



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

Michael F. Easley, Governor

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

January 28, 2005

Mr. Don Peterson  
Plant Manager  
Performance Fibers, Inc.  
P.O. Box 166  
Moncure, North Carolina 27559

SUBJECT: Air Quality Permit No. 02657T27  
Facility ID: 1900002  
Performance Fibers, Inc.  
Moncure, Chatham County  
Fee Class: Title V

In accordance with your request for ownership/name change received January 5, 2005 we are forwarding herewith Air Quality Permit No. 02657T27 to Performance Fibers, Inc., 338 Pea Ridge Road, Moncure, North Carolina authorizing the operation, as outlined in Part I, "Air Quality Federal Title V And State Operation Permit," and the construction, as outlined in Part II, "Air Quality State Construction Permit," 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 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.

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.

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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  
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The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding. 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 143-215.108(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 143-215.108 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 January 28, 2005 until November 30, 2008, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein.

Should you have any questions concerning this matter, please contact Mark J. Cuilla, E.I.T., at (919) 733-1499.

Sincerely yours,

Laura S. Butler, P.E.  
Chief

Enclosure

c: Raleigh Regional Office  
William Boyer, Performance Fibers, Inc.  
Central Files

**Table of Changes**

<b>Page(s)</b>	<b>Section</b>	<b>Description of Change(s)</b>
Cover	-	-amended permit revision numbers and all dates -updated to most recent shell language -amended facility name
-	TOC	-updated to most recent shell language
All	Header	-amended permit revision number
3	-	-amended Title of Part I per most recent shell language

## Insignificant Activities

1. pyrolysis furnace (ID No. IOV1) 400,000 Btu heat input
2. pyrolysis furnace (ID No. IOV2) 400,000 Btu heat input
3. terephthalic acid storage silo (ID No. IVT2)
4. terephthalic acid storage silo (ID No. IVT3)
5. terephthalic acid storage silo (ID No. IVT33)
6. diesel emergency generator (ID No. IF5) 536 hp
7. diesel fire pump (ID No. IFP1) 175 hp
8. diesel fire pump (ID No. IFP2) 290 hp
9. Alan IV copolymer extruder (ID No. IXT506)
10. di-isopropyl amine tank (ID No. IVT78) 10,000 gallon
11. epsilon caprolatone tank (ID No. IHT28) 11,420 gallon
12. esterification mix and feed tanks
13. virgin ethylene glycol tank (ID No. IVT34) 200,000 gallons
14. virgin ethylene glycol tank (ID No. IVT19) 200,000 gallons
15. spent ethylene glycol tank (ID No. IVT20) 200,000 gallons
16. purified ethylene glycol tank (ID No. IVT34) 30,000 gallons **NSPS Kb**

**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
02657T27	02657T26	January 28, 2005	November 30, 2008

Until such time as this permit expires or is modified or revoked, the below named Permittee is authorized to operate, as outlined in Part I, "Air Quality Federal Title V And State Operation Permit," and to construct, as outlined in Part II, "Air Quality State Construction Permit, the emission sources and associated air pollution control devices 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, Inc.**

**Facility ID:**

**1900002**

**Facility Site Location:**

**338 Pea Ridge Road**

**City, County, State, Zip:**

**Moncure, Chatham County, North Carolina, 27559**

**Mailing Address:**

**P.O. Box 166**

**City, State, Zip:**

**Moncure, North Carolina, 27559**

**Application Number:**

**1900002.05A**

**Complete Application Date:**

**January 5, 2005**

**Renewal Application Due Date:**

**February 29, 2008**

**Primary SIC Code:**

**2821**

**Division of Air Quality,**

**Raleigh Regional Office**

**Regional Office Address:**

**3800 Barrett Drive**

**Raleigh, North Carolina, 27609**

Permit issued this the 28th day of January, 2005

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Laura S. Butler, P.E., Chief, Air Permits Section  
By Authority of the Environmental Management Commission

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

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

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ATTACHMENT

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**PART II - AIR QUALITY STATE CONSTRUCTION PERMIT**

This permit does not include a Part II.

# PART I

## AIR QUALITY FEDERAL TITLE V AND STATE OPERATION PERMIT

The Division of Air Quality (DAQ), the United States Environmental Protection Agency (EPA), and citizens as defined under the Federal Clean Air Act have the authority to enforce the terms, conditions, and limitations contained in Part I of this permit unless otherwise specified. Under Title 15A NCAC 2Q, the operation of emission source(s) and associated air pollution control device(s) and appurtenances listed in Part I of this permit is based on plans, specifications, operating parameters, and other information as submitted in the Air Quality Permit Application.

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control/Recovery Device Description
<b>ALAN III ESTERIFICATION</b>			
ES01 PSD NSPS DDD* MACT JJJ	three esterification reactors in series APT101A/APT104A/APT107A Recovered condensate goes to ethylene glycol recovery at CL2  Wastewater goes to prefinish Alan III seal pot (VT532A then to hotwells HT205B/HT206B)	C110A/ C111A  C112A/ C113A MACT JJJ ww2	<b>Recovery Device</b> surface condenser/spare venting to  <b>Control Device</b> direct contact barometric condenser/spare (exit vent temperature maintained at 49 degrees C)
<b>ALAN IV ESTERIFICATION</b>			
ES02 PSD MACT JJJ	three esterification reactors in series APT101B/APT104B/APT107B Recovered condensate goes to ethylene glycol recovery at CL2  Wastewater goes to prefinish Alan III seal pot (VT532B then to hotwells HT205B/HT206B)	C110B/ C111B  C112B/ C113B MACT JJJ ww2	<b>Recovery Device</b> surface condenser/spare venting to  <b>Control Device</b> direct contact barometric condenser/spare (exit vent temperature maintained at 49 degrees C)
<b>ALAN III PREPOLYCONDENSATION</b>			
ES12 PSD NSPS DDD* MACT JJJ	first stage reactor APT114A vents through barometric condenser and liquid ring vacuum pump(s)	C124A/ C125A	<b>Recovery Device</b> direct contact barometric spray condenser/spare
ES13 PSD NSPS DDD* MACT JJJ	second stage reactor APT117A vents through barometric condenser and liquid ring vacuum pump(s)	C122A/ C123A	<b>Recovery Device</b> direct contact barometric spray condenser/spare
ES21 PSD	direct contact barometric condenser receiver HT126A	na	na

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control/Recovery Device Description</b>
<b>NSPS DDD* MACT JJJ</b>	ethylene glycol/water goes to storage tank HT10 then to ethylene glycol recycle CL2		
<b>ALAN IV PREPOLYCONDENSATION</b>			
<b>ES14 PSD MACT JJJ</b>	first stage reactor APT114B vents through barometric condenser and liquid ring vacuum pump(s)	C124B/ C125B	<b>Recovery Device</b> direct contact barometric spray condenser/spare
<b>ES15 PSD MACT JJJ</b>	second stage reactor APT117B vents through barometric condenser and liquid ring vacuum pump(s)	C122B/ C123B	<b>Recovery Device</b> direct contact barometric spray condenser/spare
<b>ES22 PSD MACT JJJ</b>	direct contact barometric condenser receiver HT126B  ethylene glycol/water goes to storage tank HT10 then to ethylene glycol recycle CL2	na	na
<b>ALAN III POLYMERIZATION</b>			
<b>APT201A PSD NSPS DDD* MACT JJJ</b>	prefinish reactor feeding three final finish reactors with multiple stage steam ejectors and intercondensers venting to seal pots HT205A/HT206A	na	na
<b>APT301A PSD NSPS DDD* MACT JJJ</b>	final finish reactor with multiple stage steam ejectors and intercondensers venting to seal pots HT305A/HT306A	na	na
<b>APT401A PSD NSPS DDD* MACT JJJ</b>	final finish reactor with multiple stage steam ejectors and intercondensers venting to seal pots HT405A/HT406A	na	na
<b>APT601 PSD NSPS DDD* MACT JJJ</b>	final finish reactor with multiple stage steam ejectors and intercondensers venting to seal pots HT605A/HT606A	na	na
<b>ALAN IV POLYMERIZATION</b>			
<b>APT201B PSD MACT JJJ</b>	prefinish reactor feeding three final finish reactors with multiple stage steam ejectors and intercondensers venting to seal pots HT205B/HT206B	na	na
<b>APT301B PSD MACT JJJ</b>	final finish reactor with multiple stage steam ejectors and intercondensers venting to seal pots HT305B/HT306B	na	na
<b>APT401B PSD MACT JJJ</b>	final finish reactor with multiple stage steam ejectors and intercondensers venting to seal pots HT405B/HT406B	na	na
<b>APT501 PSD MACT JJJ</b>	final finish reactor with multiple stage steam ejectors and intercondensers venting to seal pots HT605B/HT606B	na	na

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control/Recovery Device Description</b>
<b>ETHYLENE GLYCOL RECOVERY CL1</b>			
ES26CL1 PSD NSPS DDD* MACT JJJ	distillation column CL1  Bottoms ethylene glycol goes to spent glycol storage tank VT20. Overheads wastewater is used in direct contact condensers at Alan III esterification.	C127 MACT JJJ ww2	<b>Control Device</b> overheads surface condenser venting to seal pot VT41
<b>ETHYLENE GLYCOL RECYCLE CL2</b>			
ES24 PSD	spent ethylene glycol feed tank HT10	na	na
ES26CL2 PSD NSPS DDD* MACT JJJ	MPT feed purification system and distillation column CL2  Bottoms ethylene glycol is returned to the process. Overheads wastewater is sent to the cooling tower.	C143	<b>Recovery Device</b> surface condensers and reflux tank VT87
		C128 MACT JJJ ww2	<b>Control Device</b> side stream overheads direct contact condenser
ES23 PSD	ethylene glycol bottoms tank HT11	na	na
<b>WASTEWATER</b>			
HT205A/ HT206A MACT JJJ ww2	Alan III prefinish reactor seal pots (hotwell for intercondensers and water seal for final vacuum vent)	na	na
HT305A/ HT306A MACT JJJ ww2	Alan III final finish reactor seal pots (hotwell for intercondensers and water seal for final vacuum vent)	na	na
HT405A/ HT406A MACT JJJ ww2	Alan III final finish reactor seal pots (hotwell for intercondensers and water seal for final vacuum vent)	na	na
HT605A/ HT606A MACT JJJ ww2	Alan III final finish reactor seal pots (hotwell for intercondensers and water seal for final vacuum vent)	na	na
HT205B/ HT206B MACT JJJ ww2	Alan IV prefinish reactor seal pots (hotwell for intercondensers and water seal for final vacuum vent)	na	na
HT305B/ HT306B MACT JJJ ww2	Alan IV final finish reactor seal pots (hotwell for intercondensers and water seal for final vacuum vent)	na	na
HT405B/ HT406B MACT JJJ ww2	Alan IV final finish reactor seal pots (hotwell for intercondensers and water seal for final vacuum vent)	na	na
HT605BA/ HT606B MACT JJJ ww2	Alan IV final finish reactor seal pots (hotwell for intercondensers and water seal for final vacuum vent)	na	na
VP137A MACT JJJ ww2	Alan III prepolycondensation vacuum pump cooling water	na	na

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control/Recovery Device Description</b>
VP138A MACT JJJ ww2	Alan III prepolycondensation vacuum pump cooling water	na	na
VP135A MACT JJJ ww2	Alan III prepolycondensation vacuum pump cooling water	na	na
VP136A MACT JJJ ww2	Alan III prepolycondensation vacuum pump cooling water	na	na
VP137B MACT JJJ ww2	Alan IV prepolycondensation vacuum pump cooling water	na	na
VP138B MACT JJJ ww2	Alan IV prepolycondensation vacuum pump cooling water	na	na
VP135B MACT JJJ ww2	Alan IV prepolycondensation vacuum pump cooling water	na	na
VP136B MACT JJJ ww2	Alan IV prepolycondensation vacuum pump cooling water	na	na
C128 MACT JJJ ww2	side stream CL2 overheads direct contact condenser sent to cooling tower	na	na
C127 MACT JJJ ww2	CL1 overheads surface condenser seal pot VT41 used in direct contact condensers for esterification	na	na
C112A/ C113A MACT JJJ ww2	direct contact condensate from Alan III esterification	na	na
C112B/ C113B MACT JJJ ww2	direct contact condensate from Alan IV esterification	na	na
<b>COOLING TOWERS</b>			
TW2 PSD MACT JJJ NSPS DDD*	Marley process cooling tower units 11, 12, and 13	na	na
TW3 PSD MACT JJJ NSPS DDD*	Marley process cooling tower units 14, 15, and 16	na	na
<b>SPINDRAW OPERATIONS</b>			
ES10A PSD	six spin draw operations for Alan III polymer production	MISTE1	<b>Control Device</b> condenser/mist eliminator
ES10B PSD	six spin draw operations for Alan IV polymer production	MISTE2	<b>Control Device</b> condenser/mist eliminator
<b>UTILITIES</b>			
SG1	natural gas/No. 6 fuel oil-fired boiler 64.2 million Btu per hour heat input	na	na
SG2	natural gas/No. 6 fuel oil-fired boiler 64.2 million Btu per hour heat input	na	na
SG3	natural gas-fired boiler	na	na

<b>Emission Source ID No.</b>	<b>Emission Source Description</b>	<b>Control Device ID No.</b>	<b>Control/Recovery Device Description</b>
NSPS Dc	37.8 million Btu per hour heat input		
HE553 NSPS Dc	natural gas/propane-fired steam superheater 10 million Btu per hour heat input	na	na
HE554 NSPS Dc	natural gas/propane-fired steam superheater 10 million Btu per hour heat input	na	na
HE3	natural gas/No. 6 fuel oil-fired Dowtherm heater 16.8 million Btu per hour heat input	na	na
HE4	natural gas/No. 6 fuel oil-fired Dowtherm heater 16.8 million Btu per hour heat input	na	na
HE5	natural gas/No. 6 fuel oil-fired Dowtherm heater 17.8 million Btu per hour heat input	na	na
F07	Dowtherm Transfer and Storage	na	na

\* 40 CFR 63.1311(i) -Affected sources producing PET using a continuous terephthalic acid process subject to 40 CFR 63, Subpart JJJ that are also subject to the provisions of 40 CFR part 60, subpart DDD, are required to comply only with the provisions of 40 CFR 63, Subpart JJJ. However, existing affected sources producing PET using a continuous terephthalic acid high viscosity multiple end finisher process shall continue to be subject to requirements for maximum ethylene glycol in cooling tower water [40 CFR 60.562-1(c)(2)(ii)(C)] until the affected source becomes subject to and achieves compliance with the MACT requirements for maximum concentration of ethylene glycol in cooling tower water [40 CFR 63.1329(c)].

## SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

**A. Alan III - Esterification Reactors (ID No. ES01) with barometric condenser (ID No. C112A/C113A)**

**Alan IV - Esterification Reactors (ID No. ES02) with barometric condenser (ID No. C112B/C113B)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	organic HAP emissions from all of the sources listed above in the raw materials preparation sections for PET Esterification Alan III and PET Esterification Alan IV shall be no greater than 0.04 Kg per MG of PET polymer produced	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	See Multiple Emission Sources Section 2.2 A.1. General Recordkeeping and Reporting	15A NCAC 2D .1111 (40 CFR 63, Subpart JJJ) National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	See Multiple Emission Sources Section 2.2 A.2. Maintenance Wastewater Requirements	15A NCAC 2D .1111 (40 CFR 63, Subpart JJJ) National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	See Multiple Emission Sources Section 2.2 A.3. Startup, Shutdown, and Malfunction	15A NCAC 2D .1111 (40 CFR 63.6(e)(3)) National Emission Standards for Hazardous Air Pollutant Emissions: Operation and Maintenance Requirements
Volatile Organic Compounds	See Multiple Emission Sources Section 2.2 B. Work Practice Standards	15A NCAC 2D .0958
Volatile Organic Compounds	See Multiple Emission Sources Section 2.2 C. PSD BACT Limit	15A NCAC 2D .0530

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

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

- a. The Permittee shall limit organic HAP emissions from all process vents containing greater than 0.005 weight percent total organic HAP from continuous unit operations associated with the esterification vessels in the collection of raw material preparation sections, as listed above, to no greater than 0.04 kilogram organic HAP per megagram of PET produced from all associated thermoplastic polymer production units.

**Monitoring Provisions [40 CFR 63.114(b)(2) via 40 CFR 63.1317]**

- b. The direct contact condenser vents (ID Nos. C112A/C113A and C112B/C113B) for Alan III and Alan IV esterification units ES01 and ES02 shall each be equipped with continuous temperature recording devices or continuous organic vapor analyzers.
- 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.
- c. [40 CFR 63.1334(b)(2)] The Permittee shall operate esterification condensers (ID Nos. C112A/C113A and C112B/C113B) such that the daily average temperature remains at or below 49 degrees C (120 degrees F), except as otherwise stated in this permit.
- d. [40 CFR 63.1334(f)] An excursion mean any of the following:
- i. when the daily average value of the maximum condenser vent temperature exceeds 49 degrees C;
  - ii. when the period of esterifier operation, with the exception noted in v. below, is four hours or greater in an operating day, and monitoring data are insufficient, as defined in iv. below, to constitute a valid hour of data for at least 75 percent of the operating hours;
  - iii. When the period of control or recovery device operation, with the exception noted in v. below, is less than four 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 iv. below.
  - iv. Monitoring data are insufficient to constitute a valid hour of data, as used in ii. and iii. 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.
  - v. 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 ii. and iii. 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 A.1.a.

**Recordkeeping Provisions [40 CFR 63.1319]**

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

**Reporting Provisions [40 CFR 63.1320]**

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

**B. Alan III Prepolycondensation**

first stage reactor APT114A (ID No. ES12) with barometric condenser (ID No. C124A/C125A)  
 second stage reactor APT117A (ID No. ES13) with barometric condenser (ID No. C122A/C123A)  
 barometric condenser receiver HT 126A (ID No. ES21)

**Alan IV Prepolycondensation**

first stage reactor APT114B (ID No. ES14) with barometric condenser (ID No. C124B/C125B)  
 second stage reactor APT 117B (ID No. ES13) with barometric condenser (ID No. C122B/C123B)  
 barometric condenser receiver HT 126B (ID No. ES22)

**Alan III Polymerization**

prefinish reactor (ID No. APT201A)  
 final finish reactor (ID No. APT301A)  
 final finish reactor (ID No. APT401A)  
 final finish reactor (ID No. APT601)

**Alan IV Polymerization**

prefinish reactor (ID No. APT201B)  
 final finish reactor (ID No. APT301B)  
 final finish reactor (ID No. APT401B)  
 final finish reactor (ID No. APT501)

**Ethylene Glycol Recovery CL1**

distillation column (ID No. ES26CL1) with surface condenser (ID No. C127)

**Ethylene Glycol Recycle CL2**

distillation column (ID No. ES26CL2) with contact condenser (ID No. C128)

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

<b>Regulated Pollutant</b>	<b>Limits/Standards</b>	<b>Applicable Regulation</b>
Hazardous Air Pollutants	organic HAP emissions from all of the sources listed above in the polymerization reaction sections, including ethylene glycol receiver equipment, for Alan III and Alan IV PET prepolycondensation/polymerization, and materials recovery equipment CL1 and CL2 shall be no greater than 0.02 Kg per Mg of PET polymer produced	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	See Multiple Emission Sources Section 2.2 A.1. General Recordkeeping and Reporting	15A NCAC 2D .1111 (40 CFR 63, Subpart JJJ) National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	See Multiple Emission Sources Section 2.2 A.2. Maintenance Wastewater Requirements	15A NCAC 2D .1111 (40 CFR 63, Subpart JJJ) National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	See Multiple Emission Sources Section 2.2 A.3. Startup, Shutdown, and Malfunction	15A NCAC 2D .1111 (40 CFR 63.6(e)(3)) National Emission Standards for Hazardous Air Pollutant Emissions: Operation and Maintenance Requirements

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	See Multiple Emission Sources Section 2.2 B. Work Practice Standards	15A NCAC 2D .0958
Volatile Organic Compounds	See Multiple Emission Sources Section 2.2 C. PSD BACT Limit	15A NCAC 2D .0530

**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. The Permittee shall limit organic HAP emissions from all process vents containing greater than 0.005 weight percent total organic HAP from continuous unit operations in the collection of polymerization reaction sections and ethylene glycol recovery sections, as listed above, to no greater than 0.02 kilogram organic HAP per megagram of PET product, as a whole, from all associated thermoplastic polymer production units.

**Testing and Compliance Demonstration Provisions [40 CFR 63.1318]**

- b. [40 CFR 63.1318(c)] Compliance with Mass Emissions per Mass Product Standards shall be determined as follows:

$$ER = \sum_{i=1}^n (E_i / (0.001 P_p)) \quad \text{Where:}$$

ER = Emission rate of total organic HAP or TOC, kg/Mg product.

$E_i$  = Emission rate of total organic HAP or TOC in continuous process vent  $i$ , kg/hr.

$P_p$  = The rate of polymer produced, kg/hr.

$n$  = Number of continuous process vents in the collection of material recovery sections.

0.001 = Conversion factor, kg to Mg.

- i. [40 CFR 63.116(c)(4)] The mass emission rate for each continuous process vent,  $E_i$ , shall be determined according to the following procedures:

(A) The Permittee shall use Method 18 or 25A of 40 CFR part 60, appendix A; alternatively, any other method or data that has been validated according to the applicable procedures in Method 301 of appendix A of this part may be used.

(1) The minimum sampling time for each run shall be 1 hour in which either an integrated sample or a minimum of four grab samples shall be taken. If grab sampling is used, then the samples shall be taken at approximately equal intervals in time such as 15 minute intervals during the run.

(2) The mass rate of either TOC (minus methane and ethane) or total organic HAP ( $E_i$ ) shall be computed.

(3) The organic HAP used as the calibration gas for Method 25A, 40 CFR part 60, appendix A shall be the single organic HAP representing the largest percent by volume of the emissions.

(4) The use of Method 25A, 40 CFR part 60, appendix A is acceptable if the response from the high-level calibration gas is at least 20 times the standard deviation of the response from the zero calibration gas when the instrument is zeroed on the most sensitive scale.

(B) The following equation shall be used:

$$E_i = K_2 \left( \sum_{j=1}^n C_{ij} M_{ij} \right) Q_i \quad \text{Where:}$$

$E_i$  = Emission rate of total organic HAP or TOC in continuous process vent  $i$ , kg/hr.

$K_2$  = Constant,  $2.494 \times 10^{-6}$  (parts per million)<sup>-1</sup> (gram-mole per standard cubic meter) kilogram/gram) (minute /hour), where standard temperature (gram-mole per standard cubic meter) is 20 degrees C.

$C_{ij}$  = concentration of sample component  $J$  of the gas stream at the outlet of the last recovery/control device, dry basis, part per million by volume.

$M_{ij}$  = Molecular weight of sample component  $j$  of the gas stream, gram/gram-mole.

$Q_i$  = Flow rate of gas stream, dry standard cubic meters per minute.

- (C) Where the mass rate of TOC is being calculated, all organic compounds (minus methane and ethane) measured by Method 18 of 40 CFR part 60, appendix A are summed.
- (D) Where the mass rate of total organic HAP is being calculated, only the organic HAP species acetaldehyde, 1, 4 dioxane, and ethylene glycol shall be summed.
- ii. The rate of polymer produced,  $P_p$  (kg/hr), shall be determined by dividing the weight (kg) of polymer pulled from the process line during the performance test by the number of hours taken to perform the performance test. The weight of polymer pulled shall be determined by direct measurement or by an alternate methodology, such as materials balance.
- c. Emission testing shall be conducted by June 30, 2004 using the above referenced procedures and test methods in Section 2.1 B.1. b, to determine emissions from polymerization units in Alan III (ID Nos. APT201A, APT301A, APT401A, and APT601); Alan IV (ID Nos. APT201B, APT301B, APT401B, and APT501) prior to seal pot injection ; distillation column vents (ID Nos. ES26CL1) after the final control device (ID Nos. C127); distillation column vents after the final recovery device (ID No. C143) and after the side stream condenser (ID No. C128) ; prepolycondensation direct contact barometric condenser receivers HT126A and HT126B (ID Nos. ES21 and ES22).
  - i. Performance tests shall be conducted according to the provisions of 40 CFR 63.7(e)(1) and (e)(2), except that performance tests shall be conducted at maximum representative operating conditions achievable without causing damage to equipment; necessitating that the Permittee to make product that does not meet an existing specification for sale to a customer; or necessitating that the Permittee to make product in excess of demand.
  - ii. The Permittee shall notify the DAQ Regional office of the intention to conduct a performance test at least 30 days before the performance test is scheduled to allow the DAQ the opportunity to have an observer present during the test. If after 30 days notice for a scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the Permittee shall notify the DAQ as soon as possible of any delay in the original test date, either by providing at least seven days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with the DAQ by mutual agreement.

**Monitoring Provisions [40 CFR 63.114(b)(2) via 40 CFR 63.1317]**

- d. "Where a condenser is the final recovery device in the recovery system, a condenser exit (product side) temperature monitoring device equipped with a continuous recorder shall be used." The spray condensers on the prepolycondensation reactors (ID Nos. ES12, ES13, ES14, and ES15) shall each be equipped with continuous recording devices to monitor the temperature and flow rate of direct contact cooling liquid. The surface condenser (ID No. C127) on the ethylene glycol recovery column (ID No. ES26CL1), the surface condenser (ID No. C143) and spray condenser (ID No. C128) on the ethylene glycol recycle column (ID No. ES26CL2) shall each be equipped with continuous recording devices to monitor the temperature of the exit vents. Alternatively, the Permittee shall submit a plan for alternative parametric (e.g., monitoring of condenser operating parameters) or direct monitoring (i.e., continuous vapor analyzers) by February 29, 2004.
  - 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.
- e. [40 CFR 63.1334(b)(2)] The maximum temperature for each respective condenser shall be established during performance testing in accordance with Section 2.1 B.1.b. and c. to determine compliance with the mass emission limits provided in Section 2.1 B.1.a. i.. The appropriate parameter shall be continuously monitored during the required 1-hour runs. The monitoring level(s) shall then be established as the average of the maximum temperature point values from the three test runs. The average of the maximum values shall be used when establishing a maximum level.
  - ii. The Permittee shall operate control and recovery devices such that the daily average of monitored parameters remains above the minimum established level or below the maximum established level, except as otherwise stated in this permit.
- f. [40 CFR 63.1334(f)] An excursion mean any of the following:
  - i. when the daily average value of the maximum condenser outlet temperature exceeds that value established pursuant to 2.1 B.1.e;
  - ii. when the period of esterifier operation, with the exception noted in v. below, is four hours or greater in an operating day, and monitoring data are insufficient, as defined in iv. below, to

- iii. constitute a valid hour of data for at least 75 percent of the operating hours;
- iii. When the period of control or recovery device operation, with the exception noted in v. 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 iv. below.
- iv. Monitoring data are insufficient to constitute a valid hour of data, as used in ii. and iii. 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.
- v. 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 ii. and iii. 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 B.1.a.

- g. The Permittee shall submit a request within 90 days of determining the maximum outlet temperature for each polymerization and materials recovery condenser and the temperature/flow rate for prepolycondensation condensers to incorporate these parametric values into the Title V permit.

**Recordkeeping Provisions [40 CFR 63.1319]**

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

**Reporting Provisions [40 CFR 63.1320]**

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

**C. Wastewater**

Alan III Esterification direct contact condensate from condensers (ID Nos. C112A/C113A)

Alan III prefinish and final finish reactor seal pots (ID Nos. HT205A/HT206A, HT305A/HT306A, HT405A/HT406A, and HT605/HT606)

Alan IV Esterification direct contact condensate from condensers (ID Nos. C112B/C113B)

Alan IV prefinish and final finish reactor seal pots (ID Nos. HT205B/HT206B, HT305B/HT306B, HT405B/HT406B, and HT505/HT531)

Alan III prepolycondensation vacuum pump cooling water (ID Nos VP137A, VP138A, VP135A, and VP136A)

Alan IV prepolycondensation vacuum pump cooling water (ID Nos VP137B, VP138B, VP135B, and VP136B)

Ethylene Glycol Recycle CL2 overheads seal pot (ID No. VT41)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	Group 2 wastewater	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	See Multiple Emission Sources Section 2.2 A.1. General Recordkeeping and Reporting	15A NCAC 2D .1111 (40 CFR 63, Subpart JJJ) National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	See Multiple Emission Sources Section 2.2 A.2. Maintenance Wastewater Requirements	15A NCAC 2D .1111 (40 CFR 63, Subpart JJJ) National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Hazardous Air Pollutants	See Multiple Emission Sources Section 2.2 A.3. Startup, Shutdown, and Malfunction	15A NCAC 2D .1111 (40 CFR 63.6(e)(3)) National Emission Standards for Hazardous Air Pollutant Emissions: Operation and Maintenance Requirements

**1. 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 acetaldehyde and 1,4 dioxane 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. Cooling Towers**

Marley Process Cooling Towers (ID Nos. TW2 and TW3)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	40 CFR 63.1329(c) requirement to maintain ethylene glycol concentration in cooling water at or below four percent was stayed indefinitely (February 23, 2001 FR)	15A NCAC 2D .1111 National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins
Volatile Organic Compounds	The ethylene glycol concentration of the water in the cooling towers must be maintain at or below six percent 40 CFR 60.562-1(c)(2)(ii)(C)	15A NCAC 2D .0524 40 CFR 60, Subpart DDD New Source Performance Standards for VOC from the Polymer Manufacturing Industry
Volatile Organic Compounds	See Multiple Emission Sources Section 2.2 B. Work Practice Standards	15A NCAC 2D .0958
Volatile Organic Compounds	See Multiple Emission Sources Section 2.2 C. PSD BACT Limit	15A NCAC 2D .0530

**1. 15A NCAC 2D .0524: NEW SOURCE PERFORMANCE STANDARDS FOR VOC EMISSIONS FROM**

**THE POLYMER MANUFACTURING INDUSTRY [40 CFR 60, Subpart DDD]**

- a. [40 CFR 63.1311(i)] Affected sources producing PET using a continuous terephthalic acid process that are also subject to the provisions of 40 CFR part 60, subpart DDD, are required to comply only with the provisions of 40 CFR 63, Subpart JJJ. However, existing affected sources producing PET using a continuous terephthalic acid high viscosity multiple end finisher process shall continue to be subject to requirements for maximum ethylene glycol in cooling tower water [40 CFR 60.562-1(c)(2)(ii)(C)]. Once said affected source becomes subject to and achieves compliance with the MACT requirements for maximum concentration of ethylene glycol in cooling tower water [40 CFR 63.1329(c)], the affected source is no longer subject to the provisions of 40 CFR part 60, subpart DDD.
- b. [40 CFR 60.562-1(c)(2)(ii)(C)] The Permittee shall maintain an ethylene glycol concentration in the cooling tower at or below 6.0 percent by weight, averaged on a daily basis over a rolling 14-day period of operating days.

**Monitoring** [40 CFR 60.564(j)]

- c. Compliance with the ethylene glycol concentration limit of Section 2.1 D.1.b for the cooling towers shall be determined using procedures that conform to the methods described in ASTM D2908-74 or 91, "Standard Practice for Measuring Volatile Organic Matter in Water by Aqueous-Injection Gas Chromatography", unless alternative parametric monitoring is reviewed and accepted by the DAQ.
- i. At least one sample per operating day shall be collected using the grab sampling procedures of ASTM D3370-76 or 96a, "Standard Practices for Sampling Water". An average ethylene glycol concentration by weight shall be calculated on a daily basis over a rolling 14-day period of operating days, unless the use of a reduced sampling program is documented. Each daily average ethylene glycol concentration so calculated constitutes a performance test. Exceedance of the standard during the reduced testing program is a violation of 2.1 D.1.b.
- ii. The Permittee may elect use a reduced sampling program which requires sampling for one consecutive 14-day period every two calendar months in lieu of daily sampling. To qualify for the reduced sampling program, at least seventeen consecutive 14-day rolling average concentrations immediately preceding the date of commencement of the reduced sampling program must be each less than 1.8 weight percent ethylene glycol. If any 14-day rolling average concentration obtained during the reduced sampling period exceeds any of the 14-day rolling average ethylene glycol concentrations used to qualify for the reduced sampling program (minimum of three) by an amount equal to the upper 95 percent confidence interval determined from the concentrations used to qualify for the reduced sampling program, then the Permittee shall reinstitute a daily sampling program. A reduced sampling program can be reinstated if the requirements specified in this paragraph are met.
- iii. The upper 95 percent confidence interval shall be calculated using the following equation:

$$CI_{95} = \frac{\sum_{i=1}^n X_i}{n} + 2 \left\{ \frac{[n\bar{x}^2 - (\sum X_i)^2]}{n(n-1)} \right\}^{0.5}$$

Where:

$X_i$  = daily ethylene glycol concentration for each day used to calculate the 14-day rolling average used in test results to justify implementing the reduced sampling program

$n$  = number of ethylene glycol concentrations.

**Recordkeeping** [40 CFR 60.565(a)(8)]

- d. Daily measurement and daily average 14-day rolling average of the ethylene glycol concentration in the cooling towers.
- e. The Permittee shall keep up-to-date, readily accessible records of any changes in production capacity, feed stock type, or catalyst type, or of any replacement, removal or addition of product recovery equipment; and the results of any performance test performed pursuant to the procedures specified by 40 CFR 60.564.

**Reporting** [40 CFR 60.565(k)]

- f. The Permittee shall submit a summary report of all periods when the 14-day rolling average exceeded the standard of 2.1 D.1.b.. The Report shall be postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

**E. Spindraw Operations**

Alan III six spindraw operations (ID Nos. ES10A) with condenser/mist eliminator (ID No. MISTE1)  
 Alan IV six spindraw operations (ID Nos. ES10B) with condenser/mist eliminator (ID No. MISTE2)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	particulate emissions shall not exceed the rate prescribed by the process weight equations: For process rates up to 30 tons per hour: $E = 4.10 \times P^{0.67}$ For process rates greater than 30 tons per hour: $E = 55.0 \times P^{0.11} - 40$ Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour	15A NCAC 2D .0515
Visible Emissions	visible emissions shall not exceed 20 percent opacity	15A NCAC 2D .0521
Volatile Organic Compounds	See Multiple Emission Sources Section 2.2 B. Work Practice Standards	15A NCAC 2D .0958
Particulate Matter	See Multiple Emission Sources Section 2.2 C. PSD BACT Limit	15A NCAC 2D .0530

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

- a. Emissions of particulate matter from each source shall not exceed an allowable emission rate as calculated by the following equation: [15A NCAC 2D .0515(a)]  
 For process rates up to 30 tons per hour:  $E = 4.10 \times P^{0.67}$   
 For process rates greater than 30 tons per hour:  $E = 55.0 \times P^{0.11} - 40$   
 Where: E = allowable emission rate in pounds per hour, and P = process weight in tons per hour  
 Liquid and gaseous fuels and combustion air are not considered as part of the process weight.

**Testing, Monitoring, Recordkeeping, Reporting** [15A NCAC 2D .0501 (c)(3)]

- b. (see PSD requirements of Section 2.2 C.)

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

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

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

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

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

- c. To assure compliance, once a week the Permittee shall observe the emission points of each source for any visible emissions above normal. The observation must be made for each week of the calendar year period to ensure compliance with this requirement. If an emission source is not operating, a record of this fact along with the corresponding date and time shall substitute for the daily observation. The Permittee shall establish normal for the source in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit given in Section 2.1 E.2. a. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

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

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

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

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

**F. Utilities**

- natural gas/No. 6 fuel oil-fired boiler (ID No. SG1)
- natural gas/No. 6 fuel oil-fired boiler (ID No. SG2)
- ab natural gas-fired boiler (ID No. SG3)
- ab natural gas/propane-fired steam superheater (ID No. HE553)
- ab natural gas/propane-fired steam superheater (ID No. HE554)
- natural gas/No. 6 fuel oil-fired Dowtherm heater (ID No. HE3)
- natural gas/No. 6 fuel oil-fired Dowtherm heater (ID No. HE4)
- c natural gas/No. 6 fuel oil-fired Dowtherm heater (ID No. HE5)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	Particulate matter emissions shall not exceed 0.28 pounds per million Btu heat input for Boilers SG1 and SG2; and Dowtherm heaters HE3, HE4, and HE5.  Particulate matter emissions shall not exceed 0.26 pounds per million Btu heat input for boiler SG3; and steam superheaters HE553 and HE554.	15A NCAC .0503
Sulfur Dioxide	Sulfur dioxide emissions shall not exceed 2.3 pounds per million Btu heat input.	15A NCAC .0516
Visible Emissions	Visible emissions shall not exceed 20 percent opacity for Boiler SG3, steam superheaters HE553 and HE554, and Dowtherm heater HE5.  Visible emissions shall not exceed 40 percent opacity for Boilers SG1 and SG2, and Dowtherm heaters HE3 and HE4.	15A NCAC 2D .0521
Sulfur dioxide <sup>a</sup>	Recordkeeping of Fuel use for boiler SG3 and steam superheaters HE553 and HE554.	15A NCAC 2D .0524 (40 CFR 60, Subpart Dc) NSPS for Commercial-Industrial-Institutional Steam Generating Units
Criteria Pollutants <sup>c</sup>	PSD Avoidance Condition	15A NCAC 2Q. 0317

abc- denotes that the corresponding regulation applies only to this (theses) source(s)

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

- a. Emissions of particulate matter from the combustion of:
  - i. natural gas/No. 6 fuel oil in boilers SG1 and SG2; and Dowtherm heaters HE3 and HE4;
  - ii. natural gas/No. 6 fuel oil in Dowtherm heater HE5that are discharged from this source into the atmosphere shall not exceed 0.28 pounds per million Btu heat input. [15A NCAC 2D .0503(a)]
- b. Emissions of particulate matter from the combustion of:
  - i. natural gas in boiler SG3, and
  - ii. natural gas/propane in steam superheaters HE553 and HE554that are discharged from this source into the atmosphere shall not exceed 0.26 pounds per million Btu heat input.  
[15A NCAC 2D .0503(a)]

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

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

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

- d. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas, propane, or No. 6 fuel oil in these sources.

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

- a. Emissions of sulfur dioxide from boilers (ID Nos. SG1, SG2, SG3), Dowtherm heaters (ID Nos. HE3, HE4, and HE5), and steam superheaters (ID Nos. HE553 and HE554) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

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

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c)(4) and General Condition JJ found in Section 3. If the results of this test are above the limit given in Section 2.1 F.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/recordkeeping is required for sulfur dioxide emissions from natural gas/propane for these sources.
- d. The maximum sulfur content of any No. 6 fuel oil burned in boilers SG1 and SG2, and Dowtherm heaters HE3, HE4, and HE5 shall not exceed 2.1 percent by weight. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0516 if the sulfur content of the fuel oil exceeds this limit.
  - i. To assure compliance, the Permittee shall monitor the sulfur content of the No. 6 fuel oil by using fuel oil supplier certification for the bulk tank from which the shipment was received. The results of the fuel oil supplier certifications shall be recorded in a logbook (written or electronic format) and include the following information:
    - (A) the name of the fuel oil supplier;
    - (B) the maximum sulfur content of the fuel oil received during the quarter;
    - (C) the method used to determine the maximum sulfur content of the fuel oil; and
    - (D) 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)]

- d. 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 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 reporting period. All instances of deviations from the requirements of this permit must be clearly identified.

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

a. Visible emissions from the Boiler SG3, steam superheaters HE553 and HE554, and Dowtherm heater HE5 shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521 (d)]

b. Visible emissions from Boilers SG1 and SG2, and Dowtherm heaters HE3 and HE4 shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity. [15A NCAC 2D .0521 (d)]

**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. If the results of this test are above the limit given in Section 2.1 F.3.a. and b. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0521.

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

d. To assure compliance, once a day the Permittee shall observe the emission points of the boilers SG1 and SG2 and the Dowtherm heaters HE3, HE4, and HE5 when firing No. 6 fuel oil for any visible emissions above normal. The daily observation must be made for each day of the calendar year period to ensure compliance with this requirement. The Permittee shall be allowed three days of absent observations per semi-annual period. If the emission sources is not operating, a record of this fact along with the corresponding date and time shall substitute for the daily observation. The Permittee shall establish normal for the source in the first 30 days following the effective date of the permit. If visible emissions from this source are observed to be above normal, the Permittee shall either: (a) be deemed to be in noncompliance with 15A NCAC 2D .0521 or (b) demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 2D .0501(c)(8) is below the limit(s) given in Section 2.1 F.3.a. and b. above. If the demonstration in (b) above cannot be made, the Permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0521.

e. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas, propane, or No. 2 fuel oil.

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

f. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:

- i. the date and time of each recorded action;
- ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
- iii. the results of any corrective actions performed.

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

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

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

### <sup>a</sup> 4. 15A NCAC 2D .0524: NSPS 40 CFR PART 60 SUBPART Dc

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, , recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc, including Subpart A "General Provisions." [15A NCAC 2D .0524]

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

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

**5. 15A NCAC 2Q .0317: PSD AVOIDANCE CONDITION**

- a. Per request of the applicant in order to avoid PSD applicability, the combustion of No. 6 fuel oil in the hot oil heater (ID No. HE5) shall not exceed 569,000 gallons in any consecutive rolling twelve months period;

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

- b. the Permittee shall maintain a logbook and record the the amount of No. 6 fuel oil combusted in the hot oil heater (ID No. HE5) injection in gallons per month.

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

- c. Within 30 days after each calendar year half, the Permittee shall submit a written report to the Raleigh Regional Office stating for the No. 6 fuel oil, the percent sulfur content by weight, and the total number of gallons combusted in HE5 for each of the six rolling twelve month periods of the calender half. Sample collection and analysis for sulfur content shall be by vendor certification or annual sampling conducted in accordance with Environmental Management Regulation 15A NCAC 2D .0501.

**G. Utilities**

Dowtherm Transfer and Storage

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	See Multiple Emission Sources Section 2.2 B. Work Practice Standards	15A NCAC 2D .0958

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

### A. Facility Wide - Affected Units Pursuant to 40 CFR 63, Subpart JJJ

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	General Recordkeeping and Reporting	15A NCAC 2D .1111 (40 CFR 63, Subpart JJJ)
Hazardous Air Pollutants	Maintenance Wastewater Requirements	15A NCAC 2D .1111 (40 CFR 63, Subpart JJJ)
Hazardous Air Pollutants	Startup, Shutdown, and Malfunction	15A NCAC 2D .1111 (40 CFR 63, Subpart JJJ)

#### 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 maintained in such a manner that they can be readily accessed. The most recent six 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 two hours after a request. The remaining four 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 63.1335. 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.3. 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 Precompliance 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 midnight to midnight 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.

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.

- ii. All reports required under this subpart shall be sent to the DAQ Raleigh Regional Office. If acceptable to both the DAQ and the Permittee, reports may be submitted on electronic media.
- 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 2.2 A.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 Permittee 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 2.2 A.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 nonautomated 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 A.1.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 A.1.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.
  - (3) After any change to the programming or equipment constituting the monitoring system, which might reasonably be expected to alter the monitoring system's ability to comply with the requirements of this section.
- (F) The Permittee shall retain the records identified in sections (1) through (4) below.
- (1) Identification of each parameter, for each item of equipment, for which the permittee has elected to comply with the requirements of this section 2.2 A.1.k.
  - (2) A description of the applicable monitoring system(s), and of how compliance will be achieved with each requirement of Sections 2.2 A.1.k.i.(A) through 2.2 A.1.k.i.(E) above. The description shall identify the location and format (e.g., on-line storage, log entries) for each required record. If the description changes, the Permittee shall retain both the current and the most recent superseded description, except as provided in (D) below.
  - (3) A description, and the date, of any change to the monitoring system that would reasonably be expected to impair its ability to comply with the requirements of Section 2.2 A.1.k.i.
  - (4) a Permittee that complying with 2.2 A.1.k.i.(B) above shall retain the current description of the monitoring system as long as the description is current. The current description shall, at all times, be retained on-site or be accessible from a central location by computer or other means that provides access within 2 hours after a request. The Permittee shall retain all superseded descriptions for at least 5 years after the date of their creation. Superseded descriptions shall be retained on-site (or accessible from a central location by computer or other means that provides access within 2 hours after a request) for at least 6 months after their creation. Thereafter, superseded descriptions may be stored off-site.
- ii. If the Permittee elects to implement the requirements of Section 2.2 A.1.k.i. above for a monitored parameter with respect to an item of equipment and a period of six consecutive months has passed without an excursion, the Permittee is no longer required to record the daily average value for any operating day when the daily average value is less than the maximum or greater than the minimum established limit.
- (A) If the Permittee elects not to retain the daily average values, the Permittee shall notify the DAQ in the next Periodic Report. The notification shall identify the parameter and unit of equipment.
  - (B) If, on any operating day after the Permittee has ceased recording daily average values as provided this Section 2.2 A.1.k.ii., there is an excursion as defined below in Section 2.2 A.1.k.ii.(D), the Permittee shall immediately resume retaining the daily average value for each operating day and shall notify the DAQ in the next Periodic Report. The Permittee shall continue to retain each daily average value until another period of six consecutive months has passed without an excursion.
  - (C) For any calendar week, if compliance with Sections 2.2 A.1.k.i.(A) through 2.2 A.1.k.i.(D) does not result in retention of a record of at least one occurrence or measured parameter value, the Permittee shall record and retain at least one parameter value during a period of operation other than a start-up, shutdown, or malfunction.
  - (D) An excursion means that the daily average value of monitoring data for a parameter is greater than the maximum, or less than the minimum established value, except the daily average value during any startup, shutdown, or malfunction shall not be considered an excursion if the Permittee follows the applicable provisions of the start-up, shutdown, and malfunction plan.

**2. 15A NCAC 2D .1111: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANT EMISSIONS: GROUP IV POLYMERS AND RESINS - MAINTENANCE WASTEWATER REQUIREMENTS [40 CFR 63.1330(c)]**

- a. The Permittee shall prepare a description of maintenance procedures for management of wastewater containing acetaldehyde and 1,4 dioxane generated from the emptying and purging of equipment in the process during temporary shutdowns for inspections, maintenance, and repair (i.e., a maintenance-turnaround) and during periods which are not shutdowns (i.e., routine maintenance). The descriptions

shall include the following information.

- i. The process equipment or maintenance tasks that are anticipated to create wastewater during maintenance activities.
- ii. The procedures that will be followed to properly manage the wastewater and control organic HAP emissions to the atmosphere.
- iii. The procedures to be followed when clearing materials from process equipment.
- b. The Permittee shall modify and update the wastewater management procedures as needed following each maintenance procedure based on the actions taken and the wastewater generated in the preceding maintenance procedure.
- c. The Permittee shall implement the maintenance wastewater procedures as part of the start-up, shutdown, and malfunction plan.
- d. The Permittee shall maintain a record of the maintenance wastewater procedures as part of the start-up, shutdown, and malfunction plan.

**3. 15A NCAC 2D .1111: NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANT EMISSIONS: GROUP IV POLYMERS AND RESINS - START UP, SHUT DOWN MALFUNCTION**

a. **40 CFR 63.6(e)(3): Start up, Shut Down and Malfunction Plan**

- i. The Permittee shall implement and maintain a current 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 sources 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 semiannually. 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 with the excess emissions and continuous monitoring system performance (or other) reports.

- 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 - Volatile Organic Compound Emission Sources

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	Work Practice Standards	15A NCAC 2D .0958

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

- a. Pursuant to 15A NCAC 2D .0958, for all sources that use volatile organic compounds (VOC) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture volatile organic compounds, or emit volatile organic compounds as a product of chemical reactions, and whose emissions of VOC are greater than 15 pounds per day; the Permittee shall:
- i. store all material, including waste material, containing volatile organic compounds in tanks or in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
  - ii. clean up spills of volatile organic compounds as soon as possible following proper safety procedures,
  - iii. store wipe rags containing volatile organic compounds in closed containers,
  - iv. not clean sponges, fabric, wood, paper products, and other absorbent materials with volatile organic compounds,
  - v. transfer solvents containing volatile organic compounds used to clean supply lines and other coating equipment into closable containers and close such containers immediately after each use, or transfer such solvents to closed tanks, or to a treatment facility regulated under section 402 of the Clean Water Act,
  - vi. clean mixing, blending, and manufacturing vats and containers containing volatile organic compounds by adding cleaning solvent and close the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be transferred into a closed container, a closed tank or a treatment facility regulated under section 402 of the Clean Water Act. [15A NCAC 2D .0958(c)]

#### **Monitoring**

- b. To assure compliance with these requirements above, the Permittee shall, at a minimum, perform a visual inspection once per month of all operations and processes utilizing volatile organic compounds. The inspections shall be conducted during normal operations. If the required inspections are not conducted the permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

#### **Recordkeeping**

- c. The results of the inspections shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each inspection; and
  - ii. the results of each inspection noting whether or not noncompliant conditions were observed.
- If the required records are not maintained the permittee shall be deemed to be in noncompliance with 15A NCAC 2D .0958.

#### **Reporting**

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

**C. PSD BACT Emissions Limitations and Testing Requirements**

1. The following table are of BACT limits established pursuant to PSD analysis.

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	<p>Alan III and Alan IV PET production total volatile organic compounds shall not exceed 124.56 pounds per hour and opacity (each stack) shall not 20 percent.</p> <p>Ethylene glycol concentration shall not exceed six percent by weight (14 day rolling average) in the waters of the cooling towers (ID Nos. TW2 and TW3).</p> <p>Total organic compound emissions shall not exceed 0.04 kg per Mg of product from esterification (ID Nos. ES01 and ES02)</p> <p>Total organic compound emissions shall not exceed 0.02 kg per Mg of product from prepolycondensation (ID Nos. ES12, ES13, ES21, ES14, ES15, and ES22), polymerization (ID Nos. APT201A/B, APT301A/B, APT401A/B, and APT501A/B), and ethylene glycol recovery (ID No. ES26CL1) and ethylene glycol recycle (ID No. ES26CL2).</p>	15A NCAC 2D .0530
Opacity	Visible emissions from PET esterifiers, prepolycondensation, polymerizers, and spindraw machines shall not exceed 20 percent opacity.	15A NCAC 2D .0530
particulate matter	PM-10 emissions from spindraw operations ES10A and ES10B shall not exceed 7.5 pounds per hour	15A NCAC 2D .0530

- a. TESTING REQUIREMENT - Under the provisions of North Carolina General Statute 143-215.108, the Permittee shall demonstrate compliance by September 30, 2004 with the emission limit below by testing the Alan III and Alan IV PET polymer spindraw stack (ID No. EP-16) for particulate matter, (1) utilizing EPA Reference Method Nos. 5 and 202, contained in 40 CFR 60, Appendix A, **OR** (2) in accordance with a testing protocol approved by the DAQ, and for opacity, (1) utilizing EPA Reference Method No. 9, contained in 40 CFR 60, Appendix A, **OR** (2) in accordance with a testing protocol approved by the DAQ.

Affected Facility	Pollutant	Emission Limit
Alan III and Alan IV PET polymer spindraw operations (stack ID No. EP-16)	PM-10 (particulate matter < 10 microns) Opacity	7.5 pounds per hour 20 percent

- i. At least 45 days prior to performing any required emissions testing, the Permittee must submit a testing protocol to the Regional Supervisor, DAQ for review and approval. All testing protocols must be approved by the DAQ prior to performing such tests.
- ii. To afford the Regional Supervisor, DAQ, the opportunity to have an observer present, the Permittee shall **PROVIDE** the Regional Office, in WRITING, at least 15 days notice of the specific performance test date(s).
- iii. The test results must be submitted to the Regional Supervisor, DAQ, in accordance with the approved procedures of the Environmental Management Commission within 30 days after completion of each performance test.

- iv. This permit may be revoked, with proper notice to the Permittee, or enforcement procedures initiated, if the results of the test(s) indicate that the facility does not meet applicable limitations.
- v. The source shall be responsible for ensuring, within the limits of practicality, that the equipment or process being tested is operated at or near its maximum normal production rate, or at a lesser rate if specified by the Director or his delegate.
- vi. All associated testing costs are the responsibility of the Permittee.

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

- b. The Permittee shall monitor each condenser (ID No. MISTE1 and MISTE2) vent outlet temperature daily to ensure that the temperatures determined during the BACT compliance test required in 2.2 C.1.a. are not exceeded.
- c. The Permittee shall monitor the mineral oil based yarn production rate determined during the BACT compliance test to ensure that the production rates demonstrating compliance are not exceeded.
- d. 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.
- e. The maximum temperature for each respective condenser and maximum mineral oil based yarn production rate shall be established during the BACT performance test to determine compliance with the BACT mass emission limit and the process weight rate limit established pursuant to Section 2.1 E.1.a., whichever is more stringent. The Permittee shall request that the monitoring parameters be included in the operating permit by submitting an application for permit modification before September 30, 2005.
- f. An excursion mean any of the following:
  - i. when the daily value of the maximum condenser outlet temperature exceeds that value established pursuant to 2.2 C.1.e.;
  - ii. when the value of the maximum mineral oil based yarn production rate exceeds that value established pursuant to 2.2 C.1.e.;
  - iii. 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 ii. and iii. 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 emission standard established pursuant to 2.2 C.1.e.

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

- g. The Permittee shall keep records and documentation as follows.
  - i. Daily values of each monitored parameter (i.e., condenser exit temperatures and mineral oil based yarn production rate).
  - ii. Records of the times and durations of all such periods and any other periods during process or control 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.
- h. The The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if the monitoring records are not maintained.

- Reporting** [15A NCAC 2Q .0508(f)]
- i. The Permittee shall submit reports identifying the condenser and each date that a daily value exceeding the condenser temperature and each date when hourly production of mineral oil based yarn exceeded the limit established during performance testing, any periods of insufficient monitoring data, and any periods of startup/shutdown/malfunction when monitoring data was not available or invalid. The report shall be postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. Unless no compliance exceptions specified below occurred during the six month period. In this event, the periodic report shall include a statement that there were no compliance exceptions for the six month period covered by that report and no activities that required monitoring during the six month period covered by that report.

## SECTION 3 - GENERAL CONDITIONS

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

- A. **General Provisions** [NCGS 143-215 and 15A NCAC 2Q .0508(aa)]
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(aa)]  
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)]  
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(c)]  
Except as otherwise specified herein, two copies of all documents, reports, test data, monitoring data, notifications, request for renewal, and any other information required by this permit shall be submitted to the appropriate Regional Office. Refer to the Regional Office address on the cover page of this permit. For continuous emissions monitoring systems (CEMS) reports, continuous opacity monitoring systems (COMS) reports, quality assurance (QA)/quality control (QC) reports, acid rain CEM certification reports, and NOx budget

CEM certification reports, one copy shall be sent to the appropriate Regional Office and one copy shall be sent to:  
Supervisor, Stationary Source Compliance  
North Carolina Division of Air Quality  
1641 Mail Service Center  
Raleigh, NC 27699-1641

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

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 of Ownership or Operation** [15A NCAC 2Q .0524]  
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 2Q .0524.
3. **Minor Permit Modifications** [15A NCAC 2Q .0515]  
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 2Q .0515.
4. **Significant Permit Modifications** [15A NCAC 2Q .0516]  
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 2Q .0516.
5. **Reopening for Cause** [15A NCAC 2Q .0517]  
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 2Q .0517.

H. **Changes Not Requiring Permit Modifications**

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

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

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

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

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

[15A NCAC 2D .0535(f) and 2Q .0508(f)(3)]

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 - any action or condition not in accordance with the terms and conditions of this permit including those attributable to upset conditions, but not including excess emissions as defined above.

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 Divisions next business day of becoming aware of the occurrence and provide:
      - X name and location of the facility;
      - X nature and cause of the malfunction or breakdown;
      - X time when the malfunction or breakdown is first observed;
      - X expected duration; and
      - X estimated rate of emissions;
    - ii. notify the Regional Supervisor or Director immediately when corrected measures have been accomplished; and
    - iii. submit, if requested, to the Regional Supervisor or Director within 15 days after the request a written report as described in 15A NCAC 2D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 2Q .0508(f)(3), 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 on the next business day after becoming aware of the deviation. A written report shall be submitted within two business days to the Regional Supervisor and shall include the probable cause of such deviation and any corrective actions or preventative actions taken. All reports of deviations from permit requirements shall be certified by a responsible official.

**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. Note that 15A NCAC 2D .0535(g) is state-enforceable only.

**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

2. 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 .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(k)]  
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(n)]
  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)]  
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(t)]  
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 **January 30** a compliance certification (for the preceeding calendar year ) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. 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;
3. whether compliance was continuous or intermittent; and
4. the method(s) used for determining the compliance status of the source, currently and over the reporting 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(m)]

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(r) 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(o)]
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(n)]  
Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 2Q .0107, the Permittee may also submit a copy of all such information and claim directly to the EPA upon request. All requests for confidentiality must be in accordance with 15A NCAC 2Q .0107.
- Z. **Construction and Operation Permits** [15A NCAC 2Q .0100 and .0300]  
A construction and operating permit shall be obtained by the Permittee for any proposed new or modified facility or emission source which is not exempted from having a permit prior to the beginning of construction or modification, in accordance with all applicable provisions of 15A NCAC 2Q .0100 and .0300.
- AA. **Standard Application Form and Required Information** [15A NCAC 2Q .0505 and .0507]  
The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 2Q .0505 and .0507.
- BB. **Financial Responsibility and Compliance History** [15A NCAC 2Q .0507(d)(3)]  
The DAQ may require an applicant to submit a statement of financial qualifications and/or a statement of substantial compliance history.
- CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 2Q .0501(e)]
1. If the Permittee has appliances or refrigeration equipment, including air conditioning equipment, which use Class I or II ozone-depleting substances such as chlorofluorocarbons and hydrochlorofluorocarbons listed as refrigerants in 40 CFR Part 82 Subpart A Appendices A and B, the Permittee shall service, repair, and maintain such equipment according to the work practices, personnel certification requirements, and certified recycling and recovery equipment specified in 40 CFR Part 82 Subpart F.
  2. The Permittee shall not knowingly vent or otherwise release any Class I or II substance into the environment during the repair, servicing, maintenance, or disposal of any such device except as provided in 40 CFR Part 82 Subpart F.
  3. The Permittee shall comply with all reporting and recordkeeping requirements of 40 CFR 82.166. Reports shall be submitted to the EPA or its designee as required.
- DD. **Prevention of Accidental Releases - Section 112(r)** [15A NCAC 2Q .0508(g)]  
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(h)]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

## ATTACHMENT

### List of Acronyms

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