

**TO** Air Quality Permit File: OP-65-00354  
Sunoco Partners Marketing & Terminals, L.P. / Delmont Terminal

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**DATE** April 28, 2017

**RE** Review of Application for Title V Operating Permit Renewal  
Sunoco Partners Marketing & Terminals, L.P. / Delmont Terminal  
Salem Township, Westmoreland County  
APS #918996; AUTH #1143959; PF #238482

**Background:**

Sunoco Partners Marketing & Terminals, L.P. owns and operates a bulk gasoline transfer terminal known as the Delmont Terminal in Salem Township, Westmoreland County. The facility has been in existence since, at least, 1935, and consists of four gasoline storage tanks, one transmix tank, two distillate oil storage tanks, two ethanol tanks, and gasoline and distillate loading racks. Ethanol leaves the terminal following mixing with gasoline in the loading racks, during tanker truck loading. Usually, fuel is removed from the facility by tanker truck. The gasoline and transmix tanks may contain any liquid which produces emissions less than or equal to storage of gasoline, and are equipped with internal floating roofs. Emissions from the loading racks are controlled by a Vapor Recovery Unit (VRU). When the VRU is not available, these emissions are controlled by the older Vapor Combustion Unit (VCU). This includes tanker loading of ethanol, “transmix”, or distillate oil.

The oldest document the Department’s files is an August 21, 1979, application to construct Tank 7 (Source ID 106). Prior to the issuance of a facility-wide Operating Permit, operation was authorized by permits for operation of individual processes. OP-65-312-001, OP-65-312-005, OP-65-312-009, OP-65-312-011, OP-65-312-021, and OP-65-312-026 were issued for parts of the Delmont Terminal.

On February 5, 1993, Atlantic Refining and Marketing Corporation, the former owner of the terminal, notified the Department of an expansion of the gasoline tank truck loading rack at the existing Delmont Terminal. This expansion provided a third position for loading of gasoline tank trucks. The change increased the potential throughput of gasoline of the gasoline loading rack at the Delmont Terminal. To accommodate this increased gasoline throughput, the loading

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rack emission control system was expanded with the addition of an Edwards Engineering LN2, cryo-mechanical vapor recovery system. This unit operated in addition to the existing Edwards Engineering DE 1600 refrigeration vapor recovery unit. These units were later replaced with a vapor combustion unit, also discussed in this section.

On September 16, 1996, Atlantic Refining took limits on the emission rate (35 milligrams per liter) from the existing Vapor Recovery Unit (VRU) and throughput of gasoline (2,359,439,092 gallons per year) and distillate (1,545,169,992 gallons per year) at the Terminal to make it an area (Minor) source of HAP emissions. Since its maximum emissions of VOC remained greater than the Title V threshold of 50 tons per year, the Terminal remained a Title V source of air emissions.

On February 2, 1998, the initial facility-wide Operating Permit, TVOP-65-00354, was issued to Atlantic Refining for the existing Delmont Terminal, with an expiration date of February 2, 2003.

On December 31, 2001, a major facility Plan Approval PA-65-00354A was issued to the Atlantic Refining and Marketing Corporation for installation of a new emission control system on the existing gasoline tank truck loading rack at the facility. The existing Edwards Vapor Recovery Units (VRU) were replaced with a Vapor Combustion Unit (VCU). This was done to increase reliability of the emission control unit, and was not considered a change to the emission source. A Compliance Assurance Monitoring (CAM) plan was also devised and put in place to ensure that operation of the loading racks, with the VCU controlling their emissions, is in compliance with required emission limitations. The plan approval incorrectly established an emission limitation of 35 milligrams of volatile organic compounds (VOC) per liter of gasoline loaded from the VCU. Since the requirements of CFR Title 40, Part 60, Subpart XX were applicable to this plan approval, the emission limitation for the VCU should have been the more restrictive maximum of 35 milligrams of total organic compounds (TOC) per liter of gasoline loaded.

On September 12, 2002, an Administrative Amendment was issued to change the name of the owner/operator on the operating permit TVOP-65-00354, for the Delmont Terminal, to Sunoco Partners Marketing and Terminals, L.P.

On April 10, 2007, a Title V Operating Permit renewal, TVOP-65-00354 authorization was issued to Sunoco Partners Marketing and Terminals, L.P., for the Delmont Terminal. This operating permit expired April 10, 2012.

On November 20, 2007, an application was received to make minor changes to TVOP-65-00354, through an amendment. These changes were made to the permit during the next Operating Permit renewal process.

On November 23, 2010, DEP issued plan approval PA-65-00354B to authorize the installation and operation of a new VRU during normal operation. Use of this emission control system placed use of the existing VCU in normal operation on the existing gasoline and distillate tank

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truck loading racks at the facility and enables gasoline vapors to be recovered and reused rather than combusted. The existing VCU remained in place as a backup system and is still used during times when the VRU is not operable. This VRU was designed to limit emissions from Source ID 101, Gasoline Loading Racks, and Source ID 102, Distillate Loading Racks at this terminal to 10 milligrams of total organic compounds (TOC) per liter of gasoline loaded. The plan approval also included a requirement that the gasoline tank truck loading rack have a gasoline throughput of no greater than 483,296,354 gallons in any consecutive 12-month period. Plan Approval, PA-65-00354B was originally issued with an expiration date of May 23, 2012, or six months after the commencement of initial operation of the emission unit. Initial operation of the VRU took place on February 7, 2011.

On January 31, 2012, TVOP-65-00354 was again renewed. This permit incorporated the ongoing requirements of PA-65-00354B.

On January 3, 2013, GP2-65-00354 was issued to authorize construction of an Internal Floating Roof (IFR) in the existing Tank 5 (Source ID 104), and allow it to store gasoline. The name of the sub-facility was changed to Tank 5A, but its Source ID remained the same.

On February 25, 2014, the TVOP was Significantly Modified. Limits on VOC emissions from individual storage tanks were removed and the ongoing requirements of GP2-65-00354 were incorporated into the permit. In addition, § 121.7, which is a general prohibition of air pollution, was added.

On March 5, 2014, the Department issued Request for Determination RFD 3678. Sunoco Partners planned to install a John Zink 4#X30# Enclosed ZOF Flare to control emissions from captured gases released by the Delmont Pumping Station. The pump station pressurizes natural gas liquids (NGL, Mainly ethane and propane.) on the Sunoco Mariner Pipeline. This pipeline transports NGL from natural gas processing plants in the Marcellus/Utica regions to the US East Coast. Even though the rest of the Delmont Terminal does not receive or send any product from the pipeline, this pumping station is located on its site. During normal operation, the station has emissions from components, such as pump seals. The flare also processes gases during maintenance, when the pipeline is evacuated. Emissions from the planned flare are no greater than 0.25 tons per year, for any single criteria pollutant. It was decided that the Delmont Pump Station is part of the Delmont Terminal, no permit action was necessary to construct the pump station, and the pumping station should be added to the existing TVOP, when the permit is renewed. The Delmont Pumping Station is now being added to the proposed permit as part of Miscellaneous Emissions (Source ID 103).

On July 11, 2016, the Department received an application from Sunoco Partners Marketing & Terminals, L.P., the owner and operator, to renew Major Source Operating Permit, TVOP-65-00354 for the Delmont Terminal. This document is a technical review of that application.

**Sources, Control Devices, and Emissions:**

The Sunoco Partners - Delmont Terminal consists of four gasoline, storage tanks, with storage capacities between 502,152 and 2,570,715 gallons (1-barrel petroleum = 42 US gallons), one 314,244 gallon transmix storage tank, two 888,384 and 1,342,488 gallons, distillate tanks, two ethanol tanks (99,180 & 100,072 gallons), and equipment for gasoline and distillate loading racks. Fuel enters the facility by pipeline. Ethanol is blended into raw gasoline to meet the requirements of the 1990 Clean Air Act (RFG Fuel), and the Renewable Fuel Standard set forth in the Energy Independence and Security Act of 2007. Ethanol leaves the terminal following mixing with gasoline in the loading racks, during tanker truck loading. Usually, fuel is removed from the facility by tanker truck. Transmix is shipped from the facility by pipeline. Apart from the larger distillate tank, all storage tanks have internal floating roofs. Emissions from the loading racks are controlled by a Vapor Recovery Unit (VRU). When the VRU is not available, these emissions are controlled by a Vapor Combustion Unit (VCU).

The VRU consists of two adsorber vessels arranged in parallel. Each vessel contains an activated carbon bed. The VRU is piped and valved, such that only a single vessel will adsorb organic vapor at a time. Regeneration of the second vessel, by vacuum desorption of the collected organics, takes place at the same time. Regeneration consists of removal and collection of adsorbed organics from the activated carbon. Collected organics are saved for offsite reprocessing into marketable products. Gas flow through the two vessels is controlled automatically, using powered valves. An emission monitor continuously measures the concentration of total hydrocarbon (THC), measured as propane, in the gas exiting the VRU (Control ID C04). This monitor is used as a component of a process control system and is not certified by the Department as a Continuous Emission Monitor (CEM). As the loading of collected organic vapors on the activated carbon in the in-service vessel become larger, organic collection efficiency declines, and the concentration of THC in the outlet gas increases. The VRU system is designed to switch gas flow to the other carbon canister, when a design set point outlet concentration calculated to produce a THC emission of less than 10 mg TOC, as propane /liter gasoline loaded permit limit, is reached. This is considered the Normal Operation Scenario at the Delmont Terminal.

If the second canister is not available, or cannot produce exhaust gas with a vapor concentration below the set point concentration, operation of the loading racks is prohibited, unless the Vapor Combustion Unit (VCU) is in service. If necessary, VCU (Control ID C03) control system can be brought into service terminal. Under the Alternative Operation Scenario at the Delmont Terminal, the emission requirement for Source ID 120, when the VCU is operating, is a maximum of 35 milligrams of TOC per liter of gasoline loaded. There is no limitation on the hours of operation under the Alternative Operation Scenario.

Emission processes at Delmont and their control are listed in Table 1:

**Table 1: Emission Sources and Control  
 Sunoco Partners Marketing & Terminals, L.P.  
 Delmont Terminal (TVOP-65-00354)**

ID	Source Name	Emission Control	Installation or Startup
101	Gasoline Loading Racks inc./truck tank emissions	Primary-Vapor Refrigeration Unit (Authorized 11/23/2010)	1993
		Alternate-Vapor Combustion Unit (Authorized 12/31/2001)	
102	Distillate Loading Racks including /truck tank emissions	VRU or VCU	1993
103	Miscellaneous Emissions <sup>3</sup>		1935
104	Tank 5A (Gasoline, 502,152 gallon <sup>1</sup> ) <sup>2</sup>	Internal Floating Roof	1954
105	Tank 6 (ULSD, 888,384 gallon <sup>1</sup> )	Internal Floating Roof	1954
106	Tank 7 (Gasoline, 2,018,142 gallon <sup>1</sup> )	Internal Floating Roof	1979
107	Tank 701 (Gasoline, 1,705,368 gallon <sup>1</sup> )	Internal Floating Roof	1967
108	Tank 702 (Gasoline, 2,570,715 gallon <sup>1</sup> )	Internal Floating Roof	1967
109	Tank 703 (ULSD, (1,342,488 gallon <sup>1</sup> )		1967
110	Tank 12 (Transmix, 314,244 gallon <sup>1</sup> )	Internal Floating Roof	1967
111	Tank 4 (Ethanol, 99,180 gallon <sup>1</sup> )	Internal Floating Roof Reactivated 12/18/2002 for ethanol	1935
112	Tank 2 (Ethanol, 100,072 gallon <sup>1</sup> )	Internal Floating Roof Reactivated 12/18/2002 for ethanol	1935

<sup>1</sup> Tank capacities are at the High-High alarm level and were determined by the company.

<sup>2</sup> Tank 5A was previously Tank 5. It was a 14,100 bbl, fixed roof tank, that contained kerosene. On January 3, 2013, GP2-65-00354 was issued, which authorized the change.

<sup>3</sup> Miscellaneous Emissions (Source ID 103) includes the Delmont Pumping Station.

Total projected annual emissions from the facility for both the Normal and Alternative Operating Scenarios, as estimated by the applicant with mentioned exceptions, are shown in Tables 2, 3, and 3A:

**Table 2: Facility VOC and HAP Emissions - Normal Operation Scenario  
 (When the VRU is the operating control device for the Loading Racks.)  
 Sunoco Partners Marketing & Terminals, L.P. - Delmont Terminal (TVOP-65-00354)**

Source	Potential to Emit									
	VOC		n-Hexane		Isooctane		Benzene		THAP	
	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
(101) Gasoline Loading Racks, inc./truck tank emissions <sup>1,5</sup>	8.2	35.78	0.022	0.10	0.133	0.58	0.022	0.10	0.33	1.46
(102) Distillate Loading Racks, inc./truck tank emissions <sup>1</sup>										
(103) Miscellaneous Emissions <sup>2,4,&amp;7</sup>	12.4	1.88	0.0023	0.01	0.0068	0.03			0.034	0.15
(104) Tank, 5A, Gasoline, 502,152 gallon <sup>2&amp;3</sup>	0.54	2.35	0.0023	0.01	0.0068	0.03			0.021	0.09
(105) Tank 6, ULSD, 888,384 gallon <sup>2</sup>	0.041	0.18								
(106) Tank 7, Gasoline, 2,018,142 gallon <sup>2</sup>	0.82	3.60	0.0068	0.03			0.0023	0.01	0.023	0.10
(107) Tank 701, Gasoline, 1,705,368 gallon <sup>2</sup>	0.84	3.68	0.0023	0.01	0.0137	0.06	0.0023	0.01	0.034	0.15
(108) Tank 702, Gasoline, 2,570,715 gallon <sup>2</sup>	0.59	2.58	0.0068	0.03					0.0183	0.08
(109) Tank 703, ULSD, 1,342,488 gallon <sup>2</sup>	0.130	0.57							0.0114	0.05
(110) Tank 12, Transmix, 314,244 gallon <sup>2</sup>	0.20	0.88								
(111) Tank 4, Ethanol, 99,180 gallon <sup>2</sup>	0.057	0.25								
(112) Tank 2, Ethanol, 100,072 gallon <sup>2</sup>	0.043	0.19								
<b>Facility Emissions<sup>5</sup></b>	<b>24</b>	<b>51.94</b>	<b>0.043</b>	<b>0.19</b>	<b>0.161</b>	<b>0.70</b>	<b>0.027</b>	<b>0.12</b>	<b>0.47</b>	<b>2.08</b>

<sup>1</sup> Potential emissions from VRU, plus fugitive emissions from tank loading operations at maximum throughput and 10 mg/l finished gasoline loaded, from the VRU.

<sup>2</sup> Emissions calculated by EPA Tanks 4.0.9d, and presented in October 13, 2011 renewal application.

<sup>3</sup> Emissions calculated by EPA Tanks 4.09d, and presented in application for a GP-2 to add an IFR to the existing tank and use it in gasoline service, on September 13, 2012.

<sup>4</sup> VOC emissions include those from the Delmont Pumping Station.

<sup>5</sup> Total Facility Emissions are a combination of regulated potential emissions and estimated emissions at regulated maximum throughput.

<sup>6</sup> HAP emissions were calculated based on proportion of VOC emissions, based on Tank 701 (Source ID 107).

<sup>7</sup> Miscellaneous Emissions (Source ID 103) also emits 0.25 tons of CO and 0.06 tons of NOx per year. These emissions are from the Delmont Pumping Station. Since operation of the VRU does not need combustion, this emission is also the facility total under this Scenario.

All gasoline processing loading sources, distillate loading racks and all storage tanks are assumed to operate 8760 hours per year.

THAP is the sum of all Hazardous Air Pollutants, combined.

Values reported in this table were rounded from calculations, performed elsewhere.

**Table 3: Facility VOC and HAP Emissions - Alternative Operation Scenario  
 (When the VCU is the operating control device for the Loading Racks.)  
 Sunoco Partners Marketing & Terminals, L.P. - Delmont Terminal (TVOP-65-00354)**

Source	Potential to Emit									
	VOC		n-Hexane		Isooctane		Benzene		THAP	
	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
(101) Gasoline Loading Racks, inc./truck tank emissions <sup>1,5</sup>	19.7	86.19	0.053	0.23	0.32	1.41	0.053	0.23	0.80	3.51
(102) Distillate Loading Racks, inc./truck tank emissions <sup>1</sup>										
(103) Miscellaneous Emissions <sup>2,4, &amp; 7</sup>	12.4	1.88	0.0023	0.01	0.0068	0.03			0.034	0.15
(104) Tank, 5A, Gasoline, 502,152 gallon <sup>2 &amp; 3</sup>	0.54	2.35	0.0023	0.01	0.0068	0.03			0.021	0.09
(105) Tank 6, ULSD, 888,384 gallon <sup>2</sup>	0.041	0.18								
(106) Tank 7, Gasoline, 2,018,142 gallon <sup>2</sup>	0.82	3.60	0.0068	0.03			0.0023	0.01	0.023	0.10
(107) Tank 701, Gasoline, 1,705,368 gallon <sup>2</sup>	0.84	3.68	0.0023	0.01	0.0137	0.06	0.0023	0.01	0.034	0.15
(108) Tank 702, Gasoline, 2,570,715 gallon <sup>2</sup>	0.59	2.58	0.0068	0.03					0.0183	0.08
(109) Tank 703, ULSD, 1,342,488 gallon <sup>2</sup>	0.130	0.57							0.0114	0.05
(110) Tank 12, 314,244 gallon <sup>2</sup>	0.20	0.88								
(111) Tank 4, Ethanol, 99,180 gallon <sup>2</sup>	0.057	0.25								
(112) Tank 2, Ethanol, 100,072 gallon <sup>2</sup>	0.043	0.19								
<b>Facility Emissions<sup>5</sup></b>	<b>35</b>	<b>102.35</b>	<b>0.074</b>	<b>0.32</b>	<b>0.35</b>	<b>1.53</b>	<b>0.058</b>	<b>0.25</b>	<b>0.94</b>	<b>4.13</b>

<sup>1</sup> Potential emissions from VCU, plus fugitive emissions from tank loading operations at maximum throughput and 35 mg/l finished gasoline loaded, from the VCU.

<sup>2</sup> Emissions calculated by EPA Tanks 4.0.9d, and presented in November 6, 2013 renewal application.

<sup>3</sup> Emissions calculated by EPA Tanks 4.09d, and presented in application for a GP-2 to add an IFR to the existing tank and use it in gasoline service, on September 13, 2012.

<sup>4</sup> Includes VOC emissions from the Delmont Pumping Station, which emits negligible HAPs

<sup>5</sup> Total Facility Emissions are a combination of regulated potential emissions and estimated emissions at regulated maximum throughput.

<sup>6</sup> HAP emissions were calculated based on proportion of VOC emissions, based on Tank 701 (Source ID 107).

<sup>7</sup> Miscellaneous Emissions (Source ID 103) also emits 0.25 tons of CO and 0.06 tons of NO<sub>x</sub> per year. These emissions are from the Delmont Pumping Station.

All gasoline processing sources, distillate loading racks and all storage tanks are assumed to operate 8760 hours per year.

THAP is the sum of all Hazardous Air Pollutants, combined.

Values reported in this table were rounded from calculations, performed elsewhere.

In the Normal Operation Scenario, there is no combustion at the Terminal and organic vapors are captured by adsorption for reuse. In this case, there are no emissions of either NO<sub>x</sub>, or CO. In the Alternative Operation Scenario, the VRU destroys organic vapors through combustion, before they are emitted, and organic emissions are higher. The VCU also burns some combustible gases to serve as a pilot. Additional emissions generated, when the VCU is used, are shown in Table 3A:

**Table 3A: Facility Emissions of Other Pollutants  
 Alternative Operation Scenario  
 (When the VCU is the operating control device for the Loading Racks.)  
 Sunoco Partners Marketing & Terminals, L.P.  
 Delmont Terminal (TVOP-65-00354)**

Source	Potential to Emit			
	NO <sub>x</sub> <sup>1</sup>		CO <sup>2</sup>	
	lb/hr	tons/yr	lb/hr	tons/yr
Gasoline Loading Racks, inc./truck tank emissions	1.84	8.07	4.6	20.17
Distillate Loading Racks, inc./truck tank emissions				
Miscellaneous Emissions	0.88	0.06	4.0	0.25
Tank, 5A, Gasoline, 502,152 gallon	0.00	0.00	0.00	0.00
Tank 6, ULSD, 888,384 gallon	0.00	0.00	0.00	0.00
Tank 7, Gasoline, 2,018,142 gallon	0.00	0.00	0.00	0.00
Tank 701, Gasoline, 1,705,368 gallon	0.00	0.00	0.00	0.00
Tank 702, Gasoline, 2,570,715 gallon	0.00	0.00	0.00	0.00
Tank 703, ULSD, 1,342,488 gallon	0.00	0.00	0.00	0.00
Tank 12, Transmix, 314,244 gallon	0.00	0.00	0.00	0.00
Tank 4, Ethanol, 99,180 gallon	0.00	0.00	0.00	0.00
Tank 2, Ethanol, 100,072 gallon	0.00	0.00	0.00	0.00
<b>Facility Emissions</b>	<b>2.7</b>	<b>8.13</b>	<b>8.6</b>	<b>20.42</b>

<sup>1</sup> Emissions of NO<sub>x</sub> from the VCU were estimated at 4mg/liter of gasoline loaded.

<sup>2</sup> Emissions of CO from the VCU were estimated at 10mg/liter of gasoline loaded.

Emission factors for NO<sub>x</sub> and CO were taken from values provided by Marathon Oil for the Midland Terminal. Values were calculated elsewhere and rounded.



Emission increases at the Delmont Terminal since the Title V Operating Permit since it was last renewed on January 31, 2012 are shown in Table 4:

**Table 4:  
 Emission Change since Last Renewal of the TVOP  
 Sunoco Partners Marketing & Terminals, L.P.  
 Delmont Terminal (TVOP-65-00354)**

Source	NO <sub>x</sub>	CO	VOC
	Ton/ Yr	Ton/ Yr	Ton/ Yr
Facility Emission Baseline on January 31, 2012 <sup>1</sup>			
Normal Operation Scenario	0.00	0.00	48.75
Alternative Operation Scenario	8.07	20.17	99.16
1. January 2013 - Conversion of existing Tank 5 to store gasoline, including installation of IFR. (GP2-65-00454, Source ID 104, Now known as Tank 5A.)	0.00	0.00	2.09
2. March 2014 - Construction of Delmont Pumping Station (RFD-65-00454D, Included in Source ID 103.)	1	1	1
3. March 2014 - Addition of equipment to collect from compressor seals at the Delmont Pumping Station. (RFD-65-00454E, Included in Source ID 103.)	1	1	1
4. January 2015 - Emission increase due to change in enclosed flare installed as part of Delmont Pumping Station. (RFD-65-00454F, Included in Source ID 103.)	1	1	1
5. November 2016 - Additional loading arms were both reactivated and added to the gasoline (RFD-65-00454G)	0.00	0.00	0.00
6. November 2016 - Emissions for the Delmont Pumping Station were recalculated. (RFD-65-00454H, Included in Source ID 103.)	1	1	1
7. November 2016 - The Delmont Pumping Station was changed, resulting in these emission totals for the pumping station. (RFD-65-00454I, Included in Source ID 103.) <sup>3</sup>	0.06	0.25	1.10
<b>Total Emission Increase</b>	<b>0.06</b>	<b>0.25</b>	<b>3.19</b>
Current Facility Emission Baseline			
Normal Operation Scenario	0.06	0.25	51.94
Alternative Operation Scenario	8.13	20.42	102.35

<sup>1</sup> These emission increases are accounted for in Item 7. (RFD-65-00454I).

<sup>3</sup> Values listed are for the Delmont Pumping Station project. Annual flare emissions are 0.67 tons of VOC, 0.25 tons of CO, and 0.06 tons of NO<sub>x</sub>. Other emissions are fugitive. Values were calculated elsewhere and rounded.

**Regulatory Analysis:**

The Delmont Terminal is a Major Source of criteria air pollutants, because its potential emission of VOCs is greater than the Title V threshold of 50 tons per year for this pollutant. This means that it requires a TVOP permit to authorize operation. Its potential emissions of PM<sub>10</sub>, NO<sub>x</sub>, SO<sub>2</sub>, and CO from the facility are less than the major source threshold of 100 tons per year. The Terminal's potential emissions of HAP emissions have an emission potential less than 10 TPY of any single HAP and 25 TPY of the sum of all emitted HAPs. A facility that does not emit HAPs of this amount is called an Area Source.

The facility was evaluated for applicability of New Source Performance Standards (NSPS), National Emission Standards for Hazardous Air Pollutants (NESHAP), other Federal Standards, and applicable requirements of 25 Pa. Code Chapters 121 - 145, of the Commonwealth of Pennsylvania. The following standards were considered:

**Table 4: Regulatory Analysis  
 Sunoco Partners Marketing & Terminals, L.P.  
 Delmont Terminal (TVOP-65-00354)**

<b><u>Federal Regulations</u></b>	
<b>NSPS</b>	
40 CFR Part 60, Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978.	No storage tank at the facility was constructed during this period.
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.	Tank 7 (Source ID 106) at the facility was constructed during this period, and has applicable requirements under Subpart Ka.  No other storage tank was constructed during this period.
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.	None of the storage tanks at the terminal were constructed or reconstructed after July 23, 1984. Therefore, no source has requirements under Subpart Kb.

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<p>40 CFR Part 60, Subpart XX - Standards of Performance for Bulk Gasoline Terminals.</p>	<p>The Delmont Terminal is a bulk gasoline terminal. The gasoline tank truck loading racks at any bulk gasoline terminal that were modified after December 17, 1980 are subject to the provisions of Subpart XX. The Gasoline Loading Racks at the Delmont Terminal were reconstructed during 1993. Source 101, the Gasoline Loading Racks at the Delmont Terminal, is therefore subject to 40 CFR Part 60 Subpart XX. This rule establishes a maximum VOC rate of 35 mg TOC/gallon gasoline, ensured by the 10 mg TOC/gallon limit during the Normal Operational Scenario and the 35 mg TOC/gallon limit during the Alternative Operation Scenario, established in the proposed TVOP.</p>
<p><b>NESHAPs</b></p>	
<p>40 CFR Part 63, Subpart R - National Emission Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations).</p>	<p>The requirements of this subpart apply to bulk gasoline terminals with the exception of facilities where the owner/operator has demonstrated to the Administrator that the emissions screening factor (<math>E_T</math>) is less than 0.5 and the recordkeeping requirements of § 63.428(j) are met to demonstrate that <math>E_T</math> continues to be less than 0.5, or the terminal is an area source of HAP emissions.<sup>1</sup></p> <p>The former owner submitted an application on September 16, 1996, which adopted elective restrictions to limit the throughputs of gasoline and distillate through the terminal. These restrictions ensure that the Delmont Terminal would be an area source of HAP emissions. This exempted the Delmont Terminal from the requirements of Subpart R.</p>
<p>40 CFR Part 63 Subpart CC - National Emission Standards for Hazardous Air Pollutants from Petroleum Refineries.</p>	<p>These provisions only apply to gasoline loading racks located at a facility that also contains a petroleum refinery, and is not applicable.</p>

<sup>1</sup> Maximum potential emissions of the highest individual HAP and combined HAPs are less than 10 and 25 TPY, respectively.

<p>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.</p>	<p>A bulk gasoline terminal is subject to the provisions of Subpart BBBBBB, if it is exempt from the control requirements of 40 CFR Part 63 Subpart R and 40 CFR Part 63 Subpart CC. The Delmont Terminal is exempt from these requirements. Therefore, the facility is subject to the requirements of Subpart BBBBBB.</p> <p>The gasoline tank truck loading rack system at the Delmont Terminal is considered an existing source, for this subpart, and subject to the requirements of Subpart BBBBBB.</p> <p>Gasoline storage tanks subject 40 CFR Part 60, Subpart Kb are deemed to be in compliance with Subpart BBBBBB. However, the five gasoline and transmix storage tanks (Tanks 5A, 7, 701, 702, and 12, Source IDs 104, 106, 107, 108, 109, and 110) are not subject to Kb, and therefore, have applicable requirements under Subpart BBBBBB.</p> <p>Gasoline cargo tanks of tank trucks may use the test methods of 40 CFR Part 60, Subpart XX to comply with Subpart BBBBBB.</p>
<p>40 CFR Part 63, Subpart CCCCCC - National Emission Standards for Hazardous Air Pollutants for Source Category: Gasoline Dispensing Facilities.</p>	<p>Delmont Terminal is not a gasoline dispensing facility, and has no requirements under this subpart.</p>
<p><b>Other Air Programs</b></p>	
<p>No source at the facility is affected by any other Air Program.</p>	

<b><u>Pennsylvania Air Pollution Control Regulations</u></b>	
25 Pa Code 121.7 (Prohibition of Air Pollution)	Section is applicable.
25 Pa Code § 123.1 (Prohibition of Certain Fugitive Emissions)	Section is applicable.
25 Pa Code § 123.2 (Fugitive Particulate Matter)	Section is applicable.
25 Pa Code § 123.11 (Combustion Units)	Section is not applicable.
25 Pa Code § 123.13 (Processes)	Section is applicable to processes that generate particulate that can be measured, and do not burn fuel for indirect heat transfer. All emission sources the facility are limited by this section. Each unit is limited to maximum particulate emission of 0.04 grain/SDCF.
25 Pa Code § 123.21 (General) [Related to SO <sub>2</sub> ]	Section is not applicable.
25 Pa Code § 123.31 (Odor Emissions)	Section is applicable.
25 Pa Code § 123.41 (Limitations - Visible Emissions)	Section is applicable.
25 Pa Code § 123.42 (Exceptions - Visible Emissions)	Section is applicable.
25 Pa Code § 123.43 (Measuring Techniques)	Section is applicable.
25 Pa Code Chapter § 127.441 (Operating permit terms and conditions)	Section is applicable. Emission control, workpractice, recordkeeping, and reporting restrictions for the facility were created under the authority of this section.
25 Pa Code Chapter § 129.14 (Open Burning Operations)	Section is applicable. The facility is not located in an air basin, and open burning is allowed, with certain exceptions.
25 Pa Code Chapter § 129.56 (Storage tanks greater than 40,000 gallons capacity containing VOCs)	This condition is applicable to the four gasoline and single transmix storage tanks at the Delmont Terminal. These are Tanks 5A, 7, 701, 702, and 11 (Sources ID 104, 106, 107, 108, and 110).
25 Pa Code Chapter § 129.57 (Storage tanks less than or equal to 40,000 gallons capacity containing VOCs)	Delmont Terminal has no storage tanks of this capacity that may store VOCs with a vapor pressure greater than 1.5 psia.

(Continued)

(Continued)

<p>25 Pa Code 129.59 (Bulk Gasoline Terminals)</p>	<p>This section applies to the Delmont Terminal. Paragraph (a) of this section restricts emissions of VOCs during loading of gasoline tank trucks to 30.3 grams per 380 liters (80 milligrams per liter) of gasoline loaded. The limitation is met by conformance to the elective requirement which limits emissions of TOC during loading of gasoline tank trucks to 10 (Normal Scenario) or 35 (Alternative Scenario) milligrams per liter of TOC when the Gasoline Loading Racks are operating.</p>
<p>25 Pa Code 129.62 (General standards for bulk gasoline terminals, bulk gasoline plants and small gasoline storage tanks)</p>	<p>Since the Delmont Terminal is a bulk gasoline terminal; the requirements of this section are applicable.</p>
<p>25 Pa Code 129.91 – 129.95 (Stationary Sources of NO<sub>x</sub> and VOCs)</p>	<p>This Subchapter describes RACT. The Delmont Terminal is a major VOC emitting facility. The Gasoline Loading Racks (Source ID 101) have an applicable TOC emission limit under § 129.59 - Bulk gasoline terminals. The five storage tanks that can contain gasoline (Source IDs 104, 106, 107, 108, and 109) have workpractice requirements under § 129.56 - Storage tanks greater than 40,000 gallons capacity containing VOCs. No process has applicable requirements under this Subchapter.</p>
<p>25 Pa Code 129.96 – 129.100 (Additional RACT Requirements for Major Sources of NO<sub>x</sub> and VOCs)</p>	<p>This Subchapter describes RACT II. No other (See above.) source at the facility has VOC emissions greater than 1 ton per year. Therefore, no source at the Delmont terminal has applicable requirements under RACT (§ § 129.91 - 129.95) or RACT II (§ § 129.96 - 129.100). No process has applicable requirements under this Subchapter.</p>
<p>25 Pa Code Chapter 135.5 (Recordkeeping)</p>	<p>Sunoco Partners will fulfill the following requirements: 1. The permittee shall maintain comprehensive, accurate records which, at a minimum, shall include: a. The number of hours per month that each piece of equipment operated; and b. The amount of fuel used per month in each piece of equipment; 2. The owner/operator shall keep daily records of all product delivery. These records shall be kept on site for a period of five years and be made available to the Department upon request.</p>

## **Changes in Proposed TVOP from Current Operating Permit**

1. Permit Maps were added to include all sources at the facility.
2. The name of Fugitive Emissions (Old), Source ID 103, was changed to Miscellaneous Emissions (New), and now includes the Delmont Pumping Station.
3. The name of Tank 5 (Old), Source ID 104, was changed to its new name, Tank 5A Gasoline (New).
4. Condition #003 (New), Section C, for fugitive particulate, was added.
5. Condition #004 (New), Section C, for particulate, was added.
6. Condition #004 (Old), Section C, a limit on CO emissions, was removed.
7. Condition #005 (Old), Section C, a limit on NO<sub>x</sub> emissions, was removed.
8. Condition #008 (New), Section C, an existing limit on HAP emissions to be an area source, was added.
9. Conditions #018 & #019 (New), Section C, reporting requirements for semi-annual reports and annual certifications, was added.
10. Condition #030 (New), Section C, relating to the non-applicability of RACT II, was added.
11. Condition #005 (New), Section D, Source ID 101, which prohibits operation of the Gasoline Loading Racks, when the vapor emission control system is not operating properly, was added.
12. 40 CFR, Part 60 Subpart XX - Standards of Performance for Bulk Gasoline Terminals and Conditions #005 - 008, Section E, Source Group SG3-LOADING RACKS (Old) applies to loading of gasoline, which is only done by Source ID 101. These conditions were moved to Conditions #008 - 012 (New), Section D, Source ID 101. The other voluntary and BAT based conditions in this Source Group, #001 - #004 (Old), were also moved to Conditions #001 - #004 (New), Source ID 101.
13. All of the conditions described in 12, above, were also included in Conditions #001 - #013 (New), Section F Alternative Operation Requirements, Source ID 101.

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14. Condition #002 (New), Section D, Source ID 102, related to the distillate throughput limit to keep the terminal an area source, was added.

15. Condition #003 (New), Section D, Source ID 102, which prohibits operation of the Distillate Loading Racks, when the vapor emission control system is not operating properly, was added.

16. Condition #001 (New), Section D, Source ID 104, related an ongoing requirement of GP-2, was added to the permit.

17. In Source Group, SG01 - GASOLINE & ETHANOL STORAGE TANKS > 40,000 GALLONS (Old), G01 - GASOLINE STORAGE TANKS (New), the ethanol storage tanks, Tank 4 and Tank 2 (Source IDs 111 & 112) were removed, since the vapor pressure of ethanol is low enough that § 129.56 does not apply to these tanks.

18. Conditions #001 - #012, Source Group G02 Gasoline Processing Sources (New), related to 40 CFR Part 63, Subpart BBBBBB - National Emission Standards for Hazardous Air Pollutants for Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities, was added, since that subpart is now effective.

19. Conditions #001 - #005 (Old), Section F, Source ID 102, related to emission limits for NO<sub>x</sub> & CO, were removed.

20. Conditions #007 and #010 - #013 (Old), Section F, Source ID 102, related to Part 60, Subpart XX, were removed.

21. Condition #005 (New), Section F, Source ID 102, which prohibits operation of the Distillate Loading Racks, when the vapor emission control system is not operating properly, was added.

22. Conditions #001 - #004 and #006 (Old), Section F, Source ID 101, related to emission limits for NO<sub>x</sub>, CO, & VOC, were removed.

23. Conditions #007 and #010 - #013 (Old), Section F, Source ID 101, related to Part 60, Subpart XX, were removed.

24. Condition #006 (New), Section F, Source ID 101, which prohibits operation of the Gasoline Loading Racks, when the vapor emission control system is not operating properly, was added.

25. Wording was updated in several other conditions.



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**Conclusions and Recommendations:**

An inspection of the Delmont Terminal for a Full Compliance Evaluation was last conducted on June 8, 2016. Anna Fabrizi, Air Compliance Specialist of DEP determined that the plant met all requirements proposed in the SOOP application. Copies of the draft permit are being sent to Alyssa Najewicz, Environmental Specialist for Sunoco Partners, and Phil Sapala, the Department’s Air Quality inspector for the facility. The VRU Stack (C04) was last tested on June 16, 2016. Emissions of THC were found to be 5.1% of the emission limit.

Conditions in the proposed State Only Operating Permit are based on the current TVOP. Also, current standard permit language was updated in the proposed permit.

The Sunoco Partners Marketing & Terminals, L.P. has proposed, in this application, to operate a bulk gasoline transfer terminal in Salem Township, Westmoreland County. I recommend the issuance of a five-year Operating Permit for this facility, subject to the conditions in the proposed State Only Operating Permit.

Permit Authorized by this Authorization					
Quantity	Facility Name			PF ID:	238482
1	Sunoco Partners Marketing & Terminals, L.P./ Delmont Terminal (OP-65-00354)				
		APS ID:	918996	Auth. ID:	1143959
Short Descr.	Operating Permit for a bulk gasoline transfer terminal.				
Permits Inactivated by this Authorization					
Permit #				Auth. ID	
		APS ID		Auth. ID	
GP2-65-00354	Install IFR in Tank 5		791411	943219	

**Sunoco Partners - Delmont Terminal (TVOP-65-00354)**

MLH  
PA DEP  
4/28/2017

Calculation of Potential Emissions

(All TOC emissions are assumed to be VOC.)

**Emission Change since Last Renewal of the TVOP  
Sunoco Partners Marketing & Terminals, L.P.  
Delmont Terminal (TVOP-65-00354)**

Source	NO <sub>x</sub>	CO	VOC
	Ton/ Yr	Ton/ Yr	Ton/ Yr
1. January 2013 - Conversion of existing Tank 5 to store gasoline, including installation of IFR. (GP5-65-00454, Source ID 104, Now known as Tank 5A.)	0.00	0.00	2.09
2. March 2014 - Construction of Delmont Pumping Station (RFD-65-00454D, Included in Source ID 103.)	2	2	2
3. March 2014 - Addition of equipment to collect from compressor seals at the Delmont Pumping Station. (RFD-65-00454E, Included in Source ID 103.)	2	2	2
4. January 2015 - Emission increase due to change in enclosed flare installed as part of Delmont Pumping Station. (RFD-65-00454F, Included in Source ID 103.)	2	2	2
5. November 2016 - Additional loading arms were both reactivated and added to the gasoline (RFD-65-00454G)	0.00	0.00	0.00
6. November 2016 - Emissions for the Delmont Pumping Station were recalculated. (RFD-65-00454H, Included in Source ID 103.)	2	2	2
7. November 2016 - The Delmont Pumping Station was changed, resulting in these emission totals for the pumping station. (RFD-65-00454I, Included in Source ID 103.)	0.06	0.25	1.10
<b>Total Emission Increase</b>	<b>0.06</b>	<b>0.25</b>	<b>3.19</b>

<sup>1</sup> Values were calculated elsewhere and rounded.

<sup>2</sup> These emission increases are accounted for in Item 7. (RFD-65-00454I).

**1. Normal Scenario (Loading Rack emissions controlled by VRU)**

483,296,354 gallons of finished gasoline through the Gasoline Loading Racks (Source ID 101) during any consecutive 12-month period, updated monthly

1,545,169,992 gallons of distillate through the Distillate Loading Racks (Source ID 102) during any consecutive 12-month period, updated monthly

Fugitive Distillate Tank Truck loading VOC emissions

Uncontrolled distillate loading emissions

1.7 mg/liter distillate (EPA AP-42, Table 5.2-5, Distillate Oil No. 2)

98.7% Capture efficiency (EPA AP-42, Page 5.2-6, Based on Part 60, Subpart XX cargo tank requirements.)

0.022 milligrams of TOC per liter, as propane, of distillate loaded

Fugitive Gasoline Tank Truck loading VOC emissions

Uncontrolled gasoline loading emissions

590 mg/liter gasoline (EPA AP-42, Table 5.2-5, Gasoline)

98.7% Capture efficiency (EPA AP-42, Page 5.2-6, Based on Part 60, Subpart XX cargo tank requirements.)

7.67 milligrams of TOC per liter, as propane, of gasoline loaded

Processed VOC Emissions

VRU emission limit (Normal Scenario)

10 milligrams of TOC per liter, as propane, of finished gasoline (Raw gasoline mixed with ethanol and any other added compounds.) loaded

Source	Potential to Emit									
	VOC		n-Hexane		Isooctane		Benzene		THAP	
	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
(101) Gasoline Loading Racks inc./truck tank emissions <sup>1,5</sup>	8.2	35.78	0.022	0.10	0.133	0.58	0.022	0.10	0.33	1.46
(102) Distillate Loading Racks inc./truck tank emissions <sup>1</sup>										
(103) Miscellaneous Emissions <sup>2,4,&amp;7</sup>	12.40	1.88	0.0023	0.01	0.0068	0.03			0.034	0.15
(104) Tank, 5A, Gasoline, 10,710 Barrel cap. <sup>2,3</sup>	0.54	2.35	0.0023	0.01	0.0068	0.03			0.021	0.09
(105) Tank 6, ULSD, 21,000 Barrel cap. <sup>2</sup>	0.041	0.18								
(106) Tank 7, Gasoline, 47,000 Barrel cap. <sup>2</sup>	0.82	3.6	0.0068	0.03			0.0023	0.01	0.023	0.10
(107) Tank 701, Gasoline, 41,000 Barrel cap. <sup>2</sup>	0.84	3.68	0.0023	0.01	0.0136986	0.06	0.0023	0.01	0.034	0.15
(108) Tank 702, Gasoline, 60,000 Barrel cap. <sup>2</sup>	0.59	2.58	0.0068	0.03					0.0183	0.08
(109) Tank 703, ULSD, 32,000 Barrel cap. <sup>2</sup>	0.130	0.57							0.0114	0.05
(110) Tank 12, Transmix, 340,200 Barrel cap. <sup>2</sup>	0.20	0.88								
(111) Tank 4, Ethanol, 103,000 Barrel cap. <sup>2</sup>	0.057	0.25								

(112) Tank 2, Ethanol, 100,072 Barrel cap. <sup>2</sup>	0.043	0.19									
<b>Facility Emissions<sup>5</sup></b>	<b>24</b>	<b>51.94</b>	<b>0.043</b>	<b>0.19</b>	<b>0.161</b>	<b>0.70</b>	<b>0.027</b>	<b>0.12</b>	<b>0.47</b>	<b>2.08</b>	

<sup>1</sup> Potential emissions from VRU plus fugitive emissions from tank loading operations at maximum throughput.

<sup>2</sup> Emissions calculated by EPA Tanks 4.0.9d and presented in October 13, 2011 renewal application.

<sup>3</sup> Emissions calculated by EPA Tanks 4.09d and presented in application for a GP-2 to add an IFR to the existing tank and use it in gasoline service, on September 13, 2011.

<sup>4</sup> VOC emissions include those from the Delmont Pumping Station.

<sup>5</sup> Total Facility Emissions are a combination of regulated potential emissions and estimated emissions at regulated maximum throughput. Since operation of the VCU does not need combustion, emission of other criteria pollutants under this scenario is negligible.

<sup>6</sup> HAP emissions were calculated based on proportion of VOC emissions, based on Tank 701 (Source ID 107).

All gasoline processing sources, distillate loading racks and all storage tanks are assumed to operate 8760 hours per year.

THAP is the sum of all Hazardous Air Pollutants, combined.

Values reported in this table were rounded from calculations performed elsewhere.

## 2. Alternative Scenario (Loading Rack emissions controlled by VCU)

VCU emission limit (Alternate Scenario)

35 milligrams of TOC per liter, as propane, of finished gasoline (Raw gasoline mixed with ethanol and any other added compounds.) loaded

All other components of TOC emissions due to Tank Truck Loading remain the same.

Source	Potential to Emit									
	VOC		n-Hexane		Isooctane		Benzene		THAP	
	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr	lb/hr	tons/yr
(101) Gasoline Loading Racks inc./truck tank emissions <sup>1,5</sup>										
(102) Distillate Loading Racks inc./truck tank emissions <sup>1</sup>	19.7	86.19	0.053	0.23	0.32	1.41	0.053	0.23	0.80	3.51
(103) Miscellaneous Emissions <sup>2,4, &amp; 7</sup>	12.4	1.88	0.0023	0.01	0.0068	0.03			0.034	0.15
(104) Tank, 5A, Gasoline, 10,710 Barrel cap. <sup>3</sup>	0.54	2.35	0.0023	0.01	0.0068	0.03			0.021	0.09
(105) Tank 6, ULSD, 21,000 Barrel cap. <sup>2</sup>	0.041	0.18								
(106) Tank 7, Gasoline, 47,000 Barrel cap. <sup>2</sup>	0.82	3.6	0.0068	0.03			0.0023	0.01	0.023	0.1
(107) Tank 701, Gasoline, 41,000 Barrel cap. <sup>2</sup>	0.84	3.68	0.0023	0.01	0.0136986	0.06	0.0023	0.01	0.034	0.15
(108) Tank 702, Gasoline, 60,000 Barrel cap. <sup>2</sup>	0.59	2.58	0.0068	0.03					0.0183	0.08
(109) Tank 703, ULSD, 32,000 Barrel cap. <sup>2</sup>	0.130	0.57							0.0114	0.05
(110) Tank 12, Transmix, 340,200 Barrel cap. <sup>2</sup>	0.20	0.88								
(111) Tank 4, Ethanol, 103,000 Barrel cap. <sup>2</sup>	0.057	0.25								
(112) Tank 2, Ethanol, 100,072 Barrel cap. <sup>2</sup>	0.043	0.19								
<b>Facility Emissions<sup>5</sup></b>	<b>35</b>	<b>102.35</b>	<b>0.074</b>	<b>0.32</b>	<b>0.35</b>	<b>1.53</b>	<b>0.058</b>	<b>0.25</b>	<b>0.94</b>	<b>4.13</b>

<sup>1</sup> Potential emissions from VCU plus fugitive emissions from tank loading operations at maximum throughput and 35 mg/l of finished gasoline loaded from the VCU.

<sup>2</sup> Emissions calculated by EPA Tanks 4.0.9d and presented in November 6, 2013 renewal application.

<sup>3</sup> Emissions calculated by EPA Tanks 4.09d and presented in application for a GP-2 to add an IFR to the existing tank and use it in gasoline service, on September 13, 2012.

<sup>4</sup> Includes VOC emissions from the Delmont Pumping Station, which emits negligible HAPs

<sup>5</sup> Total Facility Emissions are a combination of regulated potential emissions and estimated emissions at regulated maximum throughput. Since operation of the VCU does not need combustion, emission of other criteria pollutants under this scenario is negligible.

<sup>6</sup> HAP emissions were calculated based on proportion of VOC emissions, based on Tank 701 (Source ID 107).

<sup>7</sup> Miscellaneous Emissions (Source ID 103) also emits 0.25 tons of CO and 0.06 tons of NO<sub>x</sub> per year. These emissions are from the Delmont Pumping Station.

All gasoline processing sources, distillate loading racks and all storage tanks are assumed to operate 8760 hours per year.

THAP is the sum of all Hazardous Air Pollutants, combined.

Values reported in this table were rounded from calculations performed elsewhere.

## 2A. Emissions of Other Pollutants when the VCU is the operating control device for the Loading Racks.

Emissions of NO<sub>x</sub> from the VCU were estimated at: 4 mg/liter of gasoline loaded.

Emissions of CO from the VCU were estimated at: 10 mg/liter of gasoline loaded.

Emission factors for NO<sub>x</sub> and CO were taken from values provided by Marathon Oil for the Midland Terminal.

Source	Potential to Emit			
	NO <sub>x</sub>		CO	
	lb/hr	tons/yr	lb/hr	tons/yr
Gasoline Loading Racks inc./truck tank emissions				
Distillate Loading Racks inc./truck tank emissions	1.84	8.07	4.6	20.17
Miscellaneous Emissions	0.88	0.06	4.02	0.25
Tank, 5A, Gasoline, 10,710 Barrel cap.	0	0	0	0
Tank 6, ULSD, 21,000 Barrel cap.	0	0	0	0
Tank 7, Gasoline, 47,000 Barrel cap.	0	0	0	0
Tank 701, Gasoline, 41,000 Barrel cap.	0	0	0	0
Tank 702, Gasoline, 60,000 Barrel cap.	0	0	0	0
Tank 703, ULSD, 32,000 Barrel cap.	0	0	0	0
Tank 12, Transmix, 340,200 Barrel cap.	0	0	0	0
Tank 4, Ethanol, 103,000 Barrel cap.	0	0	0	0
Tank 2, Ethanol, 100,072 Barrel cap.	0	0	0	0
<b>Facility Emissions</b>	<b>2.7</b>	<b>8.13</b>	<b>8.6</b>	<b>20.42</b>