

ROY COOPER
Governor

MICHAEL S. REGAN
Secretary

MICHAEL ABRACZINSKAS
Director



DRAFT

Mr. Luiz Ferrari
Plant Manager
Mann+Hummel Filtration Technology - Allen Plant
PO Box 1900
Gastonia, North Carolina 28052

SUBJECT: Air Quality Permit No. 03860T28
Facility ID: 3600137
Mann+Hummel Filtration Technology - Allen Plant
Gastonia, Gaston County
Fee Class: Title V
PSD Class: Minor

Dear Mr. Ferrari:

In accordance with your completed Air Quality Permit Application for a renewal of your Title V permit, received March 4, 2020, we are forwarding herewith Air Quality Permit No. 03860T28 to Mann+Hummel Filtration Technology - Allen Plant, Gastonia, Gaston 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(8) have been listed for informational purposes as "ATTACHMENT 2" to this cover letter. 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



North Carolina Department of Environmental Quality | Division of Air Quality

217 West Jones Street | 1641 Mail Service Center | Raleigh, North Carolina 27699-1641

919.707.8400

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.

Gaston County has triggered Increment Tracking for the following pollutants: PM10, SO2, and NOx. This renewal application will not consume or expand increments for any pollutants.

This Air Quality Permit shall be effective from DRAFT until DRAFT, 2025, 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 Jenny Sheppard at 919-707-8727 or Jenny.Sheppard@ncdenr.gov.

Sincerely yours,

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

Enclosure

cc: Kelly Fortin, EPA Region 4 (with review)
Connie Horne (cover page only)
Mooresville Regional Office
Central Files

ATTACHMENT to Permit No. 03860T28

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

Emission Source ID No.	Emission Source Description
I58	Rust preventative coating operation with four natural gas-fired drying (burnish) ovens (TAP Machines) (0.5 million Btu heat input per hour, each)
I34	Air filter production line 34
IES-300	ECO-Filter paper line
IES-FCW-B1	Natural gas direct-fired burner for Cold-Rolled Wash Line (1.8 million Btu per hour maximum heat input)
IES-FCW-B2	Natural gas direct-fired burner for Cold-Rolled Wash Line (0.85 million Btu per hour maximum heat input)
IES-FCW-B3	Natural gas direct-fired burner for Cold-Rolled Wash Line (0.85 million Btu per hour maximum heat input)
IES-FCW-B4	Natural gas direct-fired burner for Cold-Rolled Wash Line (0.5 million Btu per hour maximum heat input)
IES-FCW-RIT	Rust inhibitor tank for Cold-Rolled Wash Line
IES-TS-1	Test stand at Line 8
IES-TS-2	Test stand at Line 16
IES-TS-3	Test stand at Cold Rolled Line
L-SEAM Line	
IES-LS-D-1	1.5 million Btu per hour natural gas direct-fired oven
IES-LS-D-2	1.5 million Btu per hour natural gas direct-fired oven
IES-LS-NPP-1	Non-Phenolic Paper Clipping
IES-LS-E-1A and IES-LS-E-1B	Epoxy Coating Top and Bottom
ROLLER COAT line	
IES-RC-E-1	Epoxy Coating
FM Line	
IES-FM-OV-1	0.5 million Btu per hour natural gas direct-fired oven
IES-FM-PP-1	Phenolic Paper Clipping and Curing
IES-FM-PL-1 (T&B)	Plastisol Coating and Curing (Top and Bottom Caps)

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 02Q .0711 "Emission Rates Requiring a Permit".
3. For additional information regarding the applicability of MACT or GACT see the DAQ page titled "Specific Permit Conditions Regulatory Guide." The link to this site is as follows: <http://deq.nc.gov/about/divisions/air-quality/air-quality-permits/specific-permit-conditions-regulatory-guide>

Summary of Changes to Permit

The following changes were made to the Mann+Hummel Filtration Technology – Allen Plant - Gastonia, Air Permit No. 03860T27:

Page(s)	Section	Description of Change(s)
Throughout		Update permit revision number and issue date, revise insignificant activity list and TVEE, Updated RO.
	Insignificant Activities	Add Insignificant activities from Applicability Determinations and the renewal application. Corrected descriptions of I.A.s as requested. (ID Nos. IES-LS-D-1, IES-LS-D-2, IES-LS-NPP-1, IES-LS-E-1A, IES-LS-E-1B, IES-RC-E-1, IES-FM-OV-1, IES-FM-PP-1, and IES-FM-PL-1 (T&B)), added L-SEAM Line (ID Nos. IES-LS-D-1, IES-LS-D-2, IES-LS-NPP-1, IES-LS-E-1A, and IES-LS-E-1B) ROLL COAT Line (ID No. IES-RC-E-1), and FM Line (ID Nos. IES-FM-OV-1, IES-FM-PP-1, and IES-FM-PL-1 (T&B))
3-5	Section 1, Table	Removed Air Filter Line No. 8 (ID Nos. ES-8A and ES-8B) as requested. Updates rule references to approved format.
6-XX	Section 2.1- All	Updated all formatting to match permit shell and current permitting procedures. Starting in Section 2.1 A through 2.2 B updating all conditions to current language and other permit language as it applies. Removing references to Air Filter Line No. 8.
6 and 7	Section 2.1 A	Updated source description, updated conditions 02D .0515 and .0516.
8 thru 12	Section 2.1 B	Updated source descriptions, included emission source IDs in summary of limits table, updated conditions 02D .0515, .0516, .0521, and .0967
13 thru 16	Section 2.1 C	Updated conditions 02D .0515, .0521, and .0967
17 thru 20	Section 2.1 D	Updated sources descriptions, updated conditions 02D .0515, .0521, 02Q .0317.
21 thru 25	Section 2.1 E	Removed 112(j) reference and requirements and updated 02D .1111 MACT condition
26 thru 44	Section 2.2	Updated formatting and conditions to match permit shell and conditions shell
45 thru 54	Section 3	General Conditions updated to current language (version 5.3, 08/21/2018)



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

AIR QUALITY PERMIT

Permit No.	Replaces Permit No.	Effective Date	Expiration Date
03860T28	03860T27	DRAFT	DRAFT

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: **Mann+Hummel Filtration Technology - Allen Plant**

Facility ID: 3600137
Facility Site Location: 2900 Northwest Boulevard
City, County, State, Zip: Gastonia, Gaston County, North Carolina, 28052

Mailing Address: PO Box 1900
City, State, Zip: Gastonia, North Carolina 28052

Application Number: 3600137.20A
Complete Application Date: March 4, 2020

Primary SIC Code: 3714

Division of Air Quality, Mooresville Regional Office
Regional Office Address: 610 East Center Avenue, Suite 301, Mooresville, NC 28115

Permit issued this the XXth of DRAFT, 2020.

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

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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
Oil Filter Line No. 6*				
8-12, 27-46	ES-6A RACT	Natural gas, direct-fired paper cure oven (with cool down section not vented to CD-6) (2.5 million Btu per hour maximum heat input)	CD-6	Natural gas/propane-fired afterburner (5.0 million Btu per hour heat input)
8-12, 27-46	ES-6B RACT	Natural gas, direct-fired plastisol cure oven (2.5 million Btu per hour maximum heat input)		
8-12, 27-46	ES-6C RACT, MACT MMMM	Electrostatic dry filter paint spray booth	N/A	N/A
8-12, 27-46	ES-6D RACT, MACT MMMM	Natural gas, direct-fired paint cure oven (1.0 million Btu per hour maximum heat input)	N/A	N/A
8-12, 27-46	ES-665 RACT, MACT MMMM	Paint line natural gas, direct-fired washer oven (1.0 million Btu per hour maximum heat input)	N/A	N/A
8-12, 27-46	ES-667 RACT, MACT MMMM	Paint line natural gas, direct-fired dryer oven (1.0 million Btu per hour maximum heat input)	N/A	N/A
Air and Fuel Filter Line No. 10				
8-12, 27-46	ES-10A RACT	Natural gas, direct-fired preheat oven (0.15 million Btu per hour maximum heat input)	N/A	N/A
8-12, 27-46	ES-10B RACT	Natural gas, direct-fired post cure oven (0.25 million Btu per hour maximum heat input)	N/A	N/A
Oil and Fuel Filter Line No. 16				
8-12, 27-46	ES-16A RACT	Natural gas, direct-fired BGK paper cure oven (2.0 million Btu per hour maximum heat input)	CD-16	Natural gas-fired afterburner (6.5 million Btu per hour heat input)
8-12, 27-46	ES-16B RACT	Natural gas, direct-fired final cure oven (2.5 million Btu per hour maximum heat input)		
13-16, 27-46	ES-16C RACT, MACT MMMM	Filter case electrostatic dry filter paint spray booth	N/A	N/A
13-16, 27-46	ES-16D RACT, MACT MMMM	BGK filter case electrically heated paint cure oven	N/A	N/A
Air Filter Line No. 32				
17-20, 27-43, 46-47	ES-32A RACT	Natural gas/propane, direct-fired paper preheat oven (0.25 million Btu per hour maximum heat input)	N/A	N/A

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
17-20, 27-43, 46-47	ES-32B RACT	Infrared paper cure oven	N/A	N/A
17-20, 27-43, 46-47	ES-32C RACT	Natural gas/propane, direct-fired end-cap poly-iso cure oven (2.0 million Btu per hour maximum heat input)	N/A	N/A
17-20, 27-43, 46-47	ES-32D RACT	Natural gas/propane, direct-fired plastisol/poly-iso gasket cure oven with cool down zone (1.6 million Btu per hour maximum heat input)	N/A	N/A
Oil Filter Line No. 40				
8-12, 27-46	ES-40A RACT	Natural gas, direct-fired paper cure oven (1.5 million Btu per hour maximum heat input)	N/A	N/A
8-12, 27-46	ES-40B RACT	Natural gas, direct-fired plastisol cure oven (with cool down section not vented to CD-40) (1.5 million Btu per hour maximum heat input)	CD-40	Natural gas/propane-fired afterburner (5.0 million Btu per hour heat input)
13-16, 27-46	ES-40C RACT, MACT MMMM	Dry filter electrostatic paint spray booth	N/A	N/A
13-16, 27-46	ES-40D RACT, MACT MMMM	Infrared paint cure oven	N/A	N/A
Oil Filter Line No. 53				
8-12, 27-46	ES-53A RACT	Natural gas, direct-fired paper cure oven (with cool down section not vented to CD-53) (2.0 million Btu per hour maximum heat input)	CD-53	Natural gas/propane-fired afterburner (5.0 million Btu per hour maximum heat input)
8-12, 27-46	ES-53B RACT	Natural gas, direct-fired plastisol cure oven (1.5 million Btu per hour maximum heat input)		
13-16, 27-46	ES-53C RACT, MACT MMMM	Dry filter electrostatic paint spray booth	N/A	N/A
13-16, 27-46	ES-53D RACT, MACT MMMM	Electrically heated paint cure oven	N/A	N/A
Air Filter Line No. 59 (Poly Line)				
8-12, 27-46	ES-59A	Mold release spray application	N/A	N/A
8-12, 27-46	ES-59B	Polyol-isocyanate dispensing	N/A	N/A
8-12, 27-46	ES-59C	Polyurethane gasket curing	N/A	N/A

Page Nos.	Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
Silicone Line No. 2*				
6-7, 29-41, 44-46	ES-2-2 MACT MMMM	Natural gas, direct-fired silicone line No. 2 oven (2.0 million Btu per hour maximum heat input)	N/A	N/A
Boilers and Process Heaters				
21-26	ES-CC-30-1 MACT DDDDD	Natural gas-fired boiler (0.35 million Btu per hour maximum heat input)	N/A	N/A
21-26	ES-WH MACT DDDDD	Natural gas-fired water heater (2.0 million Btu per hour maximum heat input)	N/A	N/A

Note: Area was designated as Moderate Ozone None-Attainment Area therefore RACT applied to existing sources as per permit 03860T23

* Lines 2 and 6 have less than 15 pounds per day of VOC emissions (before control). Therefore, they are exempt from RACT per 15A NCAC 02D .0902(b).

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

A. Natural Gas, direct-fired Silicone Line No. 2 Oven (ID No. ES-2-2)

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	E= 4.10 P ^{0.67} (process rates 30 tph or less) or E = 55.0 P ^{0.11} - 40 (process rates 30 tph or greater, where E= allowable emission rate in pounds per hour P= process weight rate in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Volatile organic compounds	RACT EXEMPT < 15 lb day Entire Silicone Line #2:	15A NCAC 02D .0902(b)
HAP	See Section 2.2. A.3.	15A NCAC 02D .1111 (40 CFR 63 Subpart M) (MMMM)
Volatile organic compounds	See Section 2.2 B.1.	15A NCAC 02Q .0317 (PSD Avoidance)

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from this source (ID No. ES-2-2) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour), or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where:

E = allowable emission rate in pounds per hour; and,
P = process weight in tons per hour

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

Testing [15A NCAC 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.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping/Reporting [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 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.
- d. No reporting is required for particulate emissions from this source (ID No. ES-2-2).

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

- a. Emissions of sulfur dioxide from this source (**ID No. ES-2-2**) 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/Reporting [15A NCAC 02Q .0508(f)]

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in this source (**ID No. ES-2-2**).

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

- a. Visible emissions from this source (**ID No. ES-2-2**) 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 A.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

- c. There is no monitoring, recordkeeping or reporting required for the burning of natural gas in this source (**ID No. ES-2-2**).

B. Oil Filter Line No. 6:

- paper cure oven (ID No. ES-6A) and plastisol cure oven (ID No. ES-6B), each with afterburner (ID No. CD-6)
- dry filter electrostatic paint spray booth (ID No. ES-6C)
- paint cure oven (ID No. ES-6D)
- Paint line natural gas, direct-fired washer oven (ID No. ES-665)
- Paint line natural gas, direct-fired washer oven (ID No. ES-667)

Air/Fuel Filter Line No. 10:

- natural gas, direct-fired preheat oven (ID No. ES-10A)
- natural post cure oven (ID No. ES-10B)

Oil/Fuel Filter Line No. 16 Manufacturing:

- paper cure oven (ID No. ES-16A) and plastisol cure oven (ID No. ES-16B), each with afterburner (ID No. CD-16)

Oil Filter Line No. 40 Manufacturing:

- paper cure oven (ID No. ES-40A) and plastisol cure oven (ID No. ES-40B), each with afterburner (ID No. CD-40)

Oil Filter Line No. 53 Manufacturing:

- paper cure oven (ID No. ES-53A) and plastisol cure oven (ID No. ES-53B), each with afterburner (ID No. CD-53)

Air Filter Line No. 59:

- mold release spray application (ID No. ES-59A)
- polyol-isocyanate dispensing (ID No. ES-59B)
- polyurethane gasket electric curing (ID No. ES-59C)

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	E= 4.10 P ^{0.67} (process rates 30 tph or less) or E = 55.0 P ^{0.11} - 40 (process rates 30 tph or greater), where E= allowable emission rate in pounds per hour P= process weight rate in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	40 percent opacity: Oil Filter Line No. 53 (ID Nos. ES-53A and ES-53B) 20 percent opacity: Oil Filter Line No. 6 (ID Nos. ES-6A, ES-6B, ES-6C, ES-6D, ES-665, and ES-667), Air/Fuel Filter Line No. 10 (ID Nos. ES-10A and ES-10B), Oil/Fuel Filter Line No. 16 (ID Nos. ES-16A and ES-16B), Oil Filter Line No. 40 (ID Nos. ES-40A and ES-40B), and Air Filter Line No. 59 (ID Nos. ES-59A, ES-59B, and ES-59C)	15A NCAC 02D .0521
Volatile organic compounds	RACT EXEMPT <15 lb/day from each coating line Line 59 – all metal coating sources	15A NCAC 02D .0902(b)

Volatile organic compounds	Lines 6, 16, 40, and 53 (ID Nos. ES-6A, ES-6B, ES-6C, ES-6D, ES-665, ES-667, ES-16A, ES-16B, ES-40A, ES-40B, ES-53A and ES-53B) Emission Limits for Extreme Performance Coatings	15A NCAC 02D .0967
Volatile organic compounds	See Section 2.2 A.1.	15A NCAC 02D .0958
Toxic air pollutant	State Enforceable Only See Section 2.2 A.2.	15A NCAC 02D .1100
HAP	See Section 2.2. A.3.	15A NCAC 02D .1111 (40 CFR 63 Subpart M MMM)
Toxic air pollutant	State Enforceable Only See Section 2.2 A.4.	15A NCAC 02Q .0711
Volatile organic compounds	See Section 2.2 B.1.	15A NCAC 02Q .0317 (PSD Avoidance)

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID Nos. ES-6A, ES-6B, ES-6C, ES-6D, ES-665, ES-667, ES-10A, ES-10B, ES-16A, ES-16B, ES-40A, ES-40B, ES-53A, ES-53B, ES-59A, ES-59B, and ES-59C**) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where:

E = allowable emission rate in pounds per hour; and,
P = process weight in tons per hour

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

Testing [15A NCAC 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 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

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

- c. To comply with the provisions of this permit and ensure that optimum control efficiency is maintained for each afterburner (ID Nos. CD-6, CD-16, CD-40, and CD-53), the Permittee shall establish an inspection and maintenance schedule/checklist based on manufacturer's recommendations. In addition to the manufacturer's inspection and maintenance recommendations, or if there are no manufacturer's inspection and maintenance recommendations, as a minimum, the Permittee shall perform an annual inspection of the primary heat exchanger and associated inlet/outlet valves to ensure structural integrity. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if each afterburner is not inspected and maintained.

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

- d. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date and time of each recorded action;
 - ii. the results of each inspection;
 - iii. the results of any maintenance performed on the afterburner; and
 - iv. any variance from manufacturer's recommendations, if any, and corrections made.
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these records are not maintained.

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

- e. The Permittee shall submit the results of any maintenance performed on any control device within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 B.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

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

- a. Emissions of sulfur dioxide from these sources (**ID Nos. ES-6A, ES-6B, ES-665, ES-667, ES-10A, ES-10B, ES-16A, ES-16B, ES-40A, ES-40B, ES-53A, and ES-53B**) 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 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources (**ID Nos. ES-6A, ES-6B, ES-665, ES-667, ES-10A, ES-10B, ES-16A, ES-16B, ES-40A, ES-40B, ES-53A, and ES-53B**).

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

- a. Visible emissions from Oil Filter Line No. 53 (**ID Nos. ES-53A and ES-53B**) 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 Oil Filter Line No. 6 (**ID Nos. ES-6A, ES-6B, ES-6C, ES-6D, ES-665, and ES-667**), Air/Fuel Filter Line No 10 (**ID Nos. ES-10A and ES-10B**), Oil/Fuel Filter Line No. 16 (**ID Nos. ES-16A and ES-16B**), and Oil Filter Line No. 40 (**ID Nos. ES-40A and ES-40B**), Air Filter Line No. 59 (**ID Nos. ES-59A, ES-59B, and ES-59C**) 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)]

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

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

- d. To ensure compliance, once a month the Permittee shall observe the emission points of these sources (**ID Nos. ES-6A, ES-6B, ES-6C, ES-6D, ES-665, ES-667, ES-10A, ES-10B, ES-16A, ES-16B, ES-40A, ES-40B, ES-53A, ES-53B, ES-59A, ES-59B, and ES-59C**) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.3. a and b above.The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required monthly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

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

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

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 B.3.c through f above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02D .0967: MISCELLANEOUS METAL AND PLASTIC PARTS COATING

- a. This Rule applies to units whose VOC emission exceed the threshold established in 15A NCAC 02D .0902(b) and are engaged in miscellaneous metal parts surface coating of the products listed in 15A NCAC 02D .0967(b): **ES-6A, ES-6B, ES-6C, ES-6D, ES-665, ES-667, ES-16A, ES-16B, ES-40A, ES-40B, ES-53A, and ES-53B.**
- b. i. Emissions of volatile organic compounds from any extreme performance coatings line subject to this Rule shall not exceed the limits established in Table 1 of 15A NCAC 02D .0967(d).

<i>Table 1: Metal Parts and Products Volatile Organic Compounds Content Limits [excerpt]</i>		
Coating Category	Air Dried (lb VOC/gal coating)	Baked (lb VOC/gal coating)
Extreme High-Gloss; Extreme Performance; Heat-Resistant; Repair and Touch Up; Solar-Absorbent	3.5	3.0

- ii. "Extreme-performance coating" means a coating used on a metal or plastic surface where the coated surface is, in its intended use, subject to the following:
 - (A) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solutions;
 - (B) Repeated exposure to temperatures in excess of 250 degrees Fahrenheit; or
 - (C) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers or scouring agents.
- iii. "Air dried coating" a means coating that is cured at a temperature below 90 degrees Celsius (194 degrees Fahrenheit)
- iv. "Baked coating" means a coating that is cured at a temperature at or above 90 degrees Celsius (194 degrees Fahrenheit).

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

- c. If emission testing is required, the testing shall be performed in accordance with General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.4.b, above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0967.

Monitoring/Recordkeeping [15A NCAC 02D .0903(f)]

- d. The Permittee shall:
 - i. maintain procedures as necessary to comply with the requirements of this Section; and
 - ii. maintain, in writing, data and reports relating to procedures which will, upon review, document that all the extreme performance coatings are compliant with the emission limits in Section 2.1 B.4.b above;
 - iii. ensure compliance status of the volatile organic compounds applied at the applicator is maintained at all times and updated on the day any new coating is introduced.

- iv. maintain data and reports that specify the types of materials and finishes processed document that all the extreme performance coatings are compliant and shall make these records available to a DAQ authorized representative upon request.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0967 if the records are not maintained or the coatings are not monitored.

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

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 B.4.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

C. Oil/Fuel Filter Line No. 16 Painting Operations
dry filter electrostatic paint spray booth (ID No. ES-16C)
electrically heated paint cure oven (ID No. ES-16D)

Oil Filter Line No. 40 Painting Operations
dry filter electrostatic paint spray booth (ID No. ES-40C)
electrically heated paint cure oven (ID No. ES-40D)

Oil Filter Line No. 53 Painting Operations
dry filter electrostatic paint spray booth (ID No. ES-53C)
electrically heated paint cure oven (ID No. ES-53D)

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	$E = 4.10 P^{0.67}$ (process rates 30 tph or less) or $E = 55.0 P^{0.11} - 40$ (process rates 30 tph or greater), where E= allowable emission rate in pounds/hr P= process weight rate in tons per hour	15A NCAC 02D .0515
Visible emissions	40 percent opacity: Oil/Fuel Filter Line No. 16 Painting Operations emission sources 20 percent opacity: Oil Filter Line No. 40 Painting Operations emission sources, and Oil Filter Line No. 53 Painting Operations emission sources	15A NCAC 02D .0521
Volatile organic compounds	Emission Limits for Extreme Performance Coatings	15A NCAC 02D .0967
Volatile organic compounds	See Section 2.2 A.1.	15A NCAC 02D .0958
Toxic air pollutant	State Enforceable Only See Section 2.2 A.2.	15A NCAC 02D .1100
HAP	See Section 2.2 A.3.	15A NCAC 02D .1111 (40 CFR 63 Subpart M MMM)
Toxic air pollutant	State Enforceable Only See Section 2.2 A.4.	15A NCAC 02Q .0711
Volatile organic compounds	See Section 2.2 B.1.	15A NCAC 02Q .0317 (PSD Avoidance)

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID No. ES-16C, ES-16D, ES-40C, ES-40D, ES-53C, and ES-53D**) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where:

E = allowable emission rate in pounds per hour; and,
 P = process weight in tons per hour

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

Testing [15A NCAC 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/Reporting [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 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.
- d. No reporting is required for particulate emissions from these sources (**ID Nos. ES-16C, ES-16D, ES-40C, ES-40D, ES-53C, and ES-53D**).

2. 15A NCAC 02D .0521: CONTROL OF VISIBLE EMISSIONS

- a. Visible emissions from Oil/Fuel Filter Line No. 16 Painting Operations (**ID Nos. ES-16C and ES-16D**) emission sources 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 Oil Filter Line No. 40 Painting Operations and Oil Filter Line No. 53 Painting Operations (**ID Nos. ES-40C, ES-40D, ES-53C, and ES-53D**) 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)]

- c. 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 and b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

- d. To ensure compliance, once a month the Permittee shall observe the emission points of these sources (**ID Nos. ES-16C, ES-16D, ES-40C, ES-40D, ES-53C, and ES-53D**) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:
 - i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
 - ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2601 (Method 9) for 12 minutes is below the limit given in Section 2.1 C.2.a and b above.The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required monthly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

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

- e. The results of the monitoring shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each recorded action;
 - ii. the results of each observation and/or test noting those sources with emissions that were observed to be in noncompliance along with any corrective actions taken to reduce visible emissions; and
 - iii. the results of any corrective actions performed.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 C.2.d and e above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

3. 15A NCAC 02D .0967: MISCELLANEOUS METAL AND PLASTIC PARTS COATING

- a. This Rule applies to units whose VOC emission exceed the threshold established in 15A NCAC 02D .0902(b) and are engaged in miscellaneous metal parts surface coating of the products listed in 15A NCAC 02D .0967(b): **ES-16C, ES-16D, ES-40C, ES-40D, ES-53C, and ES-53D**
- b. Emissions of volatile organic compounds from any extreme performance coatings line subject to this Rule shall not exceed the limits established in Table 1 of 15A NCAC 02D .0967(d):

<i>Table 1. Metal Parts and Products Volatile Organic Compounds Content Limits [excerpt]</i>		
Coating Category	Air Dried (lb VOC/gal coating)	Baked (lb VOC/gal coating)
Extreme High-Gloss; Extreme Performance; Heat-Resistant; Repair and Touch Up; Solar-Absorbent	3.5	3.0

- i. "Extreme-performance coating" means a coating used on a metal or plastic surface where the coated surface is, in its intended use, subject to the following:
 - (A) Chronic exposure to corrosive, caustic or acidic agents, chemicals, chemical fumes, chemical mixtures or solutions;
 - (B) Repeated exposure to temperatures in excess of 250 degrees Fahrenheit; or
 - (C) Repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers or scouring agents.
- ii. "Air dried coating" a means coating that is cured at a temperature below 90 degrees Celsius (194 degrees Fahrenheit)
- iii. "Baked coating" means a coating that is cured at a temperature at or above 90 degrees Celsius (194 degrees Fahrenheit).

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

- c. If emission 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.3.b above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0967.

Monitoring/Recordkeeping [15A NCAC 02D .0903(f)]

- d. The Permittee shall:
 - i. maintain procedures as necessary to comply with the requirements of this Section; and
 - ii. maintain, in writing, data and reports relating to procedures which will, upon review, document that all the extreme performance coatings are compliant with the emission limits in Section 2.1 C.3.b above;
 - iii. ensure compliance status of the volatile organic compounds applied at the applicator is maintained at all times and updated on the day any new coating is introduced.
 - iv. maintain data and reports that specify the types of materials and finishes processed document that all the extreme performance coatings are compliant and shall make these records available to a DAQ authorized representative upon request.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0967 if the records are not maintained or the coatings are not monitored.

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

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section(s) 2.1 C.3.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

D. Air Filter Line No. 32:

- paper pre-heat oven (ID No. ES-32A)**
- infrared paper cure oven (ID No. ES-32B)**
- natural gas, direct-fired end cap poly-iso cure oven (ID No. ES-32C)**
- natural gas, direct-fired plastisol/poly-iso gasket cure oven with cool down zone (ID No. ES-32D)**

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	E= 4.10 P ^{0.67} (process rates 30 tph or less) or E = 55.0 P ^{0.11} - 40 (process rates 30 tph or greater), where E= allowable emission rate in pounds per hour P= process weight rate in tons per hour	15A NCAC 02D .0515
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity	15A NCAC 02D .0521
Volatile organic compounds	Rolling total VOC emissions shall not exceed 40 tons per 12-consecutive month period.	15A NCAC 02Q .0317 (Nonattainment Area New Source Review Avoidance)
Volatile organic compounds	See Section 2.2 A.1.	15A NCAC 02D .0958
Toxic air pollutants	See Section 2.2 A.2. State Enforceable Only	15A NCAC 02D .1100
Toxic air pollutants	See Section 2.2 A.4. State Enforceable Only	15A NCAC 02Q .0711
Volatile organic compounds	See Section 2.2 B.2.	15A NCAC 02Q .0317 (PSD Avoidance)

1. 15A NCAC 02D .0515: PARTICULATES FROM MISCELLANEOUS INDUSTRIAL PROCESSES

- a. Emissions of particulate matter from these sources (**ID No. ES-32A, ES-32B, ES-32C, and ES-32D**) shall not exceed an allowable emission rate as calculated by the following equation:

$$E = 4.10 \times P^{0.67} \quad (\text{for process rates less than or equal to 30 tons per hour}), \text{ or}$$

$$E = 55.0 \times P^{0.11} - 40 \quad (\text{for process rates greater than 30 tons per hour})$$

Where:

E = allowable emission rate in pounds per hour; and,

P = process weight in tons per hour

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

Testing [15A NCAC 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 D.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515.

Monitoring/Recordkeeping/Reporting [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.

- d. No reporting is required for particulate emissions from these sources (**ID No. ES-32A, ES-32B, ES-32C, and ES-32D**).

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

- a. Emissions of sulfur dioxide from these sources (**ID No. ES-32A, ES-32B, ES-32C, and ES-32D**) 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 found. If the results of this test are above the limit given in Section 2.1 D.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources (**ID No. ES-32A, ES-32B, ES-32C, and ES-32D**).

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

- a. Visible emissions from these emission sources (**ID No. ES-32A, ES-32B, ES-32C, and ES-32D**) 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 90 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 D.3.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

- c. To ensure compliance, once a month the Permittee shall observe the emission points of these sources (**ID No. ES-32A, ES-32B, ES-32C, and ES-32D**) for any visible emissions above normal. The monthly observation must be made for each month of the calendar year period to ensure compliance with this requirement. If visible emissions from these sources are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 D.3. a above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the required monthly observations are not conducted as required; if the above-normal emissions are not corrected within the monitoring period or the percent opacity demonstration cannot be made.

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

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

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521 if these records are not maintained.

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

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 D.3.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period

between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

4. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
(Avoidance of 15A NCAC 02D .0531: SOURCES IN NONATTAINMENT AREAS)

- a. In order to avoid applicability of 15A NCAC 02D .0531, VOC emissions from Air Filter Line No. 32 (**ID No. ES-32A, ES-32B, ES-32C, and ES-32D**) shall be less than 40 tons 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 are above the limit given in Section 2.1 D.4.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0531.

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

- c. Calculations of VOC emissions shall be made monthly and recorded in a logbook (written or electronic format) according to Equation 1, below:

$$T_{VOC} = \frac{Q_{VOC(paper)} + Q_{VOC(plastisol)} + Q_{VOC(other\ liquids)} + Q_{VOC(poly-iso)}}{2000} \quad (Eq. 1)$$

where:

- T_{VOC} = total VOC emissions per month, tons/month,
 $Q_{VOC(paper)}$ = Defined by Eq. 2,
 $Q_{VOC(plastisol)}$ = Defined by Eq. 3,
 $Q_{VOC(other\ liquids)}$ = Defined by Eq. 4, and
 $Q_{VOC(poly-iso)}$ = 320 lbs/yr or 26.67 lbs/month.¹

$$Q_{VOC(paper)} = \sum_{i=1}^n (W_{i(paper)} \times X_{i(paper)}) \quad (Eq. 2)$$

where:

- $Q_{VOC(paper)}$ = VOC emissions per month from paper curing, lb/month,
 W_i = weight (pounds) of each paper group processed per month in line 32 [Paper groups are organized according to weight percentages of VOC constituents present in each group, as stated in MSDS sheets.],
 X_i = weight percent of total VOC constituents evolved per month from each paper group during curing. [The value of X_i for each paper group is (a) the total weight % of VOC constituents in paper as stated in the MSDS, or (b) total weight % of such constituents evolved during curing as determined from DAQ-approved laboratory simulation of paper curing operations, or (c) such total weight % evolved by any other DAQ-approved method.],
 i = numeric designation of each paper group processed, and
 n = total number of paper groups processed

$$Q_{VOC(plastisol)} = \sum_{i=1}^n (V_{i(plastisol)} \times \rho_{i(plastisol)} \times X_{i(plastisol)}) \quad (Eq. 3)$$

where:

- $Q_{VOC(plastisol)}$ = VOC emissions per month from plastisol curing, lb/month,
 V_i = volume of each plastisol formulation cured in line 32 per month, gal/month,
 ρ_i = density of each plastisol formulation, lb/gal,

¹ This is a DAQ approved potential emission rate, as per the air permit 03860T18 for VOC emissions from polyol-isocyanate resin blending and foam curing operations for line 32 only.

X_i = weight percent of total VOC constituents evolved from curing of each plastisol formulation, %w
 i = numeric designation of each plastisol formulation processed, and
 n = total number of plastisol formulations processed

$$Q_{\text{VOC}(\text{other liquids})} = \sum_{i=1}^n (V_{i(\text{other liquids})} \times \rho_{i(\text{other liquids})} \times X_{i(\text{other liquids})}) \quad (\text{Eq. 4})$$

where:

$Q_{\text{VOC}(\text{other liquids})}$ = VOC emissions pounds per month from use of VOC-containing liquids [VOC-containing liquids include paints, inks, solvents and mold release compounds.]
 V_i = volume of each VOC-containing liquid used in line 32 per month, gal/month
 ρ_i = density of each liquid, lbs/gal, and
 X_i = weight percent of total VOC in each liquid processed, %w

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0531 if the above records are not kept or the VOC emissions exceed the above limit.

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

- d. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 C.4.c above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly VOC emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

**E. Natural gas-fired boiler (ID No. ES-CC-30-1)
Natural gas-fired water heater (ID No. ES-WH)**

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	0.60 pounds per million Btu	15A NCAC 02D .0503
Sulfur dioxide	2.3 pounds per million Btu	15A NCAC 02D .0516
Opacity	20% opacity	15A NCAC 02D .0521
HAPs	Good work practices and regular tune-ups	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 that are discharged from the affected boilers (**ID Nos. ES-CC-30-1 and ES-WH**) into the atmosphere shall not exceed 0.60 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 limits given in Section 2.1 E.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 natural gas in these sources (**ID Nos. ES-CC-30-1 and ES-WH**).

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

- a. Emissions of sulfur dioxide from the affected boilers (**ID Nos. ES-CC-30-1 and ES-WH**) 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 E.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0516.

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas in these sources (**ID Nos. ES-CC-30-1 and ES-WH**).

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

- a. Visible emissions from the affected boilers (**ID Nos. ES-CC-30-1 and ES-WH**) 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 E.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 in these sources (**ID Nos. ES-CC-30-1 and ES-WH**).

**4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY
(40 CFR Part 63, Subpart DDDDD)**

Applicability [40 CFR 63.7485, .7490(d), .7499(l)]

- a. For the existing sources designed to burn "gas 1" fuels (**ID Nos. ES-CC-30-1 and ES-WH**), 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" 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 40 CFR Part 63, Subpart DDDDD.

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

- d. The Permittee shall complete the initial tune up and the one-time energy assessment no later than May 20, 2019.

Notifications [40 CFR 63.7545(e)(8), 63.7530(d),(e),(f)]

- e. The Permittee shall submit a Notification of Compliance Status. The notification shall contain the following:
- i. A description of the affected unit(s) including identification of which subcategories the unit is in, the design heat input capacity of the unit, and description of the fuel(s) burned.
 - ii. the following certification(s) of compliance, as applicable:
 - A. "This facility complies with the required initial tune-up according to the procedures in 40 CFR 63.7540(a)(10)(i) through (vi)' [i.e. Sections 2.1 E.4.g.i through v and m.i]; and
 - B. "This facility has had an energy assessment performed according to 40 CFR 63.7530(e)" [i.e., Section 2.1 E.4.k] and is an accurate depiction of the facility at the time of the assessment.

The notification must be signed by a responsible official and sent before the close of business on the 60th day following the completion of the initial tune up and one-time energy assessment (whichever is later).

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

- f. The Permittee shall be in compliance with the work practice standards in this subpart. These standards apply at all times the affected unit is operating.

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

- g. The Permittee shall conduct a tune-up of the process heater every five years as specified below.
- i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled or unscheduled unit shutdown, but the 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 (you 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.

[40CFR 63.7500(a), (e), 63.7540(a)(10), (a)(12)]

- h. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up. [40 CFR 63.7515(d)]

- i. 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 63.7540(a)(13), 63.7515(g)]
- j. At all times, you must operate and maintain any affected source, 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. [40 CFR 63.7500(a)(3)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Sections 2.1 E.4.f through j are not met.

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

- k. The Permittee shall have a one-time energy assessment performed by a qualified energy assessor. The energy assessment must include the following items, with the extent of the evaluation for Section 2.1 E.4.k.i to v appropriate for the on-site technical hours listed in 40 CFR 63.7575:
 - 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 practices and provide recommendations for improvements consistent with the definition of energy management practices, if identified;
 - vi. A list of cost-effective energy conservation measures that are within the facility's control; and
 - vii. A list of the energy savings potential of the energy conservation measures identified
 - ix . 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), Table 3]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Section 2.1 E.4.k are not met.

Recordkeeping [15A NCAC 02Q .0508(f), 40 CFR 63.7555]

- l. The Permittee shall keep the following:
 - i. A copy of each notification and report submitted to comply with this subpart, 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. Maintain on-site and submit, if requested by the Administrator, an annual report containing the information in paragraphs (A) through (C) below:
 - (A) The concentrations of carbon monoxide in the effluent stream in parts per million by volume, and oxygen in volume percent, measured before and after the adjustments of the source;
 - (B) A description of any corrective actions taken as a part of the combustion adjustment; 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)]
 - iii. The associated records for conditions f. through l. including:
 - (A) 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)(ii)]
 - iv. maintain records of the calendar date, time, occurrence and duration of each startup and shutdown. [40 CFR 63.7555(i)]
 - v. maintain records of the type(s) and amount(s) of fuels used during each startup and shutdown. [40 CFR 63.7555(j)]

- m. 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, 63.10(b)(1)]

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if records are not maintained as described in Sections 2.1 E.4. l through m.

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

- n. The Permittee shall submit compliance reports to the DAQ on a 5-year basis. The first report shall cover the period beginning on the compliance date specified in Section 2.1 E.4.d and ending on the earliest December 31st following a complete 5-year period. Subsequent 5-year reports shall cover the periods from January 1 to December 31. The Permittee shall submit the compliance reports postmarked on or before January 31.
[40 CFR 63.7550(a), (b)]
 - i. This report must also be submitted electronically through the EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due the report the Permittee submit the report to the at the appropriate address listed in 40 CFR 63.13. [40 CFR 63.7550(h)(3)]
- o. The compliance report must contain the following information:
 - i. Company 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 total operating time during the reporting period;
 - iv. If there are no deviations from the requirements of the work practice requirements in Section 2.1 E.4g above, a statement that there were no deviations from the work practice standards during the reporting period; and
 - v. Include the date of the most recent tune-up for each unit required according to Section 2.1 E.4.g. 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.

[40 CFR 63.7550(a) and (c), Table 9]
- p. If you have a deviation from a work practice standard during the reporting period, the report must contain the following information:
 - i. A description of the deviation and which emission limit or operating limit from which you deviated; and
 - ii. Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

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

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the reporting requirements in Section 2.1 E.4.n through p are not met.

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

A. Facility Wide

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile organic compounds	Work practices for VOC-containing materials	15A NCAC 02D .0958
Toxic air pollutant	Toxic Pollutant Emission Rate (TPERs) State Enforceable Only	15A NCAC 02Q .0711
Toxic air pollutant	Control of Toxic Air Pollutants State Enforceable Only	15A NCAC 02D .1100
HAP	NESHAP for Surface Coating of Miscellaneous Metal Parts and Products MACT	15A NCAC 02D .1111 (40 CFR 63 Subpart Mmmm)

1. 15A NCAC 02D .0958: WORK PRACTICES FOR SOURCES OF VOLATILE ORGANIC COMPOUNDS

- a. For all sources that use volatile organic compounds (VOC) as solvents, carriers, material processing media, or industrial chemical reactants, or in similar uses that mix, blend, or manufacture VOCs, or emit VOCs as a product of chemical reactions, the Permittee shall:
 - i. store all material, including waste material, containing VOCs in tanks or in containers covered with a tightly fitting lid that is free of cracks, holes, or other defects, when not in use,
 - ii. clean up spills of VOCs as soon as possible following proper safety procedures,
 - iii. store wipe rags containing VOCs in closed containers,
 - iv. not clean sponges, fabric, wood, paper products, and other absorbent materials with VOCs,
 - v. transfer solvents containing VOCs used to clean supply lines and other coating equipment into closable containers and close such containers immediately after each use, or transfer such solvents to closed tanks, or to a treatment facility regulated under section 402 of the Clean Water Act,
 - vi. clean mixing, blending, and manufacturing vats and containers containing VOCs by adding cleaning solvent and close the vat or container before agitating the cleaning solvent. The spent cleaning solvent shall then be transferred into a closed container, a closed tank or a treatment facility regulated under section 402 of the Clean Water Act.
- b. When cleaning parts with a solvent containing a VOC, the Permittee shall:
 - i. flush parts in the freeboard area,
 - ii. take precautions to reduce the pooling of solvent on and in the parts,
 - iii. tilt or rotate parts to drain solvent and allow a minimum of 15 seconds for drying or until all dripping has stopped, whichever is longer,
 - iv. not fill cleaning machines above the fill line,
 - v. not agitate solvent to the point of causing splashing.

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

- c. To ensure compliance with Section 2.2 A.1.a and b above, the Permittee shall, at a minimum, perform a visual inspection once per month of all operations and processes utilizing VOCs. The inspections shall be conducted during normal operations. If the required inspections are not conducted the permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0958.
- d. The results of the inspections shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
 - i. the date and time of each inspection; and
 - ii. the results of each inspection noting whether or not noncompliant conditions were observed.
If the required records are not maintained the permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0958.

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

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.2 A.1.c and d above postmarked on or before January 30 of each calendar year for the preceding six-month period

between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified.

STATE ENFORCEABLE ONLY

2. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

- a. In accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

Emission Source Source ID Number	Emission Point ID No.	Allowable Emission Rate	
		Formaldehyde (lb/hour)	Phenol (lb/hour)
Oil Filter Line No. 6			
Paper cure oven (ID No. ES-6-1A) Plastisol cure oven (ID No. ES-6-1B) via afterburner (ID No. CD-6)	EP6-14	0.0309	4.45
Paint booth (ID No. ES-6C)	EP6-12	0.00924	N/A
Air Filter Line No. 8			
Paper cure oven (ID No. ES-8A) Plastisol cure (ID No. ES-8B) via afterburner (ID No. CD-8)	EP-8	0.00557	0.605
Air/Fuel Filter Line No. 10			
Paper preheat oven (ID No. ES-10A)	EP10A-1 and EP10A-2	0.0047	0.0406
Paper post cure oven (ID No. ES-10B)	EP10A-3	0.00235	0.0203
Oil/Fuel Filter Line No. 16			
Paper oven (ID No. ES-16A) Plastisol cure oven (ID No. ES-16B) via afterburner (ID No. CD-16)	EP16-13	0.00410	0.866
Paint spray booth (ID No. ES-16C)	EP16-9	0.0104	N/A
Air Filter Line No. 32			
Paper preheat oven (ID No. ES-32A)	EP32-A	0.0197	0.955
Paper cure oven (ID No. ES-32B)	EP32-B	0.0197	0.955
Oil Filter Line No. 40			
Paper cure oven (ID No. ES40A)	EP40-2, EP40-3, and EP40-4	0.00608	2.706
Paint booth (ID No. ES-40C)	EP40-17	0.0154	N/A
Oil Filter Line No. 53			
Paper oven cool down section (ID No. ES-53A) not vented to afterburner	EP53-4	0.00035	0.458
Paper cure oven (ID No. ES-53A) Plastisol cure oven (ID No. ES-53B) via afterburner (ID No. CD-53)	EP53-17	0.00105	1.375
Paint booth (ID No. ES-53C)	EP53-13	0.0203	N/A

Monitoring/Recordkeeping/Reporting [15A NCAC 02D .0605]

- b. The Permittee shall monitor the monthly amount of filter paper and plastisol used on a line-by-line basis and report to the DAQ should the amounts exceed those used in determining the emissions used for the ambient impact analyses. If the amount exceeds the quantity used to calculate emissions used for modeling, the Permittee shall notify the DAQ and submit a revised modeling analysis to demonstrate compliance with the acceptable ambient levels for toxic air pollutants.

**3. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY
(40 CFR Part 63, Subpart M)**

- a. The Permittee shall comply with all applicable provisions contained in Environmental Management Commission Standard 15A NCAC 02D .1111, "Maximum Achievable Control Technology" as promulgated in 40 CFR 63, Subpart M, "National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products", for the coating operations associated with the four filter lines (**Lines 6, 16, 40, and 53**).

Emission Limits [40 CFR 63.3890]

- b. For the coating operations associated with filter lines, the Permittee shall limit organic HAP emissions to the atmosphere as follows:
 - i. For each existing general use coating affected source, limit organic HAP emissions to no more than 0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period;
 - ii. For each existing high performance coating affected source, limit organic HAP emissions to no more than 3.3 kg (27.5 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period;
 - iii. For each existing magnet wire coating affected source, limit organic HAP emissions to no more than 0.12 kg (1.0 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period;
 - iv. For each existing rubber-to-metal coating affected source, limit organic HAP emissions to no more than 4.5 kg (37.7 lb) organic HAP per liter (gal) coating solids used during each 12-month compliance period; and
 - v. For each existing extreme performance fluoropolymer coating affected source, limit organic HAP emissions to no more than 1.5 kg (12.4 lbs) organic HAP per liter (gal) coating solids used during each 12-month compliance period.
- c. If the coating operations associated with filter lines meet the applicability criteria of more than one of the subcategory emission limits specified in Section 2.2.A.3.b.i through v. above, the Permittee may comply separately with each subcategory emission limit or comply using one of the following alternatives:
 - i. If the general use or magnet wire surface coating operations subject to only one of the emission limits specified in Section 2.2.A.3.b.i or iii. above account for 90 percent or more of the surface coating activity at the facility (i.e., it is the predominant activity at the facility), then compliance with that one emission limitation for all surface coating operations constitutes compliance with the other applicable emission limits. The Permittee shall use liters (gal) of solids used as a measure of relative surface coating activity over a representative period of operation. The Permittee may estimate the relative volume of coating solids used from parameters other than coating consumption and volume solids content (e.g., design specifications for the parts or products coated and the number of items produced). The determination of predominant activity must accurately reflect current and projected coating operations and must be verifiable through appropriate documentation. The Permittee may use data for any reasonable time period of at least 1 year in determining the relative amount of coating activity, as long as they represent the way the source will continue to operate in the future and are approved by DAQ. The Permittee shall determine the predominant activity at the facility annually and submit the results of that determination in the next semi-annual compliance report required by Section 2.2.A.3.i below; or
 - ii. The Permittee may calculate and comply with a facility-specific emission limit as described below. In calculating a facility-specific emission limit, the Permittee shall include coating activities that meet the applicability criteria of the other subcategories and constitute more than 1 percent of total coating activities.
 - (A) The Permittee is required to calculate the facility-specific emission limit for the facility when submitting the notification of compliance status required in Section 2.2.A.3.g. below, and on a monthly basis afterward using the coating data for the relevant 12-month compliance period.
 - (B) The Permittee shall use Equation 1 to calculate the facility-specific emission limit for the surface coating operations for each 12-month compliance period.

$$\text{Facility - Specific Emission Limit} = \frac{\sum_{i=1}^n (\text{Limit}_i)(\text{Solids}_i)}{\sum_{i=1}^n (\text{Solids}_i)} \quad (\text{Eq. 1})$$

Where:

Facility-specific emission limit = Facility-specific emission limit for each 12-month compliance period, kg (lb) organic HAP per kg (lb) coating solids used.

Limit_i = The new source or existing source emission limit applicable to coating operation, i, included in the facility-specific emission limit, converted to kg (lb) organic HAP per kg (lb) coating solids used, if the emission limit is not already in those units. All emission limits included in the facility-specific emission limit must be in the same units.

Solids_i = The liters (gal) of solids used in coating operation, i, in the 12-month compliance period that is subject to emission limit, i. The Permittee may estimate the volume of coating solids used from parameters other than coating consumption and volume solids content (e.g., design specifications for the parts or products coated and the number of items produced). The Administrator must approve the use of parameters other than coating consumption and volume solids content.

n = The number of different coating operations included in the facility-specific emission limit.

Compliance Options [40 CFR 63.3891]

- d. The Permittee shall include all coatings, thinners and/or other additives, and cleaning materials used in the affected source when determining whether the organic HAP emission rate is equal to or less than the applicable emission limit in Section 2.2.A.3.b or c above. To make this determination, the Permittee shall use at least one of the following two compliance options. The Permittee may apply any of the compliance options to an individual coating operation, or to multiple coating operations as a group, or to the entire affected source. The Permittee may use different compliance options for different coating operations, or at different times on the same coating operation. The Permittee may employ different compliance options when different coatings are applied to the same part, or when the same coating is applied to different parts. However, the Permittee may not use different compliance options at the same time on the same coating operation. If the Permittee switches between compliance options for any coating operation or group of coating operations, the facility shall document this switch as required by Section 2.2.A.3.h.iii below, and shall report it in the next semiannual compliance report required in Section 2.2 A.3.i below.
 - i. Compliant material option. Demonstrate that the organic HAP content of each coating used in the coating operation(s) is less than or equal to the applicable emission limit in Section 2.2.A.3.b or c above, and that each thinner and/or other additive, and cleaning material used contains no organic HAP. The Permittee shall meet all of the following requirements to demonstrate compliance with the applicable emission limit using this option:
 - (A) The Permittee shall complete the initial compliance demonstration for the initial compliance period ending January 1, 2008.
 - (B) The Permittee may use the compliant material option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. The Permittee shall use the emission rate without add-on controls option for any coating operation in the affected source for which the facility does not use this option. To demonstrate initial compliance using the compliant material option, the coating operation or group of coating operations must use no coating with an organic HAP content that exceeds the applicable emission limits in Section 2.2.A.3.b or c above and must use no thinner and/or other additive, or cleaning material that contains organic HAP. The Permittee shall conduct a separate initial compliance demonstration for each general use, high performance, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless the facility is demonstrating compliance with a predominant activity or facility-specific emission

limit as provided in Section 2.2.A.3.c.i above. If the facility is demonstrating compliance with a predominant activity or facility-specific emission limit as provided in Section 2.2.A.3.c.ii above, the Permittee shall demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. Use the procedures in this section on each coating, thinner and/or other additive, and cleaning material in the condition it is in when it is received from its manufacturer or supplier and prior to any alteration. The Permittee does not need to re-determine the organic HAP content of coatings, thinners and/or other additives, and cleaning materials that are reclaimed on-site (or reclaimed off-site if the facility has documentation showing that they received back the exact same materials that were sent off-site) and reused in the coating operation for which the facility uses the compliant material option, provided these materials in their condition as received were demonstrated to comply with the compliant material option.

- (1) Determine the mass fraction of organic HAP for each material used. The Permittee shall determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during the compliance period by using one of the following options:
 - (a) Method 311 (Appendix A to 40 CFR Part 63). The Permittee may use Method 311 for determining the mass fraction of organic HAP by using the following procedures:
 - (i) Count each organic HAP that is measured to be present at 0.1 percent by mass or more for Occupational Safety and Health Administration (OSHA)-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is measured to be 0.5 percent of the material by mass, the Permittee does not have to count it. Express the mass fraction of each organic HAP counted as a value truncated to four places after the decimal point (e.g., 0.3791).
 - (ii) Calculate the total mass fraction of organic HAP in the test material by adding up the individual organic HAP mass fractions and truncating the result to three places after the decimal point (e.g., 0.763).
 - (b) Method 24 (Appendix A to 40 CFR Part 60). For coatings, the Permittee may use Method 24 to determine the mass fraction of non-aqueous volatile matter and use that value as a substitute for mass fraction of organic HAP. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, the Permittee may use the alternative method contained in Appendix A to Subpart P of this Part, rather than Method 24. The Permittee may use the volatile fraction that is emitted, as measured by the alternative method in Appendix A to Subpart P of this Part, as a substitute for the mass fraction of organic HAP.
 - (c) Alternative method. The Permittee may use an alternative test method for determining the mass fraction of organic HAP once the Administrator has approved it. The Permittee shall follow the procedure in 63.7(f) to submit an alternative test method for approval.
 - (d) Information from the supplier or manufacturer of the material. The Permittee may rely on information other than that generated by the test methods specified in Section 2.2.A.3.d.i.(B)(1)(a) through (c) above, such as manufacturer's formulation data, if it represents each organic HAP that is present at 0.1 percent by mass or more for OSHA-defined carcinogens as specified in 29 CFR 1910.1200(d)(4) and at 1.0 percent by mass or more for other compounds. For example, if toluene (not an OSHA carcinogen) is 0.5 percent of the material by mass, the Permittee does not have to count it. For reactive adhesives in which some of the HAP react to form solids and are not emitted to the atmosphere, the Permittee may rely on manufacturer's data that expressly states the organic HAP or volatile matter mass fraction emitted. If there is a disagreement between such information and results of a test conducted according to Section 2.2.A.3.d.i.(B)(1)(a) through (c) above, then the test method results will take precedence unless, after consultation, the Permittee demonstrates to the satisfaction of DAQ that the formulation data are correct.
 - (e) Solvent blends. Solvent blends may be listed as single components for some materials in data provided by manufacturers or suppliers. Solvent blends may contain organic HAP, which must be counted toward the total organic HAP mass fraction of the materials. When test data and manufacturer's data for solvent blends are not available, the Permittee may use the default values for the mass fraction of organic HAP in these solvent blends listed in Table 3 or 4 of Subpart M of this Part. If using the tables, the Permittee shall use the values in Table 3 for all solvent blends that match Table 3 entries according to the instructions for Table 3, and may use Table 4 only if the solvent blends in the materials do not match any of the solvent blends in Table 3 and if the Permittee knows only whether the blend is aliphatic or aromatic. However, if the results of a Method 311 (Appendix A to 40 CFR Part 63) test indicate higher values than those listed on Table 3 or 4 to this Subpart, the Method 311 results will take precedence unless, after

consultation, the Permittee demonstrates to the satisfaction of DAQ that the formulation data are correct.

- (2) Determine the volume fraction of coating solids for each coating. The Permittee shall determine the volume fraction of coating solids (liters (gal) of coating solids per liter (gal) of coating) for each coating used during the compliance period by a test, by information provided by the supplier or the manufacturer of the material, or by calculation, as specified in Section 2.2.A.3.d.i.(B)(2)(a) through (d) below. If test results obtained according to Section 2.2.A.3.d.i.(B)(2)(a) below do not agree with the information obtained under Section 2.2.A.3.d.i.(B)(2)(c) or (d) below, the test results will take precedence unless, after consultation, the Permittee demonstrates to the satisfaction of DAQ that the formulation data are correct.
- (a) ASTM Method D2697-86 (Reapproved 1998) or ASTM Method D6093-97 (Reapproved 2003). The Permittee may use ASTM Method D2697-86 (Reapproved 1998), "Standard Test Method for Volume Nonvolatile Matter in Clear or Pigmented Coatings" (incorporated by reference, see Sec. 63.14), or ASTM Method D6093-97 (Reapproved 2003), "Standard Test Method for Percent Volume Nonvolatile Matter in Clear or Pigmented Coatings Using a Helium Gas Pycnometer" (incorporated by reference, see 63.14), to determine the volume fraction of coating solids for each coating. Divide the nonvolatile volume percent obtained with the methods by 100 to calculate volume fraction of coating solids.
- (b) Alternative method. The Permittee may use an alternative test method for determining the solids content of each coating once the Administrator has approved it. The Permittee shall follow the procedure in 63.7(f) to submit an alternative test method for approval.
- (c) Information from the supplier or manufacturer of the material. The Permittee may obtain the volume fraction of coating solids for each coating from the supplier or manufacturer.
- (d) Calculation of volume fraction of coating solids. The Permittee may determine the volume fraction of coating solids using equation 2:

$$V_s = 1 - \frac{m_{\text{volatiles}}}{D_{\text{avg}}} \quad (\text{Eq. 2})$$

Where:

V_s = Volume fraction of coating solids, liters (gal) coating solids per liter (gal) coating.
 $m_{\text{volatiles}}$ = Total volatile matter content of the coating, including HAP, volatile organic compounds (VOC), water, and exempt compounds, determined according to Method 24 in Appendix A of 40 CFR Part 60, grams volatile matter per liter coating.

D_{avg} = Average density of volatile matter in the coating, grams volatile matter per liter volatile matter, determined from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If there is disagreement between ASTM Method D1475-98 test results and other information sources, the test results will take precedence unless, after consultation the Permittee demonstrates to the satisfaction of DAQ that the formulation data are correct.

- (3) Determine the density of each coating. Determine the density of each coating used during the compliance period from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see 63.14), information from the supplier or manufacturer of the material, or specific gravity data for pure chemicals. If there is disagreement between ASTM Method D1475-98 test results and the supplier's or manufacturer's information, the test results will take precedence unless, after consultation the Permittee demonstrates to the satisfaction of DAQ that the formulation data are correct.
- (4) Determine the organic HAP content of each coating. Calculate the organic HAP content, kg (lb) of organic HAP emitted per liter (gal) coating solids used, of each coating used during the compliance period using Equation 3:

$$H_c = \frac{(D_c)(W_c)}{V_s}$$

Where:

H_c = Organic HAP content of the coating, kg (lb) organic HAP emitted per liter (gal) coating solids used.

D_c = Density of coating, kg (lb) coating per liter (gal) coating, determined according to Section 2.2 A.3.d.i.(B)(3) above.

W_c = Mass fraction of organic HAP in the coating, kg (lb) organic HAP per kg (lb) coating, determined according to Section 2.2 A.3.d.i.(B)(1) above.

V_s = Volume fraction of coating solids, liter (gal) coating solids per liter (gal) coating, determined according to Section 2.2 A.3.d.i.(B)(2) above.

- (5) Compliance demonstration. The calculated organic HAP content for each coating used during the initial compliance period must be less than or equal to the applicable emission limit in Section 2.2 A.3.b.i through v above; and each thinner and/or other additive, and cleaning material used during the initial compliance period must contain no organic HAP, determined according to Section 2.2 A.3.d.i.(B)(1) above. The Permittee shall keep all records required by Section 2.2 A.3. h below. As part of the notification of compliance status required in Section 2.2 A.3.g below, the Permittee shall identify the coating operation(s) for which the facility used the compliant material option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the facility used no coatings for which the organic HAP content exceeded the applicable emission limit in Section 2.2 A.3.b or c. above, and the facility used no thinners and/or other additives, or cleaning materials that contained organic HAP, determined according to the procedures in Section 2.2 A.3.d.i.(B)(1) above.
- (C) (1) For each compliance period to demonstrate continuous compliance, the Permittee shall use no coating for which the organic HAP content (determined using Equation 3 of Section 2.2 A.3.d.i.(B)(4) above) exceeds the applicable emission limit in Section 2.2 A.3.b or c above, and use no thinner and/or other additive, or cleaning material that contains organic HAP, determined according to Section 2.2 A.3.d.i.(B)(1) above. A compliance period consists of 12 months. Each month, after the end of the initial compliance period described in Section 2.2 A.3.d.i.(A) above, is the end of a compliance period consisting of that month and the preceding 11 months. If the facility is complying with a facility-specific emission limit under Section 2.2 A.3.c.ii above, the Permittee shall also perform the calculation using Equation 1 in Section 2.2 A.3.c.ii.(B) above on a monthly basis using the data from the previous 12 months of operation.
- (2) If the Permittee chooses to comply with the emission limitations by using the compliant material option, the use of any coating, thinner and/or other additive, or cleaning material that does not meet the criteria specified in Section 2.2 A.3.d.i.(C)(1) above is a deviation from the emission limitations that must be reported as specified in Section 2.2 A.3.g.vi and Section 2.2.A.3.g.ix below.
- (3) As part of each semiannual compliance report required by Section 2.2 A.3.i above, the Permittee shall identify the coating operation(s) for which the facility used the compliant material option. If there were no deviations from the applicable emission limit in Section 2.2 A.3.b or c. above, submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the facility used no coatings for which the organic HAP content exceeded the applicable emission limit in Section 2.2 A.3.b or c. above, and the facility used no thinner and/or other additive, or cleaning material that contained organic HAP, determined according to Section 2.2 A.3.d.i.(B)(1) above.
- (4) The Permittee shall maintain records as specified in Section 2.2 A.3.h below; or
- ii. Emission rate without add-on controls option. Demonstrate that, based on the coatings, thinners and/or other additives, and cleaning materials used in the coating operation(s), the organic HAP emission rate for the coating operation(s) is less than or equal to the applicable emission limit in Section 2.2 A.3.b or c. above, calculated as a rolling 12-month emission rate and determined on a monthly basis. The Permittee shall meet all of the following requirements to demonstrate compliance with the emission limit using this option.
- (A) The Permittee shall complete the initial compliance demonstration for the initial compliance period ending on **January 1, 2008.**
- (B) The Permittee may use the emission rate without add-on controls option for any individual coating operation, for any group of coating operations in the affected source, or for all the coating operations in the affected source. The Permittee shall use the compliant material option for any coating operation in the affected source for which the facility does not use this option. To demonstrate initial compliance using the emission rate without add-on controls option, the coating operation or group of coating operations must meet the applicable emission limit in Section 2.2 A.3.b or c. above. The Permittee shall

conduct a separate initial compliance demonstration for each general use, magnet wire, rubber-to-metal, and extreme performance fluoropolymer coating operation unless the facility is demonstrating compliance with a predominant activity or facility-specific emission limit as provided in Section 2.2 A.3.c.i above. If the facility is demonstrating compliance with a predominant activity or facility-specific emission limit as provided in Section 2.2 A.3.c.ii above, the Permittee shall demonstrate that all coating operations included in the predominant activity determination or calculation of the facility-specific emission limit comply with that limit. When calculating the organic HAP emission rate according to this section, do not include any coatings, thinners and/or other additives, or cleaning materials used on coating operations for which the Permittee uses the compliant material option. The Permittee does not need to re-determine the mass of organic HAP in coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site (or reclaimed off-site if the facility has documentation showing that the facility received back the exact same materials that were sent off-site) and reused in the coating operation for which the facility uses the emission rate without add-on controls option. If the Permittee uses coatings, thinners and/or other additives, or cleaning materials that have been reclaimed on-site, the amount of each used in a month may be reduced by the amount of each that is reclaimed. That is, the amount used may be calculated as the amount consumed to account for materials that are reclaimed.

- (1) Determine the mass fraction of organic HAP for each material. Determine the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each month according to the requirements in Section 2.2 A.3.d.i.(B)(1) above.
- (2) Determine the volume fraction of coating solids. Determine the volume fraction of coating solids (liter (gal) of coating solids per liter (gal) of coating) for each coating used during each month according to the requirements in Section 2.2 A.3.d.i.(B)(2) above.
- (3) Determine the density of each material. Determine the density of each liquid coating, thinner and/or other additive, and cleaning material used during each month from test results using ASTM Method D1475-98, "Standard Test Method for Density of Liquid Coatings, Inks, and Related Products" (incorporated by reference, see 63.14), information from the supplier or manufacturer of the material, or reference sources providing density or specific gravity data for pure materials. If the Permittee is including powder coatings in the compliance determination, determine the density of powder coatings, using ASTM Method D5965-02, "Standard Test Methods for Specific Gravity of Coating Powders" (incorporated by reference, see 63.14), or information from the supplier. If there is disagreement between ASTM Method D1475-98 or ASTM Method D5965-02 test results and other such information sources, the test results will take precedence unless, after consultation the Permittee demonstrates to the satisfaction of DAQ that the formulation data are correct. If the facility purchases materials or monitors consumption by weight instead of volume, then the Permittee does not need to determine material density. Instead, the Permittee may use the material weight in place of the combined terms for density and volume in Equations 4A, 4B, 4C, and 5 below.
- (4) Determine the volume of each material used. Determine the volume (liters or gallons) of each coating, thinner and/or other additive, and cleaning material used during each month by measurement or usage records. If the facility purchases materials or monitors consumption by weight instead of volume, the Permittee does not need to determine the volume of each material used. Instead, the Permittee may use the material weight in place of the combined terms for density and volume in Equations 4A, 4B, and 4C below.
- (5) Calculate the mass of organic HAP emissions. The mass of organic HAP emissions is the combined mass of organic HAP contained in all coatings, thinners and/or other additives, and cleaning materials used during each month minus the organic HAP in certain waste materials. Calculate the mass of organic HAP emissions using Equation 4 of this section.

$$H_e = A + B + C - R_w \quad (\text{Eq. 4})$$

Where:

- H_e = Total mass of organic HAP emissions during the month, kg (lb).
 A = Total mass of organic HAP in the coatings used during the month, kg (lb), as calculated in Equation 4A of this section.
 B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg (lb), as calculated in Equation 4B of this section.
 C = Total mass of organic HAP in the cleaning materials used during the month, kg (lb), as calculated in Equation 4C of this section.

R_w = Total mass of organic HAP in waste materials sent or designated for shipment to a hazardous waste TSDF for treatment or disposal during the month, kg (lb), determined according to Section 2.2 A.3.d.ii.(B)(5)(d) below. (The Permittee may assign a value of zero to R_w if the facility does not wish to use this allowance.)

- (a) Calculate the total mass of organic HAP in the coatings used during the month using Equation 4A of this section:

$$A = \sum_{i=1}^m [(Vol_{c,i})(D_{c,i})(W_{c,i})] \quad (\text{Eq. 4A})$$

Where:

- A = Total mass of organic HAP in the coatings used during the month, kg (lb).
 $Vol_{c,i}$ = Total volume of coating, i, used during the month, liters (gal).
 $D_{c,i}$ = Density of coating, i, kg (lb) coating per liter coating.
 $W_{c,i}$ = Mass fraction of organic HAP in coating, i, kg (lb) organic HAP per kg (lb) coating. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in Appendix A to Subpart P of this Part.
 m = Number of different coatings used during the month.

- (b) Calculate the total mass of organic HAP in the thinners and/or other additives used during the month using Equation 4B of this section:

$$B = \sum_{j=1}^n [(Vol_{t,j})(D_{t,j})(W_{t,j})] \quad (\text{Eq. 4B})$$

Where:

- B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg (lb).
 $Vol_{t,j}$ = Total volume of thinner and/or other additive, j, used during the month, liters (gal).
 $D_{t,j}$ = Density of thinner and/or other additive, j, kg per liter (lb/gal).
 $W_{t,j}$ = Mass fraction of organic HAP in thinner and/or other additive, j, kg (lb) organic HAP per kg (lb) thinner and/or other additive. For reactive adhesives, use the mass fraction of organic HAP that is emitted as determined using the method in Appendix A to Subpart P of this Part.
 n = Number of different thinners and/or other additives used during the month.

- (c) Calculate the total mass of organic HAP in the cleaning materials used during the month using Equation 4C of this section:

$$C = \sum_{k=1}^p [(Vol_{s,k})(D_{s,k})(W_{s,k})] \quad (\text{Eq. 4C})$$

Where:

- C = Total mass of organic HAP in the cleaning materials used during the month, kg (lb).
 $Vol_{s,k}$ = Total volume of cleaning material, k, used during the month, liters (gal).
 $D_{s,k}$ = Density of cleaning material, k, kg per liter (lb/gal).
 $W_{s,k}$ = Mass fraction of organic HAP in cleaning material, k, kg (lb) organic HAP per kg (lb) material.
 p = Number of different cleaning materials used during the month.

- (d) If the facility chooses to account for the mass of organic HAP contained in waste materials sent or designated for shipment to a hazardous waste TSDF in Equation 4 of this section, then the Permittee shall determine the mass as follows:
- (i) The Permittee may only include waste materials in the determination that are generated by coating operations in the affected source for which the facility uses Equation 4 of this section and that will be treated or disposed of by a facility that is regulated as a TSDF under 40 CFR Part 262, 264, 265, or 266. The TSDF may be either off-site or on-site. The Permittee may not include organic HAP contained in wastewater.
 - (ii) The Permittee shall determine either the amount of the waste materials sent to a TSDF during the month or the amount collected and stored during the month and designated for future transport to a TSDF. Do not include in the determination any waste materials sent to a TSDF during a month if the Permittee has already included them in the amount collected and stored during that month or a previous month.
 - (iii) Determine the total mass of organic HAP contained in the waste materials specified in Section (ii) above.
 - (iv) The Permittee shall document the methodology used to determine the amount of waste materials and the total mass of organic HAP they contain, as required in Section 2.2.A.3.h.vii below. If waste manifests include this information, they may be used as part of the documentation of the amount of waste materials and mass of organic HAP contained in them.
- (6) Calculate the total volume of coating solids used. Determine the total volume of coating solids used, liters (gal), which is the combined volume of coating solids for all the coatings used during each month, using Equation 5 of this section:

$$V_{st} = \sum_{i=1}^m [(Vol_{c,i})(V_{s,i})] \tag{Eq. 5}$$

Where:

- V_{st} = Total volume of coating solids used during the month, liters (gal).
- $Vol_{c,i}$ = Total volume of coating, i, used during the month, liters (gal).
- $V_{s,i}$ = Volume fraction of coating solids for coating, i, liter solids per liter coating, determined according to Section 2.1 C.3.d.i.(B)(2) above.
- m = Number of coatings used during the month.

- (7) Calculate the organic HAP emission rate. Calculate the organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per liter (gal) coating solids used, using Equation 6 of this section:

$$H_{yr} = \frac{\sum_{y=1}^n H_e}{\sum_{y=1}^n V_{st}} \tag{Eq. 6}$$

Where:

- H_{yr} = Average organic HAP emission rate for the compliance period, kg (lb) organic HAP emitted per liter coating solids used.
- H_e = Total mass of organic HAP emissions from all materials used during month, y, kg (lb), as calculated by Equation 4 of this section.
- V_{st} = Total volume of coating solids used during month, y, liters (gal), as calculated by Equation 5 of this section.
- y = Identifier for months.

n = Number of full or partial months in the compliance period (for the initial compliance period, n equals 12 if the compliance date falls on the first day of a month; otherwise n equals 13; for all following compliance periods, n equals 12).

(8) Compliance demonstration. The organic HAP emission rate for the initial compliance period calculated using Equation 6 of this section must be less than or equal to the applicable emission limit for each subcategory in Section 2.2 A.3.b or c. above or the predominant activity or facility-specific emission limit allowed in Section 2.2 A.3.c.ii above. The Permittee shall keep all records as required by Section 2.2 A.3.h below. As part of the notification of compliance status required by Section 2.2 A.3.g below, the Permittee shall identify the coating operation(s) for which the facility used the emission rate without add-on controls option and submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the initial compliance period because the organic HAP emission rate was less than or equal to the applicable emission limit in Section 2.2 A.3.b or c above, determined according to the procedures in this section.

(C) (1) To demonstrate continuous compliance, the organic HAP emission rate for each compliance period, determined according to Section 2.2 A.3.d.ii.(B)(1) through (7) above, must be less than or equal to the applicable emission limit in Section 2.2 A.3.b or c. above. A compliance period consists of 12 months. Each month after the end of the initial compliance period described in Section 2.2 A.3.d.ii.(A) above is the end of a compliance period consisting of that month and the preceding 11 months. The Permittee shall perform the calculations in Section 2.2 A.3.d.ii.(B)(1) through (7) above on a monthly basis using data from the previous 12 months of operation. If the facility is complying with a facility-specific emission limit under Section 2.2 A.3.c.ii above, the Permittee shall also perform the calculation using Equation 1 in Section 2.2 A.3.c.ii.(B) above on a monthly basis using the data from the previous 12 months of operation.

(2) If the organic HAP emission rate for any 12-month compliance period exceeded the applicable emission limit in Section 2.2 A.3.b. or c. above, this is a deviation from the emission limitation for that compliance period and must be reported as specified in Sections 2.2 A.3.g.vi and 2.2 A.3.i.x below.

(3) As part of each semiannual compliance report required by Section 2.2 A.3.i below, the Permittee shall identify the coating operation(s) for which the facility used the emission rate without add-on controls option. If there were no deviations from the emission limitations, the Permittee shall submit a statement that the coating operation(s) was (were) in compliance with the emission limitations during the reporting period because the organic HAP emission rate for each compliance period was less than or equal to the applicable emission limit in Section 2.2 A.3.b or c above, determined according to Section 2.2 A.3.d.ii.(B)(1) through (7) above.

(4) The Permittee shall maintain records as specified in Section 2.2 A.3.h below.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if it does not conduct a monthly compliance demonstration as required above or if the compliance demonstration shows an exceedance of the emission limitations in Section 2.2 A.3.b or c above.

Operating Limits/Work Practice Standards [40 CFR 63.3892 and 63.3893]

e. For the coating operations associated with filter lines for which the Permittee uses the compliant material option in Section 2.2 A.3.d.i above or the emission rate without add-on controls option in Section 2.2 A.5.d.ii above, the Permittee is not required to meet any operating limits or work practice standards.

Notifications [40 CFR 63.3910]

f. The Permittee shall submit the notifications in 63.7(b) and (c), 63.8(f)(4), and 63.9(b) through (e) and (h) that apply to the facility by the dates specified in those sections.

g. The Permittee shall submit the notification of compliance status required by 63.9(h) by March 3, 2008.

Recordkeeping [40 CFR 63.3930]

h. The Permittee shall collect and keep records of the data and information specified below. Failure to collect and keep these records is a deviation from the applicable standard.

i. A copy of each notification and report submitted to comply with this Subpart, and the documentation supporting each notification and report. If the facility is using the predominant activity alternative under Section 2.2 A.3.c.i above, the Permittee shall keep records of the data and calculations used to determine the predominant activity. If the facility is using the facility-specific emission limit alternative under Section 2.2 A.3.c.i above, the Permittee shall keep records of the data used to calculate the facility-specific emission limit

- for the initial compliance demonstration. The Permittee shall also keep records of any data used in each annual predominant activity determination and in the calculation of the facility-specific emission limit for each 12-month compliance period included in the semi-annual compliance reports;
- ii. A current copy of information provided by materials suppliers or manufacturers, such as manufacturer's formulation data, or test data used to determine the mass fraction of organic HAP and density for each coating, thinner and/or other additive, and cleaning material, and the volume fraction of coating solids for each coating. If the facility conducted testing to determine mass fraction of organic HAP, density, or volume fraction of coating solids, the Permittee shall keep a copy of the complete test report. If the facility uses information provided by the manufacturer or supplier of the material that was based on testing, the Permittee shall keep the summary sheet of results provided by the manufacturer or supplier. The Permittee is not required to obtain the test report or other supporting documentation from the manufacturer or supplier;
 - iii. For each compliance period, the records specified below:
 - (A) A record of the coating operations on which the Permittee used each compliance option and the time periods (beginning and ending dates and times) for each option;
 - (B) For the compliant material option, a record of the calculation of the organic HAP content for each coating, using Equation 3 of Section 2.2 A.3.d.i.(B)(4) above; and
 - (C) For the emission rate without add-on controls option, a record of the calculation of the total mass of organic HAP emissions for the coatings, thinners and/or other additives, and cleaning materials used each month using Equations 4, 4A through 4C, and 5 of Sections 2.2 A.3.d.ii.(B)(5) through (7) above; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to Section 2.2 A.3.d.ii.(B)(5)(d) above; the calculation of the total volume of coating solids used each month using Equation 2 of Section 2.2 A.3.d.ii.(B)(6) above; and the calculation of each 12-month organic HAP emission rate using Equation 3 of Section 2.2 A.3.d.ii.(B)(7) above.
 - iv. A record of the name and volume of each coating, thinner and/or other additive, and cleaning material used during each compliance period. If the facility is using the compliant material option for all coatings at the source, the Permittee may maintain purchase records for each material used rather than a record of the volume used;
 - v. A record of the mass fraction of organic HAP for each coating, thinner and/or other additive, and cleaning material used during each compliance period unless the material is tracked by weight;
 - vi. A record of the volume fraction of coating solids for each coating used during each compliance period;
 - vii. If the Permittee uses the emission rate without add-on controls compliance option, the density for each coating, thinner and/or other additive, and cleaning material used during each compliance period;
 - viii. If the facility uses an allowance in Equation 4 of Section 2.2 A.3.d.ii.(B)(5) above for organic HAP contained in waste materials sent to or designated for shipment to a treatment, storage, and disposal facility (TSDF) according to Section 2.2 A.3.d.ii.(B)(5)(d) above, the Permittee shall keep records of the following information:
 - (A) The name and address of each TSDF to which the Permittee sent waste materials for which the facility uses an allowance in Equation 4 of Section 2.2 A.5.d.ii.(B)(5) above; a statement of which subparts under 40 CFR parts 262, 264, 265, and 266 apply to the facility; and the date of each shipment;
 - (B) Identification of the coating operations producing waste materials included in each shipment and the month or months in which the Permittee used the allowance for these materials in Equation 1 of Section 2.2 A.3.d.ii.(B)(5) above; and
 - (C) The methodology used in accordance with Section 2.2 A.3.d.ii.(B)(5)(d) above to determine the total amount of waste materials sent to or the amount collected, stored, and designated for transport to a TSDF each month; and the methodology to determine the mass of organic HAP contained in these waste materials. This shall include the sources for all data used in the determination, methods used to generate the data, frequency of testing or monitoring, and supporting calculations and documentation, including the waste manifest for each shipment; and
 - ix. The Permittee shall keep records of the date, time, and duration of each deviation. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the above records are not maintained.

Reporting [40 CFR 63.3920]

- i. The Permittee shall submit a summary report of the monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. All instances of deviations from the requirements of this permit must be clearly identified. The report shall contain the following information:
 - 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;
- iv. Identification of the compliance option or options specified in Section 2.2 A.3.d above that the facility used on each coating operation during the reporting period. If the facility switched between compliance options during the reporting period, the Permittee shall report the beginning and ending dates for each option used;
- v. If the Permittee used the emission rate without add-on controls compliance option (Section 2.2 A.3.d.ii above), the calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period
- vi. If the Permittee used the predominant activity alternative (Section 2.2 A.3.c.i above), include the annual determination of predominant activity if it was not included in the previous semi-annual compliance report;
- vii. If the Permittee used the facility-specific emission limit alternative (Section 2.2 A.3.c.ii above), include the calculation of the facility-specific emission limit for each 12-month compliance period during the 6-month reporting period
- viii. If there were no deviations from the emission limitations in Section 2.2 A.3.b or c. above that apply, a statement that there were no deviations from the emission limitations during the reporting period
- ix. If the Permittee used the compliant material option and there was a deviation from the applicable organic HAP content requirements in Section 2.2 A.3.b or c. above, the following information:
 - (A) Identification of each coating used that deviated from the applicable emission limit, and each thinner and/or other additive, and cleaning material used that contained organic HAP, and the dates and time periods each was used;
 - (B) The calculation of the organic HAP content (using Equation 2 of Section 2.2 A.3.d.i.(B)(4) above) for each coating identified in Section 2.2 A.3.i.ix.(A) above. The Permittee does not need to submit background data supporting this calculation (e.g., information provided by coating suppliers or manufacturers, or test reports);
 - (C) The determination of mass fraction of organic HAP for each thinner and/or other additive, and cleaning material identified in Section 2.2 A.3.i.ix.(A) above. The Permittee does not need to submit background data supporting this calculation (e.g., information provided by material suppliers or manufacturers, or test reports); and
 - (D) A statement of the cause of each deviation; and
- x. If the Permittee used the emission rate without add-on controls option and there was a deviation from the applicable emission limit in Section 2.2 A.3.b or c above, the following information:
 - (A) The beginning and ending dates of each compliance period during which the 12-month organic HAP emission rate exceeded the applicable emission limit in Section 2.2 A.3.b or c above;
 - (B) The calculations used to determine the 12-month organic HAP emission rate for the compliance period in which the deviation occurred. The Permittee shall submit the calculations for Equations 1, 1A through 1C, 2, and 3 of Sections 2.2 A.3.d.ii.(B)(5) through (7) above; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to Section 2.2 A.3.d.ii.(B)(5)(d) above. The Permittee does not need to submit background data supporting these calculations (e.g., information provided by materials suppliers or manufacturers, or test reports); and
 - (C) A statement of the cause of each deviation.

STATE ENFORCEABLE ONLY

4. 15A NCAC 02Q .0711: EMISSION RATES REQUIRING A PERMIT

- a. The facility shall be operated and maintained in such a manner that any new, existing or increased actual emissions of any Toxic Air Pollutant (TAP) listed in 15A NCAC 02Q .0711 or in this permit from all sources at the facility (excluding those sources exempt under 15A NCAC 02Q .0702 "Exemptions"), including fugitive emissions and emission sources not otherwise required to have a permit, will not exceed its respective TAP permitting emission rates (TPER) listed in 15A NCAC 02Q .0711 without first obtaining an air permit to construct or operate.
- b. PRIOR to exceeding any of the TPERs listed in 15A NCAC 02Q .0711, the Permittee shall be responsible for obtaining an air permit to emit TAPs and for demonstrating compliance with the requirements found in 15A NCAC 02D .1100 "Control of Toxic Air Pollutants."
- c. The Permittee shall maintain at the facility records of operational information sufficient for demonstrating to the Division of Air Quality staff that actual TAPs are less than the rate listed in 15A NCAC 02Q .0711.

- d. The TPER table listed below is provided to assist the Permittee in determining when an air permit is required pursuant to 15A NCAC 02Q .0711 and may not represent all TAPs being emitted from the facility. This table will be updated at such time as the permit is either modified or renewed.

Pollutant (CAS Number)	TPER Limitations			
	Carcinogens (lb/yr)	Chronic Toxicants (lb/day)	Acute Systemic Toxicants (lb/hr)	Acute Irritants (lb/hr)
Acrylonitrile (107-13-1)	10	----	----	----
Benzene (71-43-2)	8.1	----	----	----
Benzo(a)pyrene (50-32-8)	2.2	----	----	----
Di(2ethylhexyl)phthalate (117-81-7)		0.63		
n-Hexane (110-54-3)	----	23	----	----
Hexane isomers, except n-hexane	----	----	----	92
Methyl Ethyl Ketone (78-93-3)	----	78	----	22.4
Styrene (100-42-5)	----	----	2.7	----
Toluene (108-88-3)	----	98	----	14.4
Xylene (1330-20-7)	----	57	----	16.4

B. Facility Wide Emission Sources Avoiding PSD Applicability:

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile organic compounds	VOC shall be less than 250 tons per consecutive 12-month period from the entire facility except Air Filter Line No. 32	15A NCAC 02Q .0317 (PSD Avoidance)
Volatile organic compounds	VOC shall be less than 250 tons per consecutive 12-month period from Air Filter Line No. 32	15A NCAC 02Q .0317 (PSD Avoidance)

1. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS

(Avoidance of 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION)

- a. In order to avoid applicability of 15A NCAC 02D .0530(g), VOC emissions from the entire facility, except Air Filter Line No. 32 shall be less than 250 tons 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 are above the limit given in Section 2.2 B.1.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02Q .0317.

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

- c. Calculations of VOC emissions shall be made monthly and recorded in a logbook (written or electronic format) according to the following formulas:

$$T_{VOC} = \frac{Q_{VOC(paper)} + Q_{VOC(plastisol)} + Q_{VOC(other\ liquids)} + Q_{VOC(combustion)}}{2000} \tag{Eq. 1}$$

where:

- T_{VOC} = total VOC emissions per month, tons/month,
- $Q_{VOC(paper)}$ = Defined by Eq. 2,
- $Q_{VOC(plastisol)}$ = Defined by Eq. 3,
- $Q_{VOC(other\ liquids)}$ = Defined by Eq. 4, and
- $Q_{VOC(combustion)}$ = Defined by Eq. 5

$$Q_{VOC(paper)} = \sum_{i=1}^n (W_{i(paper)} \times X_{i(paper)}) \tag{Eq. 2}$$

where:

- $Q_{VOC(paper)}$ = VOC emissions per month from paper curing, lb/month,
- W_i = weight in pounds of each paper group processed per month in the facility (except Air Filter Line No. 32). Paper groups are organized according to weight percentages of VOC constituents present in each group, as stated in MSDS sheets
- X_i = weight percent of total VOC constituents evolved per month from each paper group during curing [The value of X_i for each paper group is (a) the total weight % of VOC constituents in paper as stated in the MSDS, or (b) total weight % of such constituents evolved during curing as determined from DAQ-approved laboratory simulation of paper curing operations, or (c) such total weight % evolved by any other DAQ-approved method.]
- i = numeric designation of each paper group processed, and
- n = total number of paper groups processed

$$Q_{\text{VOC(plastisol)}} = \sum_{i=1}^n (V_{i(\text{plastisol})} \times \rho_{i(\text{plastisol})} \times X_{i(\text{plastisol})}) \quad (\text{Eq. 3})$$

where:

- $Q_{\text{VOC (plastisol)}}$ = VOC emissions per month from plastisol curing, lb/month,
- V_i = volume of each plastisol formulation cured in the facility (except Air Filter Line No. 32) per month, gal/month
- ρ_i = density of each plastisol formulation, lb/gal,
- X_i = weight percent of total VOC constituents evolved from curing of each plastisol formulation, %w
- i = numeric designation of each plastisol formulation processed, and
- n = total number of plastisol formulations processed

$$Q_{\text{VOC(other liquids)}} = \sum_{i=1}^n (V_{i(\text{other liquids})} \times \rho_{i(\text{other liquids})} \times X_{i(\text{other liquids})}) \quad (\text{Eq. 4})$$

where:

- $Q_{\text{VOC (other liquids)}}$ = VOC emissions in pounds per month from use of VOC-containing liquids (except those used in Air Filter Line No. 32) [VOC-containing liquids include paints, inks, solvents and mold release compounds.]
- V_i = volume of each VOC-containing liquid used in the facility (except Air Filter Line No. 32) gallons per month
- ρ_i = density of each liquid, lbs/gal, and
- X_i = weight percent of total VOC in each liquid processed, %w

$$Q_{\text{VOC(combustion)}} = E \times (V_{\text{gas(facility-wide)}} - V_{\text{gas(line32)}}) \quad (\text{Eq. 5})$$

where:

- $Q_{\text{VOC (combustion)}}$ = VOC emissions per month from natural gas combustion, lb/month
- E = applicable AP-42 emission factor for natural gas combustion, lb/million scf
- $V_{\text{gas (facility-wide)}}$ = facility-wide total volume of natural gas burned per month as per vendor invoice, million scf/month
- $V_{\text{gas (line 32)}}$ = $V_{\text{gas (facility-wide)}} \times C_b (\text{line 32}) / C_b (\text{facility-wide})$
- $C_b (\text{line 32})$ = line 32 rated capacity of natural gas burners in million Btu/hr
- $C_b (\text{facility-wide})$ = facility-wide total rated capacity of all natural gas burners in million Btus/hr

The Permittee shall be deemed in noncompliance with 15A NCAC 02Q .0317 if the above records are not kept or the VOC emissions exceed the above limit.

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

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities given in Section 2.2 B.1.c above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly VOC emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

**2. 15A NCAC 02Q .0317: AVOIDANCE CONDITIONS
(Avoidance of 15A NCAC 02D .0530: PREVENTION OF SIGNIFICANT DETERIORATION)**

- a. In order to avoid applicability of 15A NCAC 02D .0530(g), VOC emissions from Air Filter Line No. 32 shall be less than 250 tons 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 are above the limit given in Section 2.2 B.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02Q .0317.

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

- c. Calculations of VOC emissions shall be made monthly and recorded in a logbook (written or electronic format) according to the following formula:

$$T_{VOC} = \frac{Q_{VOC(paper)} + Q_{VOC(plastisol)} + Q_{VOC(other\ liquids)} + Q_{VOC(poly-iso)}}{2000} \tag{Eq. 1}$$

where:

- T_{VOC} = total VOC emissions per month, tons/month,
- $Q_{VOC(paper)}$ = Defined by Eq. 2,
- $Q_{VOC(plastisol)}$ = Defined by Eq. 3,
- $Q_{VOC(other\ liquids)}$ = Defined by Eq. 4, and
- $Q_{VOC(poly-iso)}$ = 320 lbs/yr or 26.67 lbs/month.²

$$Q_{VOC(paper)} = \sum_{i=1}^n (W_{i(paper)} \times X_{i(paper)}) \tag{Eq. 2}$$

where:

- $Q_{VOC(paper)}$ = VOC emissions per month from paper curing, lb/month,
- W_i = weight of each paper group processed in pounds per month in Air Filter Line No. 32 [Paper groups are organized according to weight percentages of VOC constituents present in each group, as stated in MSDS.]
- X_i = weight percent of total VOC constituents evolved per month from each paper group during curing. [The value of X_i for each paper group is (a) the total weight % of VOC constituents in paper as stated in the MSDS, or (b) total weight % of such constituents evolved during curing as determined from DAQ-approved laboratory simulation of paper curing operations, or (c) such total weight % evolved by any other DAQ-approved method.]
- i = numeric designation of each paper group processed, and
- n = total number of paper groups processed

$$Q_{VOC(plastisol)} = \sum_{i=1}^n (V_{i(plastisol)} \times \rho_{i(plastisol)} \times X_{i(plastisol)}) \tag{Eq. 3}$$

where:

- $Q_{VOC(plastisol)}$ = VOC emissions per month from plastisol curing, lb/month,
- V_i = volume of each plastisol formulation cured in Air Filter Line No. 32 per month, in gallons per month,
- ρ_i = density of each plastisol formulation, lb/gal,
- X_i = weight percent of total VOC constituents evolved from curing of each plastisol formulation, %w
- i = numeric designation of each plastisol formulation processed, and
- n = total number of plastisol formulations processed

$$Q_{VOC(other\ liquids)} = \sum_{i=1}^n (V_{i(other\ liquids)} \times \rho_{i(other\ liquids)} \times X_{i(other\ liquids)}) \tag{Eq. 4}$$

where:

2 This is a DAQ approved potential emission rate, as per the air permit 03860T18 for VOC emissions from polyol-isocyanate resin blending and foam curing operations for line 32 only.

Q_{VOC} (other liquids) = VOC emissions pounds per month from use of VOC-containing liquids [VOC-containing liquids include paints, inks, solvents and mold release compounds.]
 V_i = volume of each VOC-containing liquid used in Air Filter Line No. 32) in gallons per month
 ρ_i = density of each liquid, lbs/gal, and
 X_i = weight percent of total VOC in each liquid processed, %w

The Permittee shall be deemed in noncompliance with 15A NCAC 02Q .0317 if the above records are not kept or the VOC emissions exceed the above limit.

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

- d. The Permittee shall submit a semi-annual summary report, acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities given in Section 2.2 B.2.c above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and July 30 of each calendar year for the preceding six-month period between January and June. The report shall contain the monthly VOC emissions for the previous 17 months. The emissions must be calculated for each of the 12-month periods over the previous 17 months.

SECTION 3 - GENERAL CONDITIONS (version 5.4, 07/20/2020)

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 six 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)(3)]

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

CC. **Refrigerant Requirements (Stratospheric Ozone and Climate Protection)** [15A NCAC 02Q .0501(d)]

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. When permitted equipment is not in operation, the requirements for testing, monitoring, and recordkeeping are suspended until operation resumes.

MM. Fugitive Dust Control Requirement [15A NCAC 02D .0540]

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(b)(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(c)(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	Alternative Operating Scenario
BACT	Best Available Control Technology
BAE	Baseline Actual Emissions
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CSAPR	Cross-State Air Pollution Rule
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
GHGs	Greenhouse Gases
HAP	Hazardous Air Pollutant
LAER	Lowest Achievable Emission Rate
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NAAQS	National Ambient Air Quality Standards
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
NSR	New Source Review
OAH	Office of Administrative Hearings
PAE	Projected Actual Emissions
PAL	Plantwide Applicability Limitation
PM	Particulate Matter
PM_{2.5}	Particulate Matter with Nominal Aerodynamic Diameter of 2.5 Micrometers or Less
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	Tons Per Year
VOC	Volatile Organic Compound