records shall be kept of the times and durations of all such periods and any other periods during process or control device operation when monitors are not operating.
  - (1) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;
  - (2) Start-ups; shutdowns; and/or malfunctions; and
  - (3) Periods of non-operation of the chemical manufacturing process unit (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

**Process Wastewater Provisions- Reporting Requirements [40 CFR 63.146]**

- k. For each waste management unit that receives, manages, or treats a Group 1 wastewater stream or residual removed from a Group 1 wastewater stream, the Permittee shall submit as part of each Periodic Report the results of each inspection of tanks and individual drain systems as required by Section 2.1 C.1.c.i.(B) in which a control equipment failure was identified. Control equipment failure is defined for individual drain systems in Section 2.1 C.1.c.i.(B)(4). Each Periodic Report shall include the date of the inspection, identification of each waste management unit in which a control equipment failure was detected, description of the failure, and description of the nature of and date the repair was made.
  - l. For the design steam stripper, the Permittee shall submit as part of each Periodic Report the number of excursions of less than minimum wastewater mass flow rate, steam flow rate, and wastewater/column temperature, and missing records during the calendar month period. Four excursions of a parameter shall constitute a violation (e.g., four missing days of any required parametric record in one calendar month is a violation, eight missing days of any required parametric record in one calendar month is two violations, but two excursions of minimum wastewater flow and two excursions of column operating temperature in a calendar month is not a violation).
  - m. For the thermal oxidizer used to incinerate vapors received from the design steam stripper via the closed vent system, the Permittee shall submit as part of the each Periodic Report all daily average firebox temperatures that are below 760 degrees C (1400 degrees F) and all operating days when insufficient monitoring data are collected and the duration of the periods when the minimum required monitoring data is not collected.
  - n. Periodic 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 .1111: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANT EMISSIONS: GROUP IV POLYMERS AND RESINS - GROUP 2 WASTEWATER**

**Recordkeeping Requirements [40 CFR 63.147(b)(8) pursuant to 40 CFR 63.132(a)(3) pursuant to 40 CFR 63.1330]**

The Permittee shall maintain a record of the following for wastewater:

- a. Each process unit identification and description of each process unit with a wastewater stream.
- b. Each stream identification code indicating reference to the description of the contributing unit and other data pertaining to its group determination pursuant to 40 CFR 63.144.

- c. Flow weighted total annual average concentration of organic HAPs listed in 40 CFR 63 Subpart G, Table 9 in parts per million, by weight, determined pursuant to 40 CFR 63.144 at the point of determination for each wastewater stream. Including documentation of the methodology used to determine concentration.

[Note: Adjustment for concentrations determined downstream of the point of determination. The Permittee shall make corrections to the annual average concentration or total annual average concentration when the concentration is determined downstream of the point of determination at a location where: two or more wastewater streams have been mixed; one or more wastewater streams have been treated; or, losses to the atmosphere have occurred. The Permittee shall make the adjustments either to the individual data points or to the final annual average concentration.]

**D. Utility Operations Consisting of:**

- **Five Natural Gas/No. 2 Fuel Oil/No. 6 Fuel Oil Steam Boilers 1-5 [90 million Btu/hr maximum heat input rate each, ID Nos. BOILER1 through BOILER5]**
- **Six Natural Gas/No. 2 Fuel Oil/No. 6 Fuel Oil Dowtherm Heaters KA-KF [ID Nos. DOWHEATKA through DOWHEATKF]**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Volatile Organic Compounds	<i>Facility –wide limit:</i> Volatile organic compound emission shall be less than 100 tons per consecutive 12 month period See 2.2 B.	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR-RACT Avoidance)
Nitrogen Oxides	<i>Facility –wide limit:</i> Nitrogen oxides emissions shall be less than 100 tons per consecutive 12 month period See 2.2 B.	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR-RACT Avoidance)
Particulate Matter	$E=1.090 Q^{-0.2594}$ E = allowable emission limit Q = maximum heat input in million Btu/hour heat input	15A NCAC 2D .0503
Sulfur Dioxide	1.6 pounds per million Btu heat input and a sulfur content of 1.5 percent by weight	15A NCAC 2D .0516
Visible Emissions	40 percent opacity	15A NCAC 2D .0521
Visible Emissions	20 percent opacity	15A NCAC 2D .0521
Toxic Air Pollutants	Permit limits for toxic air pollutants shall not be exceeded Section 2.2. Multiple Emission Sources Specific Limitations and Conditions <b><u>State-enforceable only.</u></b>	15A NCAC 2D .1100
Odors	Odorous emissions must be controlled Section 2.2 Multiple Emission Sources Specific Limitations and Conditions. <b><u>State-enforceable only</u></b>	15A NCAC 2D .1806
Toxic Air Pollutants	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded; - Section 2.2. Multiple Emission Sources Specific Limitations and Conditions. <b><u>State-enforceable only</u></b>	15A NCAC 2Q .0711

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

- a. The allowable emissions of particulate matter shall be calculated by the equation  $E = 1.090 \text{ times } Q \text{ to the } -0.2594 \text{ power}$ .  $E = \text{allowable emission limit in lb/million Btu}$ .  $Q = \text{maximum heat input in million Btu/hour}$  (See 15A NCAC 2D .0503(c)).

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(3) and General Condition JJ found in Section 3. If the results of the test performed exceed the limits given in Section 2.1. D.1.a. (above) for particulate matter, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0503.

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

- c. No monitoring, record keeping, or reporting is required for particulate emissions from the firing of natural gas, No. 2 fuel oil, or No. 6 fuel oil in the boilers and the Dowtherm heaters.

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

**Regulatory Requirements**

- a. Emissions of sulfur dioxide from the boilers and the Dowtherm heaters shall not exceed 1.6 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516].

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 D.2. a., above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516.

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

- c. No monitoring, record keeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas and No. 2 fuel oil in the boilers and the Dowtherm heaters.
- d. The maximum sulfur content of any No. 6 fuel oil received and burned in the boiler and Dowtherm heaters shall not exceed 1.5 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the fuel oil exceeds these limits. [15A NCAC 2Q .0508(aa)]
- e. To ensure 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 submitted 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)]

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**

**Regulatory Requirements**

- a. As required by 15A NCAC 2D .0521(c) "Control of Visible Emissions," visible emissions from the boilers and Dowtherm heaters (ID Nos. DOWHEATKA, DOWHEATKB, and DOWHEATKC) manufactured as of July 1, 1971, shall not be more than 40 percent opacity when averaged over a six-minute period [15A NCAC 2D .0521(c)]. However, six minute averaging periods may exceed 40 percent opacity if:

- i. No six-minute period exceeds 90 percent opacity;
  - ii. No more than one six-minute period exceeds 40 percent opacity in any hour; and
  - iii. No more than four six-minute periods exceed 40 percent opacity in any 24-hour period.
- b. As required by 15A NCAC 2D .0521(d) "Control of Visible Emissions," visible emissions from Dowtherm heaters (ID Nos. DOWHEATKD, DOWHEATKE, and DOWHEATKF) manufactured after July 1, 1971, shall not be more than 20 percent opacity when averaged over a six-minute period [15A NCAC 2D .0521(d)]. However, six minute averaging periods may exceed 20 percent opacity if:
- i. No six-minute period exceeds 87 percent opacity;
  - ii. No more than one six-minute period exceeds 20 percent opacity in any hour; and
  - iii. No more than four six-minute periods exceed 20 percent opacity in any 24-hour period

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

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

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

- d. No monitoring, record keeping, or reporting is required for visible emissions from the boilers and the Dowtherm heaters when burning natural gas or No. 2 fuel oil.
- e. To ensure compliance when burning No. 6 fuel oil, the Permittee shall observe, on a monthly basis, the emission points for the boilers and the Dowtherm heaters for any visible emissions above normal. The Permittee shall establish "normal" for the source in the first 30 days after No. 6 fuel oil is combusted following the effective date of the permit. If visible emissions from the emission points associated with these sources are observed to be above normal, the Permittee shall either:
  - i. Be deemed to be in noncompliance with 15A NCAC 2D .0521 or
  - ii. Demonstrate that the visible emissions from the emission points for the boilers and the emission points for the Dowtherm heaters, in accordance with 15A NCAC 2D .0501(c)(8), do not exceed their respective opacity limit as established above.
 If the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.
- f. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. The results of any corrective actions performed.
 The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

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

- g. The Permittee shall submit a summary report of monitoring and record keeping activities 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.

**E. Four Terephthalic Acid Storage Silos (ID Nos. TASILO1-TASILO4) Each Controlled by a Bag filter**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E=4.1P^{0.67}$ E = allowable emission limit P = process rate in tons per hour	15A NCAC 2D .0515

Visible Emissions	40 percent opacity	15A NCAC 2D .0521
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**1. 15A NCAC 2D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**

- a. Emissions of particulate matter from this source shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]
- $$E = 4.10 \times P^{0.67}$$
- Where E = allowable emission rate in pounds per hour  
P = process weight in tons per hour

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

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

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

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

- c. Particulate matter emissions from the Terephthalic acid storage silos shall be controlled by bag filters. To assure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement shall include the following:

- i. A monthly visual inspection of the system ductwork and material collection unit for leaks; and
- ii. An annual (for each 12 month period following the initial inspection) internal inspection of the bag filter's structural integrity.

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

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

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

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

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

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

**Regulatory Requirements**

- a. As required by 15A NCAC 2D .0521(c) "Control of Visible Emissions," visible emissions from the Terephthalic acid storage silos manufactured as of July 1, 1971, shall not be more than 40 percent opacity when averaged over a six-minute period [15A NCAC 2D .0521(c)]. However, six minute averaging periods may exceed 40 percent opacity if:
- i. No six-minute period exceeds 90 percent opacity;
  - ii. No more than one six-minute period exceeds 40 percent opacity in any hour; and
  - iii. No more than four six-minute periods exceed 40 percent opacity in any 24-hour period.

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

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

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

- c. To ensure compliance the Permittee shall observe, on a monthly basis, the emission points for the Terephthalic acid storage silos visible emissions above normal. The Permittee shall establish “normal” for the source in the first 30 days following the effective date of the permit. If visible emissions from the emission points associated with these sources are observed to be above normal, the Permittee shall either:
- i. Be deemed to be in noncompliance with 15A NCAC 2D .0521 or
  - ii. Demonstrate that the visible emissions from these sources, in accordance with 15A NCAC 2D .0501(c)(8), do not exceed the opacity limit as established above.
- If the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.
- d. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. The date and time of each recorded action;
  - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. The results of any corrective actions performed.

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

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

- e. The Permittee shall submit a summary report of monitoring and record keeping activities 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.

**F. PET Processing Operation Consisting of:**

- **Two Solid State Polycondensation Lines (ID Nos. SSP1-K17/K18 and SSP2-K20)**
- **Six Conventional Spin/Draw Lines (ID Nos. SDK5, SDK6, SDK7, SDK10, SDK11, and SDK12)**
- **Eight Second Generation Filament Spin/Draw Line (ID Nos. SDK16, SDK17, SDK18, SDK19, SDK21, SDK22, SDK23 and SDK24)**

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Volatile Organic Compounds	<i>Facility –wide limit:</i> Volatile organic compound emission shall be less than 100 tons per consecutive 12 month period See 2.2 B.	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR-RACT Avoidance)
Nitrogen Oxides	<i>Facility –wide limit:</i> Nitrogen oxides emissions shall be less than 100 tons per consecutive 12 month period See 2.2 B.	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR-RACT Avoidance)
Particulate Matter	$E=4.1P^{0.67}$ E = allowable emission limit P = process rate in tons per hour	15A NCAC 2D .0515
Visible Emissions	40 percent opacity	15A NCAC 2D .0521

Visible Emissions	20 percent opacity	15A NCAC 2D .0521
Toxic Air Pollutants	Permit limits for toxic air pollutants shall not be exceeded Section 2.2. Multiple Emission Sources Specific Limitations and Conditions <u>State-enforceable only.</u>	15A NCAC 2D .1100
Odors	Odorous emissions must be controlled Section 2.2 Multiple Emission Sources Specific Limitations and Conditions <u>State-enforceable only</u>	15A NCAC 2D .1806
Toxic Air Pollutants	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded; - Section 2.2. Multiple Emission Sources Specific Limitations and Conditions <u>State-enforceable only</u>	15A NCAC 2Q .0711

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

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

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

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

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

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

- b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 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, or reporting is required for these sources.

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

**Regulatory Requirements**

- a. As required by 15A NCAC 2D .0521(c) "Control of Visible Emissions," visible emissions from the conventional spin/draw lines (ID Nos. SDK5, SDK6, SDK7, SDK10, SDK11 and SDK12) manufactured as of July 1, 1971, shall not be more than 40 percent opacity when averaged over a six-minute period [15A NCAC 2D .0521(c)]. However, six minute averaging periods may exceed 40 percent opacity if :
  - i. No six-minute period exceeds 90 percent opacity;
  - ii. No more than one six-minute period exceeds 40 percent opacity in any hour; and
  - iii. No more than four six-minute periods exceed 40 percent opacity in any 24-hour period.
- b. As required by 15A NCAC 2D .0521(d) "Control of Visible Emissions," visible emissions from solid state poly-condensation lines (ID Nos. SSP1-17/18 and SSP2-K20), second generation filament spin/draw lines (ID Nos. SDK16, SDK17, SDK18, SDK19, SDK21, SDK22, SDK23, and SDK24), and the BICO spinning lines (ID Nos. manufactured after July 1, 1971, shall not be more than 20 percent opacity when averaged over a six-

minute period [15A NCAC 2D .0521(d)]. However, six minute averaging periods may exceed 20 percent opacity if:

- i. No six-minute period exceeds 87 percent opacity;
- ii. No more than one six-minute period exceeds 20 percent opacity in any hour; and
- iii. No more than four six-minute periods exceed 20 percent opacity in any 24-hour period.

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

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

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

- d. To ensure compliance the Permittee shall observe, on a monthly basis, the emission points for the sources listed above for visible emissions above normal. The Permittee shall establish “normal” for the source in the first 30 days following the effective date of the permit. If visible emissions from the emission points associated with these sources are observed to be above normal, the Permittee shall either:
  - i. Be deemed to be in noncompliance with 15A NCAC 2D .0521 or
  - ii. Demonstrate that the visible emissions from the emission points for the above sources, in accordance with 15A NCAC 2D .0501(c)(8), do not exceed their respective opacity limit as established above.If the demonstration in (ii) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.
- e. The results of the monitoring for visible emissions shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
  - i. The date and time of each recorded action;
  - ii. The results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
  - iii. The results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521 if these records are not maintained.

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

- f. The Permittee shall submit a summary report of monitoring and record keeping activities 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.

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

### A. PET MACT AFFECTED SOURCES

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	General Recordkeeping and Reporting	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	Startup, Shutdown, and Malfunction	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins

#### 1. 15A NCAC 2D .1111: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANT EMISSIONS: GROUP IV POLYMERS AND RESINS - GENERAL RECORDKEEPING AND REPORTING PROVISIONS [40 CFR 63.1335]

- a. **Data retention.** All applicable records shall be kept for a period of at least five years and maintained in such a manner that they can be readily accessed. The most recent 6 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request. The remaining 4 and one-half years of records may be retained offsite. Records may be maintained in hard copy or computer readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.
- b. **Requirements of 40 CFR 63 subpart A.** The Permittee shall comply with the applicable recordkeeping and reporting requirements in subpart A of this part as specified in Table 1 of 40 CFR 63 Subpart JJJ. These requirements include, but are not limited to, the following requirements (Section 2.2 A.1.b.i and ii.).
  - i. **Start-up, shutdown, and malfunction plan.** The Permittee shall develop and implement a written start-up, shutdown, and malfunction plan as specified in Section 2.2 A.2. This plan shall describe, in detail, procedures for operating and maintaining the affected source during periods of start-up, shutdown, and malfunction and a program for corrective action for malfunctioning process and air pollution control equipment used to comply with this subpart. For equipment leaks (40 CFR 63.1331), the start-up, shutdown, and malfunction plan requirement is limited to control devices and is optional for other equipment. For equipment leaks, the startup, shutdown, and malfunction plan may include written procedures that identify conditions that justify a delay of repair. A provision for ceasing to collect, during a start-up, shutdown, or malfunction, monitoring data that would otherwise be required by the provisions of this subpart may be included in the start-up, shutdown, and malfunction plan only if the Permittee has demonstrated to the DAQ, through a supplement to the Pre-compliance Report, that the monitoring system would be damaged or destroyed if it were not shut down during the start-up, shutdown, or malfunction. The affected source shall keep the start-up, shutdown, and malfunction plan on-site.
    - (A) **Records of start-up, shutdown, and malfunction.** The Permittee shall keep the following records (Section 2.2 A.1.b.i.(A)(1) and (2)).

- (1) Records of the occurrence and duration of each start-up, shutdown, and malfunction of operation of process equipment or control devices or recovery devices or continuous monitoring systems used to comply with this subpart during which excess emissions (as defined in 40 CFR 63.1310(j)(4)) occur.
      - (2) For each start-up, shutdown, or malfunction during which excess emissions occur, records reflecting whether the procedures specified in the affected sources start-up, shutdown, and malfunction plan were followed, and documentation of actions taken that are not consistent with the plan. For example, if a start-up, shutdown, and malfunction plan includes procedures for routing a control device to a backup control device, records shall be kept of whether the plan was followed. These records may take the form of a "checklist," or other form of recordkeeping that confirms conformance with the start-up shutdown, and malfunction plan for the event.
    - (B) **Reports of start-up, shutdown, and malfunction.** For the purposes of this subpart, the semiannual start-up, shutdown, and malfunction reports shall be submitted on the same schedule as the Periodic Reports; 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 reports shall include the information specified in 40 CFR 63.10(d)(5)(i).
  - ii. **Application for approval of construction or reconstruction.** For new affected sources, each the Permittee shall comply with the provisions in 40 CFR 63.5 regarding construction and reconstruction, excluding the provisions specified in 40 CFR 63.5(d)(1)(ii)(H), (d)(1)(iii), (d)(2), and (d)(3)(ii).
- c. **Recordkeeping and documentation.** The Permittee shall keep continuous records and documentation as follows.
- i. The monitoring system shall measure data values at least once every 15 minutes.
  - ii. The Permittee shall record either each measured data value or block average values for 1 hour or shorter periods calculated from all measured data values during each period. If values are measured more frequently than once per minute, a single value for each minute may be used to calculate the hourly (or shorter period) block average instead of all measured values.
  - iii. Daily average values of each continuously monitored parameter shall be calculated for each operating day as specified below except as otherwise provided in iv. and v below.
    - (A) The daily average value shall be calculated as the average of all parameter values recorded during the operating day, except as provided for in paragraph v. below. The calculated average shall cover a 24-hour period if operation is continuous, or the number of hours of operation per operating day if operation is not continuous.
    - (B) The operating day shall be from 7:00 A.M. until 7:00 A.M. for purposes of determining daily average values of monitored parameters.
  - iv. If all recorded values for a monitored parameter during an operating day are above the minimum level or below the maximum level established for the operating permit, the Permittee may record that all values were above the minimum level or below the maximum level rather than calculating and recording a daily average for that operating day.
  - v. Monitoring data recorded during periods identified below (A) through (E) shall not be included in any average computed under this subpart. Records shall be kept of the times and durations of all such periods and any other periods during process or control device or recovery device operation when monitors are not operating.
    - (A) Monitoring system breakdowns, repairs, calibration checks, and zero (low-level) and high-level adjustments;
    - (B) Start-ups;
    - (C) Shutdowns;
    - (D) Malfunctions;
    - (E) Periods of non-operation of the affected source (or portion thereof), resulting in cessation of the emissions to which the monitoring applies.

vi. Records documenting the completion of calibration checks and maintenance of continuous monitoring systems that are specified in the manufacturer's instructions or that are specified in other written procedures that provide adequate assurance that the equipment would reasonably expected to monitor accurately shall be maintained by the Permittee.

d. **Reporting and notification.** In addition to the reports and notifications required by 40 CFR 63 Subpart A as specified in Table 1 of 40 CFR 63, Subpart JJJ, the Permittee shall prepare and submit the reports as may be required in this Section (2.2 A.1.).

i. The Permittee shall not be in violation of the reporting requirements for failing to submit information required to be included in a specified report if

(A) The information was not known in time for inclusion in the report specified by this subpart;

(B) The Permittee has been diligent in obtaining the information; and

(C) The Permittee submits a report according to the following:

(1) If report supplements are required, the Permittee shall submit the information as a supplement to that report. The information shall be submitted no later than 60 days after it is obtained, unless otherwise specified in this subpart.

(2) If report supplements are not required, but the Permittee must submit a request for revision of an operating permit, due to circumstances to which the information pertains, the Permittee shall submit the information with the request for revision to the operating permit.

(3) In any case not addressed above in (A) or (B), the Permittee shall submit the information with the first Periodic Report which has a submission deadline at least 60 days after the information is obtained.

ii. All reports required under this subpart shall be sent to the DAQ Mooresville Regional Office. If acceptable to both the DAQ and the Permittee, reports may be submitted on electronic media.

Examples of circumstances where this paragraph may apply include information related to newly-added equipment or emission points, changes in the process, changes in equipment required or utilized for compliance with the requirements of this subpart, or changes in methods or equipment for monitoring, recordkeeping, or reporting.

e. **Requirements for Title V Application Submittal.** The Permittee requesting approval to use alternative monitoring parameters, alternative continuous monitoring and recordkeeping, or alternative controls; wishing to establish parameter monitoring levels using performance tests supplemented by engineering assessments and/or manufacturers recommendations (40 CFR 63.1334(c)) or solely by engineering assessments and/or manufacturers recommendations (40 CFR 63.1334(d)); or requesting approval to incorporate a provision for ceasing to collect monitoring data, during a start-up, shutdown, or malfunction, into the start-up, shutdown, and malfunction plan, when that monitoring equipment would be damaged if it did not cease to collect monitoring data (pursuant to 40 CFR 63.1310(j)(3)), shall submit a Title V application containing the following information.

i. Alternative monitoring parameter information shall be submitted in the Title V application if, for any emission point, the Permittee seeks to comply through the use of a control technique other than those for which monitoring parameters are specified in the current Title V permit.

ii. If the Permittee seeks to comply using alternative continuous monitoring and recordkeeping as specified in Alternative Continuous Monitoring and Recordkeeping Provisions (Section 2.2A.1.j.), the Permittee shall submit a request for approval in a Title V application.

iii. The Permittee shall report the intent to use alternative controls to comply with the provisions of this subpart in a Title V application. The DAQ may deem alternative controls to be equivalent to the controls required by the standard, under the procedures outlined in 40 CFR 63.6(g).

iv. If the Permittee establishes parameter monitoring levels according to the procedures contained in 40 CFR 63.1334(c) or (d), the following information shall be submitted in a Title V application:

(A) Identification of which procedures (i.e., 40 CFR 63.1334(c) or (d)) are to be used; and

- (B) A description of how the parameter monitoring level is to be established. If the procedures in 40 CFR 63.1334(c) are to be used, a description of how performance test data will be used shall be included.
    - v. If the Permittee is requesting approval to incorporate a provision for ceasing to collect monitoring data, during start-up, shutdown, or malfunction, into the start-up, shutdown, and malfunction plan, when that monitoring equipment would be damaged if it did not cease to collect monitoring data, the information specified below in (A) and (B) shall be included in a Title V application. The DAQ shall evaluate the supporting documentation and shall approve the request only if, in the judgment of the DAQ, the specific monitoring equipment would be damaged by the contemporaneous start-up, shutdown, or malfunction.
      - (A) Documentation supporting a claim that the monitoring equipment would be damaged by the contemporaneous start-up, shutdown, or malfunction; and
      - (B) A request to incorporate such a provision for ceasing to collect monitoring data during a start-up, shutdown, or malfunction, into the startup, shutdown, and malfunction plan.
- f. **Additional Requirements for Title V Application Submittal.** The following actions will required the submittal of a Title V application
  - i. A change in the primary product of a TPPU, in accordance with the provisions in 40 CFR 63.1310(f). This includes a change in primary product from one thermoplastic product to either another thermoplastic product or to a non-thermoplastic product.
  - ii. The results for each change made to a predominant use determination made under 63.1310(g) for a storage vessel that is assigned to an affected source subject to this subpart after the change.
  - iii. Each change made to a predominant use determination made under 40 CFR 63.1310(h) for recovery operations equipment assigned to an affected source subject to this subpart after the change.
- g. **Compliance Status Data Records.** The Permittee shall maintain on file and made available on request by the DAQ the following.
  - i. The results of any emission point group determinations, process section applicability determinations, performance tests, inspections, continuous monitoring system performance evaluations, any other information used to demonstrate compliance, values of monitored parameters established during performance tests, and any other information required under 40 CFR 63.117 for continuous process vents, 40 CFR 63.146 for process wastewater, 40 CFR 63.1316 through 40 CFR 63.1320 for continuous process vents subject to 40 CFR 63.1316. In addition, the Permittee shall maintain one complete test report for each test method used for a particular kind of emission point for performance tests, group determinations, and process section applicability determinations that are based on measurements, records shall include. The results and any other information, from the test report, that is requested on a case-by-case basis by the DAQ shall be submitted, but a complete test report is not required for additional tests performed for the same kind of emission point using the same method. A complete test report shall include a brief process description, sampling site description, description of sampling and analysis procedures and any modifications to standard procedures, quality assurance procedures, record of operating conditions during the test, record of preparation of standards, record of calibrations, raw data sheets for field sampling, raw data sheets for field and laboratory analyses, documentation of calculations, and any other information required by the test method.
  - ii. For each monitored parameter for which a maximum or minimum level is required to be established for continuous process vents, for process wastewater, records shall maintained which contain the following information.
    - (A) The required information shall include the specific maximum or minimum level of the monitored parameter(s) for each emission point.
    - (B) The required information shall include the rationale for the specific maximum or minimum level for each parameter for each emission point, including any data and

- calculations used to develop the level and a description of why the level indicates proper operation of the control device.
- (C) The required information shall include a definition of the affected source's operating day, if other than midnight to midnight, for purposes of determining daily average values of monitored parameters.
- h. **Periodic Reports.** For existing and new affected sources, the Permittee shall submit Periodic Reports as specified in Section 2.2 A.1.h.i. through Section 2.2 A.1.h.v. below. In addition, the owner or operator shall submit the information specified in 40 CFR 63.104(f)(2) for heat exchange systems subject to 63.1328, as part of the Periodic Report.
- i. A report containing the information below, as appropriate, 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. Unless no compliance exceptions specified below occurred during the 6-month period. In this event, the periodic report shall include a statement that there were no compliance exceptions for the 6-month period covered by that report and no activities that required monitoring during the 6-month period covered by that report.
- ii. For an owner or operator of an affected source complying with the provisions of 63.1314 through 63.1330 for any emission point or process section, Periodic Reports shall include:
- (A) All information specified in 40 CFR 63.117, 40 CFR 63.118, and 40 CFR 63.1320 for continuous process vents, as applicable; 40 CFR 63.104 for heat exchange systems; and 40 CFR 63.146 for process wastewater;
- (B) The daily average values of monitored parameters for both excused excursions (one per semi-annual reporting period) and unexcused excursions. For excursions caused by lack of monitoring data, the start-time and duration of periods when monitoring data were not collected shall be specified.
- (C) The information regarding start-ups, shutdowns, and malfunctions as required in Section 2.2A.1.b.i
- iii. If any performance tests are reported in a Periodic Report, one complete test report shall be submitted for each test method used for a particular kind of emission point tested. A complete test report shall contain the information specified in Section 2.2 A.1.g.
- iv. The Permittee shall notify the DAQ of the election to implement a reduced recordkeeping program (Section 2.2 A.1.k.) as part of the Periodic Report. The Permittee electing not to retain daily average or batch cycle daily average values pursuant to this program shall notify the DAQ of the parameter and the affected unit in the period report.
- v. The Permittee shall submit quarterly reports for particular emission points and process sections as follows:
- (A) The Permittee shall submit quarterly reports for a period of one year for an emission point or process section if:
- (1) A control or recovery device for a particular emission point or process section has more than one excursion for a semiannual reporting period; or
- (2) The DAQ requests that the Permittee submit quarterly reports for the emission point or process section.
- (B) The quarterly reports shall include all information specified in Section 2.2A.1.h.i. through Section 2.2 A.1.h.iv. above applicable to the emission point or process section for which quarterly reporting is required. Information applicable to other emission points within the affected source shall be submitted in the semiannual reports.
- (C) Quarterly reports shall be submitted no later than 60 days after the end of each quarter.
- (D) After quarterly reports have been submitted for an emission point for one year without more than one excursion occurring (during that year), the Permittee may return to semiannual reporting for the emission point or process section.
- i. **Alternative monitoring parameters.** The Permittee who is required by this permit to set unique monitoring parameters, or who requests approval to monitor a different parameter than those specified

in 40 CFR 63.1315 or 40 CFR 63.1317, as appropriate, for continuous process vents, or 40 CFR 63.1330 for process wastewater shall submit the information specified below in a Title V application. The Permittee shall retain for a period of five years each record required below (Sections 2.2 A.1.i.i through 2.2 A.1.i.iii.).

- i. The required information shall include a description of the parameter(s) to be monitored to ensure the recovery device, control device, or pollution prevention measure is operated in conformance with its design and achieves the specified emission limit, percent reduction, or nominal efficiency, and an explanation of the criteria used to select the parameter(s).
  - ii. The required information shall include a description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation.
  - iii. The required information shall include a description of the proposed monitoring, recordkeeping, and reporting system, to include the frequency and content of monitoring, recordkeeping, and reporting. Further, the rationale for the proposed monitoring, recordkeeping, and reporting system shall be included if monitoring and recordkeeping is not continuous; or if reports of daily average values will not be included in Periodic Reports when the monitored parameter value is above the maximum level or below the minimum level as required to be established by the Title V permit.
- j. **Alternative continuous monitoring and recordkeeping.** An owner or operator choosing not to implement the provisions listed in 40 CFR 63.1315 or 40 CFR 63.1317, as appropriate, for continuous process vents, or 40 CFR 63.1330 for process wastewater, may instead request approval to use alternative continuous monitoring and recordkeeping provisions according to the procedures specified below in Sections 2.2 A.1.j.i. through 2.2 A.1.j.iv. Requests shall be submitted in a Title V permit application, and shall contain the information specified in Section 2.2 A.1.j.ii.(B) and 2.2 A.1.j.iii.(B), as applicable.
- i. The provisions in 40 CFR 63.8(f)(5)(i) shall govern the review and approval of requests.
  - ii. If the Permittee does not have an automated monitoring and recording system that is capable of measuring parameter values at least once every 15 minutes and that does not generate continuous records, the Permittee may request approval to use a non-automated system with less frequent monitoring, in accordance with the following:
    - (A) The requested system shall include manual reading and recording of the value of the relevant operating parameter no less frequently than once per hour, and daily average values shall be calculated from these hourly values and recorded; and
    - (B) The request shall contain:
      - (A) A description of the planned monitoring and recordkeeping system;
      - (B) Documentation that the affected source does not have an automated monitoring and recording system;
      - (C) Justification for requesting an alternative monitoring and recordkeeping system; and
      - (D) Demonstration to the DAQ's satisfaction that the proposed monitoring frequency is sufficient to represent control or recovery device operating conditions, considering typical variability of the specific process and control or recovery device operating parameter being monitored.
  - iii. The Permittee may request approval to use an automated data compression recording system that does not record monitored operating parameter values at a set frequency, but records all values that meet set criteria for variation from previously recorded values, in accordance with the following:
    - (A) The requested system shall be designed to:
      - (1) Measure the operating parameter value at least once during every 15-minute period;
      - (2) Calculate hourly average values each hour during periods of operation;
      - (3) Record the date and time when monitors are turned off or on;
      - (4) Recognize unchanging data that may indicate the monitor is not functioning properly, alert the operator, and record the incident;
      - (5) Calculate daily average values of the monitored operating parameter based on all measured data; and

- (6) The data for that operating day may be converted to hourly average values and the four or more individual records for each hour in the operating day may be discarded if the daily average is not an excursion;
      - (B) The request shall contain:
        - (1) A description of the monitoring system and data compression recording system, including the criteria used to determine which monitored values are recorded and retained;
        - (2) The method for calculating daily averages; and
        - (3) A demonstration that the system meets all criteria in (A) above.
    - iv. The Permittee may request approval to use other alternative monitoring systems according to the procedures specified in 40 CFR 63.8(f)(4).
  - k. **Reduced recordkeeping program.** For any parameter with respect to any item of equipment, the Permittee may implement the recordkeeping requirements of Section 2.2 A1.k.i. or Section 2.2 A.1.k.ii. below as alternatives to the continuous operating parameter monitoring and recordkeeping provisions of this permit. The Permittee shall retain for a period of 5 years each record required by Section 2.2 A1.k.i. or Section 2.2 A.1.k.ii. below, except as otherwise provided in Section 2.2 A.1.k.i.(F)(4) below.
    - i. The Permittee may retain only the daily average value, and is not required to retain more frequent monitored operating parameter values, for a monitored parameter with respect to an item of equipment, if the requirements of paragraphs (A) through (D) below are met. A Permittee electing to comply with the requirements of section shall notify the DAQ in the Periodic Report immediately preceding implementation of these requirements.
      - (A) The monitoring system is capable of detecting unrealistic or impossible data during periods of operation other than start-ups, shutdowns, or malfunctions (e.g., a temperature reading of -200 degrees C on a boiler), and will alert the operator by alarm or other means. The owner or operator shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.
      - (B) The monitoring system generates, updated at least hourly throughout each operating day, a running average of the monitoring values that have been obtained during that operating day, and the capability to observe this running average is readily available to the DAQ on-site during the operating day. The Permittee shall record the occurrence of any period meeting the criteria below in (1), (2), and (3). All instances in an operating day constitute a single occurrence.
        - (1) The running average is above the maximum or below the minimum established limits;
        - (2) The running average is based on at least six 1-hour average values; and
        - (3) The running average reflects a period of operation other than a start-up, shutdown, or malfunction.
      - (C) The monitoring system is capable of detecting unchanging data during periods of operation other than start-ups, shutdowns, or malfunctions, except in circumstances where the presence of unchanging data is the expected operating condition based on past experience (e.g., pH in some scrubbers), and will alert the operator by alarm or other means. The Permittee shall record the occurrence. All instances of the alarm or other alert in an operating day constitute a single occurrence.
      - (D) The monitoring system will alert the owner or operator by an alarm or other means, if the running average parameter value calculated under Section 2.2 A.1.k.i.(B) reaches a set point that is appropriately related to the established limit for the parameter that is being monitored.
      - (E) The Permittee shall verify the proper functioning of the monitoring system, including its ability to comply with the requirements of this Section 2.2 A.1.k.i., at the times specified in (1), (2), and (3) below. The Permittee shall document that the required verifications occurred.
        - (1) Upon initial installation.
        - (2) Annually after initial installation.



- a. **40 CFR 63.6(e)(3): Start up, Shut Down and Malfunction Plan**
- i. The Permittee shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required pursuant to 40 CFR 63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable continuous emissions or parametric monitor malfunctions. The purpose of the startup, shutdown, and malfunction plan is to:
    - (A) Ensure that Permittee is prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and
    - (B) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).
  - ii. During periods of startup, shutdown, and malfunction, the Permittee shall operate and maintain an affected source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan.
  - iii. The Permittee may use the affected source's standard operating procedures (SOP) manual, an Occupational Safety and Health Administration (OSHA) plan, or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the DAQ.
  - iv. The DAQ may require that the Permittee of an affected source make changes to the startup, shutdown, and malfunction plan for an affected source based on the review of monitoring data and/or the plan. The DAQ may require reasonable revisions to a startup, shutdown, and malfunction plan, if the DAQ finds that the plan:
    - (A) Does not address a startup, shutdown, or malfunction event that has occurred;
    - (B) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or
    - (C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.
  - v. If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the Permittee developed the plan, the Permittee shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment.
- b. **40 CFR 63.10(d)(5): Startup, Shutdown, and Malfunction Reports**
- i. *Periodic startup, shutdown, and malfunction reports.* If actions taken by the Permittee during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan, the Permittee shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the Permittee or other responsible official who is certifying its accuracy that shall be submitted to the DAQ semi-annually. If the Permittee is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports may be submitted simultaneously.

- ii. *Immediate startup, shutdown, and malfunction reports.* Any time an action taken by the Permittee during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source’s startup, shutdown, and malfunction plan, the Permittee shall report the actions taken for that event within two working days after commencing actions inconsistent with the plan followed by a letter within seven working days after the end of the event. The immediate report shall consist of a telephone call (or facsimile (FAX) transmission) to the DAQ within two working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within seven working days after the end of the event, that contains the name, title, and signature of the responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

**B. FACILITY-WIDE AFFECTED SOURCES**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	Volatile organic compound emissions shall be less than 100 tons per consecutive 12-month period from the entire facility	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR-RACT Avoidance)
Nitrogen Oxides	Nitrogen oxides emissions shall be less than 100 tons per consecutive 12-month period from the entire facility	15A NCAC 2Q .0317 for 15A NCAC 2D .0531 (NNSR-RACT Avoidance)
Toxic Air Pollutants	Permit limits for toxic air pollutants shall not be exceeded. <b><u>State-enforceable only.</u></b>	15A NCAC 2D .1100
Odors	Odorous emissions must be controlled. <b><u>State enforceable only.</u></b>	15A NCAC 2D .1806
Toxic Air Pollutants	Toxic air pollutant emissions shall not exceed the levels listed in 2Q .0711 unless ambient standards are not exceeded. <b><u>State-enforceable only.</u></b>	15A NCAC 2Q .0711

**1. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 2D .0531: SOURCES IN NONATTAINMENT**

- a. In order to avoid applicability of 15A NCAC 2D.0531, VOC and NOx emissions from the entire facility shall be less than 100 tons per consecutive 12-month period.

**Testing** [15A NCAC 2D .0501(c)(17)]

- b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ found in Section 3. If the results of this test are above the limit above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531.

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

- c. The emissions of VOC and NOx were found to be dependent on the Total Plant Polymer Production as per confidential information submitted July 9, 2008. Calculations of NOx emissions shall be made monthly and recorded in a log (written or electronic format) according to the following formula:

$$T_{VOC} = T_{PPP} \times EF_{VOC}$$

where:  $T_{VOC}$  = total VOC emissions per month (tons/month)  
 $TPPP$  = total plant polymer production (pounds/month)  
 $EF_{VOC}$  = 7.065XE-04 pounds of VOC/pound of polymer produced (emissions factor for plant wide VOC emissions)

and;

$$T_{NOx} = TPPP \times EF_{NOx}$$

where:  $T_{NOx}$  = total NOx emissions per month (tons/month)  
 $TPPP$  = total plant polymer production (pounds/month)  
 $EF_{NOx}$  = 5.692XE-04 pounds of NOx/pound of polymer produced (emissions factor for plant wide NOx emissions)

If emissions of VOC or NOx exceed 100 tons per year or are not monitored or records are not maintained the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0531.

**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 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.

**2. 15A NCAC 2D .1100: CONTROL OF TOXIC AIR POLLUTANTS (STATE ONLY REQUIREMENT)**

- a. Pursuant to 15A NCAC 2D .1100 "Control of Toxic Air Pollutants," and in accordance with the approved application for an air toxic compliance demonstration, the following permit limits shall not be exceeded:

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
Facility-Wide	1,3-Butadiene	731 lb/yr
	1,4-Dioxane	949 lb/day
	Acetaldehyde	207.1 lb/15 min
	Acrolein	0.0208 lb/15 min
	Acrylonitrile	730 lb/yr
	Arsenic	11.3 lb/yr
	Aziridine	2.00 lb/day
	Benzene	1,485 lb/yr
	Chloroform	730 lb/yr
	Dimethyl Sulfate	2.00 lb/day
	Ethyl Mercaptan	0.0833 lb/hr
	Ethylene Dibromide	730 lb/yr
	Ethylene Dichloride	730 lb/yr

EMISSION SOURCE(S)	TOXIC AIR POLLUTANT(S)	EMISSION LIMIT(S)
	Ethylene Oxide	172 lb/yr
	Formaldehyde	0.233 lb/15 min
	Maleic Anhydride	0.0833 lb/hr
		2.00 lb/day
	Methyl Mercaptan	0.0833 lb/hr
	Nitrobenzene	0.0833 lb/hr
		2.00 lb/day
	Pentachlorophenol	0.0833 lb/hr
		2.00 lb/day
	Phenol	10.0 lb/hr
	Phosgene	2.00 lb/day
	Polychlorinated Biphenyls	730 lb/yr
	1,1,1,2-Tetrachloroethane	730 lb/yr
Toluene Diisocyanate	0.00850 lb/15 min	
	0.314 lb/day	
Vinyl Chloride	730 lb/yr	

- i. To ensure enforceability of this limit, the following restrictions shall apply:
  - A. The production rate of the molten polymer shall not exceed 10,000,000 pounds per day.
  - B. The maximum total throughput for both Wet Lay Bruderhaus machine dryers (ID Nos. IRD and HCD) shall not exceed 9,240 pounds per day.
  - C. The Tire and MRG Research and Development Laboratory (ID No. TMRG) shall not operate in excess of two shifts per day, seven days per week, and 52 weeks per year.
  - D. The maximum permitted heat input of combustion sources facility-wide shall not exceed 775 million Btu per hour.
  - E. The total organic compound emissions from the Wet Lay Bruderhaus (ID No. WLB) shall not exceed 2 lb/day.
  - F. The gallons of No. 6 fuel oil combusted at this facility shall be less than 3,961,403 gallons per consecutive twelve-month period.
  
- ii. The above production limits, emission sources that emit toxic air pollutants, and the efficiencies of control equipment, are based on maximum design parameters. The facility shall not modify these sources of toxic air pollutants such that the modification results in an increase exceeding the above limits without prior approval by the Division. The Permittee shall maintain operational information as necessary to determine that the above limits are not exceeded.

**3. 15A NCAC 2D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS (State only requirement)**

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

**4. 15A NCAC 2Q .0711: PERMIT REQUIREMENTS FOR TOXIC AIR POLLUTANTS [STATE ONLY REQUIREMENT]**

- a. Pursuant to 15A NCAC 2Q .0711 “Emission Rates Requiring a Permit,” for each of the below listed toxic air pollutants (TAPs), the Permittee has made a demonstration that facility-wide actual emissions do not exceed the Toxic Permit Emission Rates (TPERs) listed in 15A NCAC 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.
  - i. 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.
  - ii. 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".
  - iii. 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:

TPERs Limitations				
Pollutant	Carcinogens (lbs/yr)	Chronic Toxicants (lbs/day)	Acute Systemic Toxicants (lbs/hr)	Acute Irritants (lbs/hr)
Acetic Acid (64-19-7)				0.96
Ammonia (7664-41-7)				0.68
Aniline (62-53-3)			0.25	
TPERs Limitations				
Pollutant	Carcinogens (lbs/yr)	Chronic Toxicants (lbs/day)	Acute Systemic Toxicants (lbs/hr)	Acute Irritants (lbs/hr)
Benzyl Chloride (100-44-7)			0.13	
Chlorobenzene (108-90-7)		46		
Chloroprene (126-99-8)		9.2	0.89	
Cresol (1319-77-3)			0.56	
p-dichlorobenzene (106-46-7)				16.8
Dichlorodifluoro-methane (75-71-8)		5200		
Dichlorofluoro-methane (75-43-4)		10		
Epichlorhydrin (106-89-8)	5600			
Ethyl Acetate (141-78-6)			36	
Ethylenediamine (107-15-3)		6.3	0.64	

Ethylene Glycol Monoethyl Ether (110-80-5)		2.5	0.48	
n-hexane (110-54-3)		23		
Hexane Isomers				92
Methychloroform (71-55-6)		250		64
Methylene Chloride (75-09-2)	1600		0.39	
Methyl Ethyl Ketone (78-93-3)		78		22.4
Methyl Isobutyl Ketone (108-10-1)		52		7.6
N-nitrosodimethylamine (62-75-9)	3.4			
Perchloroethylene (127-18-4)	13000			
Styrene (100-42-5)			2.7	
TPERs Limitations				
Pollutant	Carcinogens (lbs/yr)	Chronic Toxicants (lbs/day)	Acute Systemic Toxicants (lbs/hr)	Acute Irritants (lbs/hr)
1,1,1,2-tetrachloro- 1,2-difluoroethane (76-12-0)		1100		
Toluene (108-88-3)		98		14.4
Toluene diisocyanate,2,4-(584-84-9)		0.003		
Trichloroethylene (79-01-6)	4000			
Trichlorofluoromethane (75-69-4)		140		
1,1,2-trichloro-1,2,2-trifluoroethane (76-13-1)				240
Vinyl chloride (75-01-4)	26			
Vinylidene Chloride (75-35-4)		2.5		
Xylene (1330-20-7)		57		16.4

### SECTION 3 - GENERAL CONDITIONS (version 3.1)

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

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

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

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

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

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

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

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

Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NO<sub>x</sub> budget CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:

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

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

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

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

**F. Circumvention - STATE ENFORCEABLE ONLY**

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

**G. Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]  
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 2Q .0524 and 2Q .0505]  
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q.0524 and 2Q .0505.
3. Minor Permit Modifications [15A NCAC 2Q .0515]  
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.
4. Significant Permit Modifications [15A NCAC 2Q .0516]  
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.
5. Reopening for Cause [15A NCAC 2Q .0517]  
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

**H. Changes Not Requiring Permit Modifications**

1. Reporting Requirements  
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
  - a. changes in the information submitted in the application;
  - b. changes that modify equipment or processes; or
  - c. changes in the quantity or quality of materials processed.

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

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

4. Emissions Trading [15A NCAC 2Q .0523(c)]

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

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

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

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

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

Excess Emissions

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

Permit Deviations

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all

calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

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

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

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

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

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

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

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

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

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

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

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

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an

authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1. The Permittee shall submit a completed Protocol Submittal Form to the DAQ Regional Supervisor at least 45 days prior to the scheduled test date. A copy of the Protocol Submittal Form may be obtained from the Regional Supervisor.
2. The Permittee shall notify the Regional Supervisor of the specific test dates at least 15 days prior to testing in order to afford the DAQ the opportunity to have an observer on-site during the sampling program.

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

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

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

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

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

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

As required by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond

the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f).

"Fugitive dust emissions" means particulate matter from process operations that does not pass through a process stack or vent and that is generated within plant property boundaries from activities such as: unloading and loading areas, process areas stockpiles, stock pile working, plant parking lots, and plant roads (including access roads and haul roads).

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

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

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

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

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

## ATTACHMENT

### List of Acronyms

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