Air Quality
ENVIRONMENTAL QUALITY

PAT MCCRORY

DONALD R. VAN DER VAART

SHEILA C. HOLMAN

December 14, 2016

Mr. Ellis H. McGaughy
Plant Manager
Chemours Company - Fayetteville Works
22828 NC Highway 87 West
Fayetteville, North Carolina 28306-7332

Dear Mr. McGaughy:

SUBJECT: Air Quality Permit No. 03735T43
Facility ID: 0900009
Chemours Company - Fayetteville Works
Fayetteville
Bladen County
Fee Class: Title V

In accordance with your completed Air Quality Permit Application for a significant modification under 15A NCAC 02Q .0501(c)(2) of a Title V permit received October 28, 2016, we are forwarding herewith Air Quality Permit No. 03735T43 to Chemours Company – Fayetteville Works, Fayetteville, Bladen County, North Carolina authorizing the construction and operation of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 02Q .0503 have been listed for informational purposes. Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.

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

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with both the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance. You may request modification of your Air Quality Permit through informal means pursuant to NCGS 150B-22. This request must be submitted in writing to the Director and must identify the specific provisions or issues for which the modification is sought. Please note that this Air Quality

Permit will become final and binding regardless of a request for informal modification unless a request for a hearing is also made under NCGS 150B-23.

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

Bladen County has triggered increment tracking under PSD for PM_{10} and SO_2. However, this permit renewal does not consume or expand increments for any pollutants.

This Air Quality Permit shall be effective from December 14, 2016 until March 31, 2021, 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 Heather Sands at (919) 707-8725.

Sincerely yours,

William D. Willets, P.E, Chief, Permitting Section
Division of Air Quality, NCDENR

Enclosure

cc: Heather Ceron, EPA Region 4
Steven Vozzo, Supervisor, Fayetteville Regional Office
Connie Horne (cover letter only)
Central Files

ATTACHMENT to Permit No. 03735T42

Insignificant Activities per 15A NCAC 02Q .0503(8)

Source ID No.	Emission Source Description
I-02	Waste DMSO Storage Tank
I-03	Fugitive Emissions of Methylene Chloride
I-04	Chlorination of Riverwater to control mussel growth in equipment
I-05	Sitewide Laboratory Emissions
I-06	Outdoor abrasive blasting operation for items exceeding 8 feet in any dimension
I-07	Paint shop
I-08	Self-contained abrasive blasting cabinets
I-09	Paint spray booths
I-10	Abrasive blasting and painting building
I-12	IXM Dispersion Process
I-RICE-01 **MACT ZZZZ**	Diesel Engine for Stack Blower Emergency Electrical Generator
I-RICE-02 **MACT ZZZZ**	Diesel Engine for Emergency Fire Water Pump
I-RICE-03 **NSPS IIII MACT ZZZZ**	Diesel Engine for HFPO Barricade Emergency Electrical Generator

1. Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement.
2. When applicable, emissions from stationary source activities identified above shall be included in determining compliance with the permit requirements for toxic air pollutants under 15A NCAC 02D .1100, "Control of Toxic Air Pollutants", or 15A NCAC 02Q .0711, "Emission Rates Requiring a Permit".
3. For additional information regarding the applicability of MACT and GACT see the DAQ page titled "The Regulatory Guide for Insignificant Activities/Permits Exempt Activities". The link to this site is as follows: http://daq.state.nc.us/permits/insig/

Summary of Changes to Permit

The following changes were made to the Chemours Company – Fayetteville Works, Air Permit No. 03735T42.

Old Page No.	New Page No.	Condition No.	Description of Change(s)
Cover letter	Cover letter	--	- Amended application type, permit revision numbers and dates.
Cover letter attachment	Cover letter attachment	Summary of changes to permit	- Updated with summary of changes to permit.
1	1	Permit Cover Page	- Updated permit revision number and permit issuance date
3 – 56	3 – 58	All	- Updated permit revision number in header; - Updated permit language to match permit shell.
21 – 34	21 – 35	Section 2.1 C	- Added a row to the summary of limits and standards table for the VOC 02D .0530(u) condition. - Added new Section 2.1 C.7 for the use of projected actual emissions to avoid applicability requirements of PSD and renumbered remaining conditions.
37 – 39	38 – 40	Section 2.1 F	- Corrected paragraph numbering by changing Section 2.1 F.6 to Section 2.1 F.5.
41 - 45	42 – 46	Section 2.2 B	- Corrected typographic errors in Section 2.2 B.1. Exceedance was spelled incorrectly.
--	47	Section 2.2 C	- Added new section for requirement to submit a Title V Permit Application for the second step of the significant modification.

State of North Carolina
Department of Environmental Quality
Division of Air Quality

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
03735T43	03735T42	December 14, 2016	March 31, 2021

Until such time as this permit expires or is modified or revoked, the below named Permittee is permitted to construct and operate the emission source(s) and associated air pollution control device(s) specified herein, in accordance with the terms, conditions, and limitations within this permit. This permit is issued under the provisions of Article 21B of Chapter 143, General Statutes of North Carolina as amended, and Title 15A North Carolina Administrative Codes (15A NCAC), Subchapters 02D and 02Q, and other applicable Laws.

Pursuant to Title 15A NCAC, Subchapter 02Q, 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:	**The Chemours Company FC, LLC** **DBA, Chemours Company - Fayetteville Works**
Facility ID:	**0900009**
Facility Site Location: **City, County, State, Zip:**	**22828 NC Highway 87 W** **Fayetteville, Bladen County, NC, 28306-7332**
Mailing Address: **City, State, Zip:**	**22828 NC Highway 87 W** **Fayetteville, NC, 28306-7332**
Application Number: **Complete Application Date:**	**0900009.16A** **October 28, 2016**
Primary SIC Code: **Division of Air Quality,** **Regional Office Address:**	**2821, 3081, 3083** **Fayetteville Regional Office** **225 Green Street, Suite 714** **Fayetteville, NC 28301**

Permit issued this the 14th day of December, 2016

William D. Willets, P.E., Chief, Air Permits Section
By Authority of the Environmental Management Commission

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ATTACHMENT

List of Acronyms

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

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

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
5 to 20 and 40 to 41	PS-A **Case-by-case MACT** **MACT DDDDD**	Natural gas/No. 2 fuel oil-fired boiler (139.4 million Btu per hour maximum heat input) equipped with an oxygen trim system	N/A	N/A
	PS-B **Case-by-case MACT** **MACT DDDDD**	Natural gas/No. 2 fuel oil-fired boiler (88.4 million Btu per hour maximum heat input) equipped with an oxygen trim system	N/A	N/A
	PS-C **NSPS Dc** **Case-by-case MACT** **MACT DDDDD**	Natural gas/No. 2 fuel oil-fired boiler (97 million Btu per hour maximum heat input) equipped with a low-NOx burner and an oxygen trim system	N/A	N/A
37 to 39, 40 to 41, and 46	PS-Temp	Natural gas/No. 2 fuel oil-fired temporary boiler (less than 100.0 million Btu per hour maximum heat input)	N/A	N/A
21 to 34 and 44 to 45	NS-A **MACT FFFF**	Hexfluoropropylene epoxide (HFPO) process	NCD-Hdr1 -or- NCD-Hdr2	Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period)
	NS-B **MACT FFFF**	Vinyl Ethers North process	NCD-Hdr1 -or- NCD-Hdr2	Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period)
	NS-C **MACT FFFF**	Vinyl Ethers South process	NCD-Hdr1 -or- NCD-Hdr2	Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period)
	NS-D	RSU Process	NCD-Hdr1 -or- NCD-Hdr2	Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period)

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
				Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period)
	NS-E	FPS Liquid waste stabilization	NCD-Hdr1 -or- NCD-Hdr2	Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period)
21 to 34 and 44 to 45	NS-F	MMF process	NCD-Hdr1 -or- NCD-Hdr2	Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period) Baffle-plate scrubber (7,000 kilogram/hour liquid injection rate averaged over a 3-hour period)
	NS-G **MACT FFFF**	IXM Resins process	NCD-G	Venturi vacuum jet caustic scrubber
	NS-H	IXM membrane process	N/A	N/A
	NS-I	IXM membrane coating	N/A	N/A
	NS-K	E-2 Process	N/A	N/A
	NS-M	TFE/CO_2 separation process	N/A	N/A
	NS-N	HFPO product container decontamination process	N/A	N/A
	NS-O	Vinyl Ethers North product container decontamination process	N/A	N/A
	NS-P	Vinyl Ethers South product container decontamination process	N/A	N/A
	SW-1	Semiworks polymerization operation	N/A	N/A
	SW-2	Semiworks laboratory hood	N/A	N/A
35 and 44 to 45	AS-A	Polymer Processing Aid Process	ACD-A1	Wet scrubber (30 gallons per minute water injection rate averaged over a 3-hour period) ***State-enforceable only***
	WTS-A	Extended aeration biological wastewater treatment facility	N/A	N/A
36	WTS-B, WTS-C	Two (2) Indirect steam-heated rotary sludge dryers	WTCD-1	Wet scrubber with mist eliminator ***State-enforceable only***

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. Three natural gas/No. 2 fuel oil-fired boilers (ID Nos. PS-A, PS-B, and PS-C)

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	**Affected Sources: PS-A and PS-B** 0.2667 pounds particulate per million Btu heat input **Affected Sources: PS-C** 0.2268 pounds particulate per million Btu heat input	15A NCAC 02D .0503
Sulfur Dioxide	**Affected Sources: PS-A and PS-B** 2.3 pounds SO_2 per million Btu heat input, each	15A NCAC 02D .0516
Sulfur Dioxide	**Affected Source: PS-C (when firing fuel oil)** Fuel oil sulfur content shall not exceed 0.5% by weight.	15A NCAC 02D .0524 (40 CFR Part 60, Subpart Dc)
Visible Emissions	**Affected Source: PS-A** 40 percent opacity **Affected Source: PS-B and PS-C (when firing natural gas)** 20 percent opacity	15A NCAC 02D .0521(c) 15A NCAC 02D .0521(d)
Visible Emissions	**Affected Source: PS-C (when firing fuel oil)** 20 percent opacity	15A NCAC 02D .0524 (40 CFR Part 60, Subpart Dc)
Nitrogen Oxides, Sulfur Dioxide	**Affected Source: PS-B** Nitrogen oxide < 40 tons per year Sulfur dioxide < 40 tons per year	15A NCAC 02Q .0317 (PSD Avoidance)
Sulfur Dioxide	**Affected Sources: PS-A, PS-B, PS-C, and PS-Temp** Sulfur dioxide < 702.5 tons per year. See Section 2.2 A.1 of this permit	15A NCAC 02Q .0317 (PSD Avoidance)
Hazardous Air Pollutants	Best Combustion Practices	15A NCAC 02D .1109
Hazardous Air Pollutants	**Affected Sources: PS-A, PS-C** Work Practices **Affected Sources: PS-B** 1.1E-03 lb HCl/million Btu of heat input 2.0E-6 lb Hg/million Btu of heat input 130 parts per million CO by volume, dry basis, corrected to 3 percent oxygen 6.2E-05 lb TSM/million Btu of heat input	15A NCAC 02D .1111 (40 CFR Part 63, Subpart DDDDD)

1. **15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS**
   a. Emissions of particulate matter from the combustion of natural gas and No. 2 fuel oil that are discharged from the affected boilers **(ID Nos. PS-A and PS-B)** into the atmosphere shall not exceed 0.2667 pounds per million Btu heat input.

   b. Emissions of particulate matter from the combustion of natural gas and No. 2 fuel oil that are discharged from the affected boiler **(ID No. PS-C)** into the atmosphere shall not exceed 0.2268 pounds per million Btu heat input.

Testing [15A NCAC 02Q .0508(f)]

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 limits given in Section 2.1 A.1.a or A.1.b, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

d. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas or No. 2 fuel oil in these boilers **(ID Nos. PS-A, PS-B and PS-C)**.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from the affected boilers **(ID Nos. PS-A and PS-B)** when firing natural gas or No. 2 fuel oil, and from the affected boiler **(ID No. PS-C)** when firing natural gas only, shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping is required for sulfur dioxide emissions from the firing of natural gas or fuel oil in these boilers **(ID Nos. PS-A, PS-B and PS-C)**.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the affected boiler **(ID No. PS-A)** 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.

b. Visible emissions from the affected boiler **(ID No. PS-B)** 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.

c. Visible emissions from the affected boiler **(ID No. PS-C)** shall not be more than 20 percent opacity when averaged over a six-minute period when natural gas is fired in the boiler. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

d. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3.a through A.3.c, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

e. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in these boilers **(ID Nos. PS-A, PS-B and PS-C)**.

4. 15A NCAC 02D .0524: New Source Performance Standards (40 CFR 60, Subpart Dc)

a. For the affected boiler **(ID No. PS-C)**, while firing No. 2 fuel oil only, the Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524, "New Source Performance Standards" (NSPS) as promulgated in 40 CFR 60, Subpart Dc, including Subpart A, "General Provisions."

Emission Limitations

b. The maximum sulfur content of any fuel oil received and fired in the affected boiler **(ID No. PS-C)** shall not exceed 0.5 percent by weight. [40 CFR 60.42c(d)]

c. Visible emissions from the affected boiler **(ID No. PS-C)** shall not be more than 20 percent opacity when averaged over a six-minute period, except for one six-minute period per hour of not more than 27 percent opacity. *[40 CFR 60.43c(c)]*

d. The opacity standards in Section 2.1 A.4.c, above, applies at all times when firing No. 2 fuel oil, except during periods of startup, shutdown or malfunction. *[40 CFR 60.43c(d)]*

e. No fuel sulfur limits or opacity limits apply under 15A NCAC 02D .0524 when firing natural gas in the affected boiler **(ID No. PS-C)**.

Testing [15A NCAC 02Q .0508(f)]

f. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 A.4.b or A.4.c, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

g. The Permittee shall conduct an initial performance test using Method 9 of Appendix A-4 of 40 CFR Part 60 and in accordance with General Condition JJ to demonstrate compliance with the opacity limit in Section 2.1 A.4.c, above, and as follows. [40 CFR 60.47c(a)]
   i. The Permittee shall conduct the performance test within 180 days of initial startup.
   ii. The Permittee shall conduct subsequent Method 9 of Appendix A-4 of 40 CFR Part 60 performance tests according to the schedule specified in Section 2.1 A.4.i, below.
   iii. The observation period for Method 9 of Appendix A-4 of 40 CFR Part 60 performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation.

   If the results of this test are above the limits in Section 2.1 A.4.c, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524.

Fuel Sulfur Monitoring [15A NCAC 02Q .0508(f)]

h. To assure compliance with the fuel sulfur limit in Section 2.1 A.4.b, above, the Permittee shall retain a copy of the fuel supplier certification for any fuel oil fired at the affected boiler **(ID No. PS-C)**. The fuel supplier certification shall include the following information:
   i. The name of the oil supplier;
   ii. The sulfur content of the oil (in % by weight); and
   iii. A statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the sulfur content of the oil exceeds the limit provided in Section 2.1.A.4.b of this permit or if fuel supplier certifications are not retained as described above. *[40 CFR 60.46c(e), 40 CFR 60.48c(f)]*

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

i. After completion of the initial performance testing in Section 2.1 A.4.g, above, the Permittee shall comply with visible emissions monitoring according to the following:
   i. The Permittee shall conduct subsequent Method 9 performance tests using the applicable schedule in Section 2.1 A.4.i(i)(A) through A.4.i(i)(D), below, or within 45 days of switching fuel combustion from natural gas to No. 2 fuel oil, whichever is later, as determined by the most recent Method 9 performance test results. The observation period for Method 9 performance tests may be reduced from 3 hours to 60 minutes if all 6-minute averages are less than 10 percent and all individual 15-second observations are less than or equal to 20 percent during the initial 60 minutes of observation. *[40 CFR 60.47c(a)(1)]*
      A. If no visible emissions are observed, a subsequent Method 9 performance test must be completed within 12 calendar months from the date that the most recent performance test was conducted;
      B. If visible emissions are observed but the maximum 6-minute average opacity is less than or equal to 5 percent, a subsequent Method 9 performance test must be completed within 6 calendar months from the date that the most recent performance test was conducted;

C. If the maximum 6-minute average opacity is greater than 5 percent but less than or equal to 10 percent, a subsequent Method 9 performance test must be completed within 3 calendar months from the date that the most recent performance test was conducted; or

D. If the maximum 6-minute average opacity is greater than 10 percent, a subsequent Method 9 performance test must be completed within 45 calendar days from the date that the most recent performance test was conducted.

ii. If the maximum 6-minute opacity is less than 10 percent during the most recent Method 9 performance test, the Permittee may, as an alternative to performing subsequent Method 9 performance tests, elect to perform subsequent monitoring using Method 22 according to the procedures specified in Section 2.1 A.4.i(ii)(A) and A.4.i(ii)(B) below. *[40 CFR 60.47c(a)(2)]*

(A) The Permittee shall conduct 10 minute observations (during normal operation) each operating day the affected boiler **(ID No. PS-C)** fires No. 2 fuel oil using Method 22 and demonstrate that the sum of the occurrences of any visible emissions is not in excess of 5 percent of the observation period (i.e., 30 seconds per 10 minute period). If the sum of the occurrence of any visible emissions is greater than 30 seconds during the initial 10 minute observation, immediately conduct a 30 minute observation. If the sum of the occurrence of visible emissions is greater than 5 percent of the observation period (i.e., 90 seconds per 30 minute period), the owner or operator shall either document and adjust the operation of the facility and demonstrate within 24 hours that the sum of the occurrence of visible emissions is equal to or less than 5 percent during a 30 minute observation (i.e., 90 seconds) or conduct a new Method 9 performance test using the procedures in condition (i)(i) above within 45 calendar days.

(B) If no visible emissions are observed for 10 operating days during which No. 2 fuel oil is fired, observations can be reduced to once every 7 operating days during which No. 2 fuel oil is fired. If any visible emissions are observed, daily observations shall be resumed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the opacity monitoring is not conducted as specified.

Recordkeeping [15A NCAC 02Q .0508(f) and 40 CFR 60.48c(g)(2)]

j. The Permittee shall record and maintain records of the amounts of each fuel fired during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if records of the amount of each fuel fired during each month are not maintained.

k. The Permittee shall maintain records of No. 2 fuel oil supplier certifications as specified in Section 2.1 A.4.h.i, above. *[40 CFR 60.48c(e)(11), (f)(1)]*
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if records of fuel sulfur content monitoring are not maintained.

l. The Permittee shall keep the following opacity monitoring records: *[40 CFR 60.48c(c)(1), (2)]*

i. For each performance test conducted using Method 9 of appendix A-4 of 40 CFR Part 60, the Permittee shall keep the records including the following:

(A) Dates and time intervals of all opacity observation periods;

(B) Name, affiliation, and copy of current visible emission reading certification for each visible emission observer participating in the performance test; and

(C) Copies of all visible emission observer opacity field data sheets.

ii. For each performance test conducted using Method 22 of appendix A-4 of 40 CFR Part 60, the Permittee shall keep the records including the following:

(A) Dates and time intervals of all visible emissions observation periods;

(B) Name and affiliation for each visible emission observer participating in the performance test;

(C) Copies of all visible emission observer opacity field data sheets; and

(D) Documentation of any adjustments made and the time the adjustments were completed to the affected facility operation by the Permittee to demonstrate compliance with the applicable monitoring requirements.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these opacity monitoring records are not maintained.

m. The Permittee shall maintain records of any occurrence and duration of any startup, shutdown, or malfunction in the operation the affected boiler **(ID No. PS-C)**. *[40 CFR 60.7(b)]*
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the records of startups, shutdowns, and malfunctions are not maintained.

o. All records required under Section 2.1 A.4.j through A.4.m shall be maintained by the Permittee for a period of two years following the date of such record. *[40 CFR 60.48c(i)]*
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the records are not maintained for the duration of 2 years.

Initial Notification [15A NCAC 02Q .0508(f)]

p. The Permittee shall submit a construction notification of the date construction of the affected boiler **(ID No. PS-C)** is commenced, postmarked no later than 30 days after such date. *[40 CFR 60.7(a)(1)]*

q. The Permittee shall submit an initial notification to the Regional Supervisor within 15 days of actual startup of the affected boiler **(ID No. PS-C)**. The notification shall include:
   i. The actual date of initial startup; and,
   ii. The design heat input capacity of the boiler and identification of fuels to be combusted in the boiler.
   [40 CFR 60.48c(a), 40 CFR 60.7(a)(3)]

Reporting [15A NCAC 02Q .0508(f)]

r. The Permittee shall submit a semiannual summary report 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 noncompliance from the requirements of this permit and excess emissions must be clearly identified. The summary report shall include the following information:
   i. Fuel supplier certification(s) for distillate fuel oil, as provided in Section 2.1.A.4.e of this permit; and
   ii. A certified statement signed by the Permittee that the records of fuel supplier certification(s) submitted represents all of the fuel fired at the affected boiler **(ID No. PS-C)** during the semiannual period.
   iii. Records from any subsequent performance tests conducted as required in Section 2.1 A.4.l, above.

5. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the affected boiler **(ID No. PS-B only)** shall discharge into the atmosphere less than the following, per consecutive 12-month period.

Pollutant	Emission Limitation (tons per year)
Nitrogen Oxide	40
Sulfur Dioxide	40

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.5.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. The Permittee shall keep monthly records of fuel usage in a logbook (written or in electronic format), as follows:
   i. The total quantity (in million standard cubic feet) of natural gas fired at the affected boiler;
   ii. The total quantity (in 1,000 gallons) of No. 2 fuel oil fired at the affected boiler; and,
   iii. The fuel oil supplier certification for any fuel oil fired at the affected boiler **(ID No. PS-B)**, including the sulfur content of the fuel oil (in percent by weight).
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the fuel usage and fuel oil sulfur contents are not created and retained as required above.

d. The Permittee shall calculate monthly and 12-month rolling NO_X emissions from the affected boiler **(ID No. PS-B)** within 30 days after the end of each calendar month. Calculations shall be recorded in a logbook (written or electronic format), according to the following formulas:
   i. Calculate NO_X emissions from the previous calendar month using the following equation:

$$E_{NO_X} = 20 * Q_{fo2} + 100 * Q_{ng}$$

Where, E_{NOx} = NO_X emissions (pounds) during the previous calendar month;
Q_{fo2} = Quantity of fuel oil fired during the previous calendar month (1,000 gallons); and,
Q_{ng} = Quantity of natural gas fired during the previous calendar month (million standard cubic feet).

ii. Sum the NOx emissions from the affected boiler for the previous 12-month period to determine the 12-month rolling emission total.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the monthly calculations listed above are not retained or if the 12-month rolling NO_X emission totals are greater than the NO_X emission limit provided in Section 2.1 A.5.a of this permit.

e. The Permittee shall calculate monthly and 12-month rolling SO_2 emissions from the affected boiler within 30 days after the end of each calendar month. Calculations shall be recorded in a logbook (written or electronic format), according to the following formulas:

i. Calculate SO_2 emissions from the previous calendar month using the following equation:

$$E_{SO_2} = 142 * S_{fo2} * Q_{fo2} + 0.6 * Q_{ng}$$

Where, E_{SO2} = SO_2 emissions (pounds) during the previous calendar month;
S_{fo2} = Sulfur content in the fuel oil (percent by weight).
Q_{fo2} = Quantity of fuel oil fired during the previous calendar month (1,000 gallons); and,
Q_{ng} = Quantity of natural gas fired during the previous calendar month (million standard cubic feet).

ii. Sum the SO_2 emissions from the affected boiler for the previous 12-month period to determine the 12-month rolling emission total.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the monthly calculations listed above are not retained or if the 12-month rolling SO_2 emission totals are greater than the SO_2 emission limit provided in Section 2.1 A.5.a of this permit.

Reporting [15A NCAC 02Q .0508(f)]

f. The Permittee shall submit a semi-annual summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:

i. The monthly NO_X and SO_2 emissions from the affected boiler for the previous 17 calendar months;
ii. The 12-month rolling NO_X and SO_2 emissions for each 12-month period ending during the reporting period; and,
iii. All instances of noncompliance from the requirements of this permit must be clearly identified.

6. 15A NCAC 02D .1109: Case-by-Case MACT

a. The initial compliance date for the emission limitations and associated monitoring, recordkeeping, and reporting requirements listed below is December 12, 2013 for each boiler **(ID Nos. PS-A, PS-B, and PS-C)**. These conditions need not be included on the annual compliance certification until after the initial compliance date. These limits apply except for periods of startup, shutdown, and malfunction. The Permittee shall follow the procedures in 15A NCAC 02D .0535 for any excess emissions that occur during periods of startup, shutdown, or malfunction.

b. The Permittee shall comply with this CAA §112(j) standard until May 19, 2019. The initial compliance date for the applicable CAA §112(d) standard for "National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters" is May 20, 2019. On and after May 20, 2019, the Permittee shall comply with Section 2.1 A.7 for boilers **(ID Nos. PS-A and PS-C)** and Section 2.1 A.8 for boiler **(ID No. PS-B)**.

Testing [15A NCAC 02Q .0508(f)]

c. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ.

Work Practice Standards [15A NCAC 02Q .0508(f)]

d. The Permittee shall perform an annual boiler inspection and maintenance on each boiler **(ID Nos. PS-A, PS-B, and PS-C)** as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
   i. Inspect the burner, and clean or replace any components of the burner as necessary;
   ii. Inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and,
   iii. Inspect the system controlling the air-to-fuel ratio and ensure that it is correctly calibrated and functioning properly.

   The Permittee shall conduct at least one tune-up per calendar year to demonstrate compliance with this requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1109 if the affected boilers are not inspected and maintained as required above.

e. The results of any required annual burner inspection and maintenance conducted on each boiler **(ID Nos. PS-A, PS-B, and PS-C)** shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
   i. The date of each recorded action;
   ii. The results of each inspection; and,
   iii. The results of any maintenance performed on the boilers.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1109 if these records are not maintained.

Reporting [15A NCAC 02Q .0508(f)]

f. Notifications. The Permittee shall submit an initial notification according to 40 CFR 63.9(b)(4) and (5) not later than 15 days after the actual date of startup of boiler **(ID No. PS-C)**. The Permittee shall be deemed in noncompliance with 15A NCAC 02D. 1109 if this initial notification is not submitted.

g. Semiannual Summary Report. The Permittee shall submit a summary report 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 first summary report shall be required on January 30, 2014. The report shall include the following:
   i. Company name and address;
   ii. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report;
   iii. Date of report and beginning and ending dates of the reporting period; and,
   iv. Signed statement indicating that no new types of fuel were fired in the affected sources.

7. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability

a. For the boilers **(ID Nos. PS-A and PS-C)**, the Permittee shall comply with all applicable provisions for the "unit designed to burn gas 1 subcategory," including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD . "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" and Subpart A "General Provisions."
   [40 CFR 63.7485, 63.7490(d), 63.7499(l)]

b. In order for the boilers **(ID Nos. PS-A and PS-C)** to be considered in the "unit designed to burn gas 1 subcategory," the Permittee shall only burn liquid fuel for periodic testing of liquid fuel, maintenance, or operator training, not to exceed a combined total of 48 hours during any calendar year, and during periods of gas curtailment or gas supply interruptions of any duration. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the No. 2 fuel oil is burned in the boilers **(ID Nos. PS-A and PS-C)** for periodic testing of liquid fuel, maintenance or operator training for more than 48 hours during any calendar year or if No. 2 fuel oil is burned in the boilers **(ID Nos. PS-A and PS-C)** during any periods other than gas curtailment or gas supply interruption. [40 CFR 63.7575]

Definitions and Nomenclature

c. For the purpose of Section 2.1 7.A, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

40 CFR Part 63 Subpart A - General Provisions

d. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A, General Provisions, according to the applicability of Subpart A to such sources as identified in Table 10 to 40 CFR Part 63, Subpart DDDDD. [40 CFR 63.7565]

Compliance Date

e. The Permittee shall comply with the CAA §112(j) standards in Section 2.1 A.6 through **May 19, 2019**. [40 CFR 63.7495(a) and (b), 63.56(b)]
   i. On and after May 20, 2019, the Permittee shall comply with the requirements of Section 2.1 A.7 for the boiler **(ID No. PS-A)**
   ii. The Permittee shall comply with the requirements of this section for boiler **(ID No. PS-C)** on May 20, 2019 or upon startup, whichever is later.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the compliance dates are not met.

Notifications

f. As specified in 40 CFR 63.9(b)(4) and (5), if the initial startup of the boiler **(ID No. PS-C)** is after May 20, 2019, the Permittee shall submit an Initial Notification not later than 15 days after the actual date of startup of the boiler. [40 CFR 63.7545(c)]
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the Initial Notification is not submitted.

g. The Permittee shall submit a Notification of Compliance Status for the boilers **(ID Nos. PS-A and PS-C)**. The notification must be signed by a responsible official and postmarked before the close of business within 60 days of the compliance date specified in Section 2.1 A.7.e, above. The notification shall contain the following:
   i. A description of the boilers **(ID Nos. PS-A and PS-C)**, including a statement that the boilers are in "the unit designed to burn gas 1 subcategory," the design heat input capacity of the boilers, and description of the fuel(s) burned.
   ii. The following certification(s) of compliance, as applicable:
      A. A signed certification that the facility completed the required initial tune-up for all of the boilers covered by 40 CFR Part 63, Subpart DDDDD and at this site according to the procedures Section 2.1 A.7.j, below; and
      B. A signed certification that either the energy assessment performed according to Section 2.1 A.7.n, below, and that the assessment is an accurate depiction of the facility at the time of the assessment, or that the maximum number of on-site technical hours specified in the definition of energy assessment applicable to the facility has been expended.

   [40 CFR 63.7545(e)(8) and 63.7530(e), and (f)]
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the Notification of Compliance Status is not submitted.

h. The Permittee shall submit a notification of intent to fire an alternative fuel within 48 hours of the declaration of each period of natural gas curtailment or supply interruption. The notification must include the following information:
   i. Company name and address;
   ii. Identification of the affected boiler;
   iii. Reason the Permittee is unable to use natural gas or equivalent fuel, including the date when the natural gas curtailment was declared or the natural gas supply interruption began;
   iv. The type of alternative fuel the Permittee intends to use; and
   v. Dates when the alternative fuel use is expected to begin and end.

   [40 CFR 63.7545(f)]
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the notification of intent to fire an alternative fuel is not submitted.

General Compliance Requirements

i. The Permittee shall comply with the work practice standards in Section 2.1 A.7.j, below at all times the boilers **(ID Nos. PS-A and PS-C)** are operating. [40 CFR 63.7500(f) and 63.7505(a)]

Work Practice Standards [15A NCAC 02Q .0508(f)]

j. The Permittee shall conduct a tune-up of the boilers **(ID Nos. PS-A and PS-C)** as specified below. The Permittee shall conduct the tune-up while burning the type of fuel that provided the majority of the heat input to the boiler of the 12 months prior to the tune-up.
   i As applicable, the Permittee shall inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection at any time prior to the tune-up or delay the burner inspection until the next scheduled or unscheduled shutdown, but each burner must be inspected at least once every 72 months.
   ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
   iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly. The Permittee may delay the inspection until the next scheduled unit shutdown.
   iv. Optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject.
   v. Measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
   vi. The oxygen level shall be set no lower than the oxygen concentration measured during the most recent tune-up. [40 CFR 63.7500(a) and 63.7540(a)(10)]

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these work practice standards are not met.

k. The tune-ups for the boilers **(ID Nos. PS-A and PS-C)** shall be conducted according to the following schedule. [Table 3 of Subpart DDDDD]
   i. The initial tune-up for the existing boiler **(ID No. PS-A)** shall be conducted no later than May 20, 2019. [40 CFR 63.7510(e)]
   ii. The initial tune-up for the new boiler **(ID No. PS-C)** shall be no later than 61 months after initial startup of the unit. [40 CFR 63.7510(g) and 63.7515(d)]
   iii. Subsequent tune-ups for each boiler **(ID Nos. PS-A and PS-C)** shall be conducted every 5 years and no more than 61 months after the previous tune-up. [40 CFR 63.7540(a)(12), 63.7515(d)]

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the initial and annual tune-ups are not conducted as specified.

l. If the boilers **(ID Nos. PS-A and PS-C)** are not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7515(g) and 63.7540(a)(13)]

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the delayed tune-up is not conducted within 30 calendar days of startup.

m. At all times, the Permittee shall operate and maintain the boiler, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to DAQ that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [40 CFR 63.7500(a)(3)]

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the boiler is not operated in a manner consistent with safety and good air pollution control practices for minimizing emissions.

n. To demonstrate initial compliance, the Permittee shall also conduct a one-time energy assessment for the existing boiler **(ID No. PS-A)** performed by a qualified energy assessor. The energy assessment must be conducted no later than May 20, 2019. The energy assessment must include the following with extent of the evaluation for the following appropriate for the 32 on-site technical hours as defined in 40 CFR 63.7575. [40 CFR 63.7500(a)(1), Table 3]
   i. A visual inspection of the boiler or process heater system.
   ii. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
   iii. An inventory of major energy use systems consuming energy from affected boilers and process heaters and which are under the control of the boiler/process heater owner/operator.

iv. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
v. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.
vi. A list of cost-effective energy conservation measures that are within the facility's control.
vii. A list of the energy savings potential of the energy conservation measures identified.
viii. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.
ix. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the energy assessment requirements in Section 2.1 A.87.n(i) through A.7.n(viii), above, satisfies the energy assessment requirement. If the Permittee operates under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and May 20, 2019, that includes the boilers **(ID No. PS-A)** also satisfies the energy assessment requirement.

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

o. The Permittee shall keep the following records:
i. A copy of each notification and report submitted to comply with Section 2.1 A.7, including all documentation supporting any Initial Notification or Notification of Compliance Status, or semiannual compliance report that has been submitted, according to the requirements in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.7555(a)(1)]
ii. A report, maintained on-site and submitted to DAQ if requested, containing the information in paragraphs (A) through (C) below [40 CFR 63.7540(a)(10)(vi)]:
(A) The concentrations of carbon monoxide in the effluent stream of each boiler **(ID Nos. PS-A and PS-C)** in parts per million by volume, and oxygen in volume percent, measured before and after the tune-ups of the boilers **(ID Nos. PS-A and PS-C)**;
(B) A description of any corrective actions taken as a part of the tune-up; and
(C) The type and amount of fuel used over the 12 months prior to the tune-ups, but only if the boilers were physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
iii. The associated records for compliance with the work practice standards in Section 2.1 A.7.i through A.7.m, above, including the occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment. [40 CFR 63.10(b)(2)]
iv. Records of the total hours per calendar year that alternative fuel is burned in the boilers **(ID Nos. PS-A and PS-C)** and the total hours per calendar year that the boilers operated during periods of gas curtailment or gas supply emergencies. [40 CFR 63.7555(h)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not maintained.

p. The Permittee shall:
i. maintain records in a form suitable and readily available for expeditious review;
ii. keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
iii. keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if records are not maintained as specified above. [40 CFR 63.7560 and 63.10(b)(1)]

Reporting Requirements [15A NCAC 02Q .0508(f)]

q. The Permittee shall submit compliance reports to the DAQ every five years. The first report shall cover the period beginning on the compliance date specified in Section 2.1 A.7.e, above, and ending on December 31 within five years after the compliance date in Section 2.1 A.7.e, above. Subsequent reports shall cover the five-year periods from January 1 to December 31. The compliance reports shall be postmarked on or before January 31. [40 CFR 63.7550(a), (b) and 63.10(a)(4), (5)]

r. The Permittee shall submit the annual compliance report via the CEDRI. (CEDRI can be accessed through the EPA's Central Data Exchange, CDX.) The Permittee shall use the appropriate electronic report in CEDRI 40 CFR Part 63, Subpart DDDDD. Instead of using the electronic report in CEDRI for this 40 CFR Part 63, Subpart DDDDD, the Permittee may submit an alternate electronic file consistent with the XML schema listed on the CEDRI Web site (http://www.epa.gov/ttn/chief/cedri/index.html), once the XML schema is available. If the reporting form specific to

40 CFR Part 63, Subpart DDDDD is not available in CEDRI at the time that the report is due, the Permittee shall submit the report to DAQ. The Permittee shall begin submitting reports via CEDRI no later than 90 days after the form becomes available in CEDRI. [40 CFR 63.7550(h)(3)]

s. The Permittee shall include the following information in the annual compliance report:
   i. Company and facility name and address;
   ii. Process unit information, emissions limitations, and operating parameter limitations;
   iii. Date of report and beginning and ending dates of the reporting period;
   iv. The date of the most recent tune-up for each boiler **(ID Nos. PS-A and PS-C)** required according to Section 2.1 A.7.j. Include the date of the most recent burner inspection if it was not done as scheduled and was delayed until the next scheduled or unscheduled unit shutdown; and
   v. If there are no periods of noncompliance from the requirements of the work practice requirements in Section 2.1 A.7.j, above, a statement that there were no deviations from the work practice standards during the reporting period.

   [40 CFR 63.7550(a) and (c)(1), (c)(5)(i) through (iii), (c)(5)(xiv), (c)(5)(xvii), and Table 9]

t. If the Permittee has a period of noncompliance with a work practice standard for periods of startup and shutdown during the reporting period, the compliance report must also contain the following information:
   i. A description of the period of noncompliance and which work practice standard from which the Permittee was in noncompliance; and
   ii. Information on the number, duration, and cause of periods of noncompliance (including unknown cause), as applicable, and the corrective action taken.

   [40 CFR 63.7540(b), 63.7550(a) and (d) and Table 9]

8. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.7485, 63.7490(d), 63.7499(q) and (u)]

a. For the existing boiler **(ID No. PS-B)** designed to burn light liquid fuel with a heat input capacity 10 million Btu per hour or greater, the Permittee shall comply with all applicable provisions, including the monitoring, recordkeeping, and reporting contained in Environmental Management Commission Standard 15A NCAC 02D .1111 "Maximum Achievable Control Technology" (MACT) as promulgated in 40 CFR 63, Subpart DDDDD "National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters" (Subpart DDDDD) and Subpart A "General Provisions."

Definitions and Nomenclature [40 CFR 63.7575]

b. For the purpose of this permit condition, the definitions and nomenclature contained in 40 CFR 63.7575 shall apply.

40 CFR Part 63 Subpart A General Provisions [40 CFR 63.7565]

c. The Permittee shall comply with the requirements of 40 CFR 63 Subpart A General Provisions according to the applicability of Subpart A to such sources as identified in Table 10 to Subpart 5D.

Compliance Date [40 CFR 63.56(b) and 63.7510(e)]

d. The Permittee shall comply with the CAA §112(j) standard in Section 2.1 A.6 through **May 19, 2019**. The Permittee shall be subject to the requirements of this standard starting May 20, 2019.

e. The Permittee shall:
   i. Complete the initial tune up and the one-time energy assessment specified in Section 2.1 A.8.s through A.8.u no later than May 20, 2019.
   ii. Complete the initial compliance requirements in Section 2.1 A.8.k through A.8.n, below, no later than November 16, 2019 and according to the applicable provisions in 40 CFR 63.7(a)(2).

General Compliance Requirements [40 CFR 63.7500(a)(3), 63.7505(a)]

f. At all times the boiler **(ID No. PS-B)** is operating, the Permittee shall be in compliance with the emission standards in Section 2.1 A.8.h, except during periods of startup and shutdown. During startup and shutdown, the Permittee shall comply with the requirements of Section 2.1 A.8.v and A.8.w.

g. At all times, then Permittee shall operate and maintain the boiler **(ID No. PS-B)**, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being

used will be based on information available to the Administrator that may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

Emission Limits [15A NCAC 02Q .0508(f), 40 CFR 63.7500(a)(1), Table 2 of 40 CFR Part 63, Subpart DDDDD]

h. The boiler **(ID No. PS-B)** shall meet the following emission limits:

Pollutant	Emission Limit
Hydrochloric acid	1.1E-03 lb per million Btu of heat input
Mercury	2.0E-06 lb per million Btu of heat input
Carbon monoxide	130 ppm by volume on a dry basis corrected to 3 percent oxygen
Filterable particulate matter or Total suspended metals	7.9E-03 lb per million Btu of heat input or 6.2E-05 lb per million Btu of heat input

Testing [15A NCAC 02Q .0508(f)]

i. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test(s) are above the limit given in Section 2.1 A.8.h, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111.

Notifications [15A NCAC 02Q .0508(f)]

j. The Permittee shall submit the following notifications:
   i. A Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin. [40 CFR 63.7545(d)]
   ii. The Permittee shall submit the Notification of Compliance Status, including performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and other initial compliance demonstrations for the boiler **(ID No. PS-B)**. The Notification of Compliance Status report must contain all the information specified in 40 CFR 63.7545(e)(1) through (8), as applicable. [40 CFR 63.9(h)(2)(ii), 63.10(d)(2), 63.7530(e) and 63.7545(e)]

   The permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the notifications are not submitted as required above.

Initial compliance requirements [15A NCAC 02Q .0508(f)]

k. The Permittee shall demonstrate compliance with the CO emission limits in Section 2.1 A.8.h, above, by developing a site-specific stack test plan and conducting initial performance stack tests according to the schedule specified in Section 2.1 A.8.e, above. The Permittee shall conduct each performance stack test according to the procedures in 40 CFR 63.7520. [40 CFR 63.7510(a)(1)]
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the site-specific test plan and initial stack tests are not conducted as required above.

l. The Permittee shall demonstrate initial compliance with the hydrogen chloride, mercury and total selected metal emission limits in Section 2.1 A.8.h, above, according to the following:
   i. The Permittee shall develop a site-specific fuel monitoring plan according to the schedule specified in Section 2.1 A.8.e, above.
   ii. The Permittee shall conduct a fuel analysis according to 40 CFR 63.7521 and the procedures in 40 CFR 63.7530(c).
   iii. As an alternative, the Permittee may demonstrate initial compliance via performance stack testing as specified in 40 CFR 63.7510(a).

   [40 CFR 63.7510(a) and (b) and 63.7530(c)]
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the initial compliance requirements for hydrogen chloride, mercury and total selected metals are not conducted as required above.

m. The Permittee shall establish an oxygen operating limit for the oxygen trim system installed on the boiler **(ID No. PS-B)** according to the procedures in 40 CFR 63.7530(b)(4)(viii) and Table 7 of Part 63, Subpart DDDDD. [40 CFR 63.7510(a)(3)]
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the operating limits are not established as required above.

n. The Permittee shall meet the work practice standard requirements specified in Section 2.1 A.8.s and A.8.t, below. The Permittee shall demonstrate initial compliance with the work practice standard according to the schedule in Section 2.1 A.8.e, above. [40 CFR 63.7510(e)]
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the work practice standards are not met as required above.

Subsequent performance test requirements [15A NCAC 02Q .0508(f)]

o. If the boiler **(ID No. PS-B)** combusts ultra-low sulfur liquid fuel, the Permittee is not required to conduct subsequent performance tests (i.e., stack tests or fuel analyses) if the pollutants measured during the initial compliance performance tests meet the emission limits in Section 2.1 A.8.h, above. The Permittee shall demonstrate ongoing compliance with the emissions limits by monitoring and recording the type of fuel combusted on a monthly basis, as required in Section 2.1 A.8.r, below. [40 CFR 63.7515(h)]
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the type of fuel combusted is not monitored and recorded monthly as required.

p. If the Permittee intends to use a fuel other than ultra-low sulfur liquid fuel, natural gas, refinery gas, or other gas 1 fuel, the Permittee shall conduct new performance tests (i.e., stack tests or fuel analyses) within 60 days of burning the new fuel type. In addition, the Permittee shall comply with the following:
   i. The Permittee shall conduct subsequent stack tests on an annual basis. Each annual performance stack test shall be completed no more than 13 months after the previous performance test. The Permittee may conduct subsequent performance tests at a reduced frequency if the requirements in 40 CFR 63.7515(b) and (c) are met. [40 CFR 63.7515(a)]
   ii. The Permittee shall conduct all subsequent fuel analyses and determine the hydrogen chloride, mercury, and total selected metals emission rates on a monthly basis. The Permittee may conduct subsequent fuel analyses at a reduced frequency if the requirements in 40 CFR 63.7515(e) are met. The Permittee shall conduct the fuel analysis according to the following procedures
      (A) Conduct monthly fuel analysis for each pollutant according to 40 CFR part 63, Subpart DDDDD, Table 6;
      (B) Reduce the data to 12-month rolling averages;
      (C) Maintain the 12-month rolling averages at or below the applicable emission limit in Section 2.1 A.8.h, above, and
      (D) Calculate the applicable emission rate from the boiler **(ID No. PS-B)** or process heater in units of lb per million Btu using equations 15, 17, 18, and/or 19, in 40 CFR 63.7530.
      [40 CFR 63.7515(e) and 63.7540(a) and Table 8 of Part 63, Subpart DDDDD]
   iii. The Permittee shall confirm or reestablish operating limits during performance tests. [40 CFR 63.7540(a)(1)]
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the subsequent performance test requirements are not conducted as required.

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

q. The Permittee shall install, operate, and maintain an oxygen trim system on the boiler **(ID No. PS-B)** according to the following procedures:
   i. The Permittee shall operate the oxygen trim system with the oxygen level set no lower than the lowest hourly average oxygen concentration measured during the most recent CO performance test as the operating limit for oxygen.
   ii. The CPMS must complete a minimum of one cycle of operation every 15-minutes. The Permittee shall have a minimum of four successive cycles of operation, one representing each of the four 15-minute periods in an hour, to have a valid hour of data.
   iii. The Permittee shall operate the monitoring system as specified in 40 CFR 63.7535(b), and comply with the data calculation requirements specified in 40 CFR 63.7535(c).
   iv. Any 15-minute period for which the monitoring system is out-of-control and data are not available for a required calculation constitutes a period of noncompliance from the monitoring requirements. Other situations that constitute a monitoring noncompliance are specified in 40 CFR 63.7535(d).
   v. The Permittee shall determine the 30-day rolling average of all recorded readings, except as provided in 40 CFR 63.7535(c).
   vi. The Permittee shall record the results of each inspection, calibration, and validation check.
   [40 CFR 63.7525(a) and (d)]
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the oxygen trim system monitoring requirements are not met.

r. The Permittee shall monitor the type and amount of all fuels burned in the boiler **(ID No. PS-B)** to demonstrate that all fuel types and mixtures of fuels burned would result in equal to or lower emissions of hydrogen chloride, mercury, and TSM than the applicable emission limit for each pollutant. [40 CFR 63.7540(a)(2)]
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the fuel type and amount is not monitored as required above.

Work Practice Standards [15A NCAC 02Q .0508(f)]

s. The Permittee shall conduct the tune-up of the boiler **(ID No. PS-B)** while burning the type of fuel (or fuels in case of units that routinely burn a mixture) that provided the majority of the heat input to the boiler or process heater over the 12 months prior to the tune-up. The Permittee shall conduct the tune-up of the boiler **(ID No. PS-B)** as follows:
   i. As applicable, the Permittee shall inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled or unscheduled unit shutdown but each burner must be inspected at least once every 72 months;
   ii. The Permittee shall inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available;
   iii. The Permittee shall inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (you may delay the inspection until the next scheduled unit shutdown);
   iv. The Permittee shall optimize total emissions of carbon monoxide. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject; and
   v. The Permittee shall measure the concentrations in the effluent stream of carbon monoxide in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

   [40 CFR 63.7500(a), 63.7540(a)(10) and (12)]
   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these work practice standards are not met.

t. Each tune-up for the boiler **(ID No. PS-B)** shall be conducted every five years and no more than 61 months after the previous tune-up. If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup. [40 CFR 63.7515(d), 63.7515(g), and 63.7540(a)(13)]
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the tuneups are not conducted according to the required schedule.

Energy Assessment Requirements [15A NCAC 02Q .0508(f)]

u. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor for the boiler **(ID No. PS-B)**. The energy assessment must address the following requirements, with the extent of the evaluation for Section 2.1 A.8.u(i) through A.8.u(v), below, appropriate for the on-site technical hours listed in 40 CFR 63.7575. An energy assessment completed on or after January 1, 2008, that meets or is amended to meet the following energy assessment requirements, satisfies the energy assessment requirement. If the Permittee operates under an energy management program developed according to the ENERGY STAR guidelines for energy management or compatible with ISO 50001 for at least one year between January 1, 2008 and May 20, 2019, that includes the boiler **(ID No. PS-B)** also satisfies the energy assessment requirement.
   i. A visual inspection of the boiler or process heater system.
   ii. An evaluation of operating characteristics of the boiler or process heater systems, specifications of energy using systems, operating and maintenance procedures, and unusual operating constraints.
   iii. An inventory of major energy use systems consuming energy from the boiler **(ID No. PS-B)** and which are under the control of the boiler/process heater owner/operator.
   iv. A review of available architectural and engineering plans, facility operation and maintenance procedures and logs, and fuel usage.
   v. A review of the facility's energy management program and provide recommendations for improvements consistent with the definition of energy management program, if identified.
   vi. A list of cost-effective energy conservation measures that are within the facility's control.
   vii. A list of the energy savings potential of the energy conservation measures identified.
   viii. A comprehensive report detailing the ways to improve efficiency, the cost of specific improvements, benefits, and the time frame for recouping those investments.

[40 CFR 63.7500(a)(1) and Table 3 to Part 63, Subpart DDDDD]
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in energy assessment requirements are not met.

Startups and Shutdowns

v. The Permittee shall comply with all applicable emission limits at all times except during startup and shutdown periods. The Permittee shall meet the startup work practice requirements below.
   i. All CMS shall be operated during startup.
   ii. For startup of the boiler **(ID No. PS-B)**, one or a combination of the following clean fuels shall be used: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, fuel oil-soaked rags, kerosene, hydrogen, paper, cardboard, refinery gas, liquefied petroleum gas, clean dry biomass, and any fuels meeting the appropriate HCl, mercury and TSM emission standards by fuel analysis.
   iii. The Permittee has the option of complying using either of the following work practice standards.
      (A) If complying using definition (1) of "startup" in 40 CFR 63.7575, once the Permittee starts firing fuels that are not clean fuels, the Permittee shall vent emissions to the main stack(s) and engage all of the applicable control devices. Startup ends when steam or heat is supplied for any purpose, OR
      (B) If complying using definition (2) of "startup" in 40 CFR 63.7575, once the Permittee starts to feed fuels that are not clean fuels, the Permittee shall vent emissions to the main stack(s) and engage all of the applicable control devices so as to comply with the emission limits within 4 hours of start of supplying useful thermal energy. The Permittee shall engage and operate PM control within one hour of first feeding fuels that are not clean fuels. The Permittee shall start all applicable control devices as expeditiously as possible, but, in any case, when necessary to comply with other standards applicable to the source by a permit limit or a rule other than this section that require operation of the control devices. The Permittee shall develop and implement a written startup and shutdown plan, as specified in 40 CFR 63.7505(e).
   iv. The Permittee shall collect monitoring data during periods of startup, as specified in 40 CFR 63.7535(b).
   v. The Permittee shall keep records during periods of startup and provide reports concerning activities and periods of startup, as specified in 40 CFR 63.7555.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the startup procedures are not followed.

w. The Permittee shall comply with all applicable emission limits at all times except during startup and shutdown periods. The Permittee shall meet the shutdown work practice requirements below.
   i. The Permittee shall operate all CMS during shutdown.
   ii. While firing fuels that are not clean fuels during shutdown, the Permittee shall vent emissions to the main stack(s) and operate all applicable control devices when necessary to comply with other standards applicable to the source that require operation of the control device.
   iii. If, in addition to the fuel used prior to initiation of shutdown, another fuel must be used to support the shutdown process, that additional fuel must be one or a combination of the following clean fuels: Natural gas, synthetic natural gas, propane, other Gas 1 fuels, distillate oil, syngas, ultra-low sulfur diesel, refinery gas, and liquefied petroleum gas.
   iv. The Permittee shall collect monitoring data during periods of shutdown, as specified in 40 CFR 63.7535(b).
   v. The Permittee shall keep records during periods of shutdown.
   vi. The Permitee shall provide reports concerning activities and periods of shutdown, as specified in 40 CFR 63.7555.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the shutdown procedures are not followed.

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

x. The Permittee shall keep the following records:
   i. A copy of each notification and report submitted to comply with 40 CFR Part 63, Subpart DDDDD and Section 2.1 A.8, including all documentation supporting any Initial Notification or Notification of Compliance Status, or semiannual compliance report that has been submitted.
      [40 CFR 63.10(b)(2)(xiv) and 63.7555(a)(1)]
   ii. Records of performance tests, fuel analyses, or other compliance demonstrations and performance evaluations.
      [40 CFR 63.10(b)(2)(viii)]
   iii. A report, maintained on-site and submitted to DAQ, if requested, containing the information in the following paragraphs:

(A) The concentrations of carbon monoxide in the effluent stream of the boiler **(ID No. PS-B)** in parts per million by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler or process heater;
(B) A description of any corrective actions taken as a part of the tune-up; and
(C) The type and amount of fuel used over the 12 months prior to the annual adjustment, but only if the unit was physically and legally capable of using more than one type of fuel during that period. Units sharing a fuel meter may estimate the fuel use by each unit.
[40 CFR 63.7540(a)(10)(vi)]

iv. For each continuous monitoring system, keep the following records.
(A) Records described in 40 CFR 63.10(b)(2)(vii) through (xi).
(B) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in 40 CFR 63.8(d)(3).
(C) Request for alternatives to relative accuracy test for CEMS as required in 40 CFR 63.8(f)(6)(i).
(D) Records of the date and time that each period of noncompliance started and stopped.
[40 CFR 63.7555(b)]

v. Keep records required in Table 8 of 40 CFR Part 63, Subpart DDDDD including records of all monitoring data and calculated averages for applicable operating limits, such as operating load, to show continuous compliance with each emission limit and operating limit that applies.

vi. Keep the applicable records in 40 CFR 63.7555(d)(1) through (d)(13).
[40 CFR 63.7555]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if these records are not maintained.

y. The Permittee shall:
i. Maintain records in a form suitable and readily available for expeditious review;
ii. Keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record; and
iii. Keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record. The Permittee can keep the records offsite for the remaining 3 years.
[40 CFR 63.7560 and 63.10(b)(1)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the recordkeeping requirements above are not met.

Reporting Requirements [15A NCAC 02Q .0508(f)]

z. The Permittee shall submit a compliance report to the DAQ on a semi-annual basis, 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.
i. The first compliance report shall be postmarked on or before July 30, 2019 and cover the period from May 20, 2019 through June 30, 2019.
ii. The compliance reports shall also be submitted electronically to the EPA via the procedures in 40 CFR 63.7550(h).

aa. The compliance report shall contain:
i. The information specified in 40 CFR 63.7550(c), as applicable.
ii. For each period of noncompliance with an emission limit or operating limit, the report shall contain the information in 40 CFR 63.7550(d) and (e), as applicable.
[40 CFR 63.7550(c)]

bb. Within 60 days after the date of completing each performance test (defined in 40 CFR 63.2) including any associated fuel analyses and/or CMS performance evaluation (defined in 40 CFR 63.2) as required by 40 CFR Part 63, Subpart DDDDD, the Permittee shall submit the results to the DAQ pursuant to 40 CFR 63.10(d)(2) and to the EPA via the procedures in 40 CFR 63.7550(h). [40 CFR 63.7550(h)]

B. [RESERVED]

C. FPS/IXM Process Area consisting of:

The following emission units are controlled by one of two baffle-plate scrubbers (ID Nos. NCD-Hdr1 or NCD-Hdr2):

Hexfluoropropylene oxide (HFPO) process (ID No. NS-A),
Vinyl Ethers North Process (ID No. NS-B)
Vinyl Ethers South Process (ID No. NS-C)
RSU process (ID No. NS-D)
Liquid waste stabilization process (ID No. NS-E)
MMF process (ID No. NS-F)

IXM Resins process (ID No. NS-G) controlled by a venturi vacuum jet caustic scrubber (ID No. NCD-G),
IXM membrane process (ID No. NS-H),
IXM membrane coating (ID No. NS-I),
E-2 Process (ID No. NS-K),
TFE/CO_2 separation process (ID No. NS-M),
HFPO product container decontamination process (ID No. NS-N),
Vinyl Ethers North product container decontamination process (ID No. NS-O),
Vinyl Ethers South product container decontamination process (ID No. NS-P),
Semiworks polymerization operation (ID No. SW-1), and
Semiworks laboratory hood (ID No. SW-2)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	**Affected Sources: ID No. NS-I** $E = 4.10\ P^{0.67}$ for $P < 30$ tons/hour where: E = allowable emission rate in pounds per hour, and P = process weight rate in tons per hour	15A NCAC 02D .0515
Visible Emissions	**Affected Sources: ID No. NS-I** 20% visible opacity emissions	15A NCAC 02D .0521
Odors	**State-enforceable only** See Section 2.2 B.5	15A NCAC 02D .1806
Toxic Air Pollutants	**State-enforceable only (all FPM/IXM process units)** Toxic air pollutant limits shall not be exceeded. See Sections 2.2 B.1 and 2.2 B.2	15A NCAC 02D .1100
Volatile Organic Compounds	**Affected Sources: ID No. NS-B** VOC emissions < 68.9 tons/12-month **Affected Sources: ID No. NS-G** VOC emissions < 40 tons/12-month **Affected Sources: ID No. NS-A** VOC emissions < 85.3 tons/12-month **Affected Sources: ID No. NS-N** VOC emissions < 40 tons/12-month	15A NCAC 02Q .0317 (PSD Avoidance)
Volatile Organic Compounds	**Affected Sources: ID No. NS-I** Reporting for Projected Actual VOC Emissions	15A NCAC 02D .0530(u)
Hazardous Air Pollutants	**Affected Sources: ID Nos. NS-A, NS-B, NS-C, and NS-G** LDAR, wastewater, and heat exchanger requirements.	15A NCAC 02D .1111 (40 CFR 63, Subpart FFFF)

1. **15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES**
   a. Emissions of particulate matter from the membrane coating process **(ID No. NS-I)** shall not exceed an allowable emission rate as calculated by the following equation:

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

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

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

Testing [15A NCAC 02Q .0508(f)]

   b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

   c. The Permittee shall maintain production records such that the process rates "P" in tons per hour, as specified by the formulas contained above (or the formulas contained in 15A NCAC 02D .0515) can be derived, and shall make these records available to a DAQ authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the production records are not maintained or the types of materials and finishes are not monitored.

Reporting [15A NCAC 02Q .0508(f)]

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

2. **15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS**
   a. Visible emissions from the membrane coating process **(ID No. NS-I)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

   b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 C.2.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

   c. No monitoring/recordkeeping/reporting is required for visible emissions from this source.

3. **15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION**
   a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the Vinyl Ethers North process **(ID No. NS-B)** shall discharge into the atmosphere less than 68.9 tons of VOCs per consecutive 12-month period.

Testing [15A NCAC 02Q .0508(f)]

   b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test indicate annual emission rates in exceedance of the limit given in Section 2.1 C.3.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

   c. To demonstrate compliance with the limit provided in Section 2.1 C.3.a, above, within 30 days of the end of each calendar month the Permittee shall create and retain production records and estimate associated VOC emissions for the previous calendar month, as follows:

i. Determine the process vent mass flow rates of non-acid fluoride VOC (Q_{nAF}) and acid fluoride VOC (Q_{AF}) during the previous calendar month (in lb/month);
ii. Considering the 99.6% efficiency of the baffle-plate scrubber **(ID No. NCD-Hdr1)** to control acid fluoride VOC, calculate the VOC emissions (E_V) from the process vents during the previous calendar month (in lb/month) using the following equation:

$$E_V = Q_{nAF} + 0.004(Q_{AF})$$

iii. Record the total solvents used (M) in the affected facility during the previous calendar month (in lb/month);
iv. Record the total solvent waste generation (W) for the affected facility during the previous calendar month (in lb/month);
v. Calculate the solvent VOC emissions (E_S) from the affected facility during the previous calendar month (in lb/month) using the following equation:

$$E_S = M - W$$

vi. Determine the VOC emissions from maintenance emissions (E_M) during the previous calendar month (in lb/month).
vii. Calculate the VOC emissions from fugitive emissions (E_F) using accepted practices during the previous calendar month (in lb/month).
viii. Record VOC emissions from any accidental releases (E_A) during the previous calendar month (in lb/month).
ix. Calculate the total process VOC emissions (E) using the following equation (in ton/month):

$$E = (E_V + E_S + E_M + E_F + E_A)/\left(2{,}000\ {}^{lb}/_{ton}\right)$$

x. Calculate the 12-month rolling VOC emissions from the affected facility by summing the monthly VOC emissions (E), as calculated in Section 2.1 C.3.c.ix, above, for the previous consecutive 12-months.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not created and retained, or if the 12-month rolling VOC emission rate calculated in Section 2.1 C.3.c.x, above, exceeds the limit in Section 2.1 C.3.a of this permit.

d. Required records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the records are not maintained in a logbook on-site and are not available upon request.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit a semi-annual summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
i. The monthly VOC emissions from the affected facility for the previous 17 calendar months;
ii. The 12-month rolling VOC emissions for each 12-month period ending during the reporting period; and,
iii. All instances of noncompliance from the requirements of this permit must be clearly identified.

4. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the resins process **(ID No. NS-G)** shall discharge into the atmosphere less than 40 tons of VOCs per consecutive 12-month period.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test indicate annual emission rates in exceedance of the limit given in Section 2.1 C.4.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. To demonstrate compliance with the limit provided in Section 2.1 C.4.a, within 30 days of the end of each calendar month the Permittee shall create and retain production records and estimate associated VOC emissions for the previous calendar month, as follows:
   i. Record the total raw materials fed (M) to the affected facility during the previous calendar month (in kg/month);
   ii. Record the total transformed materials collected (P) for the affected facility during the previous calendar month (in kg/month);
   iii. Record the total untransformed materials collected (W) for the affected facility during the previous calendar month (in kg/month);
   iv. Determine the VOC emissions from the filling of storage tanks (S) for the affected facility during the previous calendar month (in kg/month);
   v. Calculate the VOC emissions (E) from the affected facility during the previous calendar month (in ton/month) using the following equation:

$$E = (M - P - W + S) * \left(2.2\ {}^{lb}/_{kg}\right) / \left(2{,}000\ {}^{lb}/_{ton}\right)$$

   vi. Calculate the 12-month rolling VOC emissions from the affected facility by summing the monthly VOC emissions (E), as calculated in Section 2.1 C.4.c.iv, above, for the previous consecutive 12-months.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not created and retained, or if the 12-month rolling VOC emission rate calculated in Section 2.1 C.4.c.v, above, exceeds the limit in Section 2.1 C.4.a of this permit.

d. Required records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the records are not maintained in a logbook on-site and are not available upon request.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit a semi-annual summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. The monthly VOC emissions from the affected facility for the previous 17 calendar months;
   ii. The 12-month rolling VOC emissions for each 12-month period ending during the reporting period; and,
   iii. All instances of noncompliance from the requirements of this permit must be clearly identified.

5. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the HFPO process **(ID No. NS-A)** shall discharge into the atmosphere less than 85.3 tons of VOCs per consecutive 12-month period.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test indicate annual emission rates in exceedance of the limit given in Section 2.1 C.5.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. To demonstrate compliance with the limit provided in Section 2.1 C.5.a, above, within 30 days of the end of each calendar month the Permittee shall create and retain production records and estimate associated VOC emissions for the previous calendar month, as follows:
   i. Record the total raw material HFP consumed (M_{HFP}) in the affected facility during the previous calendar month;
   ii. Record the average vent flow rate and composition from the AF column (Q_{AC}) and Stripper columns (Q_{SC}) during the previous calendar month;
   iii. Using a combination of ratios of vent rates (Q_{AC} and Q_{SC}) to HFP consumption (M_{HFP}) from the process flowsheet and actual vent data, determine the process VOC emissions (E_P, in lb/month) from the AF column (E_{AC}), stripper column (E_{SC}), solvent recycle tank (E_{SRT}), solvent reclamation converters (E_{SRC}), and routine decontamination of HFP unloading system (E_{DC}) through the baffle-plate scrubber **(ID No. NCD-Hdr1 or NCD-Hdr2)**.

$$E_P = E_{AC} + E_{SC} + E_{SRT} + E_{SRC} + E_{DC}$$

iv. Calculate the VOC emissions (in lb/month) through the baffle-plate scrubber **(ID No. NCD-Hdr1 or NCD-Hdr2)** from maintenance activity (E_M) based on vessel volumes and vapor density for each occurrence of this activity during the previous calendar month.

v. Calculate the VOC emissions (in lb/month) from fugitive emissions (E_F) using accepted practices during the previous calendar month.

vi. Record VOC emissions (in lb/month) from any accidental releases (E_A) during the previous calendar month.

vii. Calculate the VOC emissions (E) from the affected facility during the previous calendar month (in ton/month) using the following equation:

$$E = (E_P + E_M + E_F + E_A)/\left(2{,}000\ {}^{lb}/_{ton}\right)$$

viii. Calculate the 12-month rolling VOC emissions (in ton/month) from the affected facility by summing the monthly VOC emissions (E), as calculated in 2.1 C.6.c.vii, above, for the previous consecutive 12-months.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not created and retained, or if the 12-month rolling VOC emission rate calculated in Section 2.1 C.5.c.viii, above, exceeds the limit in Section 2.1 C.5.a of this permit.

d. Required records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the records are not maintained in a logbook on-site and are not available upon request.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit a semi-annual summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:

i. The monthly VOC emissions from the affected facility for the previous 17 calendar months;

ii. The 12-month rolling VOC emissions for each 12-month period ending during the reporting period; and,

iii. All instances of noncompliance from the requirements of this permit must be clearly identified.

6. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the HFPO Product Container Decontamination Process **(ID No. NS-N)** shall discharge into the atmosphere less than 40.0 tons of VOCs per consecutive 12-month period.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test indicate annual emission rates in exceedance of the limit given in Section 2.1 C.6.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. To demonstrate compliance with the limit provided in Section 2.1 C.6.a, above, within 30 days of the end of each calendar month the Permittee shall create and retain records and estimate associated VOC emissions for the previous calendar month, as follows:

i. Create a record of each container received at the facility including:

(A) The date the container was decontaminated; and,

(B) The total mass of VOC released from the container (in lb).

ii. Calculate the VOC emissions from the process during the previous calendar month (in lb/month) by summing the quantity of VOC released from each container decontaminated during the previous calendar month.

iii. Calculate the VOC emissions from the process during the previous consecutive 12-month period (in tons/12-months) by summing the quantity of VOC released for the previous twelve (12) calendar months.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the above records are not created and retained, or if the 12-month rolling VOC emission rate calculated above exceeds the limit in Section 2.1 C.6.a of this permit.

d. Required records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if the records are not maintained in a logbook on-site and are not available upon request.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit a semi-annual summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. The monthly VOC emissions from the affected facility for the previous 17 calendar months;
   ii. The 12-month rolling VOC emissions for each 12-month period ending during the reporting period; and,
   iii. All instances of noncompliance from the requirements of this permit must be clearly identified.

7. 15A NCAC 02D .0530(u): USE OF PROJECTED ACTUAL EMISSIONS TO AVOID APPLICABILITY OF REQUIREMENTS OF PSD

a. The Permittee has used projected actual emissions to avoid applicability of prevention of significant deterioration requirements pursuant to application 090009.16A for the Spray Coating Throughput Increase Project, consisting of an expansion in the capacity of the spray coating process within the IXM Membrane Coating Process (ID No. NS-I). In order to verify the assumptions used in the projected actual emissions calculations, the Permittee shall comply with the requirements in Section 2.1 C.7.b, below.

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .0530(u) and 02Q .0308]

b. The Permittee shall perform the following:
   i. Upon commencement of regular operation of the modified unit, the Permittee shall maintain records of annual VOC emissions from the IXM Membrane Coating Process (ID No. NS-I) in tons per year, on a calendar year basis related to the Spray Coating Throughput Increase Project. The Permittee shall calculate these annual emissions for 10 years following startup of regular operations of the modified unit.
   ii. The Permittee shall submit a report to the director within 60 days after the end of each calendar year during which these records must be generated. The report shall contain the items listed in 40 CFR 51.166(r)(6)(v)(a) through (c).
   iii. The Permittee shall make the information documented and maintained under this condition available to the Director or the general public pursuant to the requirements in 40 CFR 70.4(b)(3)(viii).
   iv. The Permittee shall provide a comparison of the reported actual emissions (post-construction emissions) for each of the ten calendar years to the projected actual emissions (pre-construction projection) as included below:

Pollutant	Projected Actual Emissions* (tons per year)
VOC	67.27

* These projections are not enforceable limitations. If projected emissions are exceeded, consistent with 15A NCAC 02D .0530, the Permittee shall include, in its annual report, an explanation as to why the actual rates exceeded the projection.

8. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT), 40 CFR 63, Subpart FFFF: NESHAP for Miscellaneous Organic Chemical Manufacturing (MON)

a. For each miscellaneous organic chemical manufacturing process unit, MCPU, **(ID Nos. NS-A, NS-B, NS-C, and NS-G)**, the Permittee shall comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .1111, "Maximum Achievable Control Technology" as promulgated in 40 CFR 63, Subpart FFFF, including Subpart A, "General Provisions".

Operating Standards [15A NCAC 02Q .0508(f)]

b. Opening a safety device, as defined in 40 CFR 63.2550, is allowed at any time conditions require it to avoid unsafe conditions. *[40 CFR 63.2450(p)]*

Equipment Identification & Special Designations [40 CFR 63.2480(a), 40 CFR 63.1022]

c. The Permittee shall identify each pump, compressor, agitator, pressure relief device, sampling connection system, open-ended valve or line, valve, connector, and instrumentation system in organic HAP service within each MCPU **(ID Nos. NS-A, NS-B, NS-C, and NS-G)**. Identification of the equipment does not require physical tagging of the equipment. For example, the equipment may be identified on a plant site plan, in log entries, by designation of process unit or affected facility boundaries by some form of weatherproof identification, or by other appropriate methods.

   i. The following additional equipment identification requirements also apply:
      (A) Connectors need not be individually identified if all affected connectors in a designated area or length of pipe are identified as a group, and the number of connectors subject is indicated.
      (B) Identify pressure relief devices equipped with upstream rupture disks, as described in Section 2.1 C.7.y, below; and,
      (C) The identity, either by list, location (area or group), or other method, of equipment in organic HAP service less than 300 hours per calendar year.

   ii. The Permittee shall identify unsafe-to-monitor valves, pumps, connectors or agitators. Unsafe-to-monitor valves, pumps, connectors or agitators are equipment for which the Permittee has determined that monitoring personnel would be exposed to an immediate danger as a consequence of complying with the monitoring requirements for valves, pumps, connectors or agitators in this section. The Permittee shall provide an explanation why the equipment is unsafe-to-monitor and record the planned schedule for monitoring this equipment.

   iii. The Permittee shall identify difficult-to-monitor valves or agitators. Difficult-to-monitor valves or agitators are those that cannot be monitored without elevating the monitoring personnel more than 7 feet above a support surface or is not accessible in a safe manner when it is in organic HAP service. The Permittee shall provide an explanation why the equipment is difficult-to-monitor, and record the planned schedule for monitoring this equipment.

   iv. The Permittee shall identify unsafe-to-repair connectors. Unsafe-to-repair connectors are those that cannot be repaired if the Permittee determines that repair personnel would be exposed to an immediate danger as a consequence of complying with the repair requirements in Section 2.1 C.7.bb through C.7.dd, below, and if the connector will be repaired before the end of the next process MCPU shutdown. The Permittee shall keep a record of the explanation why the connector is unsafe-to-repair.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if affected equipment is not identified as required above.

d. If the Permittee designates equipment as unsafe-to-monitor or difficult to monitor, the Permittee shall create written plans as specified below. The Permittee shall retain the written plans on-site, and make them available to NC DAQ for review upon request. [*40 CFR 63.1022(c)(4)*]

   i. Unsafe-to-monitor. The Permittee shall create and implement a written plan that requires monitoring of the equipment as frequently as practical during safe-to-monitor times, but not more frequently than the periodic monitoring schedule otherwise applicable, and repair procedures that are consistent with the requirements of this permit.

   ii. Difficult-to-monitor. The Permittee shall create and implement a written plan that requires monitoring of the equipment at least once per calendar year and repair procedures that are consistent with the requirements of this permit.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the required plans are not created, implemented, and retained.

Equipment Leak Standards & Inspections [40 CFR 63.2480(a), 40 CFR 63, Subpart UU]
Standards for Valves in Light Liquid, Gas and Vapor Service [40 CFR 63.1025]

e. The instrument reading that defines a leaking valve is **500 ppm or greater**.

f. *Instrument inspection.* The Permittee shall monitor valves in each MCPU **(ID Nos. NS-A, NS-B, NS-C, and NS-G)** for leaks using the instrument monitoring methods described in 40 CFR 63.1023(b) and (c) at the frequency specified below:

i. If at least the greater of 2 valves or 2% of the valves in a process unit leak, as calculated according to Section 2.1 C.7.g, below, the Permittee shall monitor each valve once per month.
ii. At each MCPU **(ID Nos. NS-A, NS-B, NS-C, and NS-G)** with less than the greater of 2 leaking valves or 2 percent leaking valves, monitor each valve once each calendar quarter, except as provided in iii., iv., or, v. below.
iii. At each MCPU **(ID Nos. NS-A, NS-B, NS-C, and NS-G)** with less than 1 percent leaking valves, the Permittee may elect to monitor each valve once every two quarters.
iv. At each MCPU **(ID Nos. NS-A, NS-B, NS-C, and NS-G)** with less than 0.5 percent leaking valves, the Permittee may elect to monitor each valve once every four quarters.
v. At each MCPU **(ID Nos. NS-A, NS-B, NS-C, and NS-G)** with less than 0.25 percent leaking valves, the Permittee may elect to monitor each valve once every 2 years.

The Permittee may choose to subdivide the valves in the MCPUs **(ID Nos. NS-A, NS-B, NS-C, and NS-G)** or groups of process units and apply the provisions above to each subgroup. If the Permittee elects to subdivide the valves, it shall comply with the provisions of 40 CFR 63.1025(b)(4). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not meet the instrument inspection requirements listed above.

g. The percentage of leaking valves, used to determine the required monitoring frequency in Section 2.1 C.7.f, above, shall be calculated according to the procedures in 40 CFR 63.1025(c). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the percentage of leaking valves is not calculated as required. *[40 CFR 63.1025(c)]*

h. The Permittee shall create and retain a record of the monitoring schedule for each process unit. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not keep this record. [*40 CFR 63. 1025(b)(3)(vi), 40 CFR 63. 1038(c)(1)(i)*]

i. If a leak is identified:
   i. It shall be repaired as provided in the repair provisions of Section 2.1 C.7.bb through C.7.dd.
   ii. After a leak has been repaired, the valve shall be monitored at least once within the first 3 months after its repair. This requirement is in addition to the monitoring required to satisfy the definition of repaired and first attempt at repair. The required periodic monitoring in Section 2.1 C.7.f, above, may be used if it satisfies the timing requirement of this condition. If a leak is detected by this follow-up monitoring, follow the provisions below to determine whether that valve must be counted as a leaking valve:
      (A) If the periodic monitoring was used to satisfy the follow-up monitoring requirement, then the valve shall be counted as a leaking valve.
      (B) If other monitoring is used satisfy the follow-up monitoring requirements, then the valve shall be counted as a leaking valve unless it is repaired and shown by periodic monitoring not to be leaking.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not meet the requirements listed above.

j. *Unsafe-to-monitor valves.* Any valve that is designated unsafe-to-monitor according to Section 2.1 C.7.c, above, is exempt from the monitoring and repair requirements specified in Section 2.1 C.7.f and C.7.i, above, and the Permittee shall monitor the valve according to the written plan in Section 2.1 C.7.d. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not meet these requirements.

k. *Difficult-to-monitor valves.* Any valve that is designated as difficult-to-monitor according to Section 2.1 C.7.c, above, is exempt from the monitoring requirements of Section 2.1 C.7.f and C.7.i, above, and the Permittee shall monitor the valve according to the written plan in Section 2.1 C.7.d. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not meet these requirements.

<u>Standards for Pumps in Light Liquid Service</u> [40 CFR 63.1026]

l. The instrument reading that defines a leaking pump is 1,000 ppm or greater. Repair is not required unless an instrument reading of 2,000 ppm or greater is detected. *[40 CFR 63.1026(b)(2)(iii) and (b)(3)]*

m. *Visual inspection.* Each pump within the MCPUs **(ID Nos. NS-A, NS-B, NS-C, and NS-G)** shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. The visual inspection

shall be consistent with the methods described in 40 CFR 63.1023(d). The Permittee shall document that the inspection was conducted and the date of the inspection. If there are indications of liquids dripping from the pump seal at the time of the weekly inspection, follow either of the following procedures:

i. Conduct instrument monitoring of the pump using the methods described in 40 CFR 63.1023(b) and (c). If the instrument reading is 1,000 ppm or greater, a leak is indicated and the Permittee shall repair the leak as provided in Section 2.1 C.7.bb through C.7.dd, below, unless the reading is less than 2,000 ppm; or

ii. Eliminate the visual indications of liquids dripping.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not monitor and repair pumps as listed above. [*40 CFR 63.1026(b)(4), 40 CFR 63.1038(c)(2)(i)*]

n. *Instrument inspection.* The Permittee shall monitor affected pumps once per calendar month using the instrument monitoring methods described in 40 CFR 63.1023(b) and (c). Leaks shall be repaired as provided in Section 2.1 C.7.bb. through C.7.dd, below. The Permittee shall calculate the percent leaking pumps using the procedures specified in 40 CFR 63.1026(c).

i. If, when calculated on a 6-month rolling average, at least the greater of either 10 percent of the pumps in a MCPU or three pumps in a MCPU leak, the Permittee shall implement a quality improvement program for pumps that meets the requirements in 40 CFR 63.1035.

ii. The number of pumps at a MCPU shall be the sum of all the pumps in organic HAP service, except that pumps found leaking in a continuous process unit within one month after startup of the pump shall not count in the percent leaking pumps calculation for that one monitoring period only.

iii. The Permittee shall comply with the quality improvement plan until the number of leaking pumps is less than the greater of either 10 percent of the pumps or three pumps, calculated on a 6-month rolling average.

[40 CFR 63.1026(b)(1), (c) and (d)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not monitor and repair pumps as required above.

o. *Unsafe-to-monitor pumps.* Any pump that is designated as unsafe-to-monitor according to Section 2.1 C.7.c, above, is exempt from the inspection requirements provided in Section 2.1 C.7.m and C.7.n, above, and the Permittee shall monitor and inspect the pump in accordance with the written plan in Section 2.1 C.7.d. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not meet these requirements. *[40 CFR 63.1026(e)(6)]*

<u>Standards for Connectors in Gas and Vapor and Light Liquid Service</u> [40 CFR 63.2480(b)(4), 63.1029]

p. The Permittee shall comply with the requirements of 40 CFR 63.1027 for connectors in gas/vapor and light liquid service. The Permittee may elect to comply with the requirements in Section 2.1 C.7.q through C.7.t, below, for connectors in heavy liquid service. [*40 CFR 63.2480(b)(4)*]

q. The Permittee shall monitor connectors in each MCPU **(ID Nos. NS-A, NS-B, NS-C, and NS-G)** within 5 calendar days for leaks using the instrument monitoring methods described in 40 CFR 63.1023(b) and (c), as applicable, if evidence of a potential leak to the atmosphere is found by visual, audible, olfactory, or any other detection method, unless the potential leak is repaired according to Section 2.1 C.7. s, below. *[40 CFR 63.1029(b)(1)]*
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not monitor the connectors as required above.

r. If an instrument reading of 500 parts per million or greater is measured as required in Section 2.1 C.7.q, above, a leak is detected. The Permittee shall repair the leak according to Section 2.1 C.7.bb through C.7.dd, below. NCAC 02D[*40 CFR 63.1029(b)(2)*]
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the leak is not repaired as required.

s. For equipment identified in Section 2.1 C.7.q, above, that is not monitored by the method specified in 40 CFR 63.1023(b) and (c), as applicable, a leak is considered repaired one of the following conditions is met *[40 CFR 63.1029(c)]*:

i. the visual, audible, olfactory, or other indication of a leak to the atmosphere has been eliminated; or

ii. no bubbles are observed at potential leak sites during a leak check using soap solution; or

iii. the system will hold a test pressure.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if leaks are not repaired as required above.

t. The following are special provisions for connectors:

i. *Unsafe-to-repair connectors.* Any connector that is designated as unsafe-to-repair as described in Section 2.1 C.7.c, above, is exempt from the repair requirements in Section 2.1 C.7.bb, below. The Permittee shall monitor these connectors according to the written plan as specified in Section 2.1 C.7.d, above.

ii. *Inaccessible, ceramic, or ceramic-lined connectors.* Any connector that is inaccessible or that is ceramic-lined (e.g., porcelain, glass, or glass-lined) is exempt from the monitoring requirements specified in 40 CFR 63.1023(b) and (c); from the leak repair requirements of Section 2.1 C.7,bb, below; from the recordkeeping and reporting requirements in this section.

(A) An inaccessible connector is one of the following: *[40 CFR 63.1027(e)]*

(1) Buried;

(2) Insulated in a manner that prevents access to the connector by a monitor probe;

(3) Obstructed by equipment or piping that prevents access to the connector by a monitor probe;

(4) Unable to be reached from a wheeled scissor-lift or hydraulic-type scaffold that would allow access to connectors up to 7.6 meters (25 feet) above the ground.

(5) Inaccessible because it would require elevating the monitoring personnel more than 2 meters (7 feet) above a permanent support surface or would require the erection of scaffold;

(6) Not able to be accessed at any time in a safe manner to perform monitoring. Unsafe access includes, but is not limited to, the use of a wheeled scissor-lift on unstable or uneven terrain, the use of a motorized man-lift basket in areas where an ignition potential exists, or access would require near proximity to hazards such as electrical lines, or would risk damage to equipment.

(B) If any inaccessible, ceramic or ceramic-lined connector is observed by visual, audible, olfactory, or other means to be leaking, the visual, audible, olfactory, or other indications of a leak to the atmosphere shall be eliminated as soon as practical.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the special provisions for connectors are not followed as described above.

<u>Standards for Agitators in Gas and Vapor and Light Liquid Service [40 CFR 63.1028]</u>

u. The instrument reading that defines a leaking agitator is **10,000 ppm or greater**.

v. The Permittee shall conduct visual and instrument inspections as provided below [*40 CFR 63.1028, 40 CFR 63.1038(c)(4)(i)*]:

i. *Visual inspection.* Each agitator within each MCPU **(ID Nos. NS-A, NS-B, NS-C, and NS-G)** shall be checked by visual inspection each calendar week for indications of liquids dripping from the agitator seal. The Permittee shall document that the inspection was conducted and the date of the inspection. If are indications of liquids dripping from the agitator seal at the time of the weekly inspection, the Permittee shall follow one of the following procedures: *[40 CFR 63.1028(c)(3)]*

(A) The Permittee shall conduct instrument monitoring of the agitator seal using the methods described in 40 CFR 63.1023(b) and (c). If the instrument reading indicates a leak (i.e., the reading is 10,000 ppm or greater), it shall be repaired as provided in the repair provisions of Section 2.1 C.7.bb through C.7.dd, below; or

(B) The Permittee shall eliminate the visual indications of liquids dripping.

(C) The Permittee shall document each visual agitator inspection.

ii. *Instrument inspection.* The Permittee shall monitor each affected agitator within each MCPU **(ID Nos. NS-A, NS-B, NS-C, and NS-G)** once per calendar month using the instrument monitoring methods described in 40 CFR 63.1023(b) and (c). Leaks shall be repaired as provided in the repair provisions of Section 2.1 C.7.bb through C.7.dd, below.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not monitor and repair agitators as required above.

w. *Special provisions for agitators.* If the Permittee designates agitator seals as either unsafe-to-monitor or difficult-to-monitor, the permittee shall comply with the following:

i. *Unsafe-to-monitor agitator seals.* Any agitator seal that is designated as unsafe-to-monitor according to Section 2.1 C.7.c, above, is exempt from the monitoring and repair requirements in Section 2.1 C.7.v, above. The Permittee shall monitor the unsafe-to-monitor agitator according to the written plan, as required in Section 2.1 C.7.d, above.

ii. *Difficult-to-monitor agitator seals.* Any agitator seal that is designated as difficult-to-monitor according to Section 2.1 C.7.c, above, is exempt from the monitoring requirements of Section 2.1 C.7.v, above, and the Permittee shall monitor the agitator seal according to the written plan as required in Section 2.1 C.7.d, above.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not meet these requirements

Standards for Pressure Relief Valves [40 CFR 63.1030]

x. The instrument reading that defines a leaking pressure relief valve is 500 ppm or greater. This standard does not apply during pressure releases as provided in Section 2.1 C.7.y, below. After each pressure release, the pressure relief device shall be returned to a condition indicated by an instrument reading of less than 500 parts per million, as soon as practical, but no later than 5 calendar days after each pressure release.

y. *Instrument inspection.* The pressure relief device shall be monitored as follows:

i. The Permittee shall monitor no later than five calendar days after each pressure release to confirm the condition indicated by an instrument reading of less than 500 parts per million above background using the instrument monitoring methods described in 40 CFR 63.1023(b) and (c).

ii. Record the dates and results of the monitoring following a pressure release including the background level measured and the maximum instrument reading measured.

iii. Any pressure relief device that is equipped with a rupture disk upstream of the pressure relief device is exempt from the requirements of Section 2.1 C.7.x and C.7.y, provided the Permittee installs a replacement rupture disk upstream of the pressure relief device as soon as practical after each pressure release but no later than 5 calendar days after each pressure release, except as allowed under the delay of repair provisions in Section 2.1 C.7.cc, below.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not monitor and maintain pressure relief valves as required above. [*40 CFR 63.1038(c)(5)*]

Equipment Leak Identification [40 CFR 63.2480(a)]

z. When a leak is detected using either sensory or instrument monitoring methods, a weatherproof and readily visible identification shall be attached to the leaking equipment. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if each detected leak is not identified as provided above. [*40 CFR 63.1023(e)(1)*]

aa. Leak identifications that are placed on leaking equipment may be removed as follows:

i. Leak identification on a valve in gas/vapor or light liquid service may be removed after it has been re-monitored as required in Section C.7.i, above, and no leak has been detected during that monitoring.

ii. Leak identification on pumps, agitators, connectors (complying with Section 2.1 C.7.q, above) and pressure relief valves may be removed after it is repaired.

[*40 CFR 63.1024(c)*]

Equipment Leak Repair [40 CFR 63.2480(a), 40 CFR 63, Subpart UU]

bb. The Permittee shall repair each leak detected as soon as practical, but not later than 15 calendar days after it is detected, except where "Delay of Repair" or "Unsafe to Repair" provisions apply. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. *[40 CFR 63.1024]*

i. First attempt at repair for pumps includes, but is not limited to, tightening the packing gland nuts and/or ensuring that the seal flush is operating at design pressure and temperature.

ii. First attempt at repair for valves includes, but is not limited to, tightening the bonnet bolts, and/or replacing the bonnet bolts, and/or tightening the packing gland nuts, and/or injecting lubricant into the lubricated packing.

cc. *Delay of repair.* Delay of repair is allowed for any of the conditions listed below. The Permittee shall maintain a record of the facts that explain any delay of repairs and, where appropriate, why the repair was technically infeasible without a process unit shutdown.

i. Delay of repair is allowed if repair within 15 days after a leak is detected is technically infeasible without a process unit or affected facility shutdown. Repair of this equipment shall occur as soon as practical, but no later than the end of the next process unit or affected facility shutdown, except as provided in Section 2.1 C.7.cc.v. below.
ii. Delay of repair is allowed for equipment that is isolated from the process and that does not remain in regulated material service.
iii. Delay of repair for valves, connectors, and agitators is also allowed where:
   (A) The Permittee determines that emissions of purged material resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair, and
   (B) When repair procedures are affected, the purged material is collected and destroyed, collected and routed to a fuel gas system or process, or recovered in a control device.
iv. Delay of repair for pumps is also allowed where:
   (A) Repair requires replacing the existing seal design with a new system that the Permittee has determined through a Quality Improvement Plan will provide better performance or one of the following:
      (1) A dual mechanical seal system will be installed;
      (2) A pump that meets the requirements of 40 CFR 63.1026(e)(2) will be installed; or
      (3) A system that routes emissions to a process or a fuel gas system or a closed vent system and control device will be installed; and
   (B) Repair is completed as soon as practical, but not later than 6 months after the leak was detected.
v. Delay of repair beyond a process unit or affected facility shutdown will be allowed for a valve if valve assembly replacement is necessary during the process unit or affected facility shutdown, and valve assembly supplies have been depleted, and valve assembly supplies had been sufficiently stocked before the supplies were depleted. Delay of repair beyond the second process unit or affected facility shutdown will not be allowed unless the third process unit or affected facility shutdown occurs sooner than 6 months after the first process unit or affected facility shutdown.

dd. [reserved]

Equipment Leak Recordkeeping [40 CFR 63.2480(a), 40 CFR 63, Subpart UU]

ee. For each leak detected, the following information shall be recorded and maintained:
i. The date of first attempt to repair the leak.
ii. The date of successful repair of the leak.
iii. Maximum instrument reading measured by Method 21 of 40 CFR Part 60, Appendix A at the time the leak is successfully repaired or determined to be non-repairable.
iv. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak as specified below:
   (A) The Permittee may develop a written procedure that identifies the conditions that justify a delay of repair. In such cases, reasons for delay of repair may be documented by citing the relevant sections of the written procedure.
   (B) If delay of repair was caused by depletion of stocked parts, there must be documentation that the spare parts were sufficiently stocked on-site before depletion and the reason for depletion.
v. Dates of process unit or affected facility shutdowns that occur while the equipment is unrepaired.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the records listed above are not created and retained. [*40 CFR 63.1023(e)(2), 40 CFR 63.1024(f), 40 CFR 63. 1038(b)*]

ff. The Permittee shall create and retain the following general records:
i. General and specific equipment identification if the equipment is not physically tagged and the Permittee is electing to identify the affected equipment through written documentation such as a log or other designation;
ii. Written plans for any equipment that is designated as unsafe- or difficult-to-monitor; and,
iii. A record of the identity and justification of any equipment that is designated as unsafe-to-repair.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the records listed above are not created and retained. [*40 CFR 63. 1038(b)*]

Heat Exchanger Requirements [15A NCAC 02Q .0508(f)]

gg. The Permittee shall prepare and implement a monitoring plan that documents the procedures that will be used to detect leaks of process fluids into cooling water.

i. The plan shall require monitoring of one or more surrogate indicators (e.g., pH, conductivity, etc.) or monitoring of one or more process parameters or other conditions that indicate a leak. The plan shall include the following:
   (A) A description of the parameter or condition to be monitored and an explanation of how the selected parameter or condition will reliably indicate the presence of a leak;
   (B) The parameter level(s) or conditions(s) that shall constitute a leak. This shall be documented by data or calculations showing that the selected levels or conditions will reliably identify leaks. The monitoring must be sufficiently sensitive to determine the range of parameter levels or conditions when the system is not leaking. When the selected parameter level or condition is outside that range, a leak is indicated;
   (C) The monitoring frequency which shall be no less frequent than monthly for the first 6 months and quarterly thereafter to detect leaks;
   (D) The records that will be maintained to document compliance with the requirements of the monitoring plan.

ii. If a substantial leak is identified by methods other than those described in the monitoring plan and the method(s) specified in the plan could not detect the leak, the Permittee shall revise the plan and document the basis for the changes no later than 180 days after discovery of the leak.

iii. The Permittee shall maintain a copy of the current monitoring plan on-site or other means that provides access within two hours after a request. If the monitoring plan is superseded, the Permittee shall retain the most recent superseded plan at least until 5 years from the date of its creation. The Permittee shall retain the superseded plan on-site (or accessible from a central location by computer or other means that provides access within two hours after a request) for at least 6 months after its creation.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not meet the above requirements. [*40 CFR 63.2490, 40 CFR 63.104(c)*]

hh. Except as allowed by the delay of repair requirements in Section 2.1 C.7.hh.ii, below, if a leak is detected in any heat exchanger system, the Permittee shall be repair the leak as soon as practical but not later than 45 calendar days after the Permittee receives results of monitoring tests indicating a leak, unless the Permittee demonstrates that the results are due to a condition other than a leak. Once the leak has been repaired, the owner or operator shall confirm that the heat exchange system has been repaired within 7 calendar days of the repair or startup, whichever is later. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if leaks are not repaired as required above. [*40 CFR 63.2490, 40 CFR 63.104(d)*]

ii. Delay of repair of heat exchange systems is allowed if the equipment is isolated from the process. Delay of repair is also allowed if repair is technically infeasible without a shutdown and any one of the conditions listed in 40 CFR 63.104(e)(1) through (e)(2) is met. [*40 CFR 63.2490, 40 CFR 63.104(e)*] The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the delay of repair provisions are not met.

jj. For each affected heat exchanger system, the Permittee shall retain the following records:
   i. Monitoring data indicating a leak, the date when the leak was detected, and if demonstrated not to be a leak, the basis for that determination;
   ii. Records of any leaks detected by procedures other than those provided in the written plan according to Section 2.1 C.7.gg, above, including the date the leak was discovered;
   iii. The dates of efforts to repair leaks; and,
   iv. The method or procedure used to confirm repair of a leak and the date repair was confirmed.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the records listed above are not retained. [*40 CFR 63.2490, 40 CFR 63.104(f)*]

<u>Additional Recordkeeping</u> [15A NCAC 02Q .0508(f)]

kk. The Permittee shall create and retain the following records on each affected MCPU: *[40 CFR 63.2525(b)]*
   i. A description of the process and the type of process equipment used;
   ii. An identification of related process vents (including associated emissions episodes), wastewater points of determination (PODs), and storage tanks;
   iii. The applicable control requirements pursuant to 40 CFR 63, Subpart FFFF, including the level of required control, and for vents, the level of control for each vent;
   iv. The control device or treatment process used, as applicable, including a description of operating and/or testing conditions for any associated control device;

v. The process vents, wastewater POD, and storage tanks (including those from other processes) that are simultaneously routed to the control device or treatment process;
vi. The applicable monitoring requirements of this subpart and any parametric level that assures compliance for all emissions routed to the control device or treatment process; and,
vii. Calculations and engineering analyses required to demonstrate compliance.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the above records are not retained.

ll. Create and retain a record of each time a safety device is opened to avoid unsafe conditions. *[40 CFR 63.2525(f)]* The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if this record is not retained.

mm. For each affected Group 2 wastewater stream, the Permittee shall retain the following records: *[Table 7 of 40 CFR Part 63, Subpart F and 40 CFR 63.147(b)(8)]*
i. MPCU identification and description;
ii. Stream identification code;
iii. Concentration of compounds listed in Table 8 and Table 9 of 40 CFR 63, Subpart FFFF (in ppmw), including documentation of the methodology used to determine concentration; and,
iv. Stream flow rate (in L/min).

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the records listed above are not retained. [*40 CFR 63.2585(a), 40 CFR 63.147(b)(8)*]

Process Changes [15A NCAC 02Q .0508(f)]

nn. If a Group 2 emission point becomes a Group 1 emission point, the Permittee must be in compliance with the Group 1 requirements beginning on the date the switch occurs. An initial compliance demonstration as specified in 40 CFR Part 63, Subpart FFFF must be conducted within 150 days after the switch occurs. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not meet these requirements. [40 CFR 63.2445(d)]

Reporting [15A NCAC 02Q .0508(f)]

oo. The Permittee shall submit a semi-annual compliance report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following: *[40 CFR 63.2520(a), (b) and (e)]*
i. Company name and address;
ii. Statement by a responsible official with that official's name, title, and signature, certifying the accuracy of the content of the report;
iii. Date of report and beginning and ending dates of the reporting period;
iv. If there are no periods of noncompliance from any emission limit, operating limit or work practice standard specified in Section 2.1 C.7, include a statement that there were no periods of noncompliance from the emission limits, operating limits, or work practice standards during the reporting period;
v. For each period of noncompliance from an emission limit, operating limit, and work practice standard, include the following information:
(A) The total operating time of the affected source during the reporting period; and,
(B) Information on the number, duration, and cause of noncompliance (including unknown cause, if applicable), as applicable, and the corrective action taken.
vi. Identify each new operating scenario which has been operated since the time period covered by the last compliance report and has not been submitted in the previous compliance report. For each new operating scenario, the Permittee shall provide verification that the operating conditions for any associated control or treatment device have not been exceeded and that any required calculations and engineering analyses have been performed. A revised operating scenario for an existing process is considered to be a new operating scenario;
vii. For the equipment listed below, report in a summary format by equipment type, the number of components for which leaks were detected and for valves, pumps and connectors show the percent leakers, and the total number of components monitored. Also include the number of leaking components that were not repaired as required according to Section 2.1 C.7.bb through C.7.dd, above, and for valves and connectors, identify the number of components that are determined to be non-repairable as described in 40 CFR 63.1025(c)(3).
(A) Valves in gas and vapor service and in light liquid service;
(B) Pumps in light liquid service;

(C) Connectors in gas and vapor service and in light liquid service; and,
(D) Agitators in gas and vapor service and in light liquid service.

viii. Where any delay of repair for leaks is utilized, report that delay of repair has occurred and report the number of instances of delay of repair under Section 2.1 C.7.cc, above.

ix. For pressure relief devices, report the results of all leak monitoring to show compliance conducted within the semiannual reporting period.

x. Report, if applicable, the initiation of a monthly leak monitoring program for valves and pumps.

xi. For each affected heat exchanger system for which the Permittee invokes the delay of repair, include the following information: *[40 CFR 63.2490 and 68.104(f)(2)]*
(A) the presence of the leak and the date that the leak was detected
(B) whether or not the leak has been repaired
(C) the reason(s) for delay of repair and any supporting emission estimates.
(D) If the leak is repaired, the owner or operator shall report the date the leak was successfully repaired.
(E) If the leak remains unrepaired, the expected date of repair.

D. Polymer Processing Aid Process (ID No. AS-A) controlled by a wet scrubber (ID No. ACD-A1)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	**State-enforceable only** See Section 2.2 B.5	15A NCAC 02D .1806
Toxic Air Pollutants	**State-enforceable only** Toxic air pollutant limits shall not be exceeded. See Sections 2.2 B.1 and 2.2 B.2	15A NCAC 02D .1100

STATE-ENFORCEABLE ONLY

1. **15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS**
   a. Gaseous and mist emissions from the Polymer Processing Aid process area **(ID No. AS-A)** shall be controlled by a wet scrubber **(ID No. ACD-A1)**. The Permittee shall ensure the proper performance of the scrubber by monitoring the following operational parameters:
      i. Liquid flow rate through the packed bed section (minimum of 30 gallons per minute averaged over a 3-hour period), and
      ii. Differential pressure across the packed bed section of the scrubber (maximum of 12 inches of water pressure averaged over a 3-hour period), with a high differential pressure alarm.

   Recordkeeping

   b. The Permittee shall record the results of inspections in a scrubber log (written or electronic records), which shall be kept on site and made available to Division of Air Quality personnel upon request. Any variance from the manufacturer's recommendations or the permit monitoring requirements, or the failure of the air pollution control equipment to operate in a normal and usual manner, shall be investigated with corrections made and dates of action recorded in the log book. The inspection and maintenance activities, as well as required monitoring for scrubbing liquid flow rates, and scrubber pressure drops, if appropriate, shall be recorded.

E. Wastewater Treatment Area consisting of an extended aeration biological wastewater treatment facility (ID No. WTS-A) and two indirect steam-heated rotary sludge dryers (ID Nos. WTS-B and WTS-C) controlled by a wet scrubber with mist eliminator (ID No. WTCD-1)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Odors	**State-enforceable only** Odorous emissions must be controlled	15A NCAC 02D .1806

STATE ENFORCEABLE ONLY

1. **15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS**

   a. The Permittee shall not operate the wastewater treatment area **(ID Nos. WTS-A, WTS-B AND WTS-C)** without implementing management practices or installing and operating odor control equipment sufficient to prevent odorous emissions from the facility from causing or contributing to objectionable odors beyond the facility's boundary.

   b. Odorous emissions from the wastewater treatment sludge dryers **(ID Nos. WTS-B and WTS-C)** shall be controlled by an impingement-type scrubber with caustic injection **(ID No. WTCD-1)**.

   Monitoring/Recordkeeping

   c. To comply with the provisions of this Permit and ensure that maximum control efficiency of the scrubber **(ID No. WTCD-1)** is maintained, the Permittee shall perform periodic inspections and maintenance as recommended by the scrubber manufacturer. As a minimum, the inspection and maintenance program shall include inspection of spray nozzles, packing material, chemical feed system (if so equipped), and the cleaning/calibration of all associated instrumentation.

   d. The Permittee shall record the results of inspections in a scrubber logbook (written or electronic format) that shall be kept on site and made available to NC DAQ personnel upon request. Any variance from the manufacturer's recommendations or the permit monitoring requirements, or the failure of the air pollution control equipment to operate in a normal and usual manner, shall be investigated with corrections made and dates of actions taken recorded in the log book. The inspection and maintenance activities, as well as required monitoring for scrubbing liquid flow rates and scrubber pressure drops, if appropriate, shall be recorded.

F. Natural gas/No. 2 fuel oil-fired temporary boiler (less than 100.0 million Btu per hour maximum heat input, ID No. PS-Temp)

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

Regulated Pollutant	Limits/Standards	Applicable Regulations
Particulate Matter	0.2426 pounds of particulate per million Btu	15A NCAC 02D .0503
Sulfur Dioxide	2.3 pounds SO_2 per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	20 percent opacity	15A NCAC 02D .0521(d)
Sulfur Dioxide and Visible Emissions	On site less than 180 days per consecutive twelve month period and use of fuels emitting no more than 0.06 pounds of sulfur dioxide per million Btu heat input.	15A NCAC 02Q .0317 (15A NCAC 02D .0524 [NSPS] Avoidance)
Sulfur Dioxide	Less than 40 tons per consecutive 12-month period	15A NCAC 02Q .0317 (15A NCAC 02Q .0530 [PSD] Avoidance)
Sulfur Dioxide	**Boilers (PS-A, PS-B, PS-C, and PS-Temp)** Less than 702.5 tons per consecutive 12-month period; See Section 2.2 A.1. of this permit.	15A NCAC 02Q .0317 (PSD Avoidance)
Hazardous Air Pollutants	On site less than 180 days per consecutive twelve month period.	15A NCAC 02Q .0317 (15A NCAC 02D .1109/.1111 [MACT] Avoidance)

1. 15A NCAC 02D .0503: PARTICULATES FROM FUEL BURNING INDIRECT HEAT EXCHANGERS

a. Emissions of particulate matter discharged into the atmosphere from the combustion of No. 2 fuel oil in the temporary boiler **(ID No. PS-Temp)** shall not exceed 0.2426 pounds per million Btu heat input.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0503.

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

c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of fuel oil in this source for this regulation.

2. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

a. Emissions of sulfur dioxide from the temporary boiler **(ID No. PS-Temp)** shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

c. No monitoring/recordkeeping is required for sulfur dioxide emissions from the firing of natural gas or fuel oil in this source.

3. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

a. Visible emissions from the temporary boiler **(ID No. PS-Temp)** shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than

once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 F.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or fuel oil in this source.

4. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the temporary boiler **(ID No. PS-Temp)** shall discharge into the atmosphere less than 40 tons of sulfur dioxide per consecutive twelve-month period.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limits given in Section 2.1 F.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. The Permittee shall keep monthly records of fuel usage in a log (written or in electronic format), as follows:
   i. The total quantity (in 1,000 gal) of fuel oil fired at the boiler; and,
   ii. The fuel oil supplier certification for any fuel oil fired at the boiler, including the sulfur content of the oil (in percent by weight).

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the fuel usage and fuel oil sulfur content are not created and retained as required above.

d. The Permittee shall calculate monthly and 12-month rolling SO_2 emissions from the temporary boiler within 30 days after the end of each calendar month. Calculations shall be recorded in a logbook (written or electronic format), according to the following formulas:
   i. Calculate SO_2 emissions from the previous calendar month using the following equation:

$$E_{SO_2} = 142 * S * Q_{fo2}$$

Where, E_{SO2} = SO_2 emissions (in lbs) during the previous calendar month,
S = Sulfur content in the fuel oil (in percent by weight), and
Q_{fo2} = Quantity of fuel oil fired at the temporary boiler during the previous calendar month (in 1,000 gal)

   ii. Sum the SO_2 emissions from the boiler for the previous 12-month period to determine the 12-month rolling emission total.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the monthly calculations listed above are not retained or if the 12-month rolling emission totals are greater than the emission limit provided in Section 2.1 F.4.a of this permit.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. The monthly SO_2 emissions from the boiler for the previous 17 months;
   ii. The total SO_2 emissions from the boiler for each 12-month period ending during the six month reporting period; and,
   iii. All instances of noncompliance from the requirements of this permit must be clearly identified.

5. **15A NCAC 02Q .0317: AVOIDANCE CONDITION**
for 15A NCAC 02D .1109: CAA § 112(j); Case-by-Case MACT for Boilers & Process Heaters NCAC 02D

a. Prior to May 20, 2019, in order to avoid the applicability of 15A NCAC 02D .1109NCAC 02D, the temporary boiler **(ID No. PS-Temp)** shall not remain on site for more than 180 consecutive days. The Permittee shall retain records of the number of consecutive days the boiler is onsite.

b. If this boiler remains on site for longer than 180 consecutive days, the Permittee shall notify the Regional Office in writing within ten days of exceeding the 180 day period.

c. The Permittee shall submit a startup notification to the Fayetteville Regional Office within 15 days of startup of the temporary boiler **(ID No. PS-Temp)**.

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

A. BOILERS:

Three natural gas/No. 2 fuel oil-fired boilers (ID Nos. PS-A, PS-B, and PS-C)
Temporary boiler (ID No. PS-Temp), natural gas/No. 2 fuel oil-fired (greater than 30.0 and less than 100.0 million Btu per hour maximum heat input).

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
for 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION

a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, the affected boilers **(ID Nos. PS-A, PS-B, PS-C, and PS-Temp)** shall discharge into the atmosphere less than 702.5 tons of SO_2 per consecutive 12-month period.

Testing [15A NCAC 02Q .0508(f)]

b. If emissions testing is required, the Permittee shall perform such testing in accordance with General Condition JJ. If the results of this test indicate annual emission rates in exceedance of the limit given in Section 2.2 A.1.a, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

c. The Permittee shall keep monthly records of fuel usage in a log (written or in electronic format), as follows:
   i. The total quantity (in million standard cubic feet) of natural gas fired at the affected boilers;
   ii. The total quantity (in 1,000 gal) of fuel oil fired at the affected boilers; and,
   iii. The fuel oil supplier certification for any fuel oil fired at the affected boilers, including the sulfur content of the oil (in percent by weight).

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the fuel usage and fuel oil sulfur contents are not created and retained as required above.

d. The Permittee shall calculate monthly and 12-month rolling SO_2 emissions from the affected boilers within 30 days after the end of each calendar month. Calculations shall be recorded in a log (written or electronic format), according to the following formulas:
   i. Calculate SO_2 emissions from the previous calendar month using the following equation:

$$E_{so_2} = 142 * S_{fo2} * Q_{fo2} + 0.6 * Q_{ng}$$

Where,	E_{SO2}	=	SO_2 emissions (in lb) during the previous calendar month;
	S_{fo2}	=	Sulfur content in the fuel oil (percent by weight);
	Q_{fo2}	=	Quantity of fuel oil fired during the previous calendar month (1,000 gal); and,
	Q_{ng}	=	Quantity of natural gas fired during the previous calendar month (million standard cubic feet).

   ii. Sum the SO_2 emissions from the affected boilers for the previous 12-month period to determine the 12-month rolling emission total.

   The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530 if records of the monthly calculations listed above are not retained or if the 12-month rolling emission totals are greater than the emission limit provided in Section 2.2 A.1.a of this permit.

Reporting [15A NCAC 02Q .0508(f)]

e. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the following:
   i. The monthly SO_2 emissions from the two affected boilers for the previous 17 calendar months;
   ii. The 12-month rolling SO_2 emissions for each 12-month period ending during the reporting period; and,
   iii. All instances of noncompliance from the requirements of this permit must be clearly identified.

B. FACILITY-WIDE

STATE-ENFORCEABLE ONLY

1. 15A NCAC 02D .1100: TOXIC AIR POLLUTANT EMISSIONS LIMITATIONS AND REQUIREMENTS

a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

Toxic Air Pollutant	Facility-Wide Emission Limit
Acetaldehyde	395 lb/hr
Acetic Acid	54.1 lb/hr
Acrolein	1.17 lb/hr
Acrylonitrile	240 lb/yr
Ammonia	39.5 lb/hr
Ammonium Chromate	0.54 lb/day
Ammonium Dichromate	0.54 lb/day
Aniline	14.6 lb/hr
Arsenic and Inorganic Arsenic Compounds	0.37 lb/yr
Aziridine	5.26 lb/day
Benzene	192 lb/yr
Benzidine and Salts	0.02 lb/yr
Benzo(a)pyrene	52.8 lb/yr
Benzyl Chloride	7.31 lb/yr
Beryllium	6.56 lb/yr
Beryllium Chloride	6.56 lb/yr
Beryllium Fluoride	6.56 lb/yr
Beryllium Nitrate	6.56 lb/yr
Bis-Chloromethyl Ether	0.59 lb/yr
Bromine	2.92 lb/hr
1,3-Butadiene	272 lb/yr
Cadmium	8.8 lb/yr
Cadmium Acetate	8.8 lb/yr
Cadmium Bromide	8.8 lb/yr
Calcium Chromate	0.13 lb/yr
Carbon Disulfide	163 lb/day
Carbon Tetrachloride	10,723 lb/yr
Chlorine	13.1 lb/hr; 32.9 lb/day
Chlorobenzene	1,929 lb/day
Chloroform	6,882 lb/yr

Toxic Air Pollutant	Facility-Wide Emission Limit
Chloroprene	51.1 lb/hr; 386 lb/day
Chromic Acid	0.54 lb/day
Chromium (VI)	0.13 lb/yr
Cresol	32.15 lb/hr
p-Dichlorobenzene	965 lb/hr
Dichlorodifluoromethane	217,477 lb/day
Dichlorofluoromethane	438 lb/day
Di(2-ethylhexyle)phthalate	26.3 lb/day
Dimethyl Sulfate	2.63 lb/day
1,4-Dioxane	491 lb/day
Epichlorohydrin	132,832 lb/yr
Ethyl Acetate	2,046 lb/hr
Ethylenediamine	36.5 lb/hr; 263 lb/day
Ethylene Dibromide	640 lb/yr
Ethylene Dichloride	6,081 lb/yr
Ethylene Glycol Monoethyl Ether	27.8 lb/hr; 105 lb/day
Ethylene Oxide	43.2 lb/yr
Ethyl Mercaptan	1.46 lb/hr
Fluorides	3.65 lb/hr; 14.03 lb/day
Formaldehyde	2.19 lb/hr
Hexachlorocyclopentadiene	0.15 lb/hr; 0.53 lb/day
Hexachlorodibenzo-p-dioxine	0.12 lb/yr
n-Hexane	965 lb/day
Hexane Isomers	5,262 lb/hr
Hydrazine	0.53 lb/day
Hydrogen Chloride	10.2 lb/hr
Hydrogen Cyanide	16.1 lb/hr; 123 lb/day
Hydrogen Sulfide	30.7 lb/hr
Maleic Anhydride	1.46 lb/hr; 10.5 lb/day
Manganese & Compounds	27.2 lb/day
Manganese Cyclopentadienyl Tricarbonyl	0.53 lb/day
Manganese Tetroxide	5.44 lb/day
Mercury, Alkyl	0.05 lb/day
Mercury, Aryl & Inorganic	0.53 lb/hr

Toxic Air Pollutant	Facility-Wide Emission Limit
Mercury, vapor	0.53 lb/hr
Methyl Chloroform	3,581 lb/hr; 10,523 lb/day
Methylene Chloride	24.85 lb/hr; 38,409 lb/yr
Methyl Ethyl Ketone	1,293 lb/hr; 3,245lb/day
Methyl Isobutyl Ketone	438 lb/hr; 2,245 lb/day
Methyl Mercaptan	0.73 lb/hr
Nickel Carbonyl	0.53 lb/day
Nickel Metal	5.26 lb/day
Nickel, Soluble Compounds as Nickel	5.26 lb/day
Nickel Subsulfide	3.36 lb/yr
Nitric Acid	14.6 lb/hr
Nitrobenzene	7.31 lb/hr; 52.6 lb/day
n-Nitrosodimethlamine	80.0 lb/yr
Pentachlorophenol	0.37 lb/hr; 2.63 lb/day
Perchloroethylene	304,073 lb/yr
Phenol	13.9 lb/hr
Phosgene	2.19 lb/day
Phosphine	1.90 lb/hr
Polycholinated Biphenyls	133 lb/yr
Potassium Chromate	0.54 lb/day
Potassium Dichromate	0.54 lb/day
Sodium Chromate	0.54 lb/day
Sodium Dichromate	0.54 lb/day
Strontium Chromate	0.13 lb/yr
Styrene	155 lb/hr
Sulfuric Acid	1.46 lb/hr; 10.5 lb/day
Tetrachlorodibenzo-p-dioxin	0.0048 lb/yr
1,1,1,2-Tetrachloro-2,2-Difluoroethane	45,600 lb/day
1,1,2,2,-Tetrachloro-1,2-Difluoroethane	45,600 lb/day
1,1,1,2-Tetrachloroethane	10,082 lb/yr
Toluene	818 lb/hr; 4,122 lb/day
Toluene-2,4-diisocyanate	0.22 lb/hr; 0.44 lb/day
Trichloroethylene	94,423 lb/yr
Trichlorofluoromethane	8,185 lb/hr

Toxic Air Pollutant	Facility-Wide Emission Limit
1,1,2-Trichloro-1,2,2-Trifluoroethane	13,885 lb/hr
Vinyl Chloride	608 lb/yr
Vinylidene Chloride	105 lb/day
Xylene	950 lb/hr; 2,368 lb/day
Zinc Chromate	0.13 lb/yr

Recordkeeping

b. For compliance purposes, the Permittee shall maintain records of production rates, throughput, material usage, periods of excess emissions, failure of air pollution control equipment to operate in a normal and usual manner, and other process operational information, that allows for evaluation for compliance with the toxic air pollutant limits. These records shall be retained for a minimum of three years from the date of recording, and access to these records shall be provided to the Division of Air Quality staff upon request.

Reporting

c. For compliance purposes, within thirty (30) days after each calendar year quarter the following shall be reported to the Regional Supervisor, Division of Air Quality:
   i. Any and all exceedances of applicable toxic air pollutant emission limits during the previous calendar year quarter.
   ii. The maximum pounds per 1-hour emission rate at any time during the previous calendar year quarter for all applicable toxic air pollutants that have a listed emission rate in pounds per hour.
   iii. The maximum pounds per 24-hour emission rate at any time during the previous calendar year quarter for all applicable toxic air pollutants that have a listed emission rate in pounds per day.
   iv. The yearly emission rate for the 12-month period ending with the previous calendar year quarter for all applicable toxic air pollutants that have a listed emission rate in pounds per year.

STATE-ENFORCEABLE ONLY

2. 15A NCAC 02D .1100: TOXIC AIR POLLUTANT EMISSIONS LIMITATIONS AND REQUIREMENTS

a. Pursuant to 15A NCAC 02D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

Emission Source	Toxic Air Pollutant	Emission Limits
High dispersion stacks **(ID Nos. NEP-Hdr-1, NEP-Hdr-2, AEP-A1, and FEP-A1)**	Hydrogen Fluoride	7.28 lb/hr; 52.45 lb/day
All other sources	Hydrogen Fluoride	2.7 lb/hr; 19.4 lb/day

Monitoring

b. The Permittee shall ensure the proper performance of the Baffle Plate-Type Tower Scrubbers **(ID Nos. NCD-Hdr-1 and NCD-Hdr-2)** by monitoring the injection liquid flow rate (minimum of 7,000 kilograms per hour, averaged over a 3-hour period).

Recordkeeping

c. The Permittee shall record the results of inspections of the Baffle Plate-Type Tower Scrubbers **(ID Nos. NCD-Hdr-1 and NCD-Hdr-2)** in a scrubber logbook (written or electronic records) that shall be kept on site and made available to Division of Air Quality personnel upon request. Any variance from the manufacturer's recommendations or the permit monitoring requirements, or the failure of the air pollution control equipment to operate in a normal and usual manner, shall be investigated with corrections made and dates of action recorded in the log book. The inspection and maintenance activities, as well as required monitoring for scrubbing liquid flow rates, and scrubber pressure drops, if appropriate, shall be recorded.

d. The Permittee shall maintain records of production rates, throughput, material usage, periods of excess emissions, failure of air pollution control equipment to operate in a normal and usual manner, and other process operational information, that allows for evaluation for compliance with the toxic air pollutant limits. These records shall be retained for a minimum of three years from the date of recording, and access to these records shall be provided to the Division of Air Quality staff upon request.

Reporting

e. For compliance purposes, within thirty (30) days after each calendar year quarter the following shall be reported to the Regional Supervisor, Division of Air Quality:
   i. Any and all exceedances of applicable TAP emission limits during the previous calendar year quarter.
   ii. The maximum pounds per 1-hour emission rate at any time during the previous calendar year quarter for all applicable toxic air pollutants that have a listed emission rate in pounds per hour.
   iii. The maximum pounds per 24-hour emission rate at any time during the previous calendar year quarter for all applicable toxic air pollutants which have a listed emission rate in pounds per day.

3. 40 CFR Part 68 "ACCIDENTAL RELEASE PREVENTION REQUIREMENTS: RISK MANAGEMENT PROGRAMS UNDER THE CLEAN AIR ACT, SECTION 112(r)"

a. The Permittee is subject to Section 112(r) of the Clean Air Act and shall comply with all applicable requirements in accordance with 40 CFR Part 68.

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

b. The Permittee submitted a Risk Management Plan (RMP) to EPA pursuant to 40 CFR Part 68.150 on August 18, 2014.

c. The Permittee shall revise and update the RMP submitted under 40 CFR 68.150 by August 31, 2019, and at least once every five years after that date or most recent update required by 40 CFR 68.190(b)(2) through (b)(7), whichever is later.

STATE-ENFORCEABLE ONLY

4. 15A NCAC 02D .0541: CONTROL OF EMISSIONS FROM ABRASIVE BLASTING

a. The Permittee shall ensure that any abrasive blasting operation conducted outside a building or conducted indoors and vented to the atmosphere is performed in accordance with the requirements set forth in 15A NCAC 02D .0521, Control of Visible Emissions. Any visible emissions reading for abrasive blasting performed outside a building shall be taken at a spot approximately one meter above the point of abrasive blasting with a viewing distance of approximately five meters.

b. All abrasive blasting operations shall be conducted within a building, except as provided below. The following abrasive blasting operations need not be conducted within a building:
   i. Abrasive blasting of an item that exceeds eight feet in any dimension; or,
   ii. Abrasive blasting of a surface situated at its permanent location or not further away from its permanent location than is necessary to allow the surface to be blasted.

c. Any abrasive blasting operation conducted outside a building, as provided in Section 2.2 B.3.b.i or ii, above, shall take appropriate measures to ensure that the fugitive dust emissions created by the abrasive blasting operation do not migrate beyond the property boundaries in which the abrasive blasting operation is being conducted. Appropriate measures include the following:
   i. Addition of a suppressant to the abrasive blasting material;
   ii. Wet abrasive blasting;
   iii. Hydro-blasting;
   iv. Vacuum blasting;
   v. Shrouded blasting; or
   vi. Shrouded hydro-blasting.

STATE-ENFORCEABLE ONLY

5. 15A NCAC 02D .1806: CONTROL AND PROHIBITION OF ODOROUS EMISSIONS

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

C. Permit Application Submittal Requirement

1. 15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT

Permitting [15A NCAC 02Q .0504(d)]

a. As required under 15A NCAC 02Q .0501(c)(2), the Permittee shall have one year from the date of beginning normal operation of the modified IXM Membrane Coating Process **(ID No. NS-I)**, to file an amended application following the procedures of Section 15A NCAC 02Q .0504.

Reporting [15A NCAC 02Q .0508(f)]

b. The Permittee shall notify the Regional Office, in writing, of the date of beginning normal operation of the modified IXM Membrane Coating Operation **(ID Nos. NS-I)** postmarked no later than 30 days after such date.

2.3 Permit Shield for Nonapplicable Requirements

The Permittee is shielded from the following nonapplicable requirements [15A NCAC 02Q .0512(a)(1)(B)].

A. The NSPS for Small Industrial-Commercial-Institutional Steam Generating units (40 CFR Part 60, Subpart Dc) and 15A NCAC 02D .0524 are not applicable to the natural gas/No. 2 fuel oil-fired temporary boiler **(ID No. PS-Temp)** because the boiler is a temporary boiler, as defined in §60.41c, provided the following criteria are met:
   1. The boiler only fires natural gas and distillate oil;
   2. The potential SO_2 emissions are equal to or less than 0.060 lb/MMBtu;
   3. The boiler is designed to, and is capable of, being carried or moved from one location to another and is not attached to a foundation; and
   4. The boiler remains at the location for 180 consecutive days or fewer (any temporary boiler that replaces a temporary boiler at a location and performs the same or similar function will be included in calculating the consecutive time period).

B. The National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters (40 CFR Part 63, Subpart DDDDD) and 15A NCAC 02D .1111 are not applicable to the natural gas/No. 2 fuel oil-fired temporary boiler **(ID No. PS-Temp)** because the boiler is a temporary boiler, as defined in §63.7575, provided the criteria in Section 2.3 A.1 through A.4 are met.

C. The Permittee shall maintain the following records documenting that the natural gas/No. 2 fuel oil-fired temporary boiler **(ID No. PS-Temp)** meets the criteria for a temporary boiler. These records shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request.
   1. the first, last and total number of days the boiler remains at the location;
   2. records of fuel usage in the boiler showing the type of fuel fired;
   3. records of fuel sulfur content of distillate oil fired in the boiler; and;
   4. the function of the boiler for each consecutive time period.

D. The Permittee shall submit a startup notification to the Fayetteville Regional Office within 15 days of startup of the temporary boiler **(ID No. PS-Temp)**.

SECTION 3 - GENERAL CONDITIONS (version 4.0 12/17/15)

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

A. **General Provisions** [NCGS 143-215 and 15A NCAC 02Q .0508(i)(16)]

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 02D and 02Q.
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 02Q .0507(k) and .0508(i)(9)(B)]

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

C. **Severability Clause** [15A NCAC 02Q .0508(i)(2)]

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

D. **Submissions** [15A NCAC 02Q .0507(e) and 02Q .0508(i)(16)]

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

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

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

E. **Duty to Comply** [15A NCAC 02Q .0508(i)(3)]

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 02Q .0514]
The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 02Q .0514.
2. Transfer in Ownership or Operation and Application Submittal Content [15A NCAC 02Q .0524 and 02Q .0505]
The Permittee shall submit an application for an ownership change in accordance with 15A NCAC 02Q.0524 and 02Q .0505.
3. Minor Permit Modifications [15A NCAC 02Q .0515]
The Permittee shall submit an application for a minor permit modification in accordance with 15A NCAC 02Q .0515.
4. Significant Permit Modifications [15A NCAC 02Q .0516]
The Permittee shall submit an application for a significant permit modification in accordance with 15A NCAC 02Q .0516.
5. Reopening for Cause [15A NCAC 02Q .0517]
The Permittee shall submit an application for reopening for cause in accordance with 15A NCAC 02Q .0517.

H. **Changes Not Requiring Permit Modifications**
1. Reporting Requirements
Any of the following that would result in new or increased emissions from the emission source(s) listed in Section 1 must be reported to the Regional Supervisor, DAQ:
   a. changes in the information submitted in the application;
   b. changes that modify equipment or processes; or
   c. changes in the quantity or quality of materials processed.

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

2. Section 502(b)(10) Changes [15A NCAC 02Q .0523(a)]
   a. "Section 502(b)(10) changes" means changes that contravene an express permit term or condition. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), recordkeeping, reporting, or compliance certification requirements.
   b. The Permittee may make Section 502(b)(10) changes without having the permit revised if:
      i. the changes are not a modification under Title I of the Federal Clean Air Act;
      ii. the changes do not cause the allowable emissions under the permit to be exceeded;
      iii. the Permittee notifies the Director and EPA with written notification at least seven days before the change is made; and
      iv. the Permittee shall attach the notice to the relevant permit.
   c. The written notification shall include:
      i. a description of the change;
      ii. the date on which the change will occur;
      iii. any change in emissions; and
      iv. any permit term or condition that is no longer applicable as a result of the change.
   d. Section 502(b)(10) changes shall be made in the permit the next time that the permit is revised or renewed, whichever comes first.
3. Off Permit Changes [15A NCAC 02Q .0523(b)]
The Permittee may make changes in the operation or emissions without revising the permit if:
   a. the change affects only insignificant activities and the activities remain insignificant after the change; or
   b. the change is not covered under any applicable requirement.
4. Emissions Trading [15A NCAC 02Q .0523(c)]
To the extent that emissions trading is allowed under 15A NCAC 02D, including subsequently adopted maximum achievable control technology standards, emissions trading shall be allowed without permit revision pursuant to 15A NCAC 02Q .0523(c).

I.A **Reporting Requirements for Excess Emissions and Permit Deviations** [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]
"Excess Emissions" - means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections .0500, .0900, .1200, or .1400 of Subchapter 02D; or by a permit condition; or that exceeds an emission limit established in a permit issued under 15A NCAC 02Q .0700. *(Note: Definitions of excess emissions under 02D .1110 and 02D .1111 shall apply where defined by rule.)*

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

Excess Emissions

1. If a source is required to report excess emissions under NSPS (15A NCAC 02D .0524), NESHAPS (15A NCAC 02D .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 02D .0524), NESHAPS (15A NCAC 02D .1110 or .1111), or these rules do NOT define "excess emissions," the Permittee shall report excess emissions in accordance with 15A NCAC 02D .0535 as follows:
   a. Pursuant to 15A NCAC 02D .0535, if excess emissions last for more than four hours resulting from a malfunction, a breakdown of process or control equipment, or any other abnormal condition, the owner or operator shall:
      i. notify the Regional Supervisor or Director of any such occurrence by 9:00 a.m. Eastern Time of the Division's next business day of becoming aware of the occurrence and provide:
         - name and location of the facility;
         - nature and cause of the malfunction or breakdown;
         - time when the malfunction or breakdown is first observed;
         - expected duration; and
         - estimated rate of emissions;
      ii. notify the Regional Supervisor or Director immediately when corrective measures have been accomplished; and
      iii. submit to the Regional Supervisor or Director within 15 days a written report as described in 15A NCAC 02D .0535(f)(3).

Permit Deviations

3. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) as follows:
   a. Notify the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535 quarterly. A written report to the Regional Supervisor shall include the probable cause of such deviation and any corrective actions or preventative actions taken. The responsible official shall certify all deviations from permit requirements.

I.B **Other Requirements under 15A NCAC 02D .0535**
The Permittee shall comply with all other applicable requirements contained in 15A NCAC 02D .0535, including 15A NCAC 02D .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 02D .0535(c)(1) through (7).
2. 15A NCAC 02D .0535(g). Excess emissions during start-up and shut-down shall be considered a violation of the appropriate rule if the owner or operator cannot demonstrate that excess emissions are unavoidable.

J. **Emergency Provisions** [40 CFR 70.6(g)]
The Permittee shall be subject to the following provisions with respect to emergencies:

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.

2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
   a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;
   b. the permitted facility was at the time being properly operated;
   c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
   d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

K. **Permit Renewal** [15A NCAC 02Q .0508(e) and 02Q .0513(b)]
This 15A NCAC 02Q .0500 permit is issued for a fixed term not to exceed five years and shall expire at the end of its term. Permit expiration terminates the facility's right to operate unless a complete 15A NCAC 02Q .0500 renewal application is submitted at least nine months before the date of permit expiration. If the Permittee or applicant has complied with 15A NCAC 02Q .0512(b)(1), this 15A NCAC 02Q .0500 permit shall not expire until the renewal permit has been issued or denied. Permit expiration under 15A NCAC 02Q .0400 terminates the facility's right to operate unless a complete 15A NCAC 02Q .0400 renewal application is submitted at least six months before the date of permit expiration for facilities subject to 15A NCAC 02Q .0400 requirements. In either of these events, all terms and conditions of these permits shall remain in effect until the renewal permits have been issued or denied.

L. **Need to Halt or Reduce Activity Not a Defense** [15A NCAC 02Q .0508(i)(4)]
It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

M. **Duty to Provide Information (submittal of information)** [15A NCAC 02Q .0508(i)(9)]
1. The Permittee shall furnish to the DAQ, in a timely manner, any reasonable information that the Director may request in **writing** to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit.
2. The Permittee shall furnish the DAQ copies of records required to be kept by the permit when such copies are requested by the Director. For information claimed to be confidential, the Permittee may furnish such records directly to the EPA upon request along with a claim of confidentiality.

N. **Duty to Supplement** [15A NCAC 02Q .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 02Q .0508(f) and 02Q .0508 (l)]
The Permittee shall retain records of all required monitoring data and supporting information for a period of at least five years from the date of the monitoring sample, measurement, report, or application. Supporting information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring information, and copies of all reports required by the permit. These records shall be maintained in a form suitable and readily available for expeditious inspection and review. Any records required by the conditions of this permit shall be kept on site and made available to DAQ personnel for inspection upon request.

P. **Compliance Certification** [15A NCAC 02Q .0508(n)]
The Permittee shall submit to the DAQ and the EPA (Air and EPCRA Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all federally-enforceable terms and conditions in the permit, including emissions limitations, standards, or work practices. It shall be the responsibility of the current owner to submit a compliance certification for the entire year regardless of who owned the facility during the year. The compliance certification shall

comply with additional requirements as may be specified under Sections 114(a)(3) or 504(b) of the Federal Clean Air Act. The compliance certification shall specify:

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

Q. **Certification by Responsible Official** [15A NCAC 02Q .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 02Q .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 02Q .0523.
4. A permit shield does not extend to minor permit modifications made under 15A NCAC 02Q .0515.

S. **Termination, Modification, and Revocation of the Permit** [15A NCAC 02Q .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 02Q .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 02Q .0508(i)(8)]
This permit does not convey any property rights in either real or personal property or any exclusive privileges.

V. **Inspection and Entry** [15A NCAC 02Q .0508(l) and NCGS 143-215.3(a)(2)]

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

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

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

W. **Annual Fee Payment** [15A NCAC 02Q .0508(i)(10)]

1. The Permittee shall pay all fees in accordance with 15A NCAC 02Q .0200.
2. Payment of fees may be by check or money order made payable to the N.C. Department of Environmental Quality. 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 02Q .0519.

X. **Annual Emission Inventory Requirements** [15A NCAC 02Q .0207]

The Permittee shall report by **June 30 of each year** the actual emissions of each air pollutant listed in 15A NCAC 02Q .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 02Q .0107 and 02Q. 0508(i)(9)]

Whenever the Permittee submits information under a claim of confidentiality pursuant to 15A NCAC 02Q .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 02Q .0107.

Z. **Construction and Operation Permits** [15A NCAC 02Q .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 02Q .0100 and .0300.

AA. **Standard Application Form and Required Information** [15A NCAC 02Q .0505 and .0507]

The Permittee shall submit applications and required information in accordance with the provisions of 15A NCAC 02Q .0505 and .0507.

BB. **Financial Responsibility and Compliance History** [15A NCAC 02Q .0507(d)(4)]

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

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .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 02Q .0508(h)]

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

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

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

FF. **Title IV Allowances** [15A NCAC 02Q .0508(i)(1)]
This permit does not limit the number of Title IV allowances held by the Permittee, but the Permittee may not use allowances as a defense to noncompliance with any other applicable requirement. The Permittee's emissions may not exceed any allowances that the facility lawfully holds under Title IV of the Federal Clean Air Act.

GG. **Air Pollution Emergency Episode** [15A NCAC 02D .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 02D .0300.

HH. **Registration of Air Pollution Sources** [15A NCAC 02D .0202]
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 02D .0202(b).

II. **Ambient Air Quality Standards** [15A NCAC 02D .0501(c)]
In addition to any control or manner of operation necessary to meet emission standards specified in this permit, any source of air pollution shall be operated with such control or in such manner that the source shall not cause the ambient air quality standards in 15A NCAC 02D .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 02Q .0508(i)(16)]
Emission compliance testing shall be by the procedures of Section .2600, except as may be otherwise required in Rules .0524, .0912, .1110, .1111, or .1415 of Subchapter 02D. If emissions testing is required by this permit or the DAQ or if the Permittee submits emissions testing to the DAQ to demonstrate compliance, the Permittee shall perform such testing in accordance with 15A NCAC 02D .2600 and follow the procedures outlined below:

1. The owner or operator of the source shall arrange for air emission testing protocols to be provided to the Director prior to air pollution testing. Testing protocols are not required to be pre-approved by the Director prior to air pollution testing. The Director shall review air emission testing protocols for pre-approval prior to testing if requested by the owner or operator at least **45 days** before conducting the test.
2. Any person proposing to conduct an emissions test to demonstrate compliance with an applicable standard shall notify the Director at least **15 days** before beginning the test so that the Director may at his option observe the test.
3. The owner or operator of the source shall arrange for controlling and measuring the production rates during the period of air testing. The owner or operator of the source shall ensure that the equipment or process being tested is operated at the production rate that best fulfills the purpose of the test. The individual conducting the emission test shall describe the procedures used to obtain accurate process data and include in the test report the average production rates determined during each testing period.
4. Two copies of the final air emission test report shall be submitted to the Director not later than **30 days** after sample collection unless otherwise specified in the specific conditions. The owner or operator may request an extension to submit the final test report. The Director shall approve an extension request if he finds that the extension request is a result of actions beyond the control of the owner or operator.
   a. The Director shall make the final determination regarding any testing procedure deviation and the validity of the compliance test. The Director may:
      i. Allow deviations from a method specified under a rule in this Section if the owner or operator of the source being tested demonstrates to the satisfaction of the Director that the specified method is inappropriate for the source being tested.
      ii. Prescribe alternate test procedures on an individual basis when he finds that the alternative method is necessary to secure more reliable test data.
      iii. Prescribe or approve methods on an individual basis for sources or pollutants for which no test method is specified in this Section if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
   b. The Director may authorize the Division of Air Quality to conduct independent tests of any source subject to a rule in this Subchapter to determine the compliance status of that source or to verify any test data submitted relating to that source. Any test conducted by the Division of Air Quality using the appropriate testing procedures described in Section 02D .2600 has precedence over all other tests.

KK. **Reopening for Cause** [15A NCAC 02Q .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 02Q .0513(c).
3. Except for the state-enforceable only portion of the permit, the procedures set out in 15A NCAC 02Q .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 02Q .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 02Q .0508(i)(16)]

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

MM. **Fugitive Dust Control Requirement** [15A NCAC 02D .0540] - STATE ENFORCEABLE ONLY

As required by 15A NCAC 02D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 02D .0540(f).

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

NN. **Specific Permit Modifications** [15A NCAC 02Q.0501 and .0523]

1. For modifications made pursuant to 15A NCAC 02Q .0501(c)(2), the Permittee shall file a Title V Air Quality Permit Application for the air emission source(s) and associated air pollution control device(s) on or before 12 months after commencing operation.
2. For modifications made pursuant to 15A NCAC 02Q .0501(d)(2), the Permittee shall not begin operation of the air emission source(s) and associated air pollution control device(s) until a Title V Air Quality Permit Application is filed and a construction and operation permit following the procedures of Section .0500 (except for Rule .0504 of this Section) is obtained.
3. For modifications made pursuant to 502(b)(10), in accordance with 15A NCAC 02Q .0523(a)(1)(C), the Permittee shall notify the Director and EPA (EPA - Air Planning Branch, 61 Forsyth Street SW, Atlanta, GA 30303) in writing at least seven days before the change is made. The written notification shall include:
   a. a description of the change at the facility;
   b. the date on which the change will occur;
   c. any change in emissions; and
   d. any permit term or condition that is no longer applicable as a result of the change.

In addition to this notification requirement, with the next significant modification or Air Quality Permit renewal, the Permittee shall submit a page "E5" of the application forms signed by the responsible official verifying that the

application for the 502(b)(10) change/modification, is true, accurate, and complete. Further note that modifications made pursuant to 502(b)(10) do not relieve the Permittee from satisfying preconstruction requirements.

OO. **Third Party Participation and EPA Review** [15A NCAC 02Q .0521, .0522 and .0525(7)]
For permits modifications subject to 45-day review by the federal Environmental Protection Agency (EPA), EPA's decision to not object to the proposed permit is considered final and binding on the EPA and absent a third party petition, the failure to object is the end of EPA's decision-making process with respect to the revisions to the permit. The time period available to submit a public petition pursuant to 15A NCAC 02Q .0518 begins at the end of the 45-day EPA review period.

ATTACHMENT

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
DAQ	Division of Air Quality
DEQ	Department of Environmental Quality
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAP	National Emission Standards for Hazardous Air Pollutants
NO_X	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM_{10}	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO_2	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound