



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

Beverly Eaves Purdue
Governor

B. Keith Overcash, P.E.
Director

Dee Freeman
Secretary

PROPOSED DRAFT PERMIT

XXX xxx, 2010

Mr. Jacob Anslum
East Coast General Manager
Vopak Terminal
1710 Woodbine St
Wilmington, NC 28401

Dear Mr. Anslum:

SUBJECT: Air Quality Permit No. 02567T24
Facility ID: 6500179
Vopak Terminal
Wilmington
New Hanover County
Fee Class: Title V

In accordance with your application for a significant modification of a Title V permit, we are forwarding herewith Permit No. 02567T24 to Vopak Terminal, 1710 Woodbine Street, Wilmington, New Hanover County, North Carolina North Carolina authorizing the construction and operation, of the emission source(s) and associated air pollution control device(s) specified herein. Additionally, any emissions activities determined from your Air Quality Permit Application as being insignificant per 15A North Carolina Administrative Code 2Q .0503(8) have been listed for informational purposes as an "ATTACHMENT." Please note the requirements for the annual compliance certification are contained in General Condition P in Section 3. **The current owner is responsible for submitting a compliance certification for the entire year regardless of who owned the facility during the year.**

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

If any parts, requirements, or limitations contained in this Air Quality Permit are unacceptable to you, you have the right to request a formal adjudicatory hearing within 30 days following receipt of this permit, identifying the specific issues to be contested. This hearing request must be in the form of a written petition, conforming to NCGS (North Carolina General Statutes) 150B-23, and filed with **both** the Office of Administrative Hearings, 6714 Mail Service Center, Raleigh, North Carolina 27699-6714 and the Division of

Permitting Section

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

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Air Quality, Permitting Section, 1641 Mail Service Center, Raleigh, North Carolina 27699-1641. The form for requesting a formal adjudicatory hearing may be obtained upon request from the Office of Administrative Hearings. Please note that this permit will be stayed in its entirety upon receipt of the request for a hearing. Unless a request for a hearing is made pursuant to NCGS 150B-23, this Air Quality Permit shall be final and binding 30 days after issuance.

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

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

This Air Quality Permit shall be effective from XXX xxx, 2010 until October 31, 2011, is nontransferable to future owners and operators, and shall be subject to the conditions and limitations as specified therein. Should you have any questions concerning this matter, please contact Jenny Kelvington, P.E. at (919) 715-6254.

Sincerely yours,

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

Enclosure

c: Gregg Worley, EPA Region 4
Wilmington Regional Office
Central Files

ATTACHMENT I

Insignificant Activities Pursuant to 15A NCAC 2Q .0503(8)

Emissions Source ID	Emission Source Description
IES-1	Recovery Tank (500 gallon)
IES-2	Lab Equipment
IES-3	Groundwater Remediation Activities

ATTACHMENT II:

The following table summarizes changes made to the previous permit (No. 02567T23):

Page(s)	Section	Description of Change(s)
3-4	1	Added “ 1109 CASE BY CASE MACT ” to the description of boilers (ID Nos. B-1 and B-3). Removed footnote for boiler (ID No. B-3). Added enclosed flare (ID No. CD-FL3) associated with the nine barge loading arms (ID Nos. BLA1 through BLA9). Revise description of tanks (ID Nos. ES-ST15 and ES-ST18)
6	2.1.A.5	Added 112j permit condition for boilers (ID Nos. B-1 and B-3).
7-8	2.1 B	Added enclosed flare (ID No. CD-FL3) associated with the nine barge loading arms (ID Nos. BLA1 through BLA9).
13	2.1 C.4	Added language allowing the use of alternative recordkeeping of monitored daily average firebox temperature under 40 CFR 63.998(b)(5) (Subpart SS) for tank truck and railcar loading arms subject to MACT EEEE controlled by the existing enclosed flares.
15	2.1 D.1	Added language allowing the use of alternative recordkeeping of monitored daily average firebox temperature under 40 CFR 63.998(b)(5) (Subpart SS) for tank truck and railcar loading arms subject to MACT EEEE controlled by the existing enclosed flares.
16-19	2.1 F.1	Added 40 CFR 63 Subpart Y MACT Avoidance for existing <i>sources with emissions less than 10 and 25</i> with monitoring, testing, recordkeeping and reporting conditions.
19-20	2.1 F.2	Added 40 CFR 63 Subpart Y RACT Avoidance for existing <i>sources with throughput less than 10 M barrels 200 M barrel</i> with monitoring, recordkeeping and reporting conditions (cross-referenced facility-wide gasoline throughput limitation and recordkeeping in Sections 2.2 D.1 a.-b.
22	2.1 G.1	Revised monitoring, recordkeeping, and reporting conditions for 15A NCAC 2D .0949.
26	2.1 G.4 d.	Added language clarifying when 15A NCAC 2D .0925 requires a complete inspection.
28	2.1 G.6 e.ii. A.	Added language clarifying when an internal floating roof tank deck is allowed to not rest on the liquid surface under MACT R and should not trigger action to repair or empty and remove the tank from service.
20-28, 35-36	2.1 G and 2.2 C.	Modified sections to reflect retrofitting of two tanks (ID Nos. ES-ST15 and ES-ST18) with an internal floating roof to comply with 15A NCAC 2D .0925, .0927, .0949, 40 CFR 63 Subpart R, and 40 CFR 63 Subpart EEEE.
39-48	Section 3	Updated General Conditions to be consistent with the most recent version (v3.1).

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

Division of Air Quality



AIR QUALITY PERMIT

Permit No.	Replaces Permit No.(s)	Effective Date	Expiration Date
02567T24	02567T23	XXX xxx, 2010	October 31, 2011

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

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

Permittee: **Vopak Terminal Wilmington Inc.**
Facility ID: **6500179**

Facility Site Location: **1710 Woodbine Street**
City, County, State, Zip: **Wilmington, New Hanover County, North Carolina 28401**

Mailing Address: **1710 Woodbine Street**
City, County, State, Zip: **Wilmington, North Carolina 28401**

Application Numbers: **6500179.09C and 6500179.10A**
Complete Application Date: **August 25, 2009 and April 8, 2010**

Primary SIC Code: **4226**

Division of Air Quality,
Regional Office Address: **Wilmington Regional Office**
127 Cardinal Drive Extension
Wilmington, North Carolina, 28405

Permit issued this the xxth day of XXX, 2010

Donald R. van der Vaart, Ph.D., P.E., Chief, Air Permits Section
By Authority of the Environmental Management Commission

Table Of Contents

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

SECTION 2: SPECIFIC LIMITATIONS AND CONDITIONS

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

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

SECTION 3: GENERAL PERMIT CONDITIONS

ATTACHMENT
List of Acronyms

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

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

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
B-1 1109 CASE BY CASE MACT	One Natural Gas/No. 2 Fuel Oil-fired Boiler (10.5 Million Btu/hr)	NA	NA
B-3 NSPS Dc; 1109 CASE BY CASE MACT	One Natural Gas/No. 2 Fuel Oil-fired Boiler (16.74 Million Btu/hr)	NA	NA
MACT EEEE, MACT R ES-TLA1 -and- ES-TLA21 through ES-TLA25	Six (6) Tank Truck Loading Arms	CD-FL1	Natural Gas-fired Enclosed Flare
MACT EEEE, MACT R ES-RLA-20 through ES-RLA25	Six (6) Railcar Loading Arms	CD-FL1	Natural Gas-fired Enclosed Flare
MACT EEEE, MACT R ES-RLA26 through ES-RLA35	Ten (10) Railcar Loading Arms	CD-FL2	Natural Gas-fired Enclosed Flare
ES-TLA2 through ES-TLA20	Nineteen (19) Tank Truck Loading Arms	NA	NA
ES-RLA1 through ES-RLA19	Nineteen (19) Railcar Loading Arms	NA	NA
ES-BLA1 through ES-BLA9	Nine (9) Barge Loading Arms	CD-FL3	Natural Gas-fired Enclosed Flare
ES-ST01 through ES-ST03, ES-ST09, ES-ST11, ES-ST12, ES-ST14, ES-ST21, ES-ST1201 NSPS ES-ST20 And MACT EEEE ES-ST13, ES-ST22, ES-ST101 through ES-ST103, ES-ST105, ES-ST106, ES-ST120.	Eighteen (18) Fixed Roof Storage Tanks	NA	NA

Emission Source ID No.	Emission Source Description	Control Device ID No.	Control Device Description
MACT EEEE, MACT R ES-ST06 through ES-ST08, ES-ST10, ES-ST15 And NSPS, MACT EEEE, MACT R ES-ST16, ES-ST17, ES-ST18 , and ES-ST19	Nine (9) Internal Floating Roof Tanks, with pan-type roofs	NA	NA
MACT EEEE, MACT R ES-ST04	One (1) Fixed Roof Storage Tank	CD-ST04	Carbon Adsorption System
MACT EEEE, MACT R F1	Miscellaneous Fugitive Sources, including pipeline, pumps, valves, and sampling connections	NA	NA

SECTION 2 - SPECIFIC LIMITATIONS AND CONDITIONS

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

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

- A. Boiler No. 1 (ID No. B-1), capable of firing natural gas and/or No. 2 fuel oil with a maximum heat input capacity of 10.5 million Btu per hour; and, Boiler No. 2 (ID No. B-3), capable of firing natural gas and/or No. 2 fuel oil with a maximum heat input capacity of 16.74 million Btu per hour.**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Particulate Matter	0.438 pounds per million Btu heat input (for B-1) and 0.462 pounds per million Btu heat input (for B-3)	15A NCAC 2D .0503
Sulfur Dioxide	2.3 pounds per million Btu heat input	15A NCAC 2D .0516
Visible Emissions	40 percent opacity (for B1) and 20 percent opacity (for B1)	15A NCAC 2D .0521
Sulfur Dioxide	Fuel usage recordkeeping only	15A NCAC 2D .0524 (Subpart Dc for B-3 only)
Hazardous Air Pollutants	Best Combustion Practices	15A NCAC 2D .1109 (CAA 40 CFR 112j)

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

- a. i) Emissions of particulate matter from the combustion of natural gas and/or No. 2 fuel oil discharged from the boiler (**ID No. B-1**) into the atmosphere shall not exceed 0.438 pounds per million Btu heat input. [15A NCAC 2D .0503(a)] and
- ii) Emissions of particulate matter from the combustion of natural gas and/or No. 2 fuel oil discharged from the boiler (**ID No. B-3**) into the atmosphere shall not exceed 0.462 pounds per million Btu heat input. [15A NCAC 2D .0503(a)]

Testing [15A NCAC 02D .2601]

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

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

- c. No monitoring/recordkeeping/reporting is required for particulate emissions from the firing of natural gas or No. 2 fuel oil in these boilers.

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

- a. Emissions of sulfur dioxide from these boilers (**ID Nos. B-1 and B-3**) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 02D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. 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 2D .0516.

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

- c. No monitoring/recordkeeping/reporting is required for sulfur dioxide emissions from the firing of natural gas or No. 2 fuel oil in these boilers.

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

- a. i) Visible emissions from the boiler (**ID No. B-1**) shall not be more than 40 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 40 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 90 percent opacity. [15A NCAC 2D .0521(c)]
- ii) Visible emissions from the boiler (**ID No. B-3**) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 02D .0521 (d)]

Testing [15A NCAC 02D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 A.3. a., the Permittee shall be deemed in noncompliance with .0521.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas or No. 2 fuel oil in these boilers.

4. 15A NCAC 2D .0524: NSPS 40 CFR PART 60 SUBPART Dc

- a. The Permittee shall comply with all applicable provisions, including the notification, testing, monitoring, recordkeeping, and reporting requirements contained in Environmental Management Commission Standard 15A NCAC 2D .0524 "New Source Performance Standards (NSPS)." Under provisions of 40 CFR 60 Subpart Dc the Permittee shall not combust oil in the boiler (ID No. B-3) that contains greater than 0.5 weight percent sulfur. [15A NCAC 2D .0524]

Monitoring

- b. To ensure compliance the Permittee shall monitor the sulfur content of distillate fuel oil by using fuel oil supplier certification per shipment received. The results of the fuel oil supplier certifications shall be recorded in a log (written or electronic format) on a quarterly basis and include the following information:
- i. the name of the fuel oil supplier;
 - ii. the maximum sulfur content of the fuel oil received during the quarter;
 - iii. a statement from the oil supplier that the oil complies with the specification under the definition of distillate oil in 40 CFR 60.41c and
 - iv. a certified statement signed by the responsible official that the records of fuel oil supplier certification submitted represent all of the fuel oil fired during the period.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the sulfur content of the distillate oil is not monitored and recorded. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the sulfur content of the fuel oil exceeds 0.5 percent sulfur by weight. [40 CFR 60.42c (d)]

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

- c. The Permittee shall record and maintain records of the total amounts of natural gas and No. 2 fuel oil delivered to the facility each month. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not maintained.

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

- d. In addition to any other reporting required by 40 CFR 60.48c or notification requirements of the EPA, the Permittee shall submit a summary report of the natural gas and No. 2 fuel monthly usage at the facility 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.

5. 15A NCAC 2D .1109: CAA 112(j); CASE-BY-CASE MACT for Boilers and Process Heaters

- a. The Permittee shall use best combustion practices when operating the boilers (**ID Nos. B-1 and B-3**). The initial compliance date for this work practice standard and the associated monitoring/recordkeeping/reporting requirements is **XX, xx, 2013 (3 years from issue date)**. These conditions need not be included in the annual compliance certification until after the initial compliance date.

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

- b. To assure compliance, the Permittee shall perform an annual source inspection and maintenance as recommended by the manufacturer, or as a minimum, the inspection and maintenance requirement shall include the following:
- i. inspect the burners, and clean or replace any components of the burners as necessary;
 - ii. inspect the flame pattern and make any adjustments to the burner necessary to optimize the flame pattern; and
 - iii. inspect the system controlling the air-to-fuel ratio, and ensure that it is correctly calibrated and functioning properly.

The Permittee shall conduct at least one tune-up per calendar year to demonstrate compliance with this requirement. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if the affected sources are not inspected and maintained as required above.

- c. The results of inspection and maintenance shall be maintained in a logbook (written or electronic format) on-site and made available to an authorized representative upon request. The logbook shall record the following:
- i. the date of each recorded action;
 - ii. the results of each inspection; and
 - iii. the results of any maintenance performed on these sources.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1109 if these records are not maintained.

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

- d. No reporting is required for hazardous air pollutants from the firing of natural gas, propane, or No. 2 fuel oil in these boilers (**ID Nos. B-1 and B-3**).

- B. Enclosed Flare (ID No. CD-FL1) with a maximum heat input of 7.5 million Btu per hour; Enclosed Flare (ID No. CD-FL2) with two burners with a maximum heat input of 4.5 million Btu per hour; and Enclosed Flare (ID No. CD-FL3) with a maximum heat input of 16.0 million Btu per hour.**

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 2D .0516
Visible Emissions	20 percent opacity	15A NCAC 2D .0521
Hazardous Air Pollutants	(ID Nos. CD-FL1 and CD-FL2 only) Closed vent system design and operating standards when loading organic liquids ¹	15A NCAC 2D .1111 40 CFR 60, Subpart EEEE
Toxic Air Pollutants	State-enforceable only -See Section 2.2.E.1	15A NCAC 2Q .0711
Toxic Air Pollutants	State-enforceable only -See Section 2.2.E.2	15A NCAC 2D .1100
Toxic Air Pollutants	State-enforceable only -See Section 2.2.E.3	15A NCAC 2Q .0705
Hazardous Air Pollutants	(ID Nos. CD-FL3 only) See Section 2.1 F.1	15A NCAC 2Q .0317 (MACT Avoidance)** 40 CFR 63, Subpart Y

¹“Organic liquid” is defined in 40 CFR 63, Subpart EEEE as any non-crude oil liquid or liquid mixture that contains 5% by weight or greater of the organic HAP listed in Table 1 of the subpart, excluding gasoline, kerosene, diesel, asphalt, and heavier distillate oils and fuel oils, any fuel consumed or dispensed on the plant site directly to users, hazardous waste, wastewater, ballast water, or any non-crude oil liquid with an annual average true vapor pressure less than 0.1 psia.

** The Permittee will operate the enclosed flare (ID No. CD-FL3), *as necessary*, to avoid classification of the marine tank vessel loading operation as an existing *source with emissions of 10 or 25* for the purposes of 40 CFR 63, Subpart Y; meaning that the barge loading operation, consisting of the nine (9) barge loading arms (ID Nos. ES-BLA1 through ES-BLA9), will remain an existing *source with emissions less than 10 and 25*, which is not subject to maximum achievable control technology (MACT) standards of 40 CFR 63, Subpart Y per 40 CFR 63.560(b).

1. 15A NCAC 2D .0516: SULFUR DIOXIDE EMISSIONS FROM COMBUSTION SOURCES

- a. Emissions of sulfur dioxide from the enclosed flares (ID Nos. CD-FL1 through CD-FL3) shall not exceed 2.3 pounds per million Btu heat input. Sulfur dioxide formed by the combustion of sulfur in fuels, wastes, ores, and other substances shall be included when determining compliance with this standard. [15A NCAC 2D .0516]

Testing [15A NCAC 02D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ found in Section 3. 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 2D .0516.

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

- c. No monitoring, recordkeeping, or reporting is required for sulfur dioxide emissions from the firing of natural gas in the enclosed flare.

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

- a. Visible emissions from the enclosed flares (ID Nos. CD-FL1 through CD-FL3) shall not be more than 20 percent opacity when averaged over a six-minute period. However, six-minute averaging periods may exceed 20 percent not more than once in any hour and not more than four times in any 24-hour period. In no event shall the six-minute average exceed 87 percent opacity. [15A NCAC 2D .0521(c)]

Testing [15A NCAC 02D .2601]

- b. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .2601 and General Condition JJ. If the results of this test are above the limit given in Section 2.1 B.2. a., then the Permittee shall be deemed in noncompliance.

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

- c. No monitoring/recordkeeping/reporting is required for visible emissions from the firing of natural gas in the enclosed flare.

3. 15A NCAC 2D .1111 – 40 CFR 63, Subpart EEEE: NESHAP for Organic Liquid Distribution Facilities
(applies to enclosed flares CD-FL1 and CD-FL2 only)

- a. Each closed vent system collecting regulated material from a transfer rack shall be designed and operated so that regulated material vapors collected at one loading arm will not pass through another loading arm in the rack to the atmosphere. [40 CFR 63, Subpart SS]
- b. The Permittee shall ensure that no pressure relief device in the closed vent system in any tank truck or railcar transfer rack shall open to the atmosphere during loading, unless the pressure relief device is needed for safety purposes. [40 CFR 63, Subpart SS]
- c. Each closed vent system routing emissions from the truck tank and railcar transfer racks to one of the enclosed flares (**ID Nos. CD-FL1 and CD-FL2**) shall comply with either of the following requirements for each bypass line that could divert a vent stream to the atmosphere:
 - i. Properly install, maintain, and operate a flow indicator that is capable of taking periodic readings at the entrance to any bypass line. Maintain hourly records indicating whether the flow indicator was operating and whether a diversion was detected at any time during the hour; OR,
 - ii. Secure the bypass line valve in the non-diverting position with a car-seal or a lock-and-key type configuration. Conduct a monthly visual inspection of the seals or closure mechanisms and retain a record of each visual inspection, including the date, observed conditions, and inspector's name. Also retain a record of any period when the seal mechanism is broken, the bypass line valve position has changed, the key for a lock-and-key type lock has been checked out, or the car-seal that has been broken.

The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if bypass lines are not equipped as required above, if monitoring requirements are not fulfilled, or if records indicate that unnecessary or negligent bypasses of the control devices has occurred. [40 CFR 63, Subpart SS; 40 CFR 63.983(a)(3), 63.998(d)(ii)]

Testing [15A NCAC 02D .2601]

- d. *Initial Leak Inspection.* Conduct a Method 21 initial leak inspection of each closed vent system routing emissions from the truck tank and railcar transfer racks to one of the enclosed flares (**ID Nos. CD-FL1 and CD-FL2**) according to the procedures in 40 CFR 63.983(c). Any instrument reading greater than 500 ppmv above background shall be repaired as soon as practical. A first attempt at repair shall be made no later than 5 days after the leak is detected, and repairs shall be completed no later than 15 days after the leak is detected or at the next introduction of vapors to the system, whichever is later. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the initial leak inspection is not completed or if detected leaks are not repaired as required above. [40 CFR 63, Subpart SS]
- e. If emissions testing is required, the testing shall be performed in accordance with 15A NCAC 2D .0501(c) and General Condition JJ. If the results of this test are above any limit given in Section 2.1. B.3., then the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

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

- f. *Annual Leak Inspection.* Conduct annual visual inspections of each closed vent system routing emissions from the truck tank and railcar transfer racks to one of the enclosed flares (**ID Nos. CD-FL1 and CD-FL2**) using visible, audible, or olfactory indications of leaks. If there are visible, audible, or olfactory indications of leaks at the time of the annual visual inspections, the Permittee shall either:
 - i. Eliminate the leak; OR,
 - ii. Conduct a Method 21 inspection of the identified leak-site according to the procedures in 40 CFR 63.983(c). Any leak identified an instrument reading greater than 500 ppmv above background, or by visual inspection if no follow-up Method 21 test is conducted, shall be repaired as soon as practical. A first attempt at repair shall be made no later than 5 days after the leak is detected, and repairs shall be completed no later than 15 days after the leak is detected or at the next introduction of vapors to the system, whichever is later. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the annual leak inspection is not completed or if detected

leaks are not repaired as required above. [40 CFR 63, Subpart SS]

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

- g. The Permittee shall maintain a log book (written or electronic) that includes records of the equipment leak program, including the following:
 - i. A list, summary description, and/or diagrams(s) showing the location of all equipment in organic liquid service at the facility, including dates and descriptions of any changes in the design specifications as described in 40 CFR 63.998(d)(4)(i);
 - ii. The date of each leak inspection conducted at the facility and signature of the inspector;
 - iii. If no leaks were detected during the inspection, include a statement that no leaks were detected; and,
 - iv. If any liquid or vapor leak is detected, record the following information:
 - A. Identification of the leak source (e.g., equipment identification number);
 - B. The date the leak was detected;
 - C. The maximum instrument reading measured using a Method 21 test, if applicable;
 - D. The date of the first attempt to repair the leak; and,
 - E. The date of successful repair of the leak;
 - F. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 days after discovery of the leak. The owner or operator may develop a written procedure that identifies the conditions that justify a delay of repair.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if a logbook is not retained as required above. [40 CFR 63, Subpart SS - 40 CFR 63.998(d)(1)(iii)-(iv), 63.998(d)(4)]

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

- h. The Permittee shall submit a Notification of Compliance Status for 40 CFR 63, Subpart EEEE as provided in Section 2.2. C.1. d. of this permit.
- i. The Permittee shall submit a period report summarizing compliance activities for 40 CFR 63, Subpart EEEE as provided in Section 2.2. C.1. e. of this permit.

with an associated enclosed flare (ID No. CD-FL1).

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	State-enforceable only - See Section 2.2.D.1	15A NCAC 2Q .0711
Toxic Air Pollutants	State-enforceable only - See Section 2.2.D.2	15A NCAC 2D .1100
Toxic Air Pollutants	State-enforceable only - See Section 2.2.D.3	15A NCAC 2Q .0705
<i>During Gasoline Loading Operations Only:</i>		
Volatile Organic Compounds	When loading gasoline, route vapors to a flare with controlled VOC emissions of no greater than 35 milligram per liter loaded; and, Follow work practices to minimize leaks.	15A NCAC 2D .0524 <i>40 CFR 60, Subpart XX</i>
Volatile Organic Compounds	When loading gasoline, route vapors to a flare with controlled VOC emissions of no greater than 35 milligram per liter loaded; and, Follow work practices to minimize leaks.	15A NCAC 2D .0927
Volatile Organic Compounds	Follow work practices to minimize leaks	15A NCAC 2D .0932
Hazardous Air Pollutants	See Section 2.2. B.1.	15A NCAC 2D .1111 <i>40 CFR 63, Subpart R</i>
<i>During Organic Liquid Loading Operations</i>		
Hazardous Air Pollutants	When loading organic liquid ¹ , as defined in 40 CFR 63.2406, route vapors to a flare that reduces organic HAP emissions by at least 98 percent by weight.	15A NCAC 2D .1111 <i>40 CFR 63, Subpart EEEE</i>
Volatile Organic Compounds	See Section 2.2. A.1.	15A NCAC 2D .0948

¹“Organic liquid” is defined in 40 CFR 63, Subpart EEEE as any non-crude oil liquid or liquid mixture that contains 5% by weight or greater of the organic HAP listed in Table 1 of the subpart, excluding gasoline, kerosene, diesel, asphalt, and heavier distillate oils and fuel oils, any fuel consumed or dispensed on the plant site directly to users, hazardous waste, wastewater, ballast water, or any non-crude oil liquid with an annual average true vapor pressure less than 0.1 psia.

1. 15A NCAC 2D .0524 – 40 CFR 60, Subpart XX: New Source Performance Standards (NSPS) for Bulk Gasoline Terminals

- a. Tank truck loading arms without vapor control (**ID Nos. ES-TLA2 through ES-TLA20**) shall not be used to load gasoline, defined as any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 4 psia (27.6 kPa) or greater which is used as a fuel for internal combustion engines.
- b. When loading gasoline, affected tank truck loading arms (**ID Nos. ES-TLA1 and ES-TLA21 through ES-TLA25**) shall meet the standards and work practices in Section 2.1 C.1. b., c., and d. of this permit, except that the maximum controlled emission rate of no greater than 35 milligrams VOC per liter (mg/L) of gasoline loaded.

Notification Requirements

- c. For the new and modified tank truck loading arms (**ID Nos. ES-TLA1 and ES-TLA21 through ES-TLA25**), the Permittee shall **NOTIFY** the Regional Supervisor, DAQ, in **WRITING**, of the following:
 - i. the date construction (40 CFR 60.7) of an affected facility is commenced, postmarked no later than 30 days after such date; and,
 - ii. the actual date of initial start-up of an affected facility, postmarked within 15 days after such date.

Vapor-Tightness Documentation Requirements [40 CFR 60.502(e)]

- d. The Permittee shall not load, or allow to be loaded, gasoline into any tank truck unless the tank truck is vapor-tight. To demonstrate compliance with this standard, the Permittee shall meet the requirements of Section 2.2 B.1. e. and f. of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the requirements are not fulfilled.

Equipment Leak Requirements [40 CFR 60.502(j), 60.505(c)]

- e. The Permittee shall conduct a monthly leak inspection, repair identified leaks, and retain records of inspections, as specified in Section 2.2 B.1. g. and h. of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the requirements are not fulfilled.

Testing [15A NCAC 02D .2601]

- f. The Permittee shall conduct a performance test of the vapor collection system and enclosed flare (**ID No. CD-FL1**) within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup as specified in Section 2.2 B.1. j. of this permit. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if it fails to complete the required performance test, or if the performance test shows an exceedance of any of the standards provided in Section 2.1 C.2. b. of this permit.

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

- g. During gasoline loading, the Permittee shall monitor and record the combustion temperature at the enclosed flare (**ID No. CD-F1**) as specified in Section 2.2 B.1. l. and m. of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if the combustion temperature is not continuously monitored and recorded, or if the 15-minute average monitored temperature is below the minimum operating parameter established during the performance test.
- h. The Permittee shall retain records of all replacements or additions of components performed on the enclosed flare (**ID No. CD-F1**) for at least 3 years. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if these records are not retained.

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

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

2. 15A NCAC 2D .0927: BULK GASOLINE TERMINALS

- a. Tank truck loading arms without vapor control (**ID Nos. ES-TLA2 through ES-TLA20**) shall not be used to load gasoline, defined as any petroleum liquid with a Reid vapor pressure of 4 psia or above.
- b. When loading gasoline, affected tank truck loading arms (**ID Nos. ES-TLA1 and ES-TLA21 through ES-TLA25**) shall meet the following requirements:
 - i. All displaced vapors and gases from the tank truck are vented to an enclosed flare (**ID No. CD-FL1**) with a maximum controlled emission rate of no greater than 35 mg VOC per liter of gasoline loaded;
 - ii. Liquid drainage from the loading device is prevented when the device is not in use, or complete drainage from the loading device is achieved before the loading device is disconnected; and,
 - iii. All loading of vapor lines are equipped with vapor-tight connections that are automatically and immediately closed upon disconnection.
- c. Gasoline shall not be discarded in sewers or stored in open containers or handled in any way that would result in evaporation.
- d. The pressure in the vapor collection system shall not exceed tank truck pressure relief settings.
- e. The Permittee shall not load, or allow to be loaded, gasoline into any tank truck unless the tank truck has been certified as leak tight according to the 15A NCAC 2D .0932 within the previous 12 months.

Testing [15A NCAC 02D .2601]

- f. The Permittee shall conduct a performance test of the vapor collection system and enclosed flare (**ID No. CD-FL1**) within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup as specified in Section 2.2 B.1. j. of this permit. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0927 if it fails to complete the required performance test, or if the performance test shows an exceedance of any of the standards provided in Section 2.1 C.2. b. of this permit.

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

- g. To assure compliance, the Permittee shall perform monthly inspections and perform maintenance on all gasoline-service tank truck loading arms (**ID Nos. ES-TLA1 and ES-TLA21 through ES-TLA25**) and the associated enclosed flare (**ID No. CD-FL1**) as recommended by the manufacturer. In addition to the manufacturer's inspection and maintenance recommendations, or if there is no manufacturer's inspection and maintenance recommendations, as a minimum, the inspection and maintenance requirement must include a monthly external inspection of the structural integrity of the loading arms and associated enclosed flare. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0927 if the loading arms and enclosed flare are not inspected.

Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0903]

- h. The Permittee shall maintain a log (written or electronic format) of the results of the required inspections and any maintenance performed on the loading arms and associated enclosed flare, including the following:
- i. Date of inspection;
 - ii. Findings (i.e., brief description of structural integrity of the loading arms and associated enclosed flare);
 - iii. Preventive and/or corrective action take (i.e., date and description of maintenance activities at the loading arms and enclosed flare); and,
 - iv. Inspector name and signature.
- The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0927 if monitoring records are not maintained.
- i. The Permittee shall maintain a copy of the leak tight certifications for all gasoline tank trucks loaded at the facility, in accordance with Section 2.2 B.1. e. and f. of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0927 if these records are not retained.

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

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

3. 15A NCAC 2D .0932: GASOLINE TANK TRUCKS AND VAPOR COLLECTION SYSTEMS

- a. Gasoline tank trucks and their vapor collection systems shall be tested annually by a certified facility. The test procedure that shall be used is described in 15A NCAC 2D .0940, .0941, and .0912. The gasoline truck tank shall not be used if it sustains a pressure change greater than 3.0 inches of water in five minutes when pressurized to a gauge pressure of 18 inches of water or when evacuated to a gauge pressure of 6.0 inches of water. Each gasoline truck tank that has been certified as leak tight shall display a sticker near the DOT certification place required by 49 CFR 178.340-10b.
- b. During gasoline loading and/or unloading operations there shall be no liquid leaks and no vapor leakage from the tank truck or vapor collection system that results in a reading equal to or greater than 100 percent of the lower explosive limit at one inch around the perimeter of each potential leak source as detected by a combustible gas detector using the test procedure described in 15A NCAC 2D .0940. If such a leak is detected, the tank truck, vapor collection system, and/or vapor control system shall not be used beyond 15 days after the leak has been discovered, unless the leak has been repaired and retested and found to be in compliance with the standard.
- c. The Permittee shall test the vapor collection system at least once per year according to the procedures provided in 15A NCAC 2D .0912 and .0940.

Testing

- d. No testing is required.

Monitoring/Recordkeeping

- e. The Permittee shall retain records of all certification testing and repairs. The records shall identify the gasoline truck tank, vapor collection system, or vapor control system; the date of the test or repair; and, if applicable, the type of repair and the date of retest. The records of certification tests shall include the following:
- i. The gasoline tank truck identification number;
 - ii. The initial test pressure and the time of the reading;
 - iii. The final test pressure and the time of the reading;
 - iv. The initial test vacuum and the time of reading;
 - v. The final test vacuum and the time of the reading; and,
 - vi. The date and location of the tests.

A copy of the most recent certification report shall be kept with the truck tank and a copy of the report shall be

filed at the terminal. The records shall be maintained for at least two years after the date of the testing or repair, and copies of such records shall be made available within a reasonable time to DAQ upon written request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0932 if the above records are not retained.

4. 15A NCAC 2D .1111 – 40 CFR 63, Subpart EEEE: NESHAP for Organic Liquid Distribution Facilities

- a. Emissions from tank truck loading arms (**ID Nos. ES-TLA1 and ES-TLA21 through ES-TLA25**) in organic liquid service shall be controlled by enclosed flare No. 1 (**ID No. CD-FL1**), which shall reduce emissions of organic HAP by 98 percent by weight. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if organic liquid loading through the tank truck loading arms is not controlled as required above.

Testing [15A NCAC 02D .2601]

- b. The Permittee shall conduct a performance test of enclosed flare No. 1 (**ID No. CD-FL1**) within 60 days of achieving the maximum production rate, but not later than 180 days after initial startup.¹
- i. The performance tests shall be conducted according to the procedures in 40 CFR 63.2354-2358, 40 CFR 63.2382(c), 40 CFR 63.997, 40 CFR 60.8, and General Condition JJ, including all required notifications and reports.
- ii. The firebox temperature shall be recorded for the duration of the performance test and used to establish the minimum combustion temperature required to achieve the required emission reductions. [40 CFR 63.998(a)(2)(B)(1), 63.996(c)(6)]

If the required initial test is not conducted, or if the test results indicate emissions above the limits provided in Section 2.1 C.4. a. of this permit, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111. [40 CFR 63.2370(a), Table 6]

¹ For the existing enclosed flare (**ID No. CD-FL1**), "initial startup" means the date the control device is initially utilized after modifying the unit to achieve increased capacity.

Vapor-Tightness Documentation Requirements

- c. The Permittee shall not load, or allow to be loaded, organic liquid into any tank truck unless the transport vehicle is vapor-tight. To demonstrate compliance with this standard, the Permittee shall meet the requirements of Section 2.2 B.1. e. and f. of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the requirements are not fulfilled. [40 CFR 63.2346(d)]

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

- d. The Permittee shall install, calibrate, maintain, and operate a continuous temperature monitor at enclosed flare No. 1 (**ID No. CD-FL1**). [40 CFR 63.2366(a), 40 CFR 63.2374]
- i. The temperature monitor shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs. [40 CFR 63.988(c)(1)];
- ii. The temperature monitor shall be operated and maintained according to 40 CFR 63.996(c);
- iii. Calibrations, downtime, and maintenance activities for the temperature monitor shall be recorded as required in 40 CFR 63.998(c)(1);
- iv. Monitored temperatures shall be recorded and averaged according to 40 CFR 63.998(b)(1)-(3) & (6) and (c)(2); and,
- v. The Permittee shall record each instance that the daily average temperature is less than the minimum temperature established during performance testing, including the cause of the excursion.
- vi. In lieu of data handling requirements specified by 40 CFR 63.998(b)(1)-(3) in Section 2.1 C.1 d.iv., the Permittee may choose to comply with the alternative recordkeeping provisions for daily average temperature according to 40 CFR 63.998(b)(5)(i)(A)-(F). [40 CFR 63.998(b)(5)]
- vii. If a period of 6 consecutive months has passed without recording more than one daily average temperature less than the temperature established in Section 2.1 C.4 b.ii., the Permittee may discontinue recording the daily average for days where the daily average temperature is greater than the minimum temperature established during performance testing. [40 CFR 63.998(b)(5)(ii) and (6)(i)]
- viii. Monitoring data generated prior to the issuance date of this permit and recorded according to Section 2.1 C.4 d.vi. shall be credited toward the 6 consecutive month period (i.e. may be retrospective).

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if it fails to monitor and record the combustion temperature as required above, or if the daily average of the monitored temperature falls below the minimum temperature established during the performance test during loading of a regulated material. [40 CFR 63.2346(e), Table 4]

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

- e. The Permittee shall submit a Notification of Compliance Status for 40 CFR 63, Subpart EEEE as provided in Section 2.2. C.1. d. of this permit.
- f. The Permittee shall submit a period report summarizing compliance activities for 40 CFR 63, Subpart EEEE as provided in Section 2.2. C.1. e. of this permit.
- g. If the Permittee elects to discontinue recordkeeping as provided for in Section 2.1 D.1 d.vii., the next periodic report required by Section 2.2. C.1. e. of this permit shall include notification that the daily average of the monitored temperature is no longer retained (recorded) when above the minimum temperature established during the performance test.

D. Six (6) Railcar Loading Arms (ID Nos. ES-RLA20 through ES-RLA25) with an associated enclosed flare (ID No. CD-FL1); and, Ten (10) Railcar Loading Arms (ID Nos. ES-RLA26 through ES-RLA35) with an associated enclosed flare (ID No. CD-FL2).

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.1	15A NCAC 2Q .0711
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.2	15A NCAC 2D .1100
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.3	15A NCAC 2Q .0705
<i>During Gasoline Loading Operations, only:</i>		
Hazardous Air Pollutants	See Section 2.2. B.1.	15A NCAC 2D .1111 <i>40 CFR 63, Subpart R</i>
<i>During Organic Liquid Loading Operations</i>		
Hazardous Air Pollutants	When loading organic liquid ¹ , as defined in 40 CFR 63.2406, route vapors to a flare that reduces organic HAP emissions by at least 98 percent by weight.	15A NCAC 2D .1111 <i>40 CFR 63, Subpart EEEE</i>
Volatile Organic Compounds	See Section 2.2. A.1.	15A NCAC 2D .0948

¹“Organic liquid” is defined in 40 CFR 63, Subpart EEEE as any non-crude oil liquid or liquid mixture that contains 5% by weight or greater of the organic HAP listed in Table 1 of the subpart, excluding gasoline, kerosene, diesel, asphalt, and heavier distillate oils and fuel oils, any fuel consumed or dispensed on the plant site directly to users, hazardous waste, wastewater, ballast water, or any non-crude oil liquid with an annual average true vapor pressure less than 0.1 psia.

1. 15A NCAC 2D .1111 – 40 CFR 63, Subpart EEEE: NESHAP for Organic Liquid Distribution Facilities

- a. Emissions from railcar transfer racks in organic liquid service shall be controlled by a closed vent system and enclosed flare that reduces emissions of organic HAP by 98 percent by weight, as described below:
 - i. Railcar loading arms (ID Nos. ES-RLA20 through ES-RLA25) shall be controlled by enclosed flare No. 1 (ID No. CD-FL1); and,
 - ii. Railcar loading arms (ID Nos. ES-RLA26 through ES-RLA35) shall be controlled by enclosed flare No. 2 (ID No. CD-FL2).

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if organic liquid loading through the tank truck loading arms is not controlled as required above.

Testing [15A NCAC 02D .2601]

- b. The Permittee shall conduct a performance test of the enclosed flares (ID Nos. CD-FL1 and CD-FL2) within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup.¹
 - i. The performance tests shall be conducted according to the procedures in 40 CFR 63.2354-2358, 40 CFR 63.2382(c), 40 CFR 63.997, 40 CFR 60.8, and General Condition JJ, including all required notifications and

reports; and,

- ii. The firebox temperature shall be recorded for the duration of the performance test and used to establish the minimum combustion temperature required to achieve the required emission reductions. [40 CFR 63.998(a)(2)(B)(1), 63.996(c)(6)]

If the required initial test is not conducted, or if the test results indicate emissions above the limits provided in Section 2.1. D.1. a. of this permit, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111. [40 CFR 63.2370(a), Table 6]

¹ For the existing enclosed flare (ID No. CD-FL1), "initial startup" means the date the control device is initially utilized after modifying the unit to achieve increased capacity.

Vapor-Tightness Documentation Requirements

- c. The Permittee shall not load, or allow to be loaded, organic liquid into any railcar unless the transport vehicle is vapor-tight. To demonstrate compliance with this standard, the Permittee shall meet the requirements of Section 2.2 B.1. e. and f. of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the requirements are not fulfilled. [40 CFR 63.2346(d)]

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

- d. The Permittee shall install, calibrate, maintain, and operate a continuous temperature monitor at the enclosed flares (ID Nos. CD-FL1 and CD-FL2). [40 CFR 63.2366(a), 40 CFR 63.2374]
 - i. The temperature monitors shall be installed in the firebox or in the ductwork immediately downstream of the firebox in a position before any substantial heat exchange occurs. [40 CFR 63.998(c)(1)];
 - ii. The temperature monitors shall be operated and maintained according to 40 CFR 63.996(c);
 - iii. Calibrations, downtime, and maintenance activities for the temperature monitor shall be recorded as required in 40 CFR 63.998(c)(1);
 - iv. Monitored temperatures shall be recorded and averaged according to 40 CFR 63.998(b)(1)-(3) & (6) and (c)(2); and,
 - v. The Permittee shall record each instance that the daily average temperature is less than the minimum temperature established during performance testing, including the cause of the excursion.
 - vi. In lieu of data handling requirements specified by 40 CFR 63.998(b)(1)-(3) in Section 2.1 D.1 d.iv., the Permittee may choose to comply with the alternative recordkeeping provisions for daily average temperature according to 40 CFR 63.998(b)(5)(A)-(F). [40 CFR 63.998(b)(5)]
 - vii. If a period of 6 consecutive months has passed without recording more than one daily average temperature less than the temperature established in Section 2.1 D.1 b.ii., the Permittee may discontinue recording the daily average for days where the daily average temperature is greater than the minimum temperature established during performance testing. [40 CFR 63.998(b)(5)(ii) and (6)(i)]
 - viii. Monitoring data generated prior to the issuance date of this permit and recorded according to Section 2.1 D.1 d.vi. shall be credited toward the 6 consecutive month period (i.e. may be retrospective).

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if it fails to monitor and record the combustion temperature as required above, or if the daily average of the monitored temperature falls below the minimum temperature established during the performance test during loading of a regulated material. [40 CFR 63.2346(e), Table 4]

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

- e. The Permittee shall submit a Notification of Compliance Status for 40 CFR 63, Subpart EEEE as provided in Section 2.2. C.1. d. of this permit.
- f. The Permittee shall submit a periodic report summarizing compliance activities for 40 CFR 63, Subpart EEEE as provided in Section 2.2. C.1. e. of this permit.
- g. If the Permittee elects to discontinue recordkeeping as provided for in Section 2.1 D.1 d.vii., the next periodic report required by Section 2.2. C.1. e. of this permit shall include notification that the daily average of the monitored temperature is no longer retained (recorded) when above the minimum temperature established during the performance test.

E. Nineteen Railcar Loading Arms (ID Nos. ES-RLA1 through ES-RLA19) without add-on emissions control; and, Nineteen Truck Loading Arms (ID No. ES-TLA2 through ES-TLA20) without add-on emissions control.

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	Do not use racks to load organic liquid ¹ , as it is defined in 40 CFR 63.2406.	15A NCAC 2D .1111 40 CFR 63, Subpart EEEE
Volatile Organic Compounds	See Section 2.2. A.1.	15A NCAC 2D .0948
Hazardous Air Pollutants	See Section 2.2. B.1	15A NCAC 2D .1111 40 CFR 63, Subpart R
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.1	15A NCAC 2Q .0711
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.2	15A NCAC 2D .1100
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.3	15A NCAC 2Q .0705

¹“Organic liquid” is defined in 40 CFR 63, Subpart EEEE as any non-crude oil liquid or liquid mixture that contains 5% by weight or greater of the organic HAP listed in Table 1 of the subpart, excluding gasoline, kerosene, diesel, asphalt, and heavier distillate oils and fuel oils, any fuel consumed or dispensed on the plant site directly to users, hazardous waste, wastewater, ballast water, or any non-crude oil liquid with an annual average true vapor pressure less than 0.1 psia.

1. **15A NCAC 2D .1111 – 40 CFR 63, Subpart EEEE: NESHAP for Organic Liquid Distribution Facilities**
 - a. These transfer racks (ID Nos. ES-TLA2 through ES-TLA20 and ES-RLA1 through ES-RLA19) shall not transfer any organic liquid, as it is defined in 40 CFR 63.2406.

Monitoring/Recordkeeping/Reporting

- b. No monitoring, recordkeeping, or reporting is required to demonstrate compliance with this requirement.

F. Nine Barge Loading Arms (ID Nos. ES-BLA1 through ES-BLA9) with an associated enclosed flare (ID No. CD-FL3).

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.1	15A NCAC 2Q .0711
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.2	15A NCAC 2D .1100
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.3	15A NCAC 2Q .0705
Hazardous Air Pollutants	Less than 10 tons per year any single HAP ¹ and Less than 25 tons per year combination HAPs ¹	15A NCAC 2Q .0317 (MACT Avoidance) 40 CFR 63, Subpart Y
Annual loading throughput	Less than 10 million barrels of gasoline and 200 million barrels of crude oil per consecutive 12 month period.	15A NCAC 2Q .0317 (RACT Avoidance) 40 CFR 63, Subpart Y

¹ Excludes HAP with vapor pressures less than 10.3 kPa (1.5 psia) at standard conditions of 20 degrees Celsius (20°C) and 760 millimeters mercury (760 mm Hg) as provided by 40 CFR 63.560(d)(1).

1. **15A NCAC 2Q .0317: AVOIDANCE CONDITIONS for 15A NCAC 2D .1111: 40 CFR 63, Subpart Y: MACT for Marine Tank Vessel Loading Operations**
 - a. In order to remain classified as an existing source with emissions less than 10 and 25 and avoid applicability of the maximum achievable control technology (MACT) standards of 40 CFR 63 Subpart Y, the emissions from the nine barge loading arms (ID Nos. ES-BLA-1 through ES-BLA9) during loading of “hazardous air pollutant liquids”, as defined in Section 2.1 F.1 d., shall be less than:

- i. 10 tons per year of each individual hazardous air pollutant, and
- ii. 25 tons per year of all hazardous air pollutants combined.
- b. Emissions of HAP may be controlled by the enclosed flare (**ID No. CD-FL3**) as part of demonstrating compliance with the MACT Subpart Y avoidance conditions given in Sections 2.1 F.1. a.i-ii (i.e. the enclosed flare (**ID No. CD-FL3**) is not required to be in operation during all periods of time hazardous air pollutant liquids are loaded during marine tank vessel loading operations).
- c. The Permittee shall comply with the 40 CFR 63 Subpart Y emission estimation and recordkeeping requirements for *sources with emissions less than 10 and 25* given in 40 CFR 63.565(l) and 63.567(j)(4), respectively.
- d. "Hazardous air pollutant liquid" means any volatile, organic or petroleum liquid with a vapor pressure equal to or greater than 10.3 kPa (1.5 psia) at standard conditions of 20 degrees Celsius (20°C) and 760 millimeters mercury (760 mm Hg) and is listed in Section 112(b) of the Clean Air Act.
- e. The Permittee shall not load, or allow to be loaded, from the nine barge loading arms (**ID Nos. ES-BLA-1 through ES-BLA9**) to marine tank vessels hazardous air pollutant liquids that are not allowed under Sections 2.2 D.1-3.

Testing [15A NCAC 2D .2601]

- f. The Permittee shall conduct an initial destruction efficiency performance test on the enclosed flare (**ID No. CD-FL3**) to determine the percent reduction in emissions of hazardous air pollutants, as VOC, and once per each subsequent 5-year permit term thereafter.
 - i. The Permittee shall conduct the testing in accordance with 15A NCAC 2D .2601.
 - ii. All required continuous monitoring systems shall be installed, calibrated, and operating when the performance tests are conducted.
 - iii. Results of the performance tests shall be submitted to the Regional Supervisor, DAQ within 60 days after completion of the testing.
 - iv. Until the initial performance test under Section 2.1 F.1 f. is conducted, the percent reduction in hazardous air pollutant emissions (CE) for the enclosed flare (**ID No. CD-FL3**) will be considered 95%. Once the performance is completed and approved by the DAQ, the value determined in the most recent performance test shall be used.

Monitoring/Recordkeeping

- g. The Permittee shall install, calibrate, maintain, and operate a device, such as an ultraviolet beam sensor or thermocouple, to continuously monitor and record the presence of a flame within the combustion chamber of the enclosed flare (**ID No. CD-FL3**).
- h. The Permittee shall use the following equations to determine the total monthly emissions of each individual hazardous air pollutant and combined hazardous air pollutants from the nine barge loading arms (**ID Nos. ES-BLA-1 through ES-BLA9**) during marine tank vessel loading operations:
 - i. Calculation of the monthly individual hazardous air pollutant emissions from the nine barge loading arms (**ID Nos. ES-BLA-1 through ES-BLA9**):

$$HAP_{i,j} = \left[(0.1337)(Q_{i,j})(SF)(MW_i) \left(\frac{P_{va,i,j}}{(R)(T_j + 460)} \right) (1 - (CE)(OF_{i,j})) \right]$$

where:

- $HAP_{i,j}$ = the emissions of the i^{th} hazardous air pollutant from the nine barge loading arms (**ID Nos. ES-BLA-1 through ES-BLA9**) during marine tank vessel loading operations during calendar month j (pounds per month)
- $Q_{i,j}$ = the monthly throughput of the i^{th} hazardous air pollutant liquid loaded onto marine tank vessels for during calendar month j (gallons)
- SF = saturation factor for the type of loading operation performed (dimensionless). The value of SF for submerged barge loading operations shall be 0.5 and shall be 0.2 for all other submerged loading operations (ship or other vessel).
- MW_i = the molecular weight of the i^{th} hazardous air pollutant liquid loaded onto marine tank vessels (pounds per pound-mole)
- T_j = the average ambient temperature based upon meteorological data contained in the TANKS 4.09D model for calendar month j (degrees Fahrenheit)
- $P_{va,i,j}$ = the vapor pressure of the i^{th} hazardous air pollutant liquid loaded onto marine tank vessels at temperature T_j for calendar month j (pounds per square inch absolute)

- CE = the percent reduction of hazardous air pollutants (i.e. control efficiency) determined according to Section 2.1 F.1 f. (percent). The value of CE shall be 0% for periods of time the enclosed flare (ID No. CD-FL3) is not operating during marine tank vessel loading operations (e.g. the monitoring device required by Section 2.1 F.1 g. does not detect the presence of flame).
- $OF_{i,j}$ = the average operating factor for the enclosed flare (ID No. CD-FL3) during marine tank vessel loading operations of the i^{th} hazardous air pollutant liquid during calendar month j (percent). The OF will be determined by the total time during calendar month j a flame is present in the combustion chamber during the transfer of the i^{th} hazardous air pollutant liquid to the marine tank vessel divided by the total time the transfer operation for month j was conducted (e.g. if a flame was present in the enclosed flare (ID No. CD-FL3) for 5 hours during 10 hours of transfer, then $OF = 50\%$).
- R = the ideal gas constant ($\text{ft}^3 \cdot \text{psia} / \text{lb} \cdot \text{mol} \cdot ^\circ\text{R}$). The value of R shall be 10.73.
- 0.1337 = the conversion factor for cubic feet to gallons

- ii. Calculation of the monthly hazardous air pollutant emissions from the nine barge loading arms (ID Nos. ES-BLA-1 through ES-BLA9) combined:

$$HAP_{k,j} = \sum_{i=1}^n HAP_{i,j}$$

where:

- $HAP_{k,j}$ = the emissions of all hazardous air pollutants from the nine barge loading arms (ID Nos. ES-BLA-1 through ES-BLA9) during marine tank vessel loading operations during each calendar month j , combined (pounds per month)
- n = the total number of individual hazardous air pollutants (liquid) loaded to marine tank vessels for each calendar month combined.

- i. The Permittee shall use the following equations to determine the total annual estimate of hazardous air pollutant emissions from the nine barge loading arms (ID Nos. ES-BLA-1 through ES-BLA9) during marine tank vessel loading operations: [40 CFR 63.565(l)]

- i. Calculation of the annual individual hazardous air pollutant emissions from the nine barge loading arms (ID Nos. ES-BLA-1 through ES-BLA9):

$$HAP_{yr,i,j} = \frac{\sum_{j=1}^{12} HAP_{i,j}}{2000}$$

where:

- $HAP_{yr,i,j}$ = the annual emissions of an individual hazardous air pollutant from the nine barge loading arms (ID Nos. ES-BLA-1 through ES-BLA9) (tons per year)
- 2000 = the conversion factor for pounds to tons.

- ii. Calculation of the annual hazardous air pollutant emissions from the nine barge loading arms (ID Nos. ES-BLA-1 through ES-BLA9) combined:

$$HAP_{yr,k,j} = \frac{\sum_{j=1}^{12} HAP_{k,j}}{2000}$$

where:

- $HAP_{yr,k,j}$ = the annual combined emissions of an individual hazardous air pollutant from the nine barge loading arms (ID Nos. ES-BLA-1 through ES-BLA9), combined (tons per year).
- 2000 = the conversion factor for pounds to tons.

- j. For each hazardous air pollutant liquid for which emissions calculations are performed in Sections 2.1 F.1 h.-i., the Permittee shall maintain the following records:
 - i. The vapor pressure at standard conditions of 20 degrees Celsius (20°C) and 760 millimeters mercury (760 mm Hg).
 - ii. The molecular weight.
 - iii. The average monthly ambient temperature for each calendar month.
 - iv. The vapor pressure at the average monthly ambient temperature for each calendar month.
 - v. The amount transferred to marine tank vessels by the nine barge loading arms (ID Nos. ES-BLA-1 through ES-BLA9) in gallons for each calendar month.
 - vi. The type of loading operation performed (e.g. submerged loading to barge).
 - vii. The total time a flame was detected to be present in the enclosed flare (ID No. CD-FL3) during marine tank vessel loading operations for each calendar month.
 - viii. The total time marine tank vessel loading operations were conducted for each calendar month.
- k. In addition to the records required by Section 2.1 F.1 i., the Permittee shall also maintain the following records:
 - i. The annual emission estimates for hazardous air pollutants determined in Sections 2.1 F.1 i.i-ii. [40 CFR 63.567(j)(4)]
 - ii. The results of the performance test that serves as the basis for the value of CE used in the emissions calculations performed in Section 2.1 F.1 h.
- l. The Permittee shall maintain copies of the records required by Sections 2.1 F.1 j.-k. for a period of five years.
- m. The Permittee shall be in compliance with the MACT standards of 40 CFR 63 Subpart Y within three (3) years following the exceedance of the threshold levels given in Sections 2.1 F.1. a.i or ii. [40 CFR 63.560(e)(1)(iii)]
- n. The Permittee shall be deemed in noncompliance with 15 NCAC 2D .1111 if the HAP emissions are not monitored or if the records are not retained.

Reporting

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

- o. The Permittee shall submit a semiannual summary report acceptable to the Regional Air Quality Supervisor, of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six month period between July and December and July 30 for the calendar year for the preceding six month period between January and June. The report shall contain the following:
 - i. For each of the consecutive 12-month periods ending during the previous calendar half, identify:
 - A. Which individual HAP had the highest 12-month rolling emission rate; and
 - B. The 12-month rolling emission total (in tons) of the HAP.
 - ii. Provide the total, combined HAP emission rate (in tons) for each of the six consecutive 12-month periods ending during the previous calendar half.
- p. If the hazardous air pollutant emission threshold levels given in either Section 2.1 F.1. a.i or ii. are exceeded, the Permittee shall comply with the notification requirements of 40 CFR 63, Subparts A and Y.

2. 15A NCAC 2Q .0317: AVOIDANCE CONDITIONS

for 15A NCAC 2D .1111: 40 CFR 63, Subpart Y: RACT for Marine Tank Vessel Loading Operations

- a. In order to remain classified as an existing *source with throughput less than 10 M barrels and 200 M barrels* and avoid applicability of the reasonably available control technology (RACT) standards of 40 CFR 63 Subpart Y, the Permittee shall continue to comply with Section 2.2 D.1 a. and shall not perform marine tank vessel loading operations of crude oil.

Monitoring/Recordkeeping/Reporting

- b. In order to demonstrate compliance with the avoidance condition given in Section 2.1 F.2 a., the Permittee shall continue to maintain the records required by Section 2.2 D.1 b.
- c. The Permittee shall be deemed in noncompliance with 15 NCAC 2D .1111 if the records required by Section 2.2 D.1 b. are not retained.

G. Eighteen (18) Fixed Roof Storage Tanks (ID Nos. ES-ST01 through ES-ST03, ES-ST09, ES-ST11 through ES-ST14, ES-ST20 through ES-ST22, ES-ST101 through ES-ST103, ES-ST105, ES-ST106, ES-ST120, and ES-ST1201);

**One (1) Fixed Roof Storage Tank (ID No. ES-ST04) with a carbon adsorption system (ID No. CD-ST04); and,
Nine (9) Internal Floating Roof Storage Tanks (ID No. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19) with internal pan floating roofs.**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.1	15A NCAC 2Q .0711
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.2	15A NCAC 2D .1100
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.3	15A NCAC 2Q .0705
<i>During Organic Liquid Service, Only</i>		
Volatile Organic Compounds	<p>Affected Sources:* ID No. ES-ST04 The carbon adsorption system (ID No. CD-ST04) shall control VOC emissions by 90% by weight.</p> <p>Affected Sources:* ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19</p> <p>Internal floating roof tanks shall not store any organic liquid with a true vapor pressure, as stored, of greater than 11.1 psia.</p> <p><i>*Unlisted sources are not permitted to store any organic liquid with a true vapor pressure, as stored, of equal to or greater than 1.5 psia.</i></p>	15A NCAC 2D .0949
Hazardous Air Pollutants	<p>Affected Sources: ES-ST01 through ES-ST03, ES-ST09, ES-ST11, ES-ST12, ES-ST14, ES-ST20, ES-ST21, and ES-ST1201 – These tanks are not permitted to store any organic liquid¹, as it is defined in 40 CFR 63.2406.</p> <p>Affected Sources: ES-ST13, ES-ST22, ES-ST101 through ES-ST103, ES-ST105, ES-ST106, and ES-ST120 – Any organic liquid¹ stored in these tanks shall have an annual average true vapor pressure of less than 4.0 psia.</p> <p>Affected Sources: ES-ST06, ES-ST07, ES-ST08, ES-ST10, and ES-ST15 through ES-ST19 – Internal floating roof tanks shall not store any organic liquid¹ with an annual average true vapor pressure of 11.0 psia or greater.</p> <p>Affected Source: ES-ST04 – Tank shall be equipped with a closed vent and carbon adsorption system (ID No. CD-ST04) that reduces emissions of organic HAP by 95 percent by weight</p>	15A NCAC 2D .1111 40 CFR 63, Subpart EEEE
<i>During Petroleum Liquid Service, Only</i>		
Volatile Organic Compounds	<p>Affected Sources: ES-ST16 through ES-ST19 Internal floating roof tanks shall not store any petroleum liquid with a true vapor pressure, as stored, of greater than 11.1 psia.</p>	15A NCAC 2D .0524 40 CFR 60, Subpart K

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	<p>Affected Sources:- ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19</p> <p>Work practices for internal floating roof tanks storing petroleum liquid with a true vapor pressure, as stored, of greater than 1.52 psia.</p>	15A NCAC 2D .0925
During Gasoline Service, Only		
Volatile Organic Compounds	<p>Affected Sources:- ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19</p> <p>Design standards and work practices for internal floating roof tanks storing gasoline, defined as any petroleum liquid with a Reid vapor pressure of 4 psia or greater.</p>	15A NCAC 2D .0927
Hazardous Air Pollutants	<p>Affected Sources: * ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19</p> <p>Design and work practice standards for internal floating roof tanks storing gasoline.</p> <p>Affected Sources: * ES-ST04</p> <p>Tank shall be equipped with a closed vent and carbon adsorption system (ID No. CD-ST04) that reduces VOC emissions by 95 percent by weight</p> <p><i>*Unlisted sources are not permitted to store gasoline.</i></p>	15A NCAC 2D .1111 40 CFR 63, Subpart R

“Organic liquid” is defined in 40 CFR 63, Subpart EEEE as any non-crude oil liquid or liquid mixture that contains 5% by weight or greater of the organic HAP listed in Table 1 of the subpart, excluding gasoline, kerosene, diesel, asphalt, and heavier distillate oils and fuel oils, any fuel consumed or dispensed on the plant site directly to users, hazardous waste, wastewater, ballast water, or any non-crude oil liquid with an annual average true vapor pressure less than 0.1 psia.

1. 15A NCAC 2D .0949: STORAGE OF MISCELLANEOUS VOLATILE ORGANIC COMPOUNDS

- a. Affected vertical fixed roof tanks (ID Nos. ES-ST01, ES-ST02, ES-ST03, ES-ST09, ES-ST11, ES-ST12, ES-ST14, ES-ST20, ES-ST21, ES-ST1201) shall not store any organic liquid with a true vapor pressure, as stored, of equal to or greater than 1.5 psia unless it is modified to meet the standards of 15A NCAC 2D .0949(a)(2). The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0949 if a prohibited material is stored in these tanks as described above.
- b. The affected vertical fixed roof tank (ID No. ES-ST04) equipped with a vapor recovery system (ID No. CD-ST04) shall not store any organic liquid with a true vapor pressure, as stored, of equal to or greater than 1.5 psia, unless:
 - i. the vapor recovery system is controlling emissions of volatile organic compounds by at least 90% by weight; and,
 - ii. Tank gauging or sampling devices are gas-tight, except when in use.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0949 if a prohibited material is stored in this tank or the tank gauging and sampling devices are not gas-tight as described above.
- c. Affected internal floating roof tanks (ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19) shall be equipped with the following:
 - i. A floating pontoon, double deck, or internal pan-type floating roof;
 - ii. Closure seals in enclose any space between the cover’s edge and compartment wall;
 - iii. Tank gauging or sampling devices that are gas-tight, except when in use.

In addition, affected internal floating roof tanks shall not store any organic liquid with a true vapor pressure, as stored, of greater than 11.1 psia. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0949 if these tanks do not meet the appropriate design and operating standards or if a prohibited material is stored as described above.

Testing [15A NCAC 02D .2601]

- d. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test do not comply with the limits given in Section 2.1 G.1. a.-c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .0949.

Monitoring

- e. The Permittee shall monitor the exhaust concentration from vertical fixed roof tank (**ID No. ES-ST04**) and carbon adsorption system (**ID No. CD-ST04**) in accordance with Section 2.1 G.2. h. of this permit. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0949 if the exhaust concentration is not monitored as provided above.

Recordkeeping

- f. The Permittee shall maintain the following records for each affected tank:
 - i. A record of the dimension of the tank and an analysis showing the capacity of the tank; and,
 - ii. A record of the organic liquid stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.
- g. The Permittee shall maintain a record of the monitored the exhaust concentration from vertical fixed roof tank (**ID No. ES-ST04**) and carbon adsorption system (**ID No. CD-ST04**) in accordance with Section 2.1 G.2. l. of this permit.
- h. The records required above in Sections 2.1.G.1.f and g, shall be maintained at the site in a logbook (written or electronic format) for a period of two years and made available to the Division of Air Quality personnel upon request. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0949 if the records listed above are not retained.

Reporting

- i. No reporting is required for tanks affected under 15A NCAC 2D .0949.

2. **15A NCAC 2D .1111 – 40 CFR 63, Subpart EEEE: NESHAP for Organic Liquid Distribution Facilities**

- a. These tanks (**ID Nos. ES-ST01 through ES-ST03, ES-ST09, ES-ST11, ES-ST12, ES-ST14, ES-ST20, ES-ST21, and ES-ST1201**) shall not store any organic liquid, as it is defined in 40 CFR 63.2406.
- b. These tanks (**ID Nos. ES-ST13, ES-ST22, ES-ST101 through ES-ST103, ES-ST105, ES-ST106, and ES-ST120**) shall not store any organic liquid with an annual average true vapor pressure of 4.0 psia or greater.
- c. Internal floating roof tanks (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**) shall meet the design standards and operational requirements provided in 40 CFR 63, Subpart WW, as listed below:
 - i. Design Standards:
 - A. Deck shall be equipped with a liquid-mounted seal, mechanical shoe seal, or two seals mounted one above the other;
 - B. Each opening except those for automatic bleeder vents (vacuum breaker vents) and rim space vents shall have its lower edge below the surface of the stored liquid;
 - C. Each opening except those for automatic bleeder vents (vacuum breaker vents), rim space vents, leg sleeves, and deck drains shall be equipped with a deck cover. The deck cover shall be equipped with a gasket between the cover and the deck;
 - D. Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be equipped with a gasketed lid, pallet, flapper, or other closure device;
 - E. Each opening for a fixed roof support column may be equipped with a flexible fabric sleeve seal instead of a deck cover;
 - F. Each opening for a sample well or deck drain (that empties into the stored liquid) may be equipped with a slit fabric seal or similar device that covers at least 90 percent of the opening, instead of a deck cover;
 - G. Each cover on access hatches and gauge float wells shall be designed to be bolted or fastened when closed;
 - H. Each opening for an unslotted guidepole shall be equipped with a pole wiper and a gasketed cap on the top of the guidepole; and,
 - I. Each opening for a slotted guidepole shall be equipped with either a pole wiper and pole float or a pole wiper and a pole sleeve.
 - ii. Operational Requirements:
 - A. The floating roof shall float on the stored liquid surface at all times, except when the floating roof is supported by its leg supports or other support devices (e.g., hangers from the fixed roof);
 - B. When the storage vessel is storing liquid, but the liquid depth is insufficient to float the floating roof, the process of filling to the point of refloating the floating roof shall be continuous and shall be performed as soon as practical;
 - C. Each cover over an opening in the floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall be closed at all times, except when the cover must be open for access;
 - D. Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be closed at all times, except when required to be open to relieve excess pressure or vacuum, in accordance with the manufacturer's design; and,
 - E. Each unslotted guidepole cap shall be closed at all times except when gauging the liquid level or taking liquid samples.
- d. This tank (**ID No. ES-ST04**) shall be equipped with a closed vent and carbon adsorption system (**ID No. CD-ST04**) that reduces emissions of organic HAP by 95 percent by weight.
 - i. The closed vent and carbon adsorption system shall be operated and maintained so that the monitored concentration of the exhaust is maintained at or below 100 ppmv except during periods of start-up, shutdown, and malfunction.
 - ii. Periods of planned routine maintenance of the carbon adsorption system (**ID No. CD-ST04**), during which the control device does not meet the emission limits above are permitted, but may not exceed 240 hours per year [40 CFR 63.2378(c)].

Site-Specific Monitoring Plan [40 CFR 63.2366(b), 40 CFR 63.985(c)]

- e. The Permittee shall develop and implement a site-specific monitoring plan for the closed vent and carbon adsorption system (**ID No. CD-ST04**) identifying the parameter(s) that will be monitored to assure proper operation of the device, including the following:
 - i. A description of the monitored parameter and explanation of how the monitored parameter will ensure that the

- control device is being properly operated and maintained;
- ii. The frequency with which monitoring will be performed;
- iii. A description of how monitoring data will be recorded and maintained; and,
- iv. The operating range for the monitored parameter that represents the conditions for which the control device is being properly operated and maintained.

Monitoring [40 CFR 63.1063(c)-(e)]

- f. **Annual Visual Floating Roof Tank Inspections (ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19).** At least once per calendar year, the Permittee shall conduct a visual inspection of each floating roof deck, deck fitting, and rim seal through openings in the fixed roof. Identification of any of the following conditions constitutes inspection failure.
- i. Stored liquid on the floating roof;
 - ii. Holes or tears in the primary or secondary seal (if one is present);
 - iii. Floating roof deck, deck fittings, or rim seals that are not functioning as specified in Section 2.1 G.2. c. of this permit;
 - iv. Failure to comply with the operational requirements specified in Section 2.1 G.2. c. of this permit; or,
 - v. Gaps of more than 0.32 centimeters (1/8 inch) between any deck fitting gasket, seal, or wiper and any surface that it is intended to seal.

If any defects are identified during the inspection, repairs shall be completed or the vessel removed from service within 45 days. If a repair cannot be completed and the vessel cannot be emptied within 45 days, the Permittee may use up to 2 extensions of up to 30 additional days each. To obtain an extension, the Permittee shall submit a written notification to the Regional Supervisor describing the defect, documenting that alternate storage capacity is unavailable, and specifying a schedule of actions that will ensure that the defect will be repaired or the vessel will be completely emptied as soon as practical. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if it fails to conduct the required inspections or if required corrective actions are not taken as described above.

- g. **Complete Floating Roof Tank Inspection.** Each time an internal floating roof tank (ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19) is completely emptied and degassed, but at least once every 10 years, the Permittee shall visually inspect the roof deck, deck fittings, and rim seal from within the storage vessel. The inspection may be performed entirely from the topside of the floating roof, as long as there is visual access to all deck components. Any of the following conditions constitutes inspection failure.
- i. Stored liquid on the floating roof;
 - ii. Holes or tears in the primary or secondary seal (if one is present);
 - iii. Floating roof deck, deck fittings, or rim seals that are not functioning as specified in Section 2.1 G.2. c. this permit;
 - iv. Failure to comply with the operational requirements specified in Section 2.1 G.2. c. this permit; or,
 - v. Gaps of more than 0.32 centimeters (1/8 inch) between any deck fitting gasket, seal, or wiper and any surface that it is intended to seal.

If any defects are identified during the inspection, repairs shall be completed or the vessel removed from service within 45 days. If a repair cannot be completed and the vessel cannot be emptied within 45 days, the Permittee may use up to 2 extensions of up to 30 additional days each. To obtain an extension, the Permittee shall submit a written notification to the Regional Supervisor describing the defect, documenting that alternate storage capacity is unavailable, and specifying a schedule of actions that will ensure that the defect will be repaired or the vessel will be completely emptied as soon as practical. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if it fails to conduct the required inspections or if required corrective actions are not taken as described above.

- h. The Permittee shall monitor the exhaust concentration from the closed vent and carbon adsorption system (ID No. CD-ST04) in accordance with the site-specific monitoring plan required in Section 2.1 G.2. e. of this permit. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the concentration is not monitored, or if the monitored concentration is outside the acceptable operating range identified in the monitoring plan.

Recordkeeping

- i. A record shall be kept of the dimensions of each storage tank (ID Nos. ES-ST01 through ES-ST04, ES-ST06 through ES-ST22, ES-ST101 through ES-ST103, ES-ST105, ES-ST106, ES-ST120, and ES-ST1201), an analysis of the capacity of the storage vessel, and an identification of the liquid stored. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if this record is not retained for as long as the tank stores liquid.

- j. The Permittee shall retain records of each floating roof tank **ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19** inspection, including
 - i. Identification of the inspected tanks;
 - ii. The date of the inspection;
 - iii. A description of all inspection failures (if applicable);
 - iv. A description of all repairs and the dates they were made (if applicable);
 - v. A copy of all repair extension requests submitted to the Regional Supervisor (if applicable); and,
 - vi. The date the storage vessel was removed from service (if applicable).The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if this record is not retained for at least 5 years from the date of inspection. [40 CFR 63.2390(b)]
- k. The Permittee shall retain a record of the date when any floating roof **ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19** is set on its legs or other support devices AND the date when the roof was refloated. The record shall indicate whether the process of refloating was continuous. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if this record is not retained for at least 5 years.
- l. The Permittee shall retain a record of the monitored exhaust concentration from vertical fixed roof tank (**ID No. ES-ST04**) and carbon adsorption system (**ID No. CD-ST04**) in accordance with the site-specific monitoring plan required in Section 2.1 G.2. e. of this permit. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the records listed above are not retained.

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

- m. The Permittee shall submit a Notification of Compliance Status for 40 CFR 63, Subpart EEEE as provided in Section 2.2. C.1. d. of this permit.
- n. The Permittee shall submit a period report summarizing compliance activities for 40 CFR 63, Subpart EEEE as provided in Section 2.2. C.1. e. of this permit.

3. 15A NCAC 2D .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 2D .0524 "New Source Performance Standards" (NSPS) as promulgated in 40 CFR Part 60 Subpart K, including Subpart A "General Provisions." [15A NCAC 2D .0524]

Emission Limitations [40 CFR 60.112]

- b. Affected vertical fixed roof tanks (**ID Nos. ES-ST20**) shall not store any petroleum liquid with a true vapor pressure, as stored, of equal to or greater than 1.5 psia. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if a prohibited material is stored in these tanks as described above.
- c. Affected internal floating roof tanks (**ID Nos. ES-ST16 through ES-ST19**) shall not store any petroleum liquid with a true vapor pressure, as stored, of greater than 11.1 psia. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0524 if a prohibited material is stored in these tanks as described above.

Testing

- d. No testing is required.

Monitoring/Recordkeeping [40 CFR 60.113]

- e. The Permittee shall retain records of the following information when storing petroleum liquid in any of the affected tanks (**ID Nos. ES-ST16 through ES-ST20**):
 - i. identification of the petroleum liquid stored;
 - ii. the period of storage; and
 - iii. the maximum true vapor pressure of that liquid during the respective storage periodThe Permittee shall be deemed in noncompliance with 15A NCAC 2D .0524 if records are not retained as prescribed in 40 CFR 60.113, except as provided in Section 2.1 G.3. f. of this permit.
- f. The Permittee shall not be required to retain the records listed in Section 2.1 G.3. e. of this permit if the affected tank is not storing a petroleum liquid or if the stored petroleum liquid has a Reid vapor pressure of less than 1.0 psia, provided the maximum true vapor pressure does not exceed 1.0 psia.

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

- g. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of

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

4. 15A NCAC 2D .0925: PETROLEUM LIQUID STORAGE FIXED ROOF TANKS

- a. Affected internal floating roof tanks (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**) shall meet the following standards:
 - i. The floating roof shall be equipped with a closure seal, or seals, to close the space between the roof edge and tank wall;
 - ii. There shall be no visible holes, tears, or other openings in the seal or any seal fabric or materials; and,
 - iii. All openings, except stub drains, must be equipped with covers, lids, or seals such that:
 - A. The cover, lid, or seal is in the closed position at all times except when in actual use;
 - B. Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports; and,
 - C. Rim vents, if provided, are set to open when the roof is being floated off the roof leg supports or at the manufacturer's recommended setting.

Testing

- b. No testing is required.

Monitoring [15A NCAC 2D .0925(d)(4)-(5)]

- c. The Permittee shall conduct a monthly visual inspection of each affected internal floating roof tank (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**) through the roof hatch. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0925 if the monthly inspection is not conducted or if the inspection identifies conditions in the tank, including covers, lids, and seals, that are inconsistent with the requirements provided in Section 2.1 G.4. a. of this permit.
- d. The Permittee shall conduct a complete inspection of the tank cover and seals whenever an affected internal floating roof tank (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**) is emptied for maintenance, shell inspection, cleaning, or for other non-operational reasons or whenever vapor leakage is observed. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0925 if the monthly inspection is not conducted or if the inspection identifies conditions in the tank, including covers, lids, and seals, that are inconsistent with the requirements provided in Section 2.1 G.4. a. of this permit.

Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0903]

- e. The Permittee shall maintain a log (written or electronic format) of the following material storage information for each affected tank, including both vertical fixed roof and internal floating roof tanks:
 - i. A record of the type of petroleum liquid stored in each affected vessel;
 - ii. A record of the throughput quantities of each type of petroleum liquid; and,
 - iii. A record of the average monthly storage temperature and true vapor pressure of each petroleum liquid stored. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0925 if the above records are not retained, or if the true vapor pressure of any petroleum liquid stored in a vertical fixed roof tank exceeds 1.52 psia.
- f. The Permittee shall retain a record of the results of each required monthly and complete inspection required of affected internal floating roof tanks in Section 2.1 G.4. c. and d. of this permit. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0925 if these records are not retained.

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

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

5. 15A NCAC 2D .0927: BULK GASOLINE TERMINALS

- a. Any internal floating roof tank (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**) storing gasoline, defined as any petroleum liquid with a Reid vapor pressure of 4 psia or greater, shall:
 - i. Be painted white or silver,
 - ii. Be equipped with a fixed roof, vapor- or liquid-mounted primary seal, and rim-mounted secondary seal;
 - iii. Have welded seams where possible, or otherwise fitted with gaskets on deck and roof fittings; and,
 - iv. Have floats in any slotted guide pole with a gasket around the cover of the poles.[15A NCAC 2D .0927(e), (g), (h)]

- b. Emissions of gasoline from degassing of affected internal floating roof tanks (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**) shall be collected and controlled by at least 90 percent by weight. Liquid balancing shall not be used to degas gasoline storage tanks. Bulk gasoline storage tanks containing not more than 138 gallons of liquid gasoline or the equivalent of gasoline vapor and gasoline liquid are exempted from the degassing requirements if gasoline vapors are vented for at least 24-hours. Documentation of degassing external or internal floating roof tanks shall be made according to 15A NCAC 2D .0903. [15A NCAC 2D .0927(m)]

Testing

- c. No testing is required.

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

- d. The Permittee shall conduct a monthly visual inspection of each affected internal floating roof tank (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**) through the roof hatch. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .0927 if the monthly inspection is not conducted or if the inspection identifies conditions in the tank, including the deck, covers, lids, and seals, that are inconsistent with the requirements provided in Section 2.1 G.5. a. of this permit.

Recordkeeping [15A NCAC 2Q .0508(f) and 15A NCAC 2D .0903]

- e. The Permittee shall maintain a log (written or electronic format) of the results of the required inspections and any maintenance performed on the tank. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0927 if inspection and maintenance records are not kept.

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

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

6. 15A NCAC 2D .1111 AS PROMULGATED IN 40 CFR 63, SUBPART R (Gasoline Dispensing Facilities)

- a. Storage tanks that do not meet the design standards pursuant to 40 CFR 60.112b (**ID Nos. ES-ST01 through ES-ST03, ES-ST09, ES-ST11, ES-ST12, ES-ST13, ES-ST14, ES-ST20, ES-ST21, ES-ST101, ES-ST102, ES-ST103, ES-ST105, ES-ST106, ES-ST120, and ES-ST1201**) shall not store gasoline. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if a prohibited material is stored in these tanks as described above. [40 CFR 63.423(a)]
- b. Internal floating roof tanks must meet the following requirements while in gasoline service:
 - i. The internal floating roof shall be floating on the liquid at all times except when being emptied and refilled as defined in 40 CFR 63.1063(b)(2)[40 CFR 63, Subpart WW];
 - ii. Internal floating roof tanks with shoe seal systems (**ID Nos. ES-ST06 and ES-ST08**) shall be equipped with a mechanical shoe seal, which is a metal sheet held vertically against the wall of the vessel by springs or weighted levers that is connected by braces to the floating roof. [40 CFR 60.112b(a)(1)(ii)(A)];
 - iii. Internal floating roof tanks with double seal systems (**ID Nos. ES-ST07, ES-ST10 and ES-ST15 through ES-ST19**) shall be equipped with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the vessel and the edge of the deck [40 CFR 60.112b(a)(1)(ii)(B)]; and,
 - iv. Each opening in a non-contact internal floating roof must provide a projection below the liquid surface except automatic bleeder vents and rim space vents.
- c. The affected vertical fixed roof tank (**ID No. ES-ST04**) shall not store gasoline unless it equipped with a carbon adsorption system (**ID No. CD-ST04**) designed and operated to reduce inlet VOC emissions by 95 percent by weight or greater. [40 CFR 60.112b(a)(3)]

Testing [15A NCAC 02D .2601]

- d. If emissions testing is required, the testing shall be performed in accordance General Condition JJ. If the results of this test do not comply with the limits given in Section 2.1 G.6. a.-c. above, the Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111.

Monitoring

- e. The Permittee shall inspect each internal floating roof tank in gasoline service (**ID Nos. ES-ST06 through ES-**

ST08, ES-ST10, and ES-ST15 through ES-ST19) as follows:

- i. Visually inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling the storage vessel with gasoline. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.
- ii. Visually inspect the internal floating roof and seals through the manholes and roof hatches on the fixed roof at least once every 12 months. If any of the following conditions are observed, the Permittee shall repair the tank or empty and remove the tank from service within 45 days:
 - A. **The deck is not resting on the liquid surface (except as provided for in Section 2.1 G.6 b.i) ;**
 - B. There is gasoline accumulated on the roof;
 - C. The seal is detached; or,
 - D. There are holes or tears in the seal fabric.

If the tank cannot be repaired or removed from service within 45 days, the Permittee may request a 30-day extension from the DAQ as provided in 40 CFR 60.113b(a)(2).

- iii. Conduct a complete visual inspection of each internal floating roof (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**) each time the tank is emptied and degassed, but at least once every 10 years, as provided in 40 CFR 60.113b(a)(4).

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the Permittee fails to conduct the required inspections, or if tanks repairs are not completed in a timely manner as provided above.

- f. The Permittee shall monitor the exhaust concentration from vertical fixed roof tank (**ID No. ES-ST04**) and carbon adsorption system (**ID No. CD-ST04**) in accordance with Section 2.1 G.2. h. of this permit. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the exhaust concentration is not monitored as provided above.

Recordkeeping

- g. The Permittee shall retain the following records for each internal floating roof tank in gasoline service (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**):
 - i. A record of the dimension of the tank and an analysis showing the capacity of the tank;
 - ii. A record of the type of material stored, the period of storage, and the maximum true vapor pressure of that liquid during the respective storage period.
 - iii. A record of each inspection conducted in accordance with Section 2.1 G.6. e of this permit, including the date of inspection, observed conditions, and copies of any reports submitted to the DAQ as a result of tank defects being identified.The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the Permittee fails to retain the records listed above.
- h. The Permittee shall record exhaust concentration data from vertical fixed roof tank (**ID No. ES-ST04**) and carbon adsorption system (**ID No. CD-ST04**) in accordance with Section 2.1 G.2. 1. of this permit. The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the exhaust concentration is not monitored as provided above.

Reporting

- i. If tank defects are identified in any affected tank as a result on inspections required pursuant to Section 2.1 G.6. d of this permit, submit a report to the DAQ within 30 days of the inspection identifying the tank, the nature of the defects, and the date the storage vessel was repaired or removed for service. [40 CFR 63.428(d), 40 CFR 60.115b(a)(3)-(4)]

H. Miscellaneous Fugitive Sources, including pipelines, pumps, valves, and sampling connections (ID No. F1).

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	For each pump, valve, and sampling connection that operates in organic liquid ¹ service for at least 300 hours per year, comply with the applicable requirements under 40 CFR 63, Subpart TT, Subpart UU, or Subpart H.	15A NCAC 2D .1111 <i>40 CFR 63, Subpart EEEE</i>
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.1	15A NCAC 2Q .0711
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.2	15A NCAC 2D .1100
Toxic Air Pollutants	State-enforceable only - See Section 2.2. D.3	15A NCAC 2Q .0705

¹“Organic liquid” is defined in 40 CFR 63, Subpart EEEE as any non-crude oil liquid or liquid mixture that contains 5% by weight or greater of the organic HAP listed in Table 1 of the subpart, excluding gasoline, kerosene, diesel, asphalt, and heavier distillate oils and fuel oils, any fuel consumed or dispensed on the plant site directly to users, hazardous waste, wastewater, ballast water, or any non-crude oil liquid with an annual average true vapor pressure less than 0.1 psia.

1. 15A NCAC 2D .1111 – 40 CFR 63, Subpart EEEE: NESHAP for Organic Liquid Distribution Facilities

- a. For each pump, valve, and sampling connection that operates in organic liquid service for at least 300 hours per year, comply with the applicable requirements under 40 CFR 63, Subpart TT, Subpart UU, or Subpart H. Applicable leak standards are provided as follows:
 - i. In 40 CFR 63, Subpart TT:
 - A. Valves in gas a vapor service and in light liquid service pursuant to 40 CFR 63.1006;
 - B. Pumps in light liquid service pursuant to 40 CFR 63.1007;
 - C. Valves and pumps in heavy liquid service pursuant to 40 CFR 63.1010; and,
 - D. Sampling connections pursuant to 40 CFR 63.1013.
 - ii. In 40 CFR 63, Subpart UU:
 - A. Valves in gas a vapor service and in light liquid service pursuant to 40 CFR 63.1025;
 - B. Pumps in light liquid service pursuant to 40 CFR 63.1026;
 - C. Valves and pumps in heavy liquid service pursuant to 40 CFR 63.1029; and,
 - D. Sampling connections pursuant to 40 CFR 63.1032.
 - iii. In 40 CFR 63, Subpart H:
 - A. Valves in gas a vapor service and in light liquid service pursuant to 40 CFR 63.168;
 - B. Pumps in light liquid service pursuant to 40 CFR 63.163;
 - C. Valves and pumps in heavy liquid service pursuant to 40 CFR 63.169; and,
 - D. Sampling connections pursuant to 40 CFR 63.166.
- b. The Permittee shall monitor affected pumps, valves, and sampling connections shall be monitored according to the frequency and procedures provided in 40 CFR 63.1004, 63.1023, or 63.180. If a leak is identified, the Permittee shall:
 - i. Attach a weather proof and readily visible identification, marked with the equipment identification, to the leaking equipment [40 CFR 63.1004(e)(1), 63.1023(e), or 63.181(b)(10)]; and,
 - ii. Repair the leak according to the requirements of 40 CFR 63.1005, 63.1024, or the timeframes specified in the applicable standards of 40 CFR 63, Subpart HH.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if affected pumps, valves, and sampling connections are not monitored as provided above.
- c. The Permittee shall maintain a log book (written or electronic) that includes records of the equipment leak program, including the following:
 - i. A list, summary description, or diagrams(s) showing the location of all equipment in organic service at the facility for at least 300 hours per year, including identification of which monitoring program is being used to demonstrate compliance with the leak standards (i.e., Subpart TT, UU, or H);
 - ii. The log book shall be signed and dated by the inspector at the completion of each required inspection, including an identification of what equipment was inspected and according to what procedures; and
 - iii. Record the following information for each liquid or vapor leak detected at the facility:
 - A. The equipment type and identification number;
 - B. The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell);
 - C. The maximum instrument reading measured using a Method 21 test, if applicable;

- D. The date the leak was detected and the date of each attempt to repair the leak;
- E. Repair methods applied in each attempt to repair the leak;
- F. "Repair delayed" and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak; and,
- G. The date of successful repair of the leak.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if a logbook is not retained as required above, or if leaks are not repaired or removed from service within 15 calendar days of detection, unless the Permittee qualifies for a "Delay of Repair". [40 CFR 63.1017, 63.1038, 63.181]

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

- d. The Permittee shall submit a Notification of Compliance Status for 40 CFR 63, Subpart EEEE as provided in Section 2.2. C.1. d. of this permit.
- e. The Permittee shall submit a period report summarizing compliance activities for 40 CFR 63, Subpart EEEE as provided in Section 2.2. C.1. e. of this permit.

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

- A. Six (6) Tank Truck Loading Arms (ID Nos. ES-TLA1, ES-TLA21, ES-TLA22, ES-TLA23, ES-TLA24, and ES-TLA25) with an associated enclosed flare (ID No. CD-FL1);**
- Six (6) Railcar Loading Arms (ID Nos. ES-RLA20 through ES-RLA25) with an associated enclosed flare (ID No. CD-FL1);**
- Ten (10) Railcar Loading Arms (ID Nos. ES-RLA26 through ES-RLA35) with an associated enclosed flare (ID No. CD-FL2);**
- Nineteen Railcar Loading Arms (ID Nos. ES-RLA1 through ES-RLA19) without add-on emissions control; and,**
- Nineteen Truck Loading Arms (ID Nos. ES-TLA2 through ES-TLA20) without add-on emissions control.**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Volatile Organic Compounds	Use submerged fill loading; - OR - Limit total loading of volatile organic liquids with a vapor pressure of 1.5 psi or greater to no more than 20,000 gallons per day.	15A NCAC 2D .0948

1. 15A NCAC 2D .0948: VOC EMISSIONS FROM TRANSFER OPERATIONS

- a. The Permittee shall comply with at least one of the following standards:
 - i. The controlled tank truck loading arms *when loading non-gasoline organic liquids* (ID Nos. **ES-TLA1 and ES-TLA21 through ES-TLA25**), uncontrolled tank truck loading arms (ID Nos. **ES-TLA2 through TLA20**), and railcar loading arms (ID Nos. **ES-RLA1 through ES-RLA35**) shall extend down into the compartment being loaded (i.e., submerged fill loading booms); or,
 - ii. The total quantity of volatile organic compound with a vapor pressure of 1.5 pounds per square inch or greater loaded out of the facility by tank truck, trailer, and/or railcar tank car shall be limited to no greater than 20,000 gallons per day.

Testing

- b. No testing is required.

Monitoring/Recordkeeping

- c. If a submerged fill-loading boom is used, it shall be inspected annually to ensure structural integrity. All

inspections and maintenance shall be recorded in a log (written or electronic format), maintained on site and made available to the Division of Air Quality personnel upon request. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .0948 if the submerged fill loading boom is not inspected and maintained.

Reporting

- d. No reporting is required

- B. Six (6) Tank Truck Loading Arms (ID Nos. ES-TLA1, ES-TLA21 through ES-TLA25) with an associated enclosed flare (ID No. CD-FL1);
Six (6) Railcar Loading Arms (ID Nos. ES-RLA20 through ES-RLA25) with an associated enclosed flare (ID No. CD-FL1);
Ten (10) Railcar Loading Arms (ID Nos. ES-RLA26 through ES-RLA35) with an associated enclosed flare (ID No. CD-FL2); and,
Miscellaneous Fugitive Sources, including pipeline, pumps, valves, and sampling connections (ID No. F1)**

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	When loading gasoline, route vapors to a flare with controlled VOC emissions of no greater than 10 milligram per liter loaded; and, Follow work practices to minimize leaks.	15A NCAC 2D .1111 <i>40 CFR 63, Subpart R</i>

1. **15A NCAC 2D .1111 – 40 CFR 63, Subpart R: NESHAP for Gasoline Distribution Facilities**
 - a. Tank truck loading arms without vapor control (ID Nos. ES-TLA2 through ES-TLA20) and railcar loading arms without vapor control (ID Nos. ES-RLA1 through ES-RLA19) shall not be used to load gasoline.
 - b. When loading gasoline, affected tank truck loading arms and railcar loading arms shall meet the following requirements:
 - ii. All vapors and gases displaced from transport vessels are vented to an enclosed flare with a maximum controlled emission rate of no greater than 10 milligrams VOC per liter (mg/L) of gasoline loaded, as specified below:
 - A. Loading emissions from tank truck loading arms (ID Nos. ES-TLA1 and ES-TLA21 through ES-TLA25) shall be routed to enclosed flare No. 1 (ID No. CD-FL1);
 - B. Loading emissions railcar loading arms (ID Nos. ES-RLA20 through ES-RLA25) shall be routed to enclosed flare No. 1 (ID No. CD-FL1); and,
 - C. Loading emissions railcar loading arms (ID Nos. ES-RLA26 through ES-RLA35) shall be routed to enclosed flare No. 2 (ID No. CD-FL2).
[40 CFR 63.422(a)-(b)]
 - iii. The vapor collection system shall be designed to prevent any total organic compounds vapors collected at one loading rack from passing to another loading rack;
 - iv. The vapor collection and liquid loading equipment shall be designed and operated to prevent gauge pressure in the deliver tank from exceeding 4,500 Pascal (450 mm of water) during product loading.
 - v. No pressure-vacuum vent in the bulk gasoline terminal’s vapor collection system shall begin to open at a system pressure less than 4,500 Pascal (450 mm of water).
 - c. The Permittee shall act to assure that loadings of gasoline tank trucks and railcars are made only into tanks equipped with vapor collection equipment that is compatible with the terminal’s vapor collection system.
 - d. The Permittee shall act to assure that the terminal and the truck/railcar vapor collection systems are connected during each loading of a gasoline tank truck or railcar. Examples of actions to accomplish this include training drivers in hookup procedures and posting visible reminder signs at the affected loading racks.
- Vapor-Tightness Documentation Requirements** [40 CFR 63.422(a), (c)(2); 40 CFR 63.428(b)]
- e. The Permittee shall not load, or allow to be loaded, gasoline into any tank truck or railcar unless the tank is vapor-

tight, as demonstrated using the following procedures:

- i. Obtain vapor tightness documentation for each truck/railcar that is to be loaded.
- ii. Record the tank identification number as each truck/railcar is loaded.
- iii. Cross-check each tank identification number with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded, unless either of the following conditions is maintained:
 - A. If less than an average of one gasoline tank truck per month over the last 26 weeks is loaded without vapor tightness documentation then the documentation cross-check shall be performed each quarter; and,
 - B. If less than an average of one gasoline tank truck per month over the last 52 weeks is loaded without vapor tightness documentation then the documentation crosscheck shall be performed semiannually.
 - C. If either the quarterly or semiannual cross-check reveals that the average number of gasoline tank trucks and/or railcars loaded without vapor tightness documentation is greater than one, the Permittee shall revert to biweekly cross-checks.
- iv. In the event that the Permittee identifies that a non-vapor-tight gasoline tank truck or railcar was loaded at the terminal, it shall fulfill the following requirements:
 - A. Notify the owner or operator of the truck/railcar within one week of the cross-check in which the tank was identified; and,
 - B. Take steps assuring that the non-vapor-tight truck/railcar will not be reloaded at the affected facility until vapor tightness documentation for that tank is obtained pursuant to 40 CFR 63.422(c)(2).

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the vapor tightness documentation is not obtained as provided above.

- f. The Permittee shall retain records of the vapor tightness testing, including annual certification testing and any continuous performance testing performed at the facility. The documentation shall be kept up to date for each truck/railcar and shall include the following information:
 - i. Name of test:
 - A. Annual Certification Test – Method 27 [40 CFR 63.425(e)(1)];
 - B. Annual Certification Test – Internal Vapor Valve [40 CFR 63.425(e)(2)];
 - C. Leak Detection Test [40 CFR 63.425(f)];
 - D. Nitrogen Pressure Decay Field Test [40 CFR 63.425(g)]; or,
 - E. Continuous Performance Pressure Decay Test [40 CFR 63.425(h)].
 - ii. Tank owner's name and address;
 - iii. Tank identification number
 - iv. Test location and date;
 - v. Tester name and signature;
 - vi. Witnessing inspector, if any: Name, signature, and affiliation;
 - vii. Vapor tightness repair: Nature of repair work and when performed in relation to vapor tightness testing; and,
 - viii. Test results: Pressure or vacuum change; time period of test; number of leaks found with instrument; and leak definition.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if documentation is not retained as provided above.

Equipment Leak Requirements [40 CFR 63.424; 40 CFR 63.428(e)]

- g. Once per calendar month, the Permittee shall inspect all equipment in gasoline service for vapor leaks, including the miscellaneous fugitive sources (**ID No. F1**), vapor collection systems and enclosed flares (**ID No. CD-FL1 and CD-FL2**), and each loading rack handling gasoline. The inspection shall occur during the loading of a gasoline tank truck and/or railcar. Detection methods incorporating sight, sound, or smell are acceptable for this inspection.
 - i. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected; and,
 - ii. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except a delay of repair of leaking equipment will be allowed upon a demonstration to the DAQ that repair within 15 days is not feasible. The Permittee shall provide the reason(s) a delay is needed and the date by which each repair is expected to be completed.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if the monthly leak inspection is not completed, or if identified leaks are not repaired or removed from service as required in this section.

- h. The Permittee shall maintain a log book (written or electronic) that includes records of the equipment leak program, including the following:
 - i. A list, summary description, or diagrams(s) showing the location of all equipment in gasoline service at the facility;

- ii. The log book shall be signed and dated by the inspector at the completion of each monthly inspection; and
- iii. Record the following information for each liquid or vapor leak detected at the facility:
 - A. The equipment type and identification number;
 - B. The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell);
 - C. The date the leak was detected and the date of each attempt to repair the leak;
 - D. Repair methods applied in each attempt to repair the leak;
 - E. "Repair delayed" and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak;
 - F. The expected date of successful repair of the leak if the leak is not repaired within 15 days; and,
 - G. The date of successful repair of the leak.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if a logbook is not retained as required above.

- i. The Permittee shall not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
 - i. Minimize gasoline spills;
 - ii. Clean up spills as expeditiously as practicable;
 - iii. Cover all open gasoline containers with a gasketed seal when not in use; and,
 - iv. Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if gasoline is handled in a manner that is inconsistent with the requirements listed above.

Testing [15A NCAC 02D .2601]

- j. The Permittee shall conduct a performance test of the vapor collection system and enclosed flares (**ID No. CD-FL1 and CD-FL2**) within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup. The performance test shall be conducted in accordance with General Condition JJ found in Section 3 and 40 CFR 60.8, except that the 3-run requirement of 40 CFR 60.8(f) does not apply.
 - i. Immediately before the performance test, use Method 21 to monitor for vapor leakage at the vapor collection system equipment while a gasoline tank truck and/or railcar is being loaded. The owner or operator shall repair all leaks with readings of 500 ppm (as methane) or greater before conducting the performance test.
 - ii. The performance test shall be 6 hours long during which at least 300,000 liters of gasoline is loaded. If this is not possible, the test may be continued the same day until 300,000 liters of gasoline is loaded or the test may be resumed the next day with another complete 6-hour period. In the latter case, the 300,000-liter criterion need not be met. However, as much as possible, testing should be conducted during the 6-hour period in which the highest throughput normally occurs.
 - iii. The performance test shall be conducted in intervals of 5 minutes. For each interval "i", readings from each measurement shall be recorded, and the volume exhausted (V_{esi}) and the corresponding average total organic compounds concentration (C_{ei}) shall be determined. The sampling system response time shall be considered in determining the average total organic compounds concentration corresponding to the volume exhausted.
 - iv. The following methods shall be used to determine the volume (V_{esi}) air-vapor mixture exhausted at each interval:
 - A. Method 2B shall be used for combustion vapor processing systems.
 - B. Method 2A shall be used for all other vapor processing systems.
 - v. Method 25A or 25B shall be used for determining the total organic compounds concentration (C_{ei}) at each interval. The calibration gas shall be either propane or butane. The owner or operator may exclude the methane and ethane content in the exhaust vent by any method (e.g., Method 18) approved by the DAQ.
 - vi. To determine the volume (L) of gasoline dispensed during the performance test period at all loading racks whose vapor emissions are controlled by the processing system being tested, terminal records or readings from gasoline dispensing meters at each loading rack shall be used.
 - vii. The emission rate (E) of total organic compounds shall be computed using the following equation:

$$E = K \sum_{i=1}^n (V_{esi} C_{ei}) / (L10^6)$$

where:

- E = emission rate of total organic compounds, mg/liter of gasoline loaded.
- V_{esi} = volume of air-vapor mixture exhausted at each interval "i", scm.
- C_{ei} = concentration of total organic compounds at each interval "i", ppm.
- L = total volume of gasoline loaded, liters.

n = number of testing intervals.

i = emission testing interval of 5 minutes.

K = density of calibration gas, 1.83×10^{-6} for propane and 2.41×10^{-6} for butane, mg/scm.

viii. During the performance test, the gauge pressure in the delivery tank shall be recorded every 5 minutes while a gasoline truck is being loaded; the highest instantaneous pressure that occurs during each loading shall also be recorded. Every loading position must be tested at least once during the performance test.

ix. During the performance test, continuously record the firebox temperature and determine a minimum operating temperature as provided in 40 CFR 63.425(b).

The Permittee shall be deemed in non-compliance with 15A NCAC 2D .1111 if it fails to complete the required performance test, or if the performance test shows an exceedance of any of the standards provided in Section 2.2 B.1. b.i. of this permit. [40 CFR 63.428(c)(2)]

- k. The Permittee and submit a Notification of Compliance Status pursuant to 40 CFR 63.8(h) simultaneously with the test report required in General Condition JJ found in Section 3 of this permit. The report shall include all data and calculations, engineering assessments, and manufacturer's recommendations used in determining the minimum combustion temperature from the test results.

Monitoring [40 CFR 63.427(a)(3), (b)]

- l. During gasoline loading, the Permittee shall install, calibrate, certify, operate and maintain a continuous temperature monitor in the firebox of the enclosed flare (**ID No. CD-FL1 and CD-FL2**), or in the ductwork immediately downstream from the firebox in a position before any substantial heat exchange occurs. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the combustion temperature is not continuously monitored, or if the 15-minute average monitored temperature is below the minimum operating parameter established during the performance test.

Recordkeeping [40 CFR 63.428]

- m. The Permittee shall keep an up-to-date, readily accessible record of the continuous temperature monitoring data required in Section 2.2. B.1. l. of this permit. The record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred or, alternatively, shall record the operating parameter data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record. The Permittee shall be deemed in noncompliance with 15A NCAC 2D .1111 if the continuously monitoring data is not retained as required above.

Reporting [15A NCAC 2Q .0508(f), 40 CFR 63.428(g)]

- n. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall include the following:
- i. Each exceedance or failure to maintain the combustion temperature at or above the minimum temperature established during the performance test during gasoline loading, including associated monitoring data and a summary of timing and steps taken to repair or performance maintenance;
 - ii. Each loading of a gasoline tank truck and/or railcar for which vapor tightness documentation had not been previously obtained by the facility; and,
 - iii. Each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection, including the following information:
 - A. The date on which the leak was detected;
 - B. The date of each attempt to repair the leak;
 - C. The reasons for the delay of repair; and,
 - D. The date of successful repair.

- C. Six (6) Tank Truck Loading Arms (ID Nos. ES-TLA1, and ES-TL21 through ES-TL25) with an associated enclosed flare (ID No. CD-FL1).**
Six (6) Railcar Loading Arms (ID Nos. ES-RLA20 through ES-RLA25) with an associated enclosed flare (ID No. CD-FL1);
Ten (10) Railcar Loading Arms (ID Nos. ES-RLA26 through ES-RLA35) with an associated enclosed flare (ID No. CD-FL2);
One (1) Fixed Roof Storage Tank (ID No. ES-ST04) with a carbon adsorption system (ID No.

CD-ST04);
Nine (9) Internal Floating Roof Storage Tanks (ID No. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19) with internal pan floating roofs; and,
Miscellaneous Fugitive Sources, including pipeline, pumps, valves, and sampling connections (ID No. F1)

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

Regulated Pollutant	Limits/Standards	Applicable Regulation
Hazardous Air Pollutants	Startup, Shutdown, and Malfunction standards; and, Reporting requirements	15A NCAC 2D .1111 40 CFR 63, Subpart EEEE

1. 15A NCAC 2D .1111 – 40 CFR 63, Subpart EEEE: NESHAP for Organic Liquid Distribution Facilities

- a. The Organic Liquid¹ Distribution operations (ID Nos. ES-TLA1, ES-TL21 through ES-TL25, ES-RLA20 through ES-RLA35, ES-ST04, ES-ST06 through ES-ST08, ES-ST10, ES-ST15 through ES-ST19, CD-FL1, CD-FL2, and CD-ST04) shall comply with all requirements of 15A NCAC 2D .1111 “Maximum Achievable Control Technology” and 40 CFR Part 63 Subpart EEEE, “National Emission Standards for Organic Liquid Distribution.”

¹ “Organic liquid” is defined in 40 CFR 63, Subpart EEEE as any non-crude oil liquid or liquid mixture that contains 5% by weight or greater of the organic HAP listed in Table 1 of the subpart, excluding gasoline, kerosene, diesel, asphalt, and heavier distillate oils and fuel oils, any fuel consumed or dispensed on the plant site directly to users, hazardous waste, wastewater, ballast water, or any non-crude oil liquid with an annual average true vapor pressure less than 0.1 psia.

Startups, Shutdowns, and Malfunctions

- b. The Permittee shall develop and implement a written startup, shutdown, and malfunction (SSM) plan according to the provisions in 40 CFR 63.6(e)(3). [40 CFR 63.2350(c)]
- c. During periods of SSM, the Permittee must follow the applicable provisions of the SSM plan and the requirements in 40 CFR 63.6(e)(1) and (3), in addition to the following:
- i. The Permittee shall not shut down control devices or monitoring systems required for compliance with 40 CFR 63, Subpart EEEE during periods of startup or shutdown, EXCEPT when the shutdown of the control device or monitoring systems is to avoid damage due to a contemporaneous SSM of an affected source.
 - ii. During SSM, implement reasonably available measures to prevent or minimize excess emissions. The measures to be taken must be identified in the SSM plan, and may include, but are not limited to, air pollution control technologies, recovery technologies, work practices, pollution prevention, monitoring, and/or changes in the manner of operation of the affected source. Back-up control devices are not required, but may be used if available.

[40 CFR 63.2378]

Reporting [15A NCAC 2Q .0508(f), 40 CFR 63.999(b)]

- d. *Notification of Compliance Status.* The Permittee shall submit a Notification of Compliance Status within 60 days of completing a performance test of either enclosed flare (ID No. CD-FL1 or CD-FL2). The Notification of Compliance Status shall include the following information:
- i. A copy of the Monitoring Plan required in Section 2.1 G.2 e. of this permit;
 - ii. A design evaluation (or, alternatively, performance test results if the Permittee conducts such a test) of the closed vent and carbon adsorption system (ID No. CD-ST04) as described in 40 CFR 63.985(b)(1), including a description (i.e., flow, humidity, temperature, and regulated material content) of the controlled gas stream at various liquid levels, documentation that the control device achieves 95% control during the maximum storage vessel filling rate, the estimated affinity of the regulated material vapors for carbon, the amount of carbon in each bed, and the number of beds;
 - iii. The minimum temperature established at the enclosed flares (ID No. CD-FL1 or CD-FL2) during the performance test, including any data and calculations used to establish the minimum temperature and a description of why the minimum temperature indicates proper operation of the control; and,
 - iv. A definition of the source's operating day for purposes of determining daily average values of the monitored temperature. The definition shall specify the times at which an operating day begins and ends (e.g., midnight-to-midnight, 6am-6am, etc.).

[40 CFR 63.2382(d)]

- e. *Periodic Reports.* The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall include the following:
- i. Company name and address;
 - ii. Statement by the Responsible Official, including the official's name, title, and signature, certifying that, based on information and belief formed after reasonable inquiry, the statements and information in the report are true, accurate, and complete;
 - iii. The reporting period dates and the total source operating time for the reporting period;
 - iv. Identification of any changes at the facility during the reporting period that are inconsistent with information provided in the Notification of Compliance Status;
 - v. A listing of all transport vehicles into which organic liquids were loaded at affected transfer racks during the previous 6 months for which vapor tightness documentation as required in Sec. 63.2390(d) was not on file at the facility.
 - vi. For each emission deviation at the loading racks controlled by the enclosed flares (**ID Nos. CD-FL1 and CD-FL2**), included the information required pursuant to 40 CFR 63.2386(d)(1);
 - vii. Records of any detected leaks at in a closed vent system including date or detection, Method 21 leak detection reading (if applicable), date of first attempt at repair, and date of final repair;
 - viii. Records of any periods during which the vent stream is diverted from the control device and/or through a bypass line, maintenance is performed in car-sealed valves, a seal is broken, bypass line valve positions are changed, or the key for a lock-and-key type configuration has been checked out;
 - ix. A copy of each inspection record of a floating roof seal (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**) for which the floating roof seal failed to meet the required standards;
 - x. If a SSM event occurred during the reporting period, include the information specified in 40 CFR 63.10(d)(5)(i);
 - xi. Records of any occurrence of the monitored organic concentration at the carbon adsorber (**ID Nos. ES-ST04 and CD-ST04**) exceeds the required standard, including the cause for the excursion;
 - xii. If there WAS planned routine maintenance of affected floating roof tanks (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**), carbon adsorber (**ID No. CD-ST04**), or enclosed flare (**ID Nos. CD-FL1 and CD-FL2**) during the reporting period, include a description of the maintenance and the total number of hours during the reporting period that the control device did not meet the applicable emission limit due to planned routine maintenance;
 - xiii. If there WILL BE planned routine maintenance of affected floating roof tanks (**ID Nos. ES-ST06 through ES-ST08, ES-ST10, and ES-ST15 through ES-ST19**), carbon adsorber (**ID No. CD-ST04**), or enclosed flare (**ID Nos. CD-FL1 and CD-FL2**) during the next reporting period, include a description of the type of maintenance necessary, planned frequency of maintenance, and expected lengths of maintenance periods;
 - xiv. The equipment leak information:
 - i. Number of valves, pumps, and sampling connections subject to the requirements and identification of which program will be used to demonstrate compliance with the standard (*only required for the first periodic report submitted*);
 - ii. Number of valves, pumps, and sampling connections for which leaks were detected;
 - iii. Number of valves, pumps, and sampling connections for which leaks were not repaired as required;
 - iv. An explanation of each delay of repair and, where appropriate, why the repair was technically infeasible without a process unit or affected facility shutdown;
 - v. Any revisions to the affected equipment list (i.e., addition or removal of valves, pumps, and sampling connections in organic liquid service at the facility) that have occurred during the reporting period; and
 - xv. If no deviation and no out-of-control monitoring periods [as specified in Sec. 63.8(c)(7)] occurred during the reporting period, include a statement as such.

[40 CFR 63.2386(a), (c)-(d), Table 11, 40 CFR 63.1018, 63.1039, 63.182(d)]

D. Facility-Wide

STATE-ONLY REQUIREMENT:

1. **15A NCAC 2Q .0711: TOXIC AIR POLLUTANT EMISSIONS LIMITATION REQUIREMENT** – The sources listed below shall be operated and maintained in such a manner that emissions of any listed toxic air pollutants from the facility, including fugitive emissions will not exceed the toxic pollutants exemption rates (TPERs) specific in 15A

NCAC 2Q .0711. In accordance with the approved application, the Permittee shall maintain records of operational information demonstrating that the toxic air pollutant emissions do not exceed the TPERs as listed below:

Emission Sources	Toxic Air Pollutant	TPERs
Facility Wide	Benzene	8.1 lb/yr
Facility Wide	Toluene	98 lb/day and 14.4 lb/hr
Facility Wide	n-hexane	23 lb/day

- a. In order to demonstrate compliance with the benzene TPER, the facility gasoline throughput shall not exceed 31.4 million gallons per year.
- b. Facility shall record monthly gasoline throughput and calculate rolling annual throughputs to demonstrate compliance with gasoline throughput limit. Records shall be kept on file for submittal to the DAQ upon request.

STATE-ONLY REQUIREMENT:

2. **15A NCAC 2D .1100: TOXIC AIR POLLUTANT EMISSIONS LIMITATION AND REPORTING**

REQUIREMENT - Pursuant to 15A NCAC 2D .1100 and in accordance with the approved application for an air toxic compliance demonstration, the following permit limit shall not be exceeded:

Emission Sources	Toxic Air Pollutant(s)	EMISSION LIMIT(S)
Facility Wide	acetic acid	69.91 lb/hr
Facility Wide	p-dichlorobenzene	354.87 lb/hr
Facility Wide	xylenes	22.94 lb/hr 550.56 lb/day

- a. To ensure that acetic acid emissions do not exceed 69.91 pounds per hour (lb/hr), the Permittee shall comply with the following limitations:
 - i. The maximum annual throughput of acetic acid through all tanks combined shall not exceed 35,440,000 gallons per year; and,
 - ii. The total, maximum annual throughput of acetic acid through the loading racks, including tank truck, railcar, and barge loading, shall not exceed 35,440,000 gallons per year.
- b. To ensure that p-dichlorobenzene emissions do not exceed 354.87 lb/hr, the Permittee shall comply with the following limitations:
 - i. The maximum annual throughput of p-dichlorobenzene through all tanks combined shall not exceed 6,088,034 gallons per year;
 - ii. No p-dichlorobenzene shall be loaded through the barge loading arms; and,
 - iii. The total, maximum annual throughput of p-dichlorobenzene through the loading racks, including tank truck and railcar loading, shall not exceed 6,088,034 gallons per year.
- c. To ensure that xylene emissions do not exceed 22.94 lb/hr or 550.56 pounds per day (lb/day), the Permittee shall comply with the following limitations:
 - i. Xylene liquids, including p-xylene and mixed xylenes, shall only be stored in internal floating roof tanks;
 - ii. Emissions of xylene from tank truck and railcar loading operations shall be controlled by one of the enclosed flares (**ID Nos. CD-F1 and/or CD-F2**), with a maximum volatile organic emission rate of 10 milligrams per liter loaded (mg/L);
 - iii. The maximum annual throughput of xylenes through all tanks combined shall not exceed the following limits:
 - A. Throughputs of p-xylene shall not exceed 294,000,000 gallons per year; and,
 - B. Throughputs of mixed xylenes shall not exceed 225,000,000 gallons per year;
 - iv. The maximum annual throughput of xylenes through the loading racks, including tank truck and railcar loading, shall not exceed the following limits:
 - A. Throughputs of p-xylene shall not exceed 42,000,000 gallons per year; and,

B. Throughputs of mixed xylenes shall not exceed 18,181,800 gallons per year.

Recordkeeping

- d. The Permittee shall retain monthly and 12-month rolling storage and loading records for acetic acid, p-dichlorobenzene, p-xylene, and mixed xylenes, as follows:
- i. For each affected chemical, identify which tanks stored the material during the previous calendar month;
 - ii. Record the total tank throughput of each chemical during the previous calendar month and the previous 12-month period;
 - iii. Record the quantity of each material loaded out of the facility during the previous calendar month and the previous 12-month period as follows:
 - A. From uncontrolled railcar loading arms;
 - B. From uncontrolled tank truck loading arms;
 - C. From railcar loading arms controlled by an enclosed flare;
 - D. From tank truck loading arms controlled by an enclosed flare; and
 - E. From barge loading arms.

Reporting

- e. The Permittee shall submit a summary report of monitoring and recordkeeping activities postmarked on or before January 30 of each calendar year for the preceding six-month period between July and December and July 30 of each calendar year for the preceding six-month period between January and June. The report shall include the following:
- i. The monthly and 12-month-rolling tank throughputs of each affected material (i.e., acetic acid, p-dichlorobenzene, p-xylene, and mixed xylene) during each month of the reporting period;
 - ii. The monthly and 12-month-rolling loading rack throughputs of each affected material during each month of the reporting period; and,
 - iii. Identification of any deviations with 15A NCAC 2D .1100, including the storage or loading of an affected material using an unauthorized tank or loading arm.

STATE-ONLY REQUIREMENT:

3. 15A NCAC 2Q .0705: EXISTING SOURCES AND SIC CALLS

- a. In accordance with 15A NCAC 2Q .0705(b), for sources at a facility subject to a MACT standard, excluding the MACT for combustion sources, a permit application shall be required demonstrating compliance with 15A NCAC 2D .1100 by the same deadline that the facility is required to comply with the last MACT applicable to the facility.

Vopak fulfilled the "Last MACT" toxics demonstration, as described above, for the Organic Liquid Distribution MACT (40 CFR 63, Subpart EEEE) on **April 6, 2006** as part of Application No. 6500179.06B.

SECTION 3 - GENERAL CONDITIONS (version 3.1)

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

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

1. Terms not otherwise defined in this permit shall have the meaning assigned to such terms as defined in 15A NCAC 2D and 2Q.
2. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are binding and enforceable pursuant to NCGS 143-215.114A and 143-215.114B, including assessment of civil and/or criminal penalties. Any

unauthorized deviation from the conditions of this permit may constitute grounds for revocation and/or enforcement action by the DAQ.

3. This permit is not a waiver of or approval of any other Department permits that may be required for other aspects of the facility which are not addressed in this permit.
4. This permit does not relieve the Permittee from liability for harm or injury to human health or welfare, animal or plant life, or property caused by the construction or operation of this permitted facility, or from penalties therefore, nor does it allow the Permittee to cause pollution in contravention of state laws or rules, unless specifically authorized by an order from the North Carolina Environmental Management Commission.
5. Except as identified as state-only requirements in this permit, all terms and conditions contained herein shall be enforceable by the DAQ, the EPA, and citizens of the United States as defined in the Federal Clean Air Act.
6. Any stationary source of air pollution shall not be operated, maintained, or modified without the appropriate and valid permits issued by the DAQ, unless the source is exempted by rule. The DAQ may issue a permit only after it receives reasonable assurance that the installation will not cause air pollution in violation of any of the applicable requirements. A permitted installation may only be operated, maintained, constructed, expanded, or modified in a manner that is consistent with the terms of this permit.

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

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

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

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

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

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

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

F. **Circumvention** - STATE ENFORCEABLE ONLY

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

G. **Permit Modifications**

1. Administrative Permit Amendments [15A NCAC 2Q .0514]

The Permittee shall submit an application for an administrative permit amendment in accordance with 15A NCAC 2Q .0514.

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

H. **Changes Not Requiring Permit Modifications**

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

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

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

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

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

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

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

Excess Emissions

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

Permit Deviations

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

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

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

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

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

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

1. An emergency means any situation arising from sudden and reasonably unforeseeable events beyond the control of the facility, including acts of God, which situation requires immediate corrective action to restore normal operation, and that causes the facility to exceed a technology-based emission limitation under the permit, due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include noncompliance to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation, or operator error.
2. An emergency constitutes an affirmative defense to an action brought for noncompliance with such technology-based emission limitations if the conditions specified in 3. below are met.
3. The affirmative defense of emergency shall be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that include information as follows:
 - a. an emergency occurred and the Permittee can identify the cause(s) of the emergency;

- b. the permitted facility was at the time being properly operated;
 - c. during the period of the emergency the Permittee took all reasonable steps to minimize levels of emissions that exceeded the standards or other requirements in the permit; and
 - d. the Permittee submitted notice of the emergency to the DAQ within two working days of the time when emission limitations were exceeded due to the emergency. This notice must contain a description of the emergency, steps taken to mitigate emissions, and corrective actions taken.
4. In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
 5. This provision is in addition to any emergency or upset provision contained in any applicable requirement specified elsewhere herein.

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

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

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

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

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

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

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

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

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

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

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

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

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

4. the method(s) used for determining the compliance status of the source during the certification period.

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

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

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

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

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

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

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

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

Because an emission source or activity is insignificant does not mean that the emission source or activity is exempted from any applicable requirement or that the owner or operator of the source is exempted from demonstrating compliance with any applicable requirement. The Permittee shall have available at the facility at all times and made available to an authorized representative upon request, documentation, including calculations, if necessary, to demonstrate that an emission source or activity is insignificant.

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

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

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

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

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

2. No person shall refuse entry or access to any authorized representative of the DAQ who requests entry for purposes of

inspection, and who presents appropriate credentials, nor shall any person obstruct, hamper, or interfere with any such authorized representative while in the process of carrying out his official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

1. A permit shall be reopened and revised under the following circumstances:

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

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

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

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

As required by 15A NCAC 2D .0540 "Particulates from Fugitive Dust Emission Sources," the Permittee shall not cause or allow fugitive dust emissions to cause or contribute to substantive complaints or excess visible emissions beyond the property boundary. If substantive complaints or excessive fugitive dust emissions from the facility are observed beyond the property boundaries for six minutes in any one hour (using Reference Method 22 in 40 CFR, Appendix A), the owner or operator may be required to submit a fugitive dust plan as described in 2D .0540(f).

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

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

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

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

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

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

ATTACHMENT

List of Acronyms

AOS	Alternate Operating Scenario
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAIR	Clean Air Interstate Rule
CEM	Continuous Emission Monitor
CFR	Code of Federal Regulations
CAA	Clean Air Act
DAQ	Division of Air Quality
DENR	Department of Environment and Natural Resources
EMC	Environmental Management Commission
EPA	Environmental Protection Agency
FR	Federal Register
GACT	Generally Available Control Technology
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
NAA	Non-Attainment Area
NCAC	North Carolina Administrative Code
NCGS	North Carolina General Statutes
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standard
OAH	Office of Administrative Hearings
PM	Particulate Matter
PM₁₀	Particulate Matter with Nominal Aerodynamic Diameter of 10 Micrometers or Less
POS	Primary Operating Scenario
PSD	Prevention of Significant Deterioration
RACT	Reasonably Available Control Technology
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO₂	Sulfur Dioxide
tpy	Tons Per Year
VOC	Volatile Organic Compound