



NORTH CAROLINA
Environmental Quality

ROY COOPER
Governor

ELIZABETH S. BISER
Secretary

MICHAEL ABRACZINSKAS
Director

Enter XXXXXX xx, 2023

Randy Frye
MANN+HUMMEL Purolator Filters LLC
3200 Natal Road
Fayetteville, NC 28306

SUBJECT: Air Quality Permit No. 01757T32
Facility ID: 2600058
MANN+HUMMEL Purolator Filters LLC
Fayetteville
Cumberland County
Fee Class: Title V
PSD Class: Minor

Dear Mr. Frye:

In accordance with your completed Air Quality Permit Application for a renewal of your Title V permit, we are forwarding herewith Air Quality Permit No. 01757T32 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 identified as such in the permit. Please note the requirements for the annual compliance certification are contained in General Condition P in Section 4. 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 file a petition for contested case hearing in the North Carolina Office of Administrative Hearings. Information regarding the right, procedure, and time limit for permittees and other persons aggrieved to file such a petition is contained in the attached "Notice Regarding the Right to Contest A Division of Air Quality Permit Decision."

The construction of new air pollution emission source(s) and associated air pollution control device(s), or modifications to existing 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.



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

143-215.108A and may subject the Permittee to civil or criminal penalties as described in NCGS 143-215.114A and 143-215.114B.

Cumberland County has triggered increment tracking under PSD for PM₁₀ and SO₂. However, this permit renewal does not consume or expand increments for any pollutants.

This Air Quality Permit shall be effective from (*date of issuance*) until (*expiration date*), 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 Jacob Larson at (919) 707-8407 or Jacob.larson@deq.nc.gov.

Sincerely yours,

Mark J. Cuilla, EIT, CPM, Chief, Permitting Section
Division of Air Quality, NCDEQ

Enclosure

c: Brad Akers, EPA Region 4 (Permit and Review)
Laserfiche (2600058)
Connie Horne (cover letter only)

**NOTICE REGARDING THE RIGHT TO CONTEST A DIVISION OF AIR QUALITY PERMIT
DECISION**

Right of the Permit Applicant or Permittee to File a Contested Case: Pursuant to NCGS 143-215.108(e), a permit applicant or permittee who is dissatisfied with the Division of Air Quality's decision on a permit application may commence a contested case by filing a petition under NCGS 150B-23 in the Office of Administrative Hearings within 30 days after the Division notifies the applicant or permittee of its decision. If the applicant or permittee does not file a petition within the required time, the Division's decision on the application is final and is not subject to review. The filing of a petition will stay the Division's decision until resolution of the contested case.

Right of Other Persons Aggrieved to File a Contested Case: Pursuant to NCGS 143-215.108(e1), a person other than an applicant or permittee who is a person aggrieved by the Division's decision on a permit application may commence a contested case by filing a petition under NCGS 150B-23 within 30 days after the Division provides notice of its decision on a permit application, as provided in NCGS 150B-23(f), or by posting the decision on a publicly available Web site. The filing of a petition under this subsection does not stay the Division's decision except as ordered by the administrative law judge under NCGS 150B-33(b).

General Filing Instructions: A petition for contested case hearing must be in the form of a written petition, conforming to NCGS 150B-23, and filed with the Office of Administrative Hearings, 1711 New Hope Church Road, Raleigh NC, 27609, along with a fee in an amount provided in NCGS 150B-23.2. A petition for contested case hearing form may be obtained upon request from the Office of Administrative Hearings or on its website at <https://www.oah.nc.gov/hearings-division/filing/hearing-forms>. Additional specific instructions for filing a petition are set forth at 26 NCAC Chapter 03.

Service Instructions: A party filing a contested case is required to serve a copy of the petition, by any means authorized under 26 NCAC 03 .0102, on the process agent for the Department of Environmental Quality:

William F. Lane, General Counsel
North Carolina Department of Environmental Quality
1601 Mail Service Center
Raleigh, North Carolina 27699-1601

If the party filing the petition is a person aggrieved other than the permittee or permit applicant, the party **must also** serve the permittee in accordance with NCGS 150B-23(a).

* * *

Additional information is available at <https://www.oah.nc.gov/hearings-division/hearing-process/filing-contested-case>. Please contact the OAH at 984-236-1850 or oah.postmaster@oah.nc.gov with all questions regarding the filing fee and/or the details of the filing process.

Summary of Changes to Permit

The following changes were made to Air Permit No. 01757T31:*

Page No.	Section	Description of Changes
Global	Global	-Updated the application number and complete date. -Updated permit revision number to T32. -Updated the issuance/effective dates to permit.
27	Section 2.2 A.2	-Added TPER condition for clarity
27-28	Section 2.2 A.2-4	-Adjusted section numbering
29 - 36	Section 4 General Conditions	-Updated to most recent General Conditions (version 7.0, 08/21/2023).

* This list is not intended to be a detailed record of every change made to the permit but a summary of those changes.



AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
01757T32	01757T31	XXXX	XXXX

NOTE: Per General Condition K, a permit application for the renewal of this Title V permit shall be submitted no later than **enter date six months prior to expiration date.**

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 Purolator Filters LLC
Facility ID: 2600058
Primary SIC Code: 3714
NAICS Code: 336399

Facility Site Location: 3200 Natal Road
City, County, State, Zip: Fayetteville, Cumberland County, North Carolina 28306
Mailing Address: 3200 Natal Road
City, State, Zip: Fayetteville, North Carolina 28306

Application Number: 2600058.23A
Complete Application Date: March 9, 2023

Division of Air Quality,
Regional Office Address: Fayetteville Regional Office
225 Green Street, Suite 714
Fayetteville, North Carolina 28301

Permit issued this the XX day of XXXXXXX 202X.

Mark J. Cuilla, EIT, CPM, Chief, Air Permitting Section
By Authority of the Environmental Management Commission

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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
CEMS	Continuous Emission Monitoring System
CEDRI	Compliance and Emissions Data Reporting Interface
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMS	Continuous Opacity Monitoring System
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
NAICS	North American Industry Classification System
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

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ESOL2 MACT MMMM	One oil filter line (9,600 units per hour design capacity) with one natural gas- fired heat set oven, one top cap electric induction oven, one natural gas-fired plastisol final cure oven, and powder coating paint spray booth (IES-2)*		
ESOL2-a	One 1.6 million Btu per hour natural gas-fired heat set oven	CDOL2	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESOL2-b	One top cap electric induction plastisol curing oven	N/A	N/A
ESOL2-d**	One 2.0 million Btu per hour natural gas-fired plastisol final cure oven	CDOL2-b**	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESOL3 MACT MMMM	One oil filter line (9,600 units per hour design capacity) with one natural gas- fired heat set oven, one electric top cap induction oven, one electric induction bottom cap oven and one powder coating paint spray booth (IES-3)*		
ESOL3-a	One 1.5 million Btu per hour natural gas-fired heat set oven	CDOL3	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESOL3-b	One top cap electric induction plastisol curing oven	N/A	N/A
ESOL3-c	One bottom cap electric induction plastisol curing oven	N/A	N/A
ESOL4 MACT MMMM	One oil filter line (9,600 units per hour design capacity) with two natural gas- fired heat set ovens, one electric pre-gel oven, one natural gas-fired final cure oven and one powder coating paint spray booth (IES-4)*		
ESOL4-a	One 1.5 million Btu per hour natural gas-fired heat set oven	CDOL4-a	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESOL4-b	One 1.5 million Btu per hour natural gas-fired heat set oven	CDOL4-b	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESOL4-c	One electric infrared pre-gel plastisol curing oven	CDOL4-c	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESOL4-d	One 1.2 million Btu per hour natural gas-fired plastisol final cure oven		

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ESOL5 MACT MMMM	One oil filter line (9,600 units per hour design capacity) with two natural gas-fired heat set ovens, one top cap electric induction oven, one bottom cap electric induction oven and one powder coating paint spray booth (IES-5)*		
ESOL5-a	One 0.75 million Btu per hour natural gas-fired heat set oven	CDOL5-a	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESOL5-b	One 1.5 million Btu per hour natural gas-fired heat set oven	CDOL5-b	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESOL5-c	One top cap electric induction plastisol curing oven	N/A	N/A
ESOL5-d	One bottom cap electric induction plastisol curing oven	N/A	N/A
ESOL7 MACT MMMM	One oil filter line (9,600 units per hour design capacity) with one natural gas-fired heat set oven, one polyurethane dispensing operation, and one powder coating paint spray booth (IES-7)*		
ESOL7-a	One 2.0 million Btu per hour natural gas-fired heat set oven	CDOL7	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESOL7-d	One polyurethane dispensing operation	N/A	N/A
ESOL8 MACT MMMM	One oil filter line (4,200 units per hour design capacity) with one natural gas-fired heat set oven, one top cap electric induction plastisol curing oven, one natural gas-fired plastisol final cure oven, and one powder coating paint spray booth (IES-8)*		
ESOL8-a	One 1.6 million Btu per hour natural gas-fired heat set oven	CDOL8	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESOL8-c**	One top cap electric induction plastisol curing oven	N/A	N/A
ESOL8-d**	One 2.0 million Btu per hour natural gas-fired plastisol final cure oven	CDOL8-b**	One natural gas-fired recuperative thermal oxidizer (5.0 million Btu per hour heat input capacity)
ESCART1	One oil cartridge filter line (3,900 units per hour design capacity)		
ESCART1-b	One polyurethane dispensing operation	N/A	N/A
ESOLDC	One paper dust collection system with collection points on ESOL2 and ESOL3	CDOLDC	One bagfilter (1,310 square feet of filter area)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ESGL1	One fuel filter line (3,600 units per hour design capacity) with one electric heat set oven, two natural gas-fired ovens		
ESGL1-aR	One electric heat set oven	N/A	N/A
ESGL1-b	One 0.75 million Btu per hour natural gas-fired pre-gel plastisol curing oven	N/A	N/A
ESGL1-c	One 1.5 million Btu per hour natural gas-fired plastisol final cure oven	N/A	N/A
ESAL4	One polyurethane conical air filter line (960 units per hour design capacity) with three natural gas-fired ovens and one mold release spray operation		
ESAL4-aR	One 0.17 million Btu per hour natural gas-fired Hoffman oven	N/A	N/A
ESAL4-b	One 2.0 million Btu per hour natural gas-fired heat set oven	N/A	N/A
ESAL4-c	One 0.7 million Btu per hour natural gas-fired polyurethane cure oven	N/A	N/A
ESAL4-d	Mold release spray operation	N/A	N/A
ESAL5	One plastisol panel air filter line (3,000 units per hour design capacity) with one electric heat roller and one electric infrared cure oven		
ESAL5-a	One electric heat roller for panel filter line	N/A	N/A
ESAL5-b	One electric infrared plastisol cure oven	N/A	N/A
ESAL7	One polyurethane trapezoidal air filter line (600 units per hour design capacity) with two natural gas-fired ovens		
ESAL7-a	One 0.17 million Btu per hour natural gas-fired Hoffman oven	N/A	N/A
ESAL7-b	One 2.0 million Btu per hour natural gas-fired heat set oven	CDAL7	One natural gas-fired afterburner (1.32 million Btu per hour heat input capacity)
ESAL8	One polyurethane air filter production line (1,000 units per hour design capacity) with one electric preheat oven and one natural gas-fired heat set oven		
ESAL8-a	One electric infrared preheat oven	N/A	N/A
ESAL8-b	One 2.0 million Btu per hour natural gas-fired heat set oven	CDAL8	One natural gas-fired afterburner (1.32 million Btu per hour heat input capacity)
ESAL9	One polyurethane air filter production line (1,000 units per hour design capacity) with one electric preheat oven and one natural gas-fired heat set oven		
ESAL9-a	One electric infrared preheat oven	N/A	N/A
ESAL9-b	One 2.0 million Btu per hour natural gas-fired heat set oven	CDAL9	One natural gas-fired afterburner (1.32 million Btu per hour heat input capacity)

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ESPCELL1	Poly panel air filter production line (960 units per hour design capacity) with two natural gas-fired ovens, one polyurethane dispensing operation and one mold release spray operation		
ESPCELL1-a	One 0.3 million Btu per hour natural gas-fired Steelman oven	N/A	N/A
ESPCELL1-b	One 2.0 million Btu per hour natural gas-fired heat set oven	N/A	N/A
ESPCELL1-c	One polyurethane dispensing operation	N/A	N/A
ESPCELL1-d	Mold release spray operation	N/A	N/A
ESPCELL2	Poly panel air filter production line (960 units per hour design capacity) with two natural gas-fired ovens, one polyurethane dispensing operation and one mold release spray operation		
ESPCELL2-a	One 0.25 million Btu per hour natural gas-fired Steelman oven	N/A	N/A
ESPCELL2-b	One 1.6 million Btu per hour natural gas-fired heat set oven	N/A	N/A
ESPCELL2-c	One polyurethane dispensing operation	N/A	N/A
ESPCELL2-d	Mold release spray operation	N/A	N/A
ESPCELL3	Polyurethane panel air filter production line (960 units per hour design capacity) with two natural gas-fired ovens, one polyurethane dispensing operation and one mold release spray operation		
ESPCELL3-a	One 0.3 million Btu per hour natural gas-fired Steelman oven	N/A	N/A
ESPCELL3-b	One 1.5 million Bu per hour natural gas-fired heat set oven	N/A	N/A
ESPCELL3-c	One polyurethane dispensing operation	N/A	N/A
ESPCELL3-d	Mold release spray operation	N/A	N/A
ESCAROUSEL	Carousel polyurethane operation with two carousel polyurethane dispensing operations and two mold release spray operations		
ESCAROUSEL-a	Two carousel polyurethane dispensing operations	N/A	N/A
ESCAROUSEL-b	Two carousel mold release spray operations	N/A	N/A

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
ES-FP1 NSPS III MACT ZZZZ	One diesel-fueled fire pump (maximum capacity 260 kilowatts (350 horsepower)) with an exhaust filter	N/A	N/A
ES-EG1 MACT ZZZZ	One diesel-fired emergency generator (maximum capacity 740 kilowatts (1,006 horsepower))	N/A	N/A
ES-EG2 MACT ZZZZ	One diesel-fired emergency generator (maximum capacity 60 kilowatts (96 horsepower))	N/A	N/A

*The powder coating paint spray booths (**ID Nos. IES-2 through IES-5, IES-7, and IES-8**) meet the definition of insignificant activities under 15A NCAC 02Q .0503(8). These sources are listed because they are included in the calculations for compliant coatings under 40 CFR 63, Subpart M in Section 2.1 A.4 of the permit.

Pursuant to application 2600058.22A, these emission sources (ID Nos. ESOL2-d, ESOL8-c, ESOL8-d, CDOL2-b, and CDOL8-b**) are listed as a 15A NCAC 02Q .0501(b)(2) Part 1 modification. The Permittee shall file a Title V Air Quality Permit Application on or before 12 months after commencing operation of any of these emission sources and /or control devices in accordance with General Condition NN.1. The permit shield described in General Condition R does not apply and compliance certification as described in General Condition P is not required.

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. Six Oil Filter Lines (ID Nos. ESOL2 through ESOL5, ESOL7 and ESOL8) with associated recuperative thermal oxidizers (ID Nos. CDOL2 through CDOL8);
One Oil Cartridge Filter Line (ID No. ESCART1);
One Fuel Filter Line (ID No. ESGL1); and
Eight Air Filter Lines (ID Nos. ESAL4, ESAL5, ESAL7, ESAL8, ESAL9, ESPCELL1, ESPCELL2, and ESPCELL3); and
One Carousel Polyurethane operation (ID No. ESCAROUSEL)**

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

Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Sulfur Dioxide	<u>ESOL2 through ESOL5, ESOL7 and ESOL8, ESGL1, ESAL4, ESAL5, ESAL7, ESAL8, ESAL9, ESPCELL1, ESPCELL2, and ESPCELL3 – Natural gas-fired ovens only</u> 2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible Emissions	<u>ESOL3</u> 40 percent opacity	15A NCAC 02D .0521(c)
	<u>ESOL2, ESOL4, ESOL5, ESOL7, ESOL8, ESGL1, ESAL4, ESAL5, ESAL7, ESAL8, ESAL9, ESPCELL1, ESPCELL2, and ESPCELL3</u> - 20 percent opacity	15A NCAC 02D .0521(d)
Toxic Air Pollutants	State-Enforceable Only See Section 2.2 A.1 Allowable TAP emission rates determined to meet acceptable ambient standards	15A NCAC 02D .1100
Hazardous Air Pollutants	<u>ESOL2 through ESOL5, ESOL7 and ESOL8</u> Maximum achievable control technology using compliant coating materials option	15A NCAC 02D .1111 40 CFR Part 63, Subpart M

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

- a. Emissions of particulate matter from the oil, fuel, and air filter lines (ID Nos. ESOL2 through ESOL5, ESOL7, ESOL8, ESCART1, ESGL1, ESAL4, ESAL5, ESAL7, ESAL8, ESAL9, ESPCELL1, ESPCELL2, ESPCELL3, and ESCAROUSEL) 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
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 [15A NCAC 02Q .0508(f)]

- c. Particulate matter emissions shall be controlled as follows:
- i. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESOL2-a**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL2**).
 - ii. Particulate matter emissions from the natural gas-fired plastisol final cure oven (**ID No. ESOL2-d**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL2-b**). [15A NCAC 02Q .0308(a)]
 - iii. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESOL3-a**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL3**).
 - iv. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESOL4-a**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL4-a**).
 - v. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESOL4-b**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL4-b**).
 - vi. Particulate matter emissions from the electric infrared pre-gel plastisol curing oven (**ID No. ESOL4-c**) and the natural-gas fired plastisol final cure oven (**ID No. ESOL4-d**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL4-c**).
 - vii. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESOL5-a**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL5-a**).
 - viii. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESOL5-b**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL5-b**).
 - ix. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESOL7-a**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL7**).
 - x. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESOL8-a**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL8**).
 - xi. Particulate matter emissions from the natural gas-fired plastisol final cure oven (**ID No. ESOL8-d**) shall be controlled by the recuperative thermal oxidizer (**ID No. CDOL8-b**). [15A NCAC 02Q .0308(a)]
 - xii. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESAL7-b**) shall be controlled by the natural gas-fired afterburner (**ID No. CDAL7**).
 - xiii. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESAL8-b**) shall be controlled by the natural gas-fired afterburner (**ID No. CDAL8**).
 - xiv. Particulate matter emissions from the natural gas-fired heat set oven (**ID No. ESAL9-b**) shall be controlled by the natural gas-fired afterburner (**ID No. CDAL9**).
- The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if emissions are not controlled as described above.
- d. The combustion zone of the recuperative thermal oxidizers (**ID Nos. CDOL2, CDOL3, CDOL4-a, CDOL4-b, CDOL4-c, CDOL5-a, CDOL5-b, CDOL7, and CDOL8**) shall be maintained at or above 1,126°F (3-hour rolling average) during periods when the associated heat set oven is processing (or heat treating) paper, or associated plastisol cure ovens are processing filters.
- i. The Permittee shall operate the thermal oxidizers in a manner in which the monitoring system uptime is at least 97% of the associated heat set oven or plastisol cure oven operational times for each of the thermal oxidizers per semiannual period.
 - ii. The Permittee may re-establish any parametric operating value during subsequent testing. Compliance with previously approved parametric operating values is not required during subsequent required testing or other tests undertaken to re-establish parametric operating values by the Permittee.
 - iii. The Permittee shall comply with applicable emission standards at all times, including during periods of testing.
 - iv. Operation above the established maximum or below the established minimum operating limits shall constitute a period of noncompliance with the established operating limits listed in 2.1 A.1.a except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. The Permittee shall confirm or reestablish operating limits during performance tests.
 - (A) If revisions to operating parameter values are necessary to demonstrate compliance with the emission limits and are more stringent than the established minimum or maximum operating limits, the Permittee shall

submit a request to revise the values in the permit at the same time as the test report is submitted as required per General Condition JJ. The permit revision will be processed pursuant to 15A NCAC 02Q .0514.

- (B) If performance testing indicates that compliance with emission limits is demonstrated with revisions to operating parameter values that are less stringent than the established minimum or maximum operating limits, the Permittee may request to revise the values in the permit pursuant to 15A NCAC 02Q .0515.

The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the thermal oxidizers are not operated and monitored as described above.

- e. The combustion zone of the recuperative thermal oxidizers (**ID Nos. CDOL2-b and CDOL8-b**) shall be maintained at or above 1,126°F (3-hour rolling average) during periods when the associated heat set oven is processing (or heat treating) paper, or associated plastisol cure ovens are processing filters.
- i. The Permittee shall operate the thermal oxidizers in a manner in which the monitoring system uptime is at least 97% of the associated heat set oven or plastisol cure oven operational times for each of the thermal oxidizers per semiannual period.
- ii. The Permittee may re-establish any parametric operating value during subsequent testing. Compliance with previously approved parametric operating values is not required during subsequent required testing or other tests undertaken to re-establish parametric operating values by the Permittee.
- iii. The Permittee shall comply with applicable emission standards at all times, including during periods of testing.
- iv. Operation above the established maximum or below the established minimum operating limits shall constitute a period of noncompliance with the established operating limits listed in 2.1 A.1.a except during performance tests conducted to determine compliance with the emission limits or to establish new operating limits. The Permittee shall confirm or reestablish operating limits during performance tests.
- (A) If revisions to operating parameter values are necessary to demonstrate compliance with the emission limits and are more stringent than the established minimum or maximum operating limits, the Permittee shall submit a request to revise the values in the permit at the same time as the test report is submitted as required per General Condition JJ. The permit revision will be processed pursuant to 15A NCAC 02Q .0514.
- (B) If performance testing indicates that compliance with emission limits is demonstrated with revisions to operating parameter values that are less stringent than the established minimum or maximum operating limits, the Permittee may request to revise the values in the permit pursuant to 15A NCAC 02Q .0515.
[15A NCAC 02Q. 0308(a)]
- f. The Permittee shall install, calibrate, maintain, and operate a temperature monitoring device for each of the recuperative thermal oxidizers (**ID Nos. CDOL2, CDOL3, CDOL4-a, CDOL4-b, CDOL4-c, CDOL5-a, CDOL5-b, CDOL7, and CDOL8**). The device shall continuously measure and record the temperature to within 1 percent (relative to degrees Celsius) during periods when the associated heat set oven is processing (or heat treating) paper, or associated plastisol cure ovens are processing filters. The thermocouple of the temperature sensor shall be installed in the combustion zone at a location in the combustion chamber. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the thermal oxidizers are not operated and monitored as described.
- g. The Permittee shall install, calibrate, maintain, and operate a temperature monitoring device for each of the recuperative thermal oxidizers (**ID Nos. CDOL2-b and CDOL8-b**). The device shall continuously measure and record the temperature to within 1 percent (relative to degrees Celsius) during periods when the associated heat set oven is processing (or heat treating) paper, or associated plastisol cure ovens are processing filters. The thermocouple of the temperature sensor shall be installed in the combustion zone at a location in the combustion chamber. [15A NCAC 02Q .0308(a)]
- h. The Permittee shall perform inspections and maintenance of the recuperative thermal oxidizers (**ID Nos. CDOL2, CDOL3, CDOL4-a, CDOL4-b, CDOL4-c, CDOL5-a, CDOL5-b, CDOL7, and CDOL8**) and afterburners (**ID Nos. CDAL7, CDAL8, and CDAL9**) as recommended by the manufacturer. 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 internal inspection of the primary heat exchanger and associated inlet/outlet valves of the control device to ensure structural integrity. The Permittee shall also perform inspection, calibration and maintenance of thermocouple and instrumentation per the manufacturer's recommendations. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if these inspection and maintenance requirements are not met.
- i. The Permittee shall perform inspections and maintenance of the recuperative thermal oxidizers (**ID Nos. CDOL2-b, and CDOL8-b**) and afterburners (**ID Nos. CDAL7, CDAL8, and CDAL9**) as recommended by the manufacturer. 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 internal inspection of the primary heat exchanger and associated inlet/outlet valves of the control device to ensure structural

integrity. The Permittee shall also perform inspection, calibration and maintenance of thermocouple and instrumentation per the manufacturer's recommendations. [15A NCAC 02Q .0308(a)]

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

- j. The Permittee shall maintain continuous records of the monitored 3-hour rolling average temperature of the combustion zone of the thermal oxidizers (**ID Nos. CDOL2, CDOL3, CDOL4-a, CDOL4-b, CDOL4-c, CDOL5-a, CDOL5-b, CDOL7, and CDOL8**) during operation. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the thermal oxidizer temperatures are not monitored and recorded.
- k. The Permittee shall maintain continuous records of the monitored 3-hour rolling average temperature of the combustion zone of the thermal oxidizers (**ID Nos. CDOL2-b and CDOL8-b**) during operation. [15A NCAC 02Q .0308(a)]
- l. The results of inspection and maintenance of the thermal oxidizers required by Section 2.1 A.1.h and i 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. Periods when the minimum operating temperature (3-hour rolling average) of the combustion zone of the thermal oxidizers is less than the limit established in Section 2.1 A.1.d and e above.
 The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0515 if these records are not maintained.

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

- m. The Permittee shall submit a semiannual summary report of monitoring and recordkeeping activities given in Section 2.1 A.1.c through l above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and on or before 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. In addition to the monitoring and recordkeeping activities required above, the report shall also contain identification of all periods, including date and duration, during which the minimum combustion zone temperature of the thermal oxidizers (**ID Nos. CDOL2, CDOL3, CDOL4-a, CDOL4-b, CDOL4-c, CDOL5-a, CDOL5-b, CDOL7, and CDOL8**) did not meet the requirements in Section 2.1 A.1.d above.
- n. The Permittee shall submit a semiannual summary report of monitoring and recordkeeping activities given in Section 2.1 A.1.c through l above postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December, and on or before July 30 of each calendar year for the preceding six-month period between January and June. In addition to the monitoring and recordkeeping activities required above, the report shall also contain identification of all periods, including date and duration, during which the minimum combustion zone temperature of the thermal oxidizers (**ID Nos. CSOL2-b and CDOL8-b**) did not meet the requirements in Section 2.1 A.1.e above. [15A NCAC .0308(a)]

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

- a. Emissions of sulfur dioxide from the natural gas-fired ovens associated with the oil, fuel, and air filter lines (**ID Nos. ESOL2 through ESOL5, ESOL7, ESOL8, ESG11, ESAL4, ESAL5, ESAL7, ESAL8, ESAL9, ESPCELL1, ESPCELL2, and ESPCELL3**) 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 combustion of natural gas in the oil, fuel, and air filter lines (**ID Nos. ESOL2 through ESOL5, ESOL7, ESOL8, ESG11, ESAL4, ESAL5, ESAL7, ESAL8, ESAL9, ESPCELL1, ESPCELL2, and ESPCELL3**).

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

- a. Visible emissions from oil filter line (**ID No. ESOL3**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour

and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity.

- b. Visible emissions from the oil, fuel, and air filter lines (**ID Nos. ESOL2, ESOL4, ESOL5, ESOL7, ESOL8, ESCART1, ESGL1, ESAL4, ESAL5, ESAL7, ESAL8, ESAL9, ESPCELL1, ESPCELL2, and ESPCELL3**) 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 any limit given in Section 2.1 A.3.a or 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 per month the Permittee shall observe the emission points of the oil, fuel, and air filter lines (**ID Nos. ESOL2 through ESOL5, ESOL7 and ESOL8, ESGL1, ESAL4, ESAL5, ESAL7, ESAL8, ESAL9, ESPCELL1, ESPCELL2, and ESPCELL3**) 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 A.3.a or b above.
- The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the monthly observations are not conducted as required; if 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 activities given in Section 2.1 A.3.d above 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 in Section 2.1 A.3.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.

4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

- 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 Part 63, Subpart MMMM, "National Emission Standards for Hazardous Air Pollutants for Surface Coating of Miscellaneous Metal Parts and Products," for the coating operations associated with oil filter lines (**ID Nos. ESOL2 through ESOL5, ESOL7 and ESOL8**) using the emission rate without add-on controls option.

Emission Limit [40 CFR 63.3890]

- b. For the coating operations associated with oil filter lines (**ID Nos. ESOL2 through ESOL5, ESOL7 and ESOL8**), the Permittee shall limit organic HAP emissions to the atmosphere to no more than **0.31 kg (2.6 lb) organic HAP per liter (gal) coating solids** used during each 12-month compliance period.

Compliance Demonstration [40 CFR 63.3891]

- c. The Permittee shall demonstrate each month that, based on the coatings, printing inks, thinners and/or other additives, and cleaning materials used in the coating operations, the organic HAP emission rate for the coating operations is less than or equal to the emission limit in Section 2.1 A.4.b above, calculated as a rolling 12-month emission rate in accordance with Section 2.1 A.4.c.i to vii below. If the Permittee uses coatings, printing inks, 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.
- i. **Determine the mass fraction of organic HAP for each material used.** The Permittee shall determine the mass fraction of organic HAP for each coating, printing ink, thinner and/or other additive, and cleaning material used during each month 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:
- (1) 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).
 - (2) 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 nonaqueous 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 2.1 A.4.c.i.(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 2.1 A.4.c.i.(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.
- ii. **Determine the volume fraction of coating solids.** 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 2.1 A.4.c.ii (A) through (D) below. If test results obtained according to Section 2.1 A.4.c.ii

(A) below do not agree with the information obtained under Section 2.1 A.4.c.ii (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 the following equation:

$$V_s = 1 - \frac{m_{\text{volatiles}}}{D_{\text{avg}}}$$

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.

- iii. Determine the density of each material. Determine the density of each liquid coating, printing ink, 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 1A, 1B, 1C, and 2 below.
- iv. 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 1A, 1B, and 1C below.
- v. 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 1 of this section.

$$H_e = A + B + C - R_w \quad (\text{Eq. 1})$$

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 1A 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 1B of this section.
- C = Total mass of organic HAP in the cleaning materials used during the month, kg (lb), as calculated in Equation 1C 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 2.1 A.4.c.v.(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 1A of this section:

$$A = \sum_{i=1}^m (\text{Vol}_{c,i}) (D_{c,i}) (W_{c,i}) \quad (\text{Eq. 1A})$$

Where:

- A = Total mass of organic HAP in the coatings used during the month, kg (lb).
- $\text{Vol}_{c,i}$ = 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 PPPP 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 1B of this section:

$$B = \sum_{j=1}^n (\text{Vol}_{t,j}) (D_{t,j}) (W_{t,j}) \quad (\text{Eq. 1B})$$

Where:

- B = Total mass of organic HAP in the thinners and/or other additives used during the month, kg (lb).
- $\text{Vol}_{t,j}$ = 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 PPPP 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 1C of this section:

$$C = \sum_{k=1}^p (\text{Vol}_{s,k}) (D_{s,k}) (W_{s,k}) \quad (\text{Eq. 1C})$$

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 1 of this section, then the Permittee shall determine the mass as follows:

- (1) 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 1 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 shall not include organic HAP contained in wastewater.
- (2) 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. This determination shall not include 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.
- (3) Determine the total mass of organic HAP contained in the waste materials specified in Section 2.1.A.4.c.v (D)(2) above.
- (4) 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 2.1 A.4.e.viii.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.

vi. 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 2 of this section:

$$V_{st} = \sum_{i=1}^m (Vol_{c,i})(V_{s,i}) \quad (\text{Eq. 2})$$

Where:

- V_{st} = Total volume of coating solids including powdered paint 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 A.4.c.ii (D) above.
 m = Number of coatings used during the month.

vii. 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 3 of this section:

$$H_{yr} = \frac{\sum_{y=1}^n H_e}{\sum_{y=1}^n V_{st}} \quad (\text{Eq. 3})$$

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 1 of this section.

- V_{st} = Total volume of coating solids used during month, y, liters (gal), as calculated by Equation 2 of this section.
- y = Identifier for months.
- n = 12 months.

viii. Compliance demonstration. The 12-month rolling average organic HAP emission rate calculated each month using Equation 3 of this section shall be less than or equal to the emission limit in Section 2.1 A.4.b above. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the monthly compliance demonstration is not conducted as required above or if the compliance demonstration shows an exceedance of the emission limitation in Section 2.1 A.4.b above

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

- d. For the coating operations associated with oil filter lines (**ID Nos. ESOL2 through ESOL5, ESOL7 and ESOL8**), the Permittee is not required to meet any operating limits or work practice standards for the emission rate without add-on controls option.

Recordkeeping [15A NCAC 02Q .0508(f), 40 CFR 63.3930]

- e. 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.
 - 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 is 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 2 of Section 2.1 A.4.c.vi 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 1, 1A through 1C, and 2 of Section 2.1 A.4.c.v.(A) through (C) above; and, if applicable, the calculation used to determine mass of organic HAP in waste materials according to Section 2.1 A.4.c.v (D)(4) above; the calculation of the total volume of coating solids used each month using Equation 2 of Section 2.1 A.4.c.vi above; and the calculation of each 12-month organic HAP emission rate using Equation 3 of Section 2.1 A.4.c.vii 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 1 of Section 2.1 A.4.c.v 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 2.1 A.4.c.v (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 1 of Section 2.1 A.4.c.v 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 2.1 A.4.c.v above; and
- (C) The methodology used in accordance with Section 2.1 A.4.c.v.(D)(4) 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 [15A NCAC 02Q .0508(f), 40 CFR 63.3920]

- f. The Permittee shall submit a summary report of the monitoring and recordkeeping activities given in Section 2.1 A.4.c through 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. 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. The calculation results for each rolling 12-month organic HAP emission rate during the 6-month reporting period for the emission rate without add-on controls compliance option.
 - vi. If there are no deviations from the emission limitation in Section 2.1 A.4.b above that apply, a statement that there are no deviations from the emission limitations during the reporting period; and
 - vii. If there is a deviation from the emission limit in Section 2.1 A.4.b 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 emission limit in Section 2.1 A.4.b 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 Section 2.1 A.4.c.v (A) through (C) above; and if applicable, the calculation used to determine mass of organic HAP in waste materials according to Section 2.1 A.4.c.v (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.

5. 15A NCAC 02Q .0504: OPTION FOR OBTAINING CONSTRUCTION AND OPERATION PERMIT

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

- a. Pursuant to 15A NCAC 02Q .0501(b)(2) or (c)(2), for completion of the two-step significant modification process initiated by Application No. .2600058.22A, the Permittee shall file an amended application following the procedures of Section 15A NCAC 02Q .0500 within one year from the date of beginning operation of any of these sources (**ID Nos. ESOL2-d and ESOL8-d**) or within one year of relocation of source (**ID No. ESOL8-c**), whichever comes first.

Reporting [15A NCAC 02Q .0308(a)]

- b. The Permittee shall notify the Regional Office in writing of the date of beginning operation of any of these sources (**ID Nos. ESOL2-d, ESOL8-c, and ESOL8-d**), postmarked no later than 30 days after such date.

B. One Paper Dust Collector (ID No. ESOLDC) with associated bagfilter (ID No. CDOLDC)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate matter	$E = 4.10 \times P^{0.67}$ for $P \leq 30$ tons per hour, or $E = 55.0 \times P^{0.11} - 40$ for $P > 30$ tons per hour Where: E = allowable emission rate in pounds per hour P = process weight in tons per hour	15A NCAC 02D .0515
Visible emissions	20 percent opacity	15A NCAC 02D .0521(d)

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

- a. Emissions of particulate matter from the paper dust collector (ID No. ESOLDC) 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
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. Particulate matter emissions from the paper dust collector (ID No. ESOLDC) shall be controlled by bagfilter (ID No. CDOLDC). To ensure compliance, the Permittee shall perform inspections and maintenance as recommended by the manufacturer, if any. As a minimum, the inspection and maintenance program shall include:
 - i. monthly external inspection of the ductwork and bagfilter noting the structural integrity; and
 - ii. an annual (for each 12-month period following the initial inspection) internal inspection of the bagfilter noting the structural integrity and the condition of the filter.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the ductwork or bagfilters are not inspected and maintained.

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

- d. The results of inspection and maintenance for each bagfilter required by Section 2.1 B.1.c above 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; and
 - iii. the results of maintenance performed on any control device.
The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0515 if the records are not kept.

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

- e. The Permittee shall submit the results of any maintenance performed on the control devices within 30 days of a written request by the DAQ.
- f. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 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 shall be clearly identified.

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

- a. Visible emissions from the paper dust collector (**ID No. ESOLDC**) 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 B.2.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 the paper dust collector (**ID No. ESOLDC**) 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 an emission source are observed to be above normal, the Permittee shall either:

- i. take appropriate action to correct the above-normal emissions as soon as practicable and within the monitoring period and record the action taken as provided in the recordkeeping requirements below, or
- ii. demonstrate that the percent opacity from the emission points of the emission source in accordance with 15A NCAC 02D .2610 (Method 9) for 12 minutes is below the limit given in Section 2.1 B.2.a above.

The Permittee shall be deemed to be in noncompliance with 15A NCAC 02D .0521 if the monthly observations are not conducted as required; if 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 required by Section 2.1 B.2.c above 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 the records are not kept.

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

- e. The Permittee shall submit a summary report of the monitoring and recordkeeping activities required by Section 2.1 B.2.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. One Diesel-Fueled Fire Pump with Exhaust Filter (ID No. ES-FP1);
Two Diesel-Fired Emergency Generators (ID Nos. ES-EG1 and ES-EG2)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Sulfur dioxide	2.3 pounds per million Btu heat input	15A NCAC 02D .0516
Visible emissions	20 percent opacity each	15A NCAC 02D .0521
Non-methane hydrocarbons PLUS nitrogen oxides, Particulate emissions	4.0 g/KW-hr (3.0 g/HP-hr) 0.20 g/KW-hr (0.15 g/HP-hr)	15A NCAC 02D .0524 40 CFR Part 60, Subpart IIII
Hazardous air pollutants	ES-FP1: Comply with NSPS Subpart IIII. ES-EG1: No applicable requirements. ES-EG2: Comply with operational limitations and work practices.	15A NCAC 02D .1111 40 CFR Part 63, Subpart ZZZZ

1. 15A NCAC 02D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from the emergency engines (**ID Nos. ES-FP1, ES-EG1 and ES-EG2**) 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 C.1.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 firing diesel fuel in the emergency engines (**ID Nos. ES-FP1, ES-EG1 and ES-EG2**).

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

- a. Visible emissions from the emergency engines (**ID Nos. ES-FP1, ES-EG1 and ES-EG2**) shall not be more than 20 percent opacity each 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 provided in Section 2.1 C.2.a above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0521.

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

- c. No monitoring, recordkeeping, or reporting is required for visible emissions from the firing of diesel fuel in the emergency engines (**ID Nos. ES-FP1, ES-EG1 and ES-EG2**).

3. 15A NCAC 02D .0524: NEW SOURCE PERFORMANCE STANDARDS

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, reporting, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 “New Source Performance Standards” (NSPS) as promulgated in 40 CFR Part 60, Subpart III, “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines” (CI ICE), and including Subpart A “General Provisions.”

Emission Standard [40 CFR 60.4205(c)]

- b. The Permittee shall maintain for the fire pump (**ID No. ES-FP1**) a manufacturer’s certification that the engine meets the emission standards listed below and make the certification available to an authorized representative upon request.

Maximum engine power	Model year	NMHC + NO _x g/KW-hr (g/HP-hr)	PM g/KW-hr (g/HP-hr)
130≤KW<225 (175≤HP<300)	2009+	4.0 (3.0)	0.20(0.15)

Operational Restrictions [40 CFR 60.4207(d), 60.4209(a), and 60.4211(a), (c), (f), and (g)]

- c. The Permittee shall install a non-resettable hour meter prior to startup of the engine. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if a required hour meter is not installed.
- d. The Permittee may operate the fire pump for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State, or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. There is no time limit on the use of fire pump in emergency situations. The Permittee may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if records are maintained indicating that Federal, State, or local standards require maintenance and testing of emergency ICE beyond 100 hours per year. The fire pump may operate up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if any

operation other than emergency operation, maintenance and testing, exceeds 50 hours per year, or if total non-emergency operation exceeds 100 hours per year.

- e. The per-gallon sulfur content of the fuel used in the fire pump shall not exceed 15 parts per million (ppm). The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the sulfur content of the fuel fired exceeds 15 ppm.
- f. The Permittee shall install, configure, operate and maintain the fire pump as follows, except as allowed under 40 CFR 60.4211(g):
 - i. Operate and maintain the fire pump and control device according to the manufacturer's written emission-related instructions or according to procedures developed by the Permittee that are approved by the engine manufacturer.
 - ii. Change only those emission-related settings that are permitted by the manufacturer.
 - iii. Meet the requirements of 40 CFR parts 89 and 1068, as applicable.The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if the fire pump is not operated as specified above.

Monitoring/Recordkeeping/Reporting [15A NCAC 002Q .0508(f)]

- g. No monitoring/recordkeeping/reporting is required for the emergency engines (**ID Nos. ES-FP1, ES-EG1 and ES-EG2**) to demonstrate compliance with 15A NCAC 02D .0524.

4. 15A NCAC 02D .1111: MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY

Applicability [40 CFR 63.6585, 63.6590(a)(1)(ii)]

- a. Pursuant to 40 CFR 63.6590(b)(3)(iii), the Permittee does not have to meet the requirements of 40 CFR Part 63, Subpart ZZZZ, and Subpart A, including initial notification requirements, for emergency generator (**ID No. ES-EG1**).
- b. Pursuant to 40 CFR 63.6590(c), the Permittee shall meet the requirements of Section 2.1 C.3 above for the fire pump (**ID No. ES-FP1**).
- c. For this emission source (**ID No. ES-EG2**) (existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions), 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 Part 63, Subpart ZZZZ "National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines," and Subpart A "General Provisions."

Definitions and Nomenclature

- d. For the purposes of this permit condition, the definitions and nomenclature contained in 40 CFR 63.6675 shall apply.

Applicability Date [40 CFR 63.6595(a)(1)]

- e. The Permittee shall comply with the applicable emission limitations, operating limitations, and other requirements no later than May 3, 2013.

Notifications [40 CFR 63.6645(a)(5)]

- f. The Permittee has no notification requirements.

General Provisions [40 CFR 63.6665]

- g. The Permittee shall comply with the General Provisions as applicable pursuant to Table 8 of 40 CFR 63 Subpart ZZZZ

Operating Requirements [15A NCAC 02Q .0508(b)]

- h. During periods of startup of the IC engine, the Permittee shall minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [40 CFR 63.6602 and 63.6625(h)]
- i. Except during periods of startup of the IC engine, the Permittee shall:
 - i. Change oil and filter every 500 hours of operation or annually, whichever comes first;
 - ii. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; and

- iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
[40 CFR 63.6602, Table 2C]
- j. The Permittee shall have the option to utilize the oil analysis program as described in 40 CFR 63.6625(i) in order to extend the specified oil change requirement in Section 2.1 C.4.i. [40 CFR 63.6602, Table 2C, 63.6625(i)]
- k. If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Section 2.1 C.4.i, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable. [40 CFR 63.6602, Table 2C]
- l. The permittee shall be in compliance with the emission limitations, operating limitations and other requirements in this subpart that apply at all times. [40 CFR 63.6605(a)]
- m. The Permittee shall 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. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which 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 63.6605(b)]
- n. The Permittee shall operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop a maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. [40 CFR 63.6625(e) and 63.6640(a), Table 6]
- o. In order for the engine to be considered an emergency stationary RICE under this condition, any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in Section 2.1 C.4.o.i through iii below, is prohibited.
 - i. There is no time limit on the use of emergency stationary RICE in emergency situations.
 - ii. The Permittee may operate the emergency stationary RICE for any combination of the purposes specified in paragraph (A) below for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by Section 2.1 C.4.o.iii below counts as part of the 100 hours per calendar year allowed by this Section 2.1 C.4.o.ii.
 - (A) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine.
The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.
 - iii. Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing provided in paragraph (m)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.
[40 CFR 63.6640(f)]
- p. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Section 2.1 C.4.g through o are not met.
- Monitoring** [15A NCAC 02Q .0508(f)]
- q. The Permittee shall install a non-resettable hour meter on the IC engine if one is not already installed. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if a required hour meter is not installed. [40 CFR 63.6625(f)]

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

- r. The Permittee shall keep the following:
 - i. A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in 40 CFR 63.10(b)(2)(xiv). [40 CFR 63.6655(a)(1)]
 - ii. Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(2)]
 - iii. Records of all required maintenance performed on the air pollution control and monitoring equipment. [40 CFR 63.6655(a)(4)]
 - iv. Records of actions taken during periods of malfunction to minimize emissions in accordance with Section 2.1 C.4.m, including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation. [40 CFR 63.6655(a)(5)]
 - v. Records of the maintenance conducted on the RICE pursuant to Section 2.1 C.4.i [40 CFR 63.6655(d) and (e)]
 - vi. Records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The Permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [40 CFR 63.6655(f)]
- s. The Permittee shall keep each record in a form suitable and readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to 40 CFR 63.10(b)(1). [40 CFR 63.6660(a), (b), (c)]
- t. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .1111 if the requirements in Section 2.1 C.4.q through s are not met.

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

- u. The Permittee shall submit a summary report of monitoring and recordkeeping activities given in Section 2.1 C.4.q and r 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 noncompliance must be clearly identified. [40 CFR 63.6640(b), (e), and 63.6650(f)]
- v. The summary report shall also include any reporting required under Section 2.1 C.4.k, as necessary. [40 CFR 63.6602, Table 2C]

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
Toxic air pollutants	State-enforceable only Allowable TAP emission rates determined to meet acceptable ambient standards	15A NCAC 02D .1100
Odors	State-enforceable only Odorous emissions must be controlled.	15A NCAC 02D .1806
Volatile organic compounds	Facility-wide VOC emissions shall be less than 250 tons per consecutive 12-month period.	15A NCAC 02Q .0317 PSD Avoidance

STATE-ENFORCEABLE ONLY

1. 15A NCAC 02D .1100: CONTROL OF TOXIC AIR POLLUTANTS

- a. The Permittee has demonstrated compliance with the following permit limits in accordance with the completed application (2600058.20D) received July 17, 2020. The Permittee has evaluated all toxic air pollutants (TAP) covered in 15A NCAC 02D .1104 for all sources at the facility, excluding the sources exempt from evaluation under 15A NCAC 02Q .0702. The modeling analysis was reviewed and approved by the Air Quality Analysis Branch (AQAB) on August 17, 2020. Placement of the emission sources, configuration of the emission points, and operating of the sources shall be in accordance with the submitted dispersion modeling analysis and should reflect any changes from the original analysis submittal as outlined in the AQAB review memorandum.

Emission Source	Toxic Air Pollutant	
	Formaldehyde (lb/hr)	Phenol (lb/hr)
ESOL2-a	0.15	3.33
ESOL3-a	0.10	2.23
ESOL4-a	0.052	1.12
ESOL4-b	0.052	1.12
ESOL4-c and d	0.0019	0.022
ESOL5-a	0.052	1.12
ESOL5-b	0.052	1.12
ESOL7-a	0.15	3.33
ESOL8-a	0.068	1.46
ESGL1-b	0.019	0.42
ESGL1-c	0.019	0.42
ESAL4-aR	2.04 x 10 ⁻⁵	-
ESAL4-b	0.35	0.43
ESAL4-c	1.02 x 10 ⁻⁴	-
ESAL7-a	2.48 x 10 ⁻⁵	-
ESAL7-b	0.51	2.47
ESAL8-b	0.57	2.75
ESAL9-b	0.57	2.75
ESPCCELL1-a	4.37 x 10 ⁻⁵	-
ESPCCELL1-b	0.44	0.55
ESPCCELL2-a	3.64 x 10 ⁻⁵	-

Emission Source	Toxic Air Pollutant	
	Formaldehyde (lb/hr)	Phenol (lb/hr)
ESPCELL2-b	0.44	0.55
ESPCELL3-a	4.37 x 10 ⁻⁵	-
ESPCELL3-b	0.44	0.55

- b. The Permittee shall maintain operation and material use records as necessary to demonstrate compliance with the limits in 2.2 A.1.a above.

STATE-ENFORCEABLE ONLY

2. 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	15A NCAC 02Q .0711 TPERs			Facility Wide PTE Values			TPER Triggered?		
		lb/yr	lb/day	lb/hr	lb/yr	lb/day	lb/hr	lb/yr	lb/day	lb/hr
Formaldehyde*	50-00-0	--	--	0.16	--	--	1.83	--	--	Yes
Phenol*	108-95-2	--	--	1.00	--	--	3.37	--	--	Yes
Methyl ethyl ketone	78-93-3	--	155.80	93.19	--	8.39	0.35	--	No	No
n-Hexane	110-54-3	--	46.30	--	--	5.19	--	--	No	--
Toluene	108-88-3	--	197.96	58.97	--	0.43	0.02	--	No	No
Xylene	1330-20-7	--	113.70	68.44	--	1.08	0.05	--	No	No
Styrene	100-42-5	--	--	11.16	--	--	0.01	--	--	No
Benzene	71-43-2	11.07	--	--	6.95	--	--	No	--	--
p-Dichlorobenzene	106-46-7	--	--	69.50	--	--	0.0001	--	--	No

*Formaldehyde and Phenol triggered TPER. Therefore, regulated by condition 2.2 A.1.

3. STATE-ENFORCEABLE ONLY

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

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

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

- a. In order to avoid applicability of 15A NCAC 02D .0530(g) for major sources and major modifications, this facility shall discharge into the atmosphere less than 250 tons of volatile organic compound (VOC), 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 above, the Permittee shall be deemed in noncompliance with 15A NCAC 02D .0530.

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

- c. The Permittee shall calculate and record the facility-wide VOC emissions each month in an on-site logbook (written or electronic format). VOC emissions shall be determined by multiplying the total amount of each type of VOC-containing material consumed during the month by the VOC content of the material or DAQ approved site-specific emission factors. The Permittee shall be deemed in non-compliance with 15A NCAC 02D .0530 if the facility-wide VOC emissions are not recorded or if the consecutive 12-month facility-wide VOC emission rate above is 250 tons or greater.

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

- d. The Permittee shall submit a semiannual summary report of monitoring and recordkeeping activities given in Section 2.2 A.3.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.

State-enforceable only

SECTION 3 - INSIGNIFICANT ACTIVITIES PER 15A NCAC 02Q .0503(8)

Emission Source ID No.	Emission Source Description ^{1,2}
IS-CAL	One cabin air filter line
IS-B1 MACT DDDDD	One natural gas-fired boiler (2.0 million Btu per hour heat input capacity)
IS-B2 MACT DDDDD	One natural gas-fired boiler (1.95 million Btu per hour heat input capacity)
IES-2 ³ MACT MMMM	One powder coating spray booth for oil filter line 2
IES-3 ³ MACT MMMM	One powder coating spray booth for oil filter line 3
IES-4 ³ MACT MMMM	One powder coating spray booth for oil filter line 4
IES-5 ³ MACT MMMM	One powder coating spray booth for oil filter line 5
IES-7 ³ MACT MMMM	One powder coating spray booth for oil filter line 7
IES-8 ³ MACT MMMM	One powder coating spray booth for oil filter line 8
IS-SM	Sheetmetal Operation
IS-MISC	Miscellaneous Emissions
IBB-1	Bead Blasting Process
IS-BO	Four natural gas-fired burn-off ovens (total heat input of 1.8 million Btu per hour)
IS-WD	Ten natural gas-fired metal parts washers/dryers (total heat input of 20 million Btu per hour)
IS-COMB	Miscellaneous natural gas-fired combustion sources for comfort heat (total heat input of 11.7 million Btu per hour)
IS-PPLT1	Pocket Pleat Line
IS-CBA	Case Bottom Assembly

¹ Because an activity is insignificant does not mean that the activity is exempted from an applicable requirement (Federal or State) or that the Permittee 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 The powder coating paint spray booths (**ID Nos. IES-2 through IES-5, IES-7, and IES-8**) meet the definition of insignificant activities under 15A NCAC 02Q .0503(8). However, they are part of the oil filter lines and they are included in the calculations for compliant coatings under 40 CFR 63, Subpart MMMM in Section 2.1 A.4 of the permit.

SECTION 4 - GENERAL CONDITIONS (version 7.0, 08/21/2023)

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(s) 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. **Title V 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 [15A NCAC 02Q .0508(f)]
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 [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

1. "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.*)
2. 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.
3. 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).

I.B. Reporting Requirements for Permit Deviations [15A NCAC 02D .0535(f) and 02Q .0508(f)(2)]

1. "Permit 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.
2. Pursuant to 15A NCAC 02Q .0508(f)(2), the Permittee shall report deviations from permit requirements (terms and conditions) quarterly by notifying the Regional Supervisor or Director of all other deviations from permit requirements not covered under 15A NCAC 02D .0535. 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.C. 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. RESERVED

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 Enforcement Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303 or through the EPA CEDRI) postmarked on or before March 1 a compliance certification (for the preceding calendar year) by a responsible official with all terms and conditions in the permit (including emissions limitations, standards, or work practices), except for conditions identified as being State-enforceable Only. 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;
4. the method(s) used for determining the compliance status of the source during the certification period;
5. each deviation and take it into account in the compliance certification; and
6. as possible exceptions to compliance, any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 (CAM) occurred.

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. **National Emission Standards Asbestos – 40 CFR Part 61, Subpart M** [15A NCAC 02D .1110]
The Permittee shall comply with all applicable standards for demolition and renovation activities pursuant to the requirements of 40 CFR Part 61, Subpart M. The permittee shall not be required to obtain a modification of this permit in order to perform the referenced activities.
- 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, .1110, or .1111 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 for emission sources subject to Rules .0524, .1110, or .1111, the Permittee shall provide and submit all notifications, conduct all testing, and submit all test reports in accordance with the requirements of 15A NCAC 02D .0524, .1110, or .1111, as applicable. Otherwise, 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 15A NCAC 02D .2600 if the methods can be demonstrated to determine compliance of permitted emission sources or pollutants.
 - b. The Director may authorize the DAQ to conduct independent tests of any source subject to a rule in 15A NCAC 02D 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 15A NCAC 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 (Air Permitting Branch, EPA, Region 4, 61 Forsyth Street SW, Atlanta, GA 30303 or through the EPA CEDRI) in writing at least seven days before the change is made.
 - a. The written notification shall include:
 - i. a description of the change at the facility;
 - 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.
 - b. 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 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.