Louisville Metro Air Pollution Control District
701 West Ormsby Avenue, Suite 303
Louisville, Kentucky 40203-3137

XX Month 2016

Title V Statement of Basis

Company: MPLX Terminals, LLC—Algonquin Terminal

Plant Location: 4510 Algonquin Parkway, Louisville, Kentucky 40211

Date Application Received: 10/15/2013
Date of Draft Permit: 12 July 2015
Date of Revision: XX/XX/2016

Date Admin Complete: 12/14/2013
Date of Proposed Permit: 12 July 2015
Date of Revised Draft Permit: 04/30/2016

District Engineer: Narathip Chitradon

Permit No: O-0741-15-V(R1)

Plant ID: 0741 **SIC Code:** 5171 **NAICS**: 424710

Introduction:

This permit will be issued pursuant to: (1) Regulation 2.16, (2) Title 40 of the Code of Federal Regulations Part 70, and (3) Title V of the Clean Air Act Amendments of 1990. Its purpose is to identify and consolidate existing District and Federal air requirements and to provide methods of determining continued compliance with these requirements.

Jefferson County is classified as an attainment area for lead (Pb), nitrogen dioxide (NO_2), carbon monoxide (CO), 1 hr and 8 hr ozone (O_3), and particulate matter less than 10 microns (PM_{10}); and is a non-attainment area for the 1997 standard for particulate matter less than 2.5 microns ($PM_{2.5}$), unclassifiable for the 2012 standard for particulate matter less than 2.5 micron ($PM_{2.5}$) and partial non-attainment area for sulfur dioxide (SO_2).

Application Type/Permit Activity:

[ ] Initial Issuance

[ ] Permit Revision
  [X] Administrative
  [ ] Minor
  [ ] Significant

[ ] Permit Renewal

Compliance Summary:

[X] Compliance certification signed
[ ] Source is out of compliance
[ ] Compliance schedule included
[X] Source is operating in compliance

I. Source Information

1. **Product Description:** MPLX Terminals, LLC—Algonquin Terminal is engaged in the distribution of petroleum products.

2. **Process Description:** The terminal is a bulk storage facility where shipments are transported to the terminal via pipeline, barge, and rail. Petroleum products that are received by each system are routed to the desired storage tank(s) through a fixed arrangement of pipes and valves. Various petroleum products are withdrawn from the storage tank(s) and routed either to a terminal truck loading rack, barge, or one of two different pipelines.

3. **Site Determination:** There are no other facilities that are contiguous or adjacent and under common control.

4. **Emission Unit Summary**:

Emission Unit	Equipment Description
U1 and U2	Multiple storage tanks containing various petroleum products
U3	One (1) terminal truck loading rack
U4	One (1) barge loading operation

5. **Fugitive Sources:** The facility uses a vapor recovery unit (VRU) and a backup portable vapor combustion unit (PVCU) for the truck loading rack under Emission Unit U3. The facility uses a vapor combustion unit (VCU) for the barge loading operation under Emission Unit U4. The remaining emission points are fugitive sources.

6. **Permit Revisions**:

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
Initial	87-97-TV	10/06/2000	04/23/2000	Initial	Entire Permit	Initial Permit Issuance
R1	87-97-TV(R1)	03/27/2009	12/01/2008	Minor	Entire Permit	5 year Renewal; Incorporate STAR Category 1 TAC requirements

Revision No.	Permit No.	Issue Date	Public Notice Date	Change Type	Change Scope	Description
R2	O-0741-15-V	08/27/2015	07/12/2015	Major	Entire Permit	5 year Renewal; Incorporated Construction Permits 110-09-C and 111-09-C; Incorporated Federal Regulation 40 CFR 63 Subpart BBBBBB
R3	O-0741-15-V(R1)	XX/XX/2016	04/30/2016	Minor	Entire Permit	Administrative Revision

7. Emission Summary:

Pollutant	District Calculated Actual Emissions (tpy) 2013 Data	Pollutant that triggered Major Source Status (based on PTE)
CO	0.93	No
NO_x	0.17	No
VOC	53.88	Yes
Total HAPs	2.32	No
Single HAP > 0.5 tpy		
Hexane	0.74	No
Toluene	0.60	No
Greenhouse Gas[1]	-	-

[1] The greenhouse gas emissions were not reported in the 2013 Emissions Inventory submitted by the company or the Emissions Inventory review performed by the District.

8. Applicable Requirements:

[ ] PSD [X] 40 CFR 60 [X] SIP [X] 40 CFR 63
[ ] NSR [ ] 40 CFR 61 [X] District-Origin [ ] Other

9. Future MACT Requirements: The source has no future MACT requirements.

10. Referenced Federal Regulations in Permit:

40 CFR Part 60 Subpart A General Provisions

40 CFR Part 60 Subpart Ka	Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984
40 CFR Part 60 Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984
40 CFR Part 63 Subpart R	National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)
40 CFR Part 60 Subpart XX	Standards of Performance for Bulk Gasoline Terminals
40 CFR Part 63 Subpart A	General Provisions
40 CFR Part 63 Subpart Y	National Emission Standards for Marine Tank Vessel Loading Operations
40 CFR Part 63 Subpart BBBBBB	National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities

II. Regulatory Analysis

1. **Acid Rain Requirements**: MPLX Terminals, LLC—Algonquin Terminal is not subject to the Acid Rain Program.

2. **Stratospheric Ozone Protection Requirements**: Title VI of the CAAA regulates ozone depleting substances and requires a phase-out of their use. This rule applies to any facility that manufactures, sells, distributes, or otherwise uses any of the listed chemicals. MPLX Terminals, LLC—Algonquin Terminal does not manufacture, sell, or distribute any of the chemicals listed in Title VI of the CAAA. The source's use of listed chemicals is that in fire extinguishers, chillers, air conditioners and other HVAC equipment.

3. **Prevention of Accidental Releases 112(r):** MPLX Terminals, LLC—Algonquin Terminal does not manufacture, process, use, store, or otherwise handle one or more of the regulated substances listed in 40 CFR Part 68, Subpart F, and District

Regulation 5.15, *Chemical Accident Prevention Provisions*, in a quantity in excess of the corresponding specified threshold amount.

4. **40 CFR Part 60 Subpart Ka Applicability Determination**: Storage tank T-60 (EP E3) is subject to Subpart Ka and Regulation 6.43, which requires the tank to meet the floating roof requirements of 40 CFR 60 Subpart Kb. Because the requirements of Subpart Kb are more stringent than the requirements of Subpart Ka, the requirements of Subpart Kb have been streamlined into this permit.

5. **40 CFR Part 63 Subpart R Applicability Determination:** 40 CFR Part 63, Subpart R, section 63.420 states that the affected source to which the provisions of this rule applies is each bulk gasoline terminal, except those terminals for which the owner or operator has documented and recorded that the E_T value is less than 1 and complies with 63.420(c), (d), (e), and (f). The source is subject to 40 CFR Part 63, Subpart R, section 63.428(i)(3) which requires annual reports to document that the E_T value is less than 1.

   MPLX Terminals, LLC—Algonquin Terminal submitted the following information that was received by the District on January 24, 2014 for CY 2013 for the Algonquin terminal.

CF = 0.161	$T_E = 0$	C = 16,293	EF = 10 mg/l
CE = 0	$T_{ES} = 0$	Q = 6,813,000	OE = 2.374
$T_F = 0$	$T_I = 14$	$K = 4.5 \times 10^{-9}(EF + L)$	L = 13 mg/l

   $E_T = (0.161)\ \{[0.59(0)(1 - 0)] + [0.17(0)] + [0.08(0)] + [0.038(14)] + [8.5 \times 10^{-6}(16{,}293)] + [(4.5 \times 10^{-9})(10 + 13)\ (6{,}813{,}000)]\} + 0.04(2.374)$
   $E_T = 0.316$

   The company has documented that the result of the equation in 40 CFR 63.420(a)(1) of Subpart R is less than 1; therefore, the terminal is not subject to the control requirements of Regulation 40 CFR 63, Subpart R. The source is required to submit annual reports to the District which includes the above E_T calculation to demonstrate the E_T value is less than 1 and complies with 40 CFR 63.420(c), (d), (e), and (f) of Subpart R.

6. **40 CFR Part 64 Applicability Determination:** MPLX Terminals, LLC—Algonquin Terminal is not subject to 40 CFR Part 64 - *Compliance Assurance Monitoring (CAM) for Major Stationary Source* since the company has accepted synthetic minor source limits for all regulated air pollutants for which the company is a major source—100 tons of VOC per 12 consecutive month period. If at some point in the future, the company requests to remove the annual plant-wide VOC emission limit of less than 100 tons, a 40 CFR Part 64 CAM Plan will be required.

7. **Basis of Regulation Applicability**

a. **Plant-wide**

MPLX Terminals, LLC—Algonquin Terminal is a Title V major source for VOC. Regulation 2.16 - *Title V Operating Permits* establishes requirements for major sources. MPLX Terminals—Algonquin Terminal has a plant-wide VOC emission limit of 100 tons per 12 consecutive month period, as well as a plant-wide combined HAP emission limit of 25 tons per 12 consecutive month period and a plant-wide single HAP emission limit of 10 tons per 12 consecutive month period.

District Regulation 2.16, section 4.1.9.1 and 4.1.9.2 requires monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The owner or operator shall maintain all the required records for a minimum of 5 years and make the records readily available to the District upon request.

District Regulation 2.16, section 4.3.5, requires stationary sources for which a Title V is issued shall submit an annual compliance certification by April 15. In addition, as required by District Regulation 2.16, section 4.1.9.3, the source shall submit compliance reports at least every six months to show compliance with the permit. Compliance reports and compliance certifications shall be signed by a responsible official and shall include a certification statement per District Regulation 2.16, section 3.5.11.

Federal Regulation 40 CFR Part 63 Subpart BBBBBB establishes national emission limitations, management practices, and requirements to demonstrate compliance for hazardous air pollutants (HAP) emitted from gasoline distribution bulk terminals. Subpart BBBBBB is applicable to gasoline storage tanks, gasoline loading racks, vapor collection-equipped gasoline cargo tanks, and equipment components in gasoline service. Under 40 CFR 63.11087(f) of Subpart BBBBBB, the storage tanks that are subject to and comply with 40 CFR part 60, Subpart Kb will be deemed in compliance with the requirements of 40 CFR 63, Subpart BBBBBB. An initial notification was received by the District on May 8, 2008. A Notification of Compliance Status (NOCS), dated January 07, 2011, was received by the District. A revised version of the NOCS was received on January 28, 2015.

District Regulation 1.05 requires the owner or operator to maintain and operate the affected facility in a manner consistent with good air pollution control practice for minimizing emissions. The owner or operator shall monitor and maintain records from the 1.05 compliance plan, which outlines various inspections and preventative maintenance procedures. A revised 1.05 Compliance Plan referenced in this permit was received on December 19, 2014. Previous versions of the 1.05 Compliance Plan were

received on February 23, 2010; February 16, 2006; March 29, 2000, and May 14, 1993.

Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 (STAR Program) establishes requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.

b. **Emission Unit U1 and U2 –** Storage Tanks

i. **Equipment:**

Emission Point (Tank ID)	Product (Capacity, Gallons)	Install Date	Applicable Regulation	Basis for Applicability
U1 - E3 (T-60)	Petroleum products (1,680,000)	1980	Depending on the tank specifications, only certain regulations will apply to the storage tanks: 1.02, 5.00, 5.01, 5.02, 5.20, 5.21, 5.22, 5.23, 6.13, 6.43, 7.12, 7.02, 40 CFR Part 60 Subpart Ka, 40 CFR Part 60 Subpart Kb, and 40 CFR 63 Subpart BBBBBB	Regulation 1.02 establishes the requirements for certain storage tanks not to be permitted. Regulation 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 (STAR Program) establish the requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Regulation 6.43 establishes a section of operational requirements for the stationary source. Regulation 6.13 applies to each storage vessel for volatile organic compounds that was in being or had a construction permit issued by the District before September 01, 1976, was not subject to Regulation 7.12, and that has a storage capacity greater than 250 gallons. Regulation 7.12 applies to each storage vessel for volatile organic compounds that commences
U1 - E4 (T-61)	Petroleum products (840,000)	1985		
U1 - E5 (T-165)	Petroleum products (2,814,000)	1990		
U1 - E6 (T-119)	Petroleum products (2,268,000)	2006		
U1 - E7 (T-156)	Petroleum products (2,261,520)	2006		
U1 - E8 (T-157)	Petroleum products (2,291,520)	2006		
U1 - E9 (T-26)	Petroleum products (1,561,686)	2002		
U1 - E10 (T-14)	Petroleum products (963,000)	2000		
U1 - E11 (T-48)	Petroleum products (947,016)	1999		
U2 - E16 (T-174)	Additive (10,000)	1993		
U2 - E17 (T-175)	Additive (10,000)	2004		
U2 - E18 (T-176)	Transmix (10,000)	2005		
U2 - E19 (T-177)	Additive (500)	2005		
U2 - E20 (T-178)	Additive (8,000)	2005		
U1 - E22 (T-113)	Petroleum products (2,349,900)	1947		

Emission Point (Tank ID)	Product (Capacity, Gallons)	Install Date	Applicable Regulation	Basis for Applicability
U1 - E23 (T-130)	Petroleum products (2,142,000)	1973		construction or modification on or after April 19, 1972, and has a storage capacity greater than 250 gallons. Regulation 40 CFR Part 60 Subpart Ka applies to each storage vessel with a storage capacity greater than 151,416 liters (40,000 gallons) that is used to store petroleum liquids for which construction, reconstruction, or modification commenced after May 18, 1978, and prior to July 23, 1984. Regulation 40 CFR Part 60 Subpart Kb applies to each storage vessel with a storage capacity greater than or equal to 75 cubic meters (m^3) that is used to store volatile organic liquids for which construction, reconstruction, or modification commenced after July 23, 1984. Regulation 7.02 adopts and incorporates the New Source Performance Standards, including the ones listed above. 40 CFR Part 63 Subpart BBBBBB establishes national emission limitations, management practices, and requirements to demonstrate compliance for hazardous air pollutants (HAP) emitted from gasoline distribution bulk terminals. Regulation 5.02 adopts and incorporates the National Emission Standards for Hazardous Air Pollutants, including the one listed above
U1 - E24 (T-133)	Petroleum products (2,268,020)	1964		
U1 - E25 (T-162)	Petroleum products (4,032,000)	1967		
U1 - E26 (T-106)	Petroleum products (3,214,134)	1972		
U2 - E30 (T-179)	Additive (350)	2005		
IA - E32 (T-183)	Additive (117)	2003		
IA - E33 (T-96)	Diesel/ Kerosene/ Gas Oil/ Aviation Turbine Fuel (1,475,040)	1948		
IA - E34 (T-97)	Diesel/ Kerosene/ Gas Oil/ Aviation Turbine Fuel (1,463,070)	1949		
IA - E35 (T-98)	Diesel/ Kerosene/ Gas Oil/ Aviation Turbine Fuel (1,471,974)	1949		
IA - E36 (T-132)	Diesel/ Kerosene/ Gas Oil/ Aviation Turbine Fuel (535,261)	1961		
IA - E37 (T-164)	Diesel/ Kerosene/ Gas Oil/ Aviation Turbine Fuel (3,250,044)	1990		
IA - E38 (T-166)	Diesel/ Kerosene/ Gas Oil/ Aviation Turbine Fuel (4,034,334)	1991		
IA - E39 (T-167)	Diesel/ Kerosene/ Gas Oil/ Aviation Turbine Fuel (3,273,341)	1991		
IA - E40 (T-169)	Diesel/ Kerosene/ Gas Oil/ Aviation Turbine Fuel (3,279,108)	1992		

ii. **Standards/Operating Limits**

1) **VOC**

(a) Regulation 6.43, section 8 establishes the equipment and operational requirements to reduce VOC emissions from the storage tanks.

(b) Certain storage tanks at the facility store products that meet the exemption requirements of District Regulation 1.02, Appendix A, section 3.9.2. Regulation 2.16, section 4.1.1 establishes the obligations for storage tanks with no permitting requirements to assure ongoing compliance with the storage tanks.

(c) Regulation 6.13, sections 3 and 4 establish the requirements to install, maintain, and operate the applicable storage tanks.

(d) Regulation 7.12, sections 3 and 4 establish the requirements to install, maintain, and operate the applicable storage tanks.

(e) Regulation 40 CFR Part 60, Subpart Kb, section 112b establishes the requirements to install, maintain, and operate the applicable storage tanks. MPLX Terminals has elected to have the requirements of 40 CFR Part 60, Subpart Ka be streamlined into the more stringent requirements of Subpart Kb.

2) **HAP**

The applicable storage tanks are subject to 40 CFR 63 Subpart BBBBBB. Under 40 CFR 63.11087(f) of Subpart BBBBBB, gasoline storage tanks complying with 40 CFR part 60, subpart Kb will be deemed in compliance with the requirements of 40 CFR 63, Subpart BBBBBB.

3) **TAC**

Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 (STAR Program) establish requirements for environmental acceptability of toxic air contaminants (TACs) and the

requirement to comply with all applicable emission standards.

iii. **Monitoring and Recordkeeping**

1) **VOC**

(a) Regulation 2.16, section 4.1.9.1-2 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

(b) Regulation 6.13, section 5 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

(c) Regulation 7.12, section 5 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

(d) Regulation 40 CFR Part 60, Subpart Kb, sections 113b, 115b, and 116b require sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit. The monitoring and record keeping requirements of 40 CFR Part 60, Subpart Ka are streamlined into these requirements.

2) **HAP**

The applicable storage tanks are subject to 40 CFR 63 Subpart BBBBBB.

3) **TAC**

Regulation 2.16, section 4.1.9.1-2 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

iv. **Reporting**

1) **VOC**

(a) Regulation 2.16, section 4.1.9.3 establishes

sufficient reporting requirements to assure compliance when storage tanks with no permitting requirements change tank specifications and regulations become applicable.

(b) Regulation 6.13 does not establish any reporting requirements.

(c) Regulation 7.12 does not establish any reporting requirements.

(d) Regulation 40 CFR Part 60, Subpart Kb, sections 115b and 116b require sufficient reporting to assure ongoing compliance with the terms and conditions of the permit. The reporting requirements of 40 CFR Part 60, Subpart Ka are streamlined into these requirements.

2) **HAP**

The applicable storage tanks are subject to 40 CFR 63 Subpart BBBBBB.

3) **TAC**

Regulation 5.21 requires sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

c. **Emission Unit U3 –** Truck Loading Rack

i. **Equipment:**

Emission Point	Description	Install Date	Applicable Regulation	Basis for Applicability
U3 - E1	One (1) truck loading rack consisting of six (6) bays (25,000 gal/hr/lane)	1999	1.04, 5.00, 5.01, 5.02, 5.20, 5.21, 5.22, 5.23, 7.02, 7.20, 7.22, 40 CFR Part 60 Subpart A, 40 CFR Part 60 Subpart XX, 40 CFR Part 63	Regulation 1.04 establishes the requirements necessary for conducting a performance test. Regulation 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 (STAR Program) establish the requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Regulation 7.20 applies to loading

Emission Point	Description	Install Date	Applicable Regulation	Basis for Applicability
			Subpart R, and 40 CFR 63 Subpart BBBBBB	facilities that commenced after June 13, 1979. Regulation 7.22 applies to loading facilities that load more than 200 gallons in any one day of volatile organic materials into tank trucks, trailers, or railroad tank cars commencing on or after June 13, 1979. Regulation 40 CFR 60 Subpart A establishes the applicable standards for affected facilities. Regulation 40 CFR 60 Subpart XX applies to all the loading racks at a bulk gasoline terminal which deliver liquid product into gasoline tank trucks. Regulation 7.02 adopts and incorporates the New Source Performance Standards, including the ones listed above. Regulation 40 CFR Part 63 Subpart R, applies to each bulk gasoline terminal, except those terminals for which the owner or operator has documented and recorded that the E_T defined in 40 CFR 63.420(a)(1) is less than 1 and complies with 63.420(c), (d), (e), and (f). 40 CFR Part 63 Subpart BBBBBB establishes national emission limitations, management practices, and requirements to demonstrate compliance for hazardous air pollutants (HAP) emitted from gasoline distribution bulk terminals. Regulation 5.02 adopts and incorporates the National Emission Standards for Hazardous Air Pollutants, including the ones listed above.

ii. **Standards/Operating Limits**

1) **VOC**

(a) Regulation 2.16, section 4.1.1 establishes operational requirements and limitations to assure ongoing compliance to operate the loading rack.

(b) Regulation 7.20, section 3 establishes requirements to operate the loading rack.

(c) Regulation 7.22, section 3 establishes requirements to operate the loading rack.

(d) Regulation 40 CFR Part 60, Subpart XX, section 502 also establishes requirements to install, maintain, and operate the loading rack.

2) **HAP**

(a) The terminal is not subject to the control requirements of Regulation 40 CFR 63, Subpart R pursuant to 63.420(a)(1) of Subpart R. The company has documented that the result of the equation in 63.420(a)(1) of Subpart R is less than 1 (See the Subpart R Applicability Determination under section II.4.). The company is required to submit an annual report of the results of the E_t value for this facility.

(b) The loading rack is subject to 40 CFR 63 Subpart BBBBBB.

3) **TAC**

Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 (STAR Program) establish requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.

iii. **Monitoring and Record Keeping**

1) **VOC**

(a) Regulation 2.16, section 4.1.9.1-2 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

(b) Regulation 7.20, section 5 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

(c) Regulation 40 CFR Part 60, Subpart XX, sections 502 and 505 require sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

2) **HAP**

(a) Regulation 40 CFR 63, Subpart R requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

(b) The loading rack is subject to 40 CFR 63 Subpart BBBBBB.

3) **TAC**

Regulation 2.16, section 4.1.9.1-2 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

iv. **Reporting**

1) **VOC**

(a) Regulation 2.16, section 4.1.9.3 requires sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

(b) Regulation 40 CFR 63, Subpart R requires an annual report of the results of the E_t value for the facility to assure the facility is not subject to the control requirements of Subpart R

2) **HAP**

(a) Regulation 40 CFR 63, Subpart R requires an annual report of the results of the E_t value for the facility to assure the facility is not subject to the control requirements of Subpart R

(b) The loading rack is subject to 40 CFR 63 Subpart BBBBBB.

3) **TAC**

Regulation 5.21 requires sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

v. **Testing**

1) **VOC**

(a) Regulation 1.04, section 2 and Regulation 2.16, section 4.3.1 establish testing requirements to assure ongoing compliance with the terms and conditions of the permit.

(b) 40 CFR Part 60, Subpart XX, section 503 establishes testing requirements to assure ongoing compliance with the terms and conditions of the permit.

2) **HAP**

The loading rack is subject to 40 CFR 63 Subpart BBBBBB.

3) **TAC**

The STAR Program does not establish any testing requirements.

d. **Emission Unit U4 –** Barge Loading Operation

i. **Equipment:**

Emission Point	Description	Install Date	Applicable Regulation	Basis for Applicability
U4 – E2	One (1) barge loading operation (294,000 gal/hr)	2000	1.04, 5.00, 5.01, 5.02, 5.20, 5.21, 5.22, 5.23, 7.25, 40 CFR Part 63 Subpart A, 40 CFR Part 63 Subpart Y	Regulation 1.04 establishes the requirements necessary for conducting a performance test. Regulation 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 (STAR Program) establish the requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards. Regulation 7.25 applies to each affected facility not elsewhere regulated in Regulation 7 as to emissions of VOCs

Emission Point	Description	Install Date	Applicable Regulation	Basis for Applicability
				and which commenced after June 13, 1979. Regulation 40 CFR 63 Subpart A establishes the applicable standards for affected facilities. Regulation 40 CFR Part 63 Subpart Y, applies to each marine tank vessel loading operation as defined under 40 CFR 63.560. Regulation 5.02 adopts and incorporates the National Emission Standards for Hazardous Air Pollutants, including the one listed above.

ii. **Standards/Operating Limits**

1) **VOC**

(a) Regulation 2.16, section 4.1.1 establishes operational requirements and limitations to assure ongoing compliance to perform the barge loading operation.

(b) Regulation 7.25, sections 2 and 3 establish operational requirements to assure ongoing compliance to perform the barge loading operation.

2) **HAP**

Regulation 40 CFR Part 63, Subpart Y, section 562 establishes requirements to install, maintain, and operate the barge loading operation.

3) **TAC**

Regulations 5.00, 5.01, 5.20, 5.21, 5.22, and 5.23 (STAR Program) establish requirements for environmental acceptability of toxic air contaminants (TACs) and the requirement to comply with all applicable emission standards.

iii. **Monitoring and Record Keeping**

1) **VOC**

Regulation 2.16, section 4.1.9.1-2 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

2) **HAP**

Regulation 40 CFR Part 60, Subpart Y, sections 563, 564, and 567 require sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

3) **TAC**

Regulation 2.16, section 4.1.9.1-2 requires sufficient monitoring and record keeping to assure ongoing compliance with the terms and conditions of the permit.

iv. **Reporting**

1) **VOC**

Regulation 2.16, section 4.1.9.3 requires sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

2) **HAP**

Regulation 40 CFR Part 60, Subpart Y, sections 563, 564, and 567 require sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

3) **TAC**

Regulation 5.21 requires sufficient reporting to assure ongoing compliance with the terms and conditions of the permit.

v. **Testing**

1) **VOC**

This pollutant does not establish any testing requirements.

2) **HAP**

(a) Regulation 1.04, section 2 and Regulation 2.16, section 4.3.1 establish testing requirements to assure ongoing compliance with the terms and conditions of the permit.

(b) 40 CFR Part 63, Subpart Y, sections 563, 565, and 567 establish testing requirements to assure ongoing compliance with the terms and conditions of the permit.

3) **TAC**

The STAR Program does not establish any testing requirements.

III. Other Requirements

1. Temporary Sources: The source did not request to operate any temporary facilities.

2. Short Term Activities: The source did not report any short term activities.

3. Emissions Trading: N/A

4. Alternative Operating Scenarios:

The owner or operator is authorized to rent and bring onsite vacuum trucks and portable, horizontal fixed-roof storage (FRAC) tanks for temporary use. The vacuum trucks are for transferring gasoline, ethanol, fuel oil, gasoline additives, and other volatile organic compounds from spills and pipeline work, as well as for emptying stationary storage tanks. The FRAC tanks are for temporary storage of gasoline, ethanol, fuel oil, gasoline additives, and other volatile organic compounds. Each has a capacity of no more than 21,000 gallons. The facility shall continue to calculate emissions from this equipment to ensure compliance is maintained.

MPLX Terminals has 14 coned, vertical, internal floating roof storage tanks that are subject to District and/or Federal regulations[1]. The owner or operator is allowed to switch between gasoline and other products that are held in these storage tanks. These other products include ethanol, distillate (diesel, kerosene, jet fuel), natural gasoline, naphthalene, and gas oil. For any product changes that occur,

[1] The storage tanks are listed under Emission Point IDs E3, E4, E5, E6, E7, E8, E9, E10, E11, E22, E23, E24, E25, and E26. The company has also given them Tank IDs T-60, T-61, T-165, T-119, T-156, T-157, T-26, T-14, T-48, T-178, T-113, T-130, T-133, T-162, and T-106, respectively.

MPLX Terminals shall follow any applicable regulations that apply. MPLX Terminals shall continue to maintain submerged fill for all 14 storage tanks. At the time these storage tanks are converted back to gasoline or a product that makes the storage tank subject to a regulation in this emission unit, the company shall perform a seal inspection and provide a return-to-service notification 30 days prior to returning the tank back to service. For any product changes that occur, the facility shall continue to calculate emissions from this equipment to ensure compliance is maintained.

The owner or operator shall be allowed to utilize the portable vapor combustion unit (VCU, or enclosed or open flare) for the truck loading rack when the vapor recovery unit (VRU) is offline. Loading of gasoline is not allowed unless the emissions are being controlled by the VRU or the portable vapor combustion unit. The facility is also authorized to continue loading diesel/kerosene/jet fuel—these products are stored in storage tanks that are listed as "IA" under the Storage Tank Emission Unit, U1 and U2—during an emergency episode, such as an ice storm or tornado, when the VRU, portable VCU, or flare is not operating. The facility shall continue to follow the requirements for the flare and VRU listed under the Monitoring and Record Keeping, and Reporting sections of the Truck Loading Rack Emission Unit. The facility shall continue to monitor loading rates and calculate emissions for the truck loading rack to ensure compliance is maintained.

For the barge loading operation, natural gas is used to power the start-up and shutdown process of the vapor combustion unit (VCU or thermal oxidizer). The owner or operator is authorized to use propane as the gas-assist fuel if the natural gas supply is curtailed. The facility is also authorized to continue loading up to 3,000,000 gallons per year of gasoline/ethanol during an emergency episode when the VCU is not operating. The facility shall continue to monitor loading rates and calculate emissions for the barge loading operation to ensure compliance is maintained.

5. **Compliance History:** There are no records of any violations of the terms of the present or prior construction or operating permits. MPLX Terminals, LLC—Algonquin Terminal is currently in compliance.

6. **Emission Factors:**

Equipment	Product	Emission Factor	Emission Factor Source
Loading Rack	Gasoline	0.00292 lb VOC/ 1000 gal	Stack Test[1]
Loading Rack	Fuel Oil	2.2×10^{-6} lb VOC/1000 gal	AP-42 Section 5.2-2
Barge	Gasoline	0.0146 lb VOC/ 1000 gal	Stack Test[2]

Equipment	Product	Emission Factor	Emission Factor Source
Barge	Fuel Oil	0.012 lb VOC/ 1000 gal	AP-42 Section 5.2-6
Barge	Gas Oil (heavy distillate)	0.012 lb VOC/ 1000 gal	AP-42 Section 5.2-6
Barge	Ethanol	0.01118 lb VOC/ 1000 gal	Stack Test[3]
Railcar Spur (vapor in hose)	Ethanol	0.33 lb VOC/ load	LMAPCD Engineering Judgment
Truck Fugitive	Gasoline	9.0 mg VOC/l load	Footnote 4
Flanges/connectors Liquid – 5,265 components Vapor – 30 Components	Liquid	0.000023	API[5]
	Vapor	0.000067	API[5]
Loading Arm Valves Liquid – 37 components Vapor – 5 Components	Liquid	0.00087	API[5]
	Vapor	0.045	API[5]
Meters Liquid – 19 components Vapor – 0 Components	Liquid	0.00025	API[5]
	Vapor	0.0014	API[5]
Pressure relief/ball valves Liquid – 532 components Vapor – 0 Components	Liquid	0.00025	API[5]
	Vapor	0.0014	API[5]
Pump seals Liquid – 60 components Vapor – 0 Components	Liquid	0.00025	API[5]
	Vapor	0.0014	API[5]
Valves Liquid – 761 components Vapor – 213 Components	Liquid	0.00093	API[5]
	Vapor	0.00093	API[5]

[1] Truck loading emission factor for gasoline from compliance test performed on June 04, 2015 (0.35 mg VOC/liter).
[2] Barge loading emission factor for gasoline from compliance test performed on June 03, 2015 (1.75 mg VOC/liter).
[3] Barge loading emission factor for ethanol from compliance test performed on June 02, 2015 (1.34 mg VOC/liter).
[4] Tanker truck fugitive emission factor based on Background Information Document for the Gasoline MACT, 40 CFR Subpart R
[5] Equipment leak emission factors are in units of lb/hr/component from API Publication No. 4588, *Development of Fugitive Emission Factors for Petroleum Marketing Terminals*, March 1993.

7. Insignificant Activities

Description	Quantity	Basis for Exemption
Brazing, soldering, or welding equipment	1	Regulation 1.02, Appendix A, sec. 3.4
Emergency relief vents, stacks and ventilating systems	1	Regulation 1.02, Appendix A, sec. 3.10
Laboratory ventilating and exhausting systems which are not used for radioactive air contaminants.	1	Regulation 1.02, Appendix A, sec. 3.11
Blast cleaning equipment using a suspension of abrasives in water	1	Regulation 1.02, Appendix A, sec. 3.13
Soil or ground water contamination remediation projects that are entirely passive or entail the total removal of the contaminated substrate for disposal in a certified landfill	1	Regulation 1.02, Appendix A, sec. 3.20
Vacuum trucks rented and brought onsite to be utilized for transferring gasoline, ethanol, fuel oil, gasoline additives, and other volatile organic compounds from spills, pipeline work, and emptying stationary storage tanks. [2]	Up to 20	Regulation 1.02, sec. 1.38.1.1
Portable, horizontal fixed-roof storage (FRAC) tanks rented and brought onsite to be utilized for temporary storage of gasoline, ethanol, fuel oil, gasoline additives, and other volatile organic compounds (Capacity: no larger than 21,000 gallons each)[3]	Up to 20	Regulation 1.02, sec. 1.38.1.1
Railcar unloading operation for transferring ethanol to storage tanks	1	Regulation 1.02, sec. 1.38.1.1
Oil-water separator containing less than 200 gallons a day	2	Regulation 1.02, sec. 1.38.1.1
Mobile Compressor Engine, 95 hp (0.24 MMBtu/hr)	1	Regulation 1.02, Appendix A, sec. 1. 1

1) Insignificant activities identified in District Regulation 1.02, Appendix A, may be subject to size or production rate disclosure requirements pursuant to Regulation 2.16 section 3.5.4.1.4.

2) Insignificant activities identified in District Regulation 1.02, Appendix A shall comply with generally applicable requirements as required by Regulation 2.16 section 4.1.9.4.

[2] Formerly listed under permit 110-09-C.
[3] Ibid

3) The Insignificant Activities Table is correct as of the date the permit was proposed for review by U.S. EPA, Region 4.

4) Emissions from Insignificant Activities shall be reported in conjunction with the reporting of annual emissions of the facility as required by the District.

5) The owner or operator shall submit an updated list of insignificant activities that occurred during the preceding year pursuant to Regulation 2.16 section 4.3.5.3.6.

6) The owner or operator may elect to monitor actual throughputs for each of the insignificant activities and calculate actual annual emissions, or use Potential to Emit (PTE) to be reported on the annual emission inventory.

7) The District has determined pursuant to Regulation 2.16 section 4.1.9.4 that no monitoring, record keeping, or reporting requirements apply to the insignificant activities listed, except for the equipment that has an applicable regulation and permitted under an insignificant activity (IA) unit.