



Sunoco Logistics



**Sunoco Partners
Marketing & Terminals, L.P.**

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Marcus Hook, PA 19061

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November 9, 2016

Mr. James Rebarchak
Regional Air Quality Program Manager
Southeast Regional Office
Pennsylvania Department of Environmental Protection
2 East Main Street
Norristown, PA, 19401-4915

**Re: Sunoco Partners Marketing and Terminals L.P.
Marcus Hook Industrial Complex
Title V Operating Permit 23-00119
Updated RACT II Proposal**

Dear Mr. Rebarchak:

Based on comments received from the Pennsylvania Department of Environmental Protection (PADEP), Sunoco Partners Marketing and Terminals, L.P. (SPMT) submits the attached updated RACT II Proposal to PADEP for the Marcus Hook industrial complex (MHIC) located in Marcus Hook Borough, Delaware County, PA. The RACT II proposal addresses sources of nitrogen oxides (NO_x) and volatile organic compounds (VOC).

This submittal revises the original RACT II proposal previously submitted and addresses emission information, a detailed NO_x and VOC RACT analysis, cost-effectiveness calculations, and other supporting information. As part of this package, SPMT also submits a Title V Major Modification application to incorporate requirements from the recently promulgated requirements codified at 25 PA Code §§129.96 through §129.100 for major sources of NO_x and VOC. Note that as part of the RACT proposal, SPMT plans to submit under separate cover, an updated CEMS monitoring plan for certain applicable sources to demonstrate compliance with the proposed NO_x RACT II emission rates, in accordance with 25 PA Code §129.100.

Three copies of the updated SPMT RACT II submittal are attached, which include the following:

- SPMT RACT II Proposal;
- Copy of the completed General Information Form (GIF) in **Attachment A**;
- Copy of the Compliance History Review Form in **Attachment B**;
- Pennsylvania Department of Environmental Protection (PADEP) Title V Permit Application form in **Attachment C**;
- Title V Operating Permit Application Addendums in **Attachment D**;
- County and Municipal Notification letters are in **Attachment E**;
- A check in the amount of \$750.00 for the permit application fee per 25 Pa. Code § 127.704 is in **Attachment F**; and



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- A Case-by-Case NO_x RACT Cost Effectiveness Analysis in **Attachment G**.

If you have any questions, please contact me by telephone at (610) 859-1279 or via email at kwsmith@sunocologistics.com.

Sincerely,

Kevin W. Smith
Specialist – Environmental Compliance

- Encl: SPMT Updated RACT II Proposal*
- A – General Information Form*
 - B – Compliance History Review Form*
 - C – PADEP Title V Permit Application Form*
 - D – Title V Operating Permit Application Addendums*
 - E – County and Municipal Notification Letters*
 - F – Permit Application Fee*
 - G – Case-by-Case NO_x RACT Cost Effectiveness Analysis*



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Sunoco Partners Marketing and Terminals, L.P.
RACT II Proposal
Philadelphia, Pennsylvania

November 2016 – Revision A

Environmental Resources Management
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TABLE OF CONTENTS

1.0	INTRODUCTION	1
1.1	SITE DESCRIPTION	1
1.2	NO _x RACT ANALYSIS	1
1.3	NO _x RACT II ANALYSIS SUMMARY	2
1.4	VOC RACT ANALYSIS	2
1.5	VOC RACT ANALYSIS SUMMARY	3
1.6	REPORT ORGANIZATION	5
2.0	SOURCE IDENTIFICATION AND EMISSIONS INFORMATION	6
2.1	RACT SOURCES DETAIL	6
2.2	ESTIMATE OF POTENTIAL AND ACTUAL NO _x EMISSIONS	6
2.3	ESTIMATE OF POTENTIAL AND ACTUAL VOC EMISSIONS	7
3.0	NO_x RACT ANALYSIS	12
3.1	EXEMPT NO _x RACT II SOURCES	12
3.2	PRESUMPTIVE NO _x RACT II SOURCES	12
3.3	CASE-BY-CASE NO _x RACT II SOURCES	13
3.4	AUXILIARY BOILERS - NO _x RACT ANALYSIS	13
3.4.1	Auxiliary Boilers - Available NO _x Control Options	14
3.4.1.1	Selective Non-Catalytic Reduction	15
3.4.1.2	Ultra-low NO _x Burners	15
3.4.1.3	Selective Catalytic Reduction	16
3.4.3	Auxiliary Boilers - Technical Feasibility	17
3.4.4	Auxiliary Boilers - Ranking of NO _x Control Options	17
3.4.5	Auxiliary Boilers - NO _x RACT Economic Analysis	17
4.0	VOC RACT II ANALYSIS	20
4.1	EXEMPT VOC RACT II SOURCES	20

4.2	PRESUMPTIVE VOC RACT II SOURCES	21
4.3	CASE-BY-CASE VOC RACT II SOURCES	21
4.4	STORAGE TANKS - VOC RACT ANALYSIS	22
4.5	MARINE VESSEL LOADING - VOC RACT ANALYSIS	25
4.5.1	<i>Marine Vessel Loading - Available VOC Control Options</i>	26
4.5.1.1	<i>Thermal Incinerator</i>	26
4.5.1.2	<i>Condenser</i>	26
4.5.1.3	<i>Adsorption</i>	27
4.5.2	<i>Marine Vessel Loading - Technical Feasibility</i>	27
4.5.3	<i>Marine Vessel Loading - Ranking of VOC Control Options</i>	28
4.6	MARINE VESSEL BALLASTING - VOC RACT ANALYSIS	28
4.7	COOLING TOWERS - VOC RACT ANALYSIS	28
4.8	VEHICLE REFUELING - VOC RACT ANALYSIS	29
4.9	FUGITIVES - VOC RACT ANALYSIS	29
5.0	COMPLIANCE DEMONSTRATION	31
5.1	NO_x RACT COMPLIANCE	31
5.1.1	<i>Exempt NO_x Sources</i>	31
5.1.2	<i>Presumptive NO_x Sources</i>	31
5.1.3	<i>Case-by-Case NO_x Sources</i>	31
5.1.4	<i>NO_x RACT Compliance Summary</i>	32
5.2	VOC RACT COMPLIANCE	32
5.2.1	<i>Exempt VOC Sources</i>	32
5.2.2	<i>Presumptive VOC Sources</i>	33
5.2.3	<i>Case-by-Case VOC Sources</i>	33
5.2.4	<i>VOC RACT Summary</i>	34

LIST OF TABLES

- 1-1 *NO_x RACT II Summary*
- 1-2 *VOC RACT II Summary*
- 2-1 *RACT Source Detail*
- 2-2 *Baseline Actual and Potential NO_x Emissions*
- 2-3 *Baseline Actual and Potential VOC Emissions*
- 3-1 *Presumptive NO_x RACT Sources*
- 3-2 *Case-by-Case NO_x RACT II Sources*
- 3-3 *Auxiliary Boilers – Ranking of NO_x Control Options*
- 3-4 *Auxiliary Boilers – NO_x Control Cost Effectiveness*
- 4-1 *Exempt VOC RACT II Sources < 1 TPY VOC*
- 4-2 *Exempt VOC RACT II Sources regulated by Chapter 129*
- 4-3 *Presumptive VOC RACT II Sources*
- 4-4 *Case-by-Case VOC RACT II Sources*
- 4-5 *Comparison of 25 PA Code §129.56 Versus NSPS Subpart Kb Storage Tank Requirements*
- 4-6 *Comparison of 25 PA Code §129.57 Versus NSPS Subpart Kb Storage Tank Requirements*
- 4-7 *Marine Vessel Loading - Ranking of VOC Control Options*
- 5-1 *NO_x RACT II Compliance Summary*
- 5-2 *VOC RACT II Compliance Summary*

LIST OF ATTACHMENTS

- A *PADEP General Information Form (GIF)*
- B *Compliance History Review Form*
- C *Pennsylvania Title V Operating Permit Application Forms for Permit No. 23-00119*
- D *Title V Operating Permit Application Addendums*
- E *County and Municipal Notification Letters*
- F *Permit Application Fee*
- G *Case-by-Case NO_x RACT Cost Effectiveness Analysis*

1.0 INTRODUCTION

Sunoco Partners Marketing and Terminals, L.P. (SPMT) owns and operates the Marcus Hook Industrial Complex (MHIC). The Complex is located within the five-county Pennsylvania portion of the Philadelphia consolidated metropolitan statistical area (CMSA) classified as an ozone nonattainment area and emits greater than 50 tons per year (TPY) of volatile organic compounds (VOC) and 100 tons per year of oxides of nitrogen (NO_x). Thus, the Complex is subject to updated reasonably available control technology (RACT II) requirements as promulgated in Pennsylvania Code, Title 25, Chapters 121 and 129. In accordance with the guidance provided by the US Environmental Protection Agency (USEPA), the Pennsylvania Department of Environmental Protection (PADEP) must provide an updated analysis for all sources subject to the 8-hour ozone National Ambient Air Quality Standard (NAAQS) promulgated in 2015. This RACT II analysis and compliance plan complies with the specific requirements listed in 25 PA Code §129.96 through §129.100.

This RACT II analysis provides a list of each source subject to the RACT requirements, identifying information, the RACT category (exempt, presumptive, or case-by-case) for each source, estimates of actual and potential NO_x and VOC emissions, a RACT analysis, and testing, monitoring, recordkeeping and reporting procedures.

1.1 SITE DESCRIPTION

SPMT owns and operates the Marcus Hook Industrial Complex (MHIC) in Marcus Hook, Pennsylvania. The facility receives feedstocks such as natural gas, propane, ethane, and gasoline products by marine vessel, pipeline, truck and rail. These materials are then processed, if necessary, and stored onsite in various storage tanks or underground caverns.

The person responsible for daily operations is Edward G. Human, Director of Marcus Hook Operations.

1.2 NO_x RACT ANALYSIS

The Pennsylvania RACT II rule includes provisions for exemptions, presumptive, and case-by-case RACT emission limitations. Combustion units and process heaters greater than 50 MMBtu/hr are subject to presumptive RACT emission limitations. Combustion units equal to or greater than 20 MMBtu/hr and less than 50 MMBtu/hr are subject to presumptive RACT II requirements. Boilers or combustion sources less than

20 MMBtu/hr and/or with a potential to emit less than 5 tons of NO_x per year are subject to presumptive RACT II requirements. Sources with a potential to emit less than 1 ton per year (TPY) of NO_x or that are subject to regulations specified in 25 PA Code §129.96(a) are exempt from RACT II.

Section 3 provides a listing of each of the NO_x sources applicable to case-by-case or presumptive RACT II requirements. If a source does not have or cannot meet the applicable presumptive requirements listed in 25 PA Code §129.97, then a case-by-case analysis must be conducted.

1.3 NO_x RACT II ANALYSIS SUMMARY

Table 1-1 presents a summary RACT II analysis for each source. The NO_x RACT II Summary presents the NO_x RACT category, proposed NO_x RACT II requirements, and the proposed compliance demonstration.

Table 1-1 NO_x RACT II Summary

Source ID	Source	NO _x RACT Category	NO _x RACT Proposed Requirements	Compliance Demonstration
31	Auxiliary Boiler 1	Case-by-Case	Case-by-Case analysis performed. Technically feasible controls were determined to not be cost effective. Comply with existing NSPS Subpart Db and NESHAP Subpart DDDDD requirements and 0.05 lb NO _x /MMBtu emission rate.	In accordance with Chapter 139 Subchapter C and Pennsylvania Continuous Source Monitoring Manual (Rev 8), maintain records of CEMS reading and NO _x emission calculations.
33	Auxiliary Boiler 3	Case-by-Case		
34	Auxiliary Boiler 4	Case-by-Case		
113	(6) Diesel Engine Pumps	Presumptive	Operate according to manufacturer specifications and good operating practices (§129.97(c)(8)).	Maintain records according to §129.100(d).

1.4 VOC RACT ANALYSIS

The VOC potential to emit is based on permitted fuel firing rates, USEPA AP-42 emission factors, and current permitted emission rates. The actual VOC emissions were calculated using historical firing rates or material throughputs and the applicable emission factor. The emissions calculations are described in more detail in **Section 2.3**.

The Pennsylvania RACT II rule includes provisions for exemptions, presumptive, and case-by-case VOC RACT emission limitations. Sources with a potential to emit greater than or equal to 1 and less than 2.7 tons of VOC per year are subject to presumptive RACT II requirements. Sources with a potential to emit less than 1 TPY of VOC are exempt from RACT II.

Section 4 provides a listing of each of the VOC sources applicable to case-by-case or presumptive RACT II requirements. If a source does not have or cannot meet the applicable presumptive requirements listed in 25 PA Code §129.97, then a case-by-case analysis must be conducted.

1.5 VOC RACT ANALYSIS SUMMARY

Table 1-2 presents a summary RACT II analysis for each source. It presents the VOC RACT category, proposed VOC RACT requirement, and proposed compliance demonstration.

Table 1-2 VOC RACT II Summary

Source ID	Source	VOC RACT Category	VOC RACT Proposed Requirements	Compliance Demonstration
31	Auxiliary Boiler 1	Presumptive	Meets 25 PA Code §129.97(d). Will continue to comply with 0.004 lb VOC/MMBtu emission rate and existing NSPS Subpart Db and NESHAP Subpart DDDDD requirements.	Maintain records of compliance with NESHAP Subpart DDDDD, NSPS Subpart Db, and emission rate limitation of 0.004 lb VOC/MMBtu.
33	Auxiliary Boiler 3	Presumptive		
34	Auxiliary Boiler 4	Presumptive		
T001	NSPS Kb Ext Float Tanks	Case-by-Case	Comply with existing NSPS Subpart Kb requirements for these tanks.	Maintain record of compliance with NSPS Subpart Kb.
T002	NSPS Kb Int Float Tanks	Case-by-Case		
T003	NESHAP Subpart R Tanks	Exempt	Subject to §129.56	Maintain records in accordance with §129.100(d)
T004	NESHAP Subpart EEEE Tanks	Exempt	Subject to §129.65	
300	Miscellaneous Tanks	Exempt	Subject to §129.56	
113	(6) Diesel Engine Pumps	Exempt	PTE less than 1 TPY	Maintain records in accordance with §129.100(f)

Source ID	Source	VOC RACT Category	VOC RACT Proposed Requirements	Compliance Demonstration
115	Marine Vessel Loading	Case-by-Case	Case-by-Case analysis performed. Current control achieves highest control efficiency of all technically feasible control options. Continue to operate MVR system, use LDAR program, and follow §129.81 and NESHAP Subpart Y requirements.	Maintain records required by the LDAR program, §129.81, and NESHAP Subpart Y. Continue to operate MVR system during gasoline and distillate loading.
116	Marine Vessel Ballasting	Case-by-Case	Case-by-Case analysis performed. Comply with existing §129.81 requirements and use clean ballast water.	Maintain records required by §129.81.
139	Cooling Towers	Presumptive/ Case-by-Case	15-6 and 17-1P are Presumptive RACT II units. Case-by-Case analysis performed for Tower 15-2B only. No control options for source considered technically feasible. Continue to use equipment inspection and monitoring program to reduce VOC emissions.	Maintain records of the required equipment inspection and monitoring program.
367	Diesel Storage Tank	Case-by-Case	Comply with existing NSPS Subpart Kb requirements for these tanks.	Maintain records of compliance with NSPS Subpart Kb.
368	Vehicle Refueling (Gas/Diesel)	Case-by-Case	Comply with existing §129.61, §129.82, and NSPS Subpart Kb requirements.	Maintain records of compliance with §129.61, §129.82, and NSPS Subpart Kb.
701	Wastewater Treatment System	Exempt	PTE less than 1 TPY	Maintain records in accordance with §129.100(f)
402	Blind Changing	Case-by-Case	Case-by-Case analysis performed. Only feasible control option is LDAR. Existing NSPS Subpart VV requirements proposed for RACT.	Maintain records required by NSPS Subpart VV for these fugitive sources.
800	NESHAP Fugitive Equipment	Case-by-Case		
801	Fugitive Equipment	Case-by-Case		

MVR = Marine Vapor Recovery; NESHAP = National Emission Standards for Hazardous Air Pollutants; NSPS = New Source Performance Standards; LDAR = leak detection and repair; MMBtu = Million British thermal units; PTE = potential to emit.

REPORT ORGANIZATION

The following sections provide a summary of the NO_x and VOC RACT analyses. **Section 2** provides a physical description of each source subject to RACT as well as an estimate of potential and baseline emissions. The detailed NO_x and VOC RACT analysis for the Complex is contained in **Section 3** and **Section 4**, respectively. **Section 5** contains the proposed compliance demonstrations based on the RACT analysis. Additional relation information is provided in the attachments as follows:

- General Information Form (GIF) (**Attachment A**);
- Compliance History Review Form (**Attachment B**);
- Pennsylvania Department of Environmental Protection (PADEP) Title V Permit Application form (**Attachment C**);
- Title V Operating Permit Application Addendums (**Attachment D**);
- County and Municipal Notification letters (**Attachment E**);
- Permit Application F (**Attachment F**); and,
- Case-by-Case NO_x RACT Cost Effectiveness Analysis (**Attachment G**).

2.0 *SOURCE IDENTIFICATION AND EMISSIONS INFORMATION*

A listing and physical description of each affected NO_x and VOC sources located at the MHIC are provided in the sections below.

2.1 *RACT SOURCES DETAIL*

This section provides a listing and physical description of each RACT source. **Table 2-1** presents source specific information such as capacity, fuel/material, and source type. The potential and actual NO_x and VOC emissions are shown in **Table 2-2** and **Table 2-3**, respectively.

2.2 *ESTIMATE OF POTENTIAL AND ACTUAL NO_x EMISSIONS*

As required by 25 PA Code §129.92(a)(4), **Table 2-2** provides the estimated potential and actual NO_x emissions at the MHIC. The potential NO_x and VOC emission estimates are based on permitted operating data, unit capacities, throughputs and emission factors derived from source testing and other accepted sources such as AP-42 emission factors. Baseline actual emissions are calculated based on historical operating data and the applicable emission factor. This section describes how the potential and actual NO_x emissions were calculated for various sources.

The baseline actual NO_x emissions from combustion sources such as industrial boilers presented in **Table 2-2** are based on the continuous emissions monitor (CEM) system which is used to monitor NO_x and other emissions from the Auxiliary Boilers. The emissions from 2015 are reported as baseline emissions for these sources. The baseline emissions for the purposes of this submittal are defined as the actual emissions required to be reported under 25 PA Code §129.92(a)(4). The potential NO_x emissions (TPY) are based on the current permitted potential emissions for each boiler, which is established in the current Title V Operating Permit (TVOP) 23-00119.

The potential NO_x emissions from Source 113 - 6 Diesel Engine Pumps are based on the current permitted potential emissions for the source, which is established in the current TVOP 23-00119. The baseline emissions reported in **Table 2-2** are based on 2015 operating hours and manufacturer specifications.

As required by 25 PA Code §129.92(a)(4), **Tables 2-3** provides the estimated potential VOC emissions at the Complex. This section describes the methods used to calculate potential VOC emissions for the sources.

The baseline actual VOC emissions from combustion sources such as industrial boilers presented in **Table 2-3** are based on historical operating data and the permitted emission rate. The emissions from 2015 are reported as baseline emissions for these sources. The estimated potential to emit for VOC sources are based on the current permitted potential emissions for each boiler, which is established in the current TVOP 23-00119.

As stated in **Section 2.2**, the potential VOC emissions from Source 113 – 6 Diesel Engine Pumps are based on the current permitted potential emissions for the source, which is established in the current TVOP 23-00119. The baseline emissions reported in **Table 2-3** are based on 2015 operating hours and manufacturer specifications.

The VOC potential emissions from cooling towers (Source ID 139) presented in **Table 2-3** below is based on the current permitted potential emissions for the individual cooling towers. The baseline emissions are calculated using the 2015 cooling water throughput and the appropriate emission factor from AP-42 Chapter 5.1.

The VOC potential emissions from the wastewater treatment system are based on the current permitted potential VOC emissions in the current TVOP 23-00119.

Table 2-1 RACT Source Detail

Source ID	Source	Permitted Capacity/Throughput	Fuel/Material	Source Type
31	Auxiliary Boiler 1	392.5 MCF/hr	Natural Gas	Industrial Boiler
		427.5 MCF/hr	Process Gas	
33	Auxiliary Boiler 3	392.5 MCF/hr	Natural Gas	Industrial Boiler
		427.5 MCF/hr	Process Gas	
34	Auxiliary Boiler 4	392.5 MCF/hr	Natural Gas	Industrial Boiler
		427.5 MCF/hr	Process Gas	
T001	NSPS Kb Ext Float Tanks	Varies	Petroleum Liquids	External Floating Roof Tanks
T002	NSPS Kb Int Float Tanks	Varies	Petroleum Liquids	Internal Floating Roof Tanks
T003	NESHAP Subpart R Tanks	Varies	Petroleum Liquids	Storage Tanks
T004	NESHAP Subpart EEEE Tanks	Varies	Petroleum Liquids	Storage Tanks
113	(6) Diesel Engine Pumps	105,851 gal for 6 engines	#2 Oil	Internal Combustion Device
115	Marine Vessel Loading	N/A	Petroleum Products	Marine Loading Activities
116	Marine Vessel Ballasting	N/A	Ballast Water	Marine Loading Activities
139	Cooling Towers	15-6: 480 Mgal/hr 15-2B: 720 Mgal/hr 17-1P: 1,500 Mgal/hr	Recycle Water	Cooling Tower
300	Miscellaneous Tanks	Varies	Petroleum Liquids	Storage Tanks
367	Diesel Storage Tank	N/A	Diesel	Storage Tanks
368	Vehicle Refueling (Gas/Diesel)	N/A	Gasoline/Diesel	2 Vertical fixed roof tanks and refueling station
402	Blind Changing	N/A	Petroleum Liquids	Fugitive
701	Wastewater Treatment System	N/A	Petroleum Liquids	Fugitive
800	NESHAP Fugitive Equipment	N/A	Petroleum Liquids	Fugitive
801	Fugitive Equipment	N/A	Petroleum Liquids	Fugitive

MCF = thousand cubic feet; Hr = hour; Mgal = thousand gallons. NESHAP = National Emission Standards for Hazardous Air Pollutants; NSPS = New Source Performance Standards.

Table 2-2 Baseline Actual and Potential NO_x Emissions

Source ID	Source	VOC Emission Factor	Reference	Baseline Year	Baseline NO _x Emissions (TPY)	Potential Capacity	Potential NO _x Emissions (TPY)
31	Auxiliary Boiler 1	0.05 lb/MMBtu	Permitted Emission Rate	2015	0.1	Natural Gas: 392.5 MCF/hr Process Gas: 427.5 MCF/hr	92.71 for all 3 boilers combined
33	Auxiliary Boiler 3	0.05 lb/MMBtu		2015	11.2	Natural Gas: 392.5 MCF/hr Process Gas: 427.5 MCF/hr	
34	Auxiliary Boiler 4	0.05 lb/MMBtu		2015	21.7	Natural Gas: 392.5 MCF/hr Process Gas: 427.5 MCF/hr	
113	(6) Diesel Engine Pumps:	Varies	Manufacturer Specifications	2015	4.63	Each engine is limited to less than 500 hours/year	23.79 Total
	P-05A-06A - 1250 HP						
	P-05A-06B - 1250 HP						
	P-05A-04A - 2250 HP						
	P-05A-04B - 2250 HP						
	P-05A-02A - 1750 HP						
	P-05A-02B - 1750 HP						

MMBtu = Million British Thermal Units; HP = horsepower.

Table 2-3 Baseline Actual and Potential VOC Emissions

Source ID	Source Name	VOC Emission Factor	Reference	Baseline Year	Capacity	Baseline Actual VOC Emissions (TPY)	Potential Capacity	Potential VOC Emissions (TPY)
31	Auxiliary Boiler 1	0.004 lb/MMBtu	Permitted Emission Rate	2015	Firing Rate	0.002	Natural Gas: 392.5 MCF/hr Process Gas: 427.5 MCF/hr	5.49 Total for all 3 boilers combined
33	Auxiliary Boiler 3	0.004 lb/MMBtu		2015	Firing Rate	1.57	Natural Gas: 392.5 MCF/hr Process Gas: 427.5 MCF/hr	
34	Auxiliary Boiler 4	0.004 lb/MMBtu		2015	Firing Rate	3.31	Natural Gas: 392.5 MCF/hr Process Gas: 427.5 MCF/hr	
T001	NSPS Kb Ext Float Tanks	N/A	N/A	N/A	Material Throughput	N/A	N/A	N/A
T002	NSPS Kb Int Float Tanks	N/A	N/A	N/A	Material Throughput	N/A	N/A	N/A
T003	NESHAP Subpart R Tanks	N/A	N/A	N/A	Material Throughput	N/A	N/A	N/A
T004	NESHAP Subpart EEEE Tanks	N/A	N/A	N/A	Material Throughput	N/A	N/A	N/A
113	(6) Diesel Engine Pumps	Varies	Manufacturer Specifications	2015	Hours of Operation	0.15 Total	Each engine is limited to less than 500 hours/year	0.91 Total
	P-05A-06A - 1250 HP							
	P-05A-06B - 1250 HP							
	P-05A-04A - 2250 HP							
	P-05A-04B - 2250 HP							
	P-05A-02A - 1750 HP							
	P-05A-02B - 1750 HP							
115	Marine Vessel Loading	Varies by material	AP-42	N/A	Material Throughput	N/A	N/A	N/A
116	Marine Vessel Ballasting	N/A	N/A	N/A	Material Throughput	N/A	N/A	N/A

Source ID	Source Name	VOC Emission Factor	Reference	Baseline Year	Capacity	Baseline Actual VOC Emissions (TPY)	Potential Capacity	Potential VOC Emissions (TPY)
139	Cooling Towers	0.7 lb/MMgal circulated	AP-42	2015	Cooling Water Throughput	4.13	15-6: 480 Mgal/hr 17-1P: 720 Mgal/hr 15-2B: 1500 Mgal/hr	15-6: 1.47 17-1P: 2.21 15-2B: 4.6
300	Miscellaneous Tanks	Varies	Tanks 4.0.9d	N/A	Material Throughput	N/A	N/A	N/A
367	Diesel Storage Tank	Varies	Tanks 4.09.d	N/A	Material Throughput	N/A	N/A	N/A
368	Vehicle Refueling (Gas/Diesel)	Varies	N/A	N/A	Material Throughput	N/A	N/A	N/A
402	Blind Changing	Varies	LDAR	2015	Leak Rate	0.26	N/A	N/A
701	Wastewater Treatment System	Varies	LDAR	2015	Leak Rate	0.13	N/A	0.9
800	NESHAP Fugitive Equipment	Varies	LDAR	N/A	Leak Rate	N/A	N/A	N/A
801	Fugitive Equipment	Varies	LDAR	N/A	Leak Rate	N/A	N/A	N/A

LDAR = Leak Detection and Repair; MMgal = Million gallons; Mgal = Thousand Gallons.

3.0 *NO_x RACT ANALYSIS*

Each NO_x emitting source was identified and evaluated for NO_x RACT. The NO_x RACT II analysis utilized the following steps:

- Identify the exempt NO_x RACT II sources (**Section 3.1**);
- Identify the presumptive NO_x RACT II sources (**Section 3.2**); and
- Identify the case-by-case NO_x RACT II sources (**Section 3.3**).

3.1 *EXEMPT NO_x RACT II SOURCES*

25 PA Code §129.96 states that NO_x sources with a potential to emit less than 1 TPY, or sources with a requirement or emission restriction established in specific chapters of 129¹ are exempt from RACT requirements. There are no NO_x sources at the MHIC that are exempt from RACT requirements.

3.2 *PRESUMPTIVE NO_x RACT II SOURCES*

25 PA Code §129.97 sets presumptive requirements for various types and sizes of sources. An emergency standby engine operating less than 500 hours in a 12-month rolling period can comply with presumptive NO_x RACT II requirements by operating and maintaining the source in accordance to manufacturer specifications and good operating practices (§129.97(c)(8)). Source 113, including six diesel engine pumps, are limited to 500 operating hours per year and therefore are presumptive sources for RACT II.

Table 3-1 presents a list of the presumptive sources at the Complex.

¹ 25 PA Code §129.96 specifies that a source with a requirement or emission limitation established in §§129.51--129.52c, 129.54--129.69, 129.71--129.73, 129.75, 129.77, 129.101--129.107 and 129.301--129.310 are exempt from RACT requirements.

Table 3-1 Presumptive NO_x RACT Sources

Source	Equipment	Permitted Capacity (HP)	Permitted Hours of Operation	Presumptive RACT Category	RACT Citation
(6) Diesel Engine Pumps - Source ID 113	P-05A-06A	1250	499	Standby emergency engine operating < 500 hours/yr	§129.97(c)(8)
	P-05A-06B	1250	499		
	P-05A-04A	2250	499		
	P-05A-04B	2250	499		
	P-05A-02A	1750	499		
	P-05A-02B	1750	499		

HP = Horsepower.

3.3 CASE-BY-CASE NO_x RACT II SOURCES

A case-by-case RACT analysis must be performed for NO_x sources that are not classified as exempt nor Presumptive NO_x RACT II sources. **Table 3-2** below presents a list of the case-by-case NO_x sources at the Complex.

Table 3-2 Case-by-Case NO_x RACT II Sources

Source ID	Source Name	NO _x Emission Rate	Control Device	Case-by-Case RACT Category	RACT Citation
31	Auxiliary Boiler 1	0.05 lb/MMBtu	LNB & FGR	Combustion Source firing NG/Process Gas	§129.99(a)
33	Auxiliary Boiler 3	0.05 lb/MMBtu	LNB & FGR		
34	Auxiliary Boiler 4	0.05 lb/MMBtu	LNB & FGR		

NG = Natural Gas; MCF = thousand cubic feet; MMBtu = million British thermal units; LNB = Low NO_x Burners; FGR = Flue Gas Recirculation.

3.4 AUXILIARY BOILERS - NO_x RACT ANALYSIS

The three Auxiliary Boilers at the MHIC can fire natural gas or process gas. 25 PA Code §129.97(g)(1) provides the following presumptive RACT emission limitations for a combustion unit or process heater:

- For a natural gas-fired combustion unit or process heater with a rated heat input equal to or greater than 50 million Btu/hour, 0.10 lb NO_x/million Btu heat input; and
- For a refinery gas-fired combustion unit or process heater with a rated heat input equal to or greater than 50 million Btu/hour, 0.25 lb NO_x/million Btu heat input.

The Auxiliary Boilers, firing a mix of natural gas and process gas, do not fit with the source types described in §129.97(g)(1). The Auxiliary Boilers are controlled with low NO_x burners (LNB) and a flue gas recirculation (FGR) system, and have a NO_x emission rate of 0.05 lb/MMBtu. This NO_x emission rate is more stringent than the limitation specified in §129.97(g) for combustion units firing natural gas or refinery gas.

The Auxiliary Boilers are also subject to the emission standards and work practice requirements outlined in 40 CFR Part 63 Subpart DDDDD “National Emission Standards for Hazardous Air Pollutants (NESHAP) for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters,” as well as 40 CFR Part 60 Subpart Db “Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.”

However, since there are technically feasible and available control options for the Auxiliary Boilers, SPMT conservatively elected to conduct a case-by-case evaluation of those options. As described in **Sections 3.4.1.1 to 3.4.1.3**, SPMT evaluated add-on control options for control of NO_x associated with these sources. Potential reductions were evaluated based on the permitted potential-to-emit (PTE). The following sections provide an overview of the technologies available for control of NO_x emissions for the Auxiliary Boilers located at the MHIC.

3.4.1 *Auxiliary Boilers - Available NO_x Control Options*

An overview of the technologies available for control of NO_x emissions for the Auxiliary Boilers is provided in this section. The technologies selected for consideration are based on USEPA’s ACT Documents for Utility Boilers (EPA-453/R-94-023), and include:

- Selective Non-Catalytic Reduction (SNCR);
- Flue Gas Recirculation (FGR);
- Low NO_x Burners (LNB);
- Ultra-low NO_x Burners (ULNB); and

- Selective Catalytic Reduction (SCR).

LNB and FGR are currently installed and operated on the Auxiliary Boilers. Therefore those control options have not been evaluated further.

3.4.1.1 *Selective Non-Catalytic Reduction*

SNCR is a technology that relies on the chemical reduction of NO_x into molecular nitrogen and water vapor. A nitrogen reducing agent (reagent), such as ammonia or urea, is injected into the post combustion flue gas. The reduction reaction with NO_x is favored over other chemical reaction processes at temperatures ranging between 1600°F and 2100°F; therefore, it is considered a selective chemical process.

In the SNCR process, the combustion unit acts as the reaction chamber. The reagent is generally injected where the injection system can promote mixing of the reagent with the flue gas within the desired temperature range. Certain applications are more suited for SNCR due to combustion unit design. Units with furnace exit temperatures of 1550°F to 1950°F, residence times of greater than one second, and high levels of uncontrolled NO_x are good candidates.

NO_x reduction levels using SNCR range from 30 to 50%². This analysis assumes 30% NO_x reduction from application of SNCR alone due to non-ideal stack temperatures and the already reduced NO_x concentration in the boiler stacks due to existing controls.

3.4.1.2 *Ultra-low NO_x Burners*

Burners have a dramatic effect on NO_x emissions since they affect the rate of initial heat release and the residence time at peak combustion temperatures by controlling the initial fuel/air mixing and the conditions in the primary ignition zone.

The basic principle behind lowering NO_x emissions is the staging of fuel and air supply to create at first a sub-stoichiometric combustion condition which reduces the formation of thermal NO_x. The burners control the combustion staging at and within the burner rather than in the firebox. This control is achieved through design features which regulate the aerodynamic distribution and mixing of the fuel and air.

² Heater stack temperatures below 700°F results in low NO_x removal efficiency (USEPA Air Pollution Control Technology Fact Sheet - EPA-452/F-03-031).

Both ULNB and LNB use staged air combustion to control NO_x emissions and while both are technically feasible, ULNB technology is generally implemented more by the industry today because of availability of burners and desire to maximize benefit given the high cost associated with retrofits. This analysis assumed that new ULNB could achieve NO_x emission rates of approximately 0.035 lb/MMBtu to reflect current technology capabilities for most combustion sources. Based on the current emission rate for the Auxiliary Boilers, the installation of new ULNB would result in a NO_x reduction of 30%.

The effectiveness of the SNCR system would be significantly reduced when coupled with ULNB because of the relatively low level of NO_x emissions generated by ULNB alone. As stated in USEPA's guidance³:

“Selective noncatalytic reduction efficiency is dependent on the NO_x concentration in the flue gas. Therefore, it is expected that SNCR used on a heater with relatively high uncontrolled NO_x emissions will have a higher reduction efficiency than an SNCR used on a heater with relatively low uncontrolled NO_x emissions. This also indicates that for any particular heater the performance of SNCR used in combination with LNB may have a lower reduction efficiency than if SNCR was used alone.”

Therefore, SPMT has not considered ULNB coupled with SNCR technically feasible.

3.4.1.3 *Selective Catalytic Reduction*

The SCR process chemically reduces NO_x into molecular nitrogen and water vapor. A nitrogen-based reagent such as ammonia or urea is injected into the ductwork, downstream of the combustion unit. The waste gas mixes with the reagent and enters a reactor module containing catalyst. The hot flue gas and reagent diffuse through the catalyst. The reagent reacts selectively with the NO_x within a specific temperature range and in the presence of the catalyst and oxygen. Optimum temperature range depends on the type of catalyst used and the flue gas composition but generally vary from 480°F and 800°F.

Temperature, the amount of reducing agent, injection grid design, and catalyst activity are the main factors that determine the actual removal efficiency. The use of catalyst results in two primary advantages of the SCR process over the SNCR: higher NO_x control efficiency and reactions within a

³ USEPA's "Alternative Control Techniques (ACT) Document - NO_x Emissions from Process Heaters (Revised)" - EPA-453/R-93-034, page 5-103.

lower and broader temperature range. The benefits are accompanied by a significant increase in capital and operating costs as the catalyst is comprised of active metals or ceramics. Another major disadvantage of SCR is the large amount of space required for the installation of new equipment.

NO_x reduction levels using SCR range generally from 70 to 90%. Since the currently installed controls currently achieve a low emissions rate, this analysis assumes a NO_x reduction to 0.02 lb/MMBtu from SCR alone (60% reduction). This analysis assumed that ULNB and SCR could be employed together to achieve the same reduction to 0.02 lb/MMBtu.

3.4.3 *Auxiliary Boilers - Technical Feasibility*

ULNB, SCR and a combination of ULNB and SCR are feasible NO_x controls for the Auxiliary Boilers. Although the exhaust temperature of the boiler is likely too low for SNCR to be effective, SPMT has conservatively considered it to be feasible as a NO_x control for the Auxiliary Boilers.

3.4.4 *Auxiliary Boilers - Ranking of NO_x Control Options*

A ranking of the available and technically feasible control options by efficiency is presented below in **Table 3-3**:

Table 3-3 *Auxiliary Boilers - Ranking of NO_x Control Options*

Control Option	Control Efficiency
ULNB & SCR	60%
SCR	60%
SNCR	30%
ULNB	30%

3.4.5 *Auxiliary Boilers - NO_x RACT Economic Analysis*

SPMT conducted an economic analysis for the Auxiliary Boilers. The methodology used in performing this analysis follows the guidelines provided in 25 PA Code §§129.92(b)(3) and (b)(4).

1. To be conservative, SPMT evaluated the cost effectiveness using potential NO_x emissions, which were previously defined as part of the emissions limitations set forth by the TVOP 23-00119.
2. Each control option was assigned a control efficiency for NO_x removal. A single number was used, usually a mid-point in generally-accepted ranges of control efficiencies. The ranges of efficiencies were

determined from a collection of data obtained from previous experience, design analysis and most predominantly, from published literature.

3. For each control option, post-control emissions were calculated.
4. Cost effectiveness was calculated each control option using the methodology in the regulations and in the "OAQPS Control Cost Manual" (EPA/452/B-02-001). Total annual costs are the sum of operating and maintenance (O&M) costs and capital recovery costs. The capital recovery costs assume the equipment will be amortized over a 10 or 20-year⁴ time frame at 10 percent interest, the rate SPMT uses for evaluating capital projects. Total capital required to implement the various control options and operating and maintenance costs were estimated using the *Alternative Control Techniques Document - NO_x Emissions from Utility Boilers - EPA-453/R-94-023*, design analysis, and SPMT operating experience.
5. Capital and O&M Costs were scaled up to 2015 dollar amounts using *Chemical Engineering* cost indices.

Attachment G includes the economic analysis of each technology.

As shown in **Table 3-4** below, based on potential emissions, there were no additional NO_x controls that were found to be cost effective⁵ for any of the affected case-by-case NO_x RACT sources.

Table 3-4 *Auxiliary Boilers - NO_x Control Cost Effectiveness*

Cost Effectiveness (\$/ton reduced)		Control Option			
		ULNB	SNCR	SCR	ULNB & SCR
031, 033, 034	Auxiliary Boilers	\$52,331	\$12,126	\$25,106	\$51,271

SPMT proposes that the current emission limit of 0.05 lb NO_x/MMBtu, in association with the applicable NESHAP Subpart DDDDD and NSPS Subpart Db requirements, satisfy RACT for the Auxiliary Boilers. SPMT's

⁴ SCR/SNCR equipment is amortized on a 20-year time frame. All other controls are amortized on a 10-year time frame.

⁵ In a PADEP Responses to Frequently Asked Questions on the "Final Rulemaking additional RACT Requirements for Major Sources of NO_x and VOC" response to question 41, DEP stated that, "The presumptive RACT benchmarks are \$2,800/ton NO_x and \$5,500/ton VOC. The RACT II preamble notes that a 25% buffer to the cost-effectiveness will not change the presumptive RACT determinations. This increases the presumptive benchmarks to 3,500/ton NO_x and \$7,000/ton VOC".

RACT II proposal for the Auxiliary Boilers is an emission rate of 0.05 lb NO_x/MMBtu, as outlined in TVOP 23-00119 Condition #001 for Sources 031, 033, and 034. SPMT will continue to operate and maintain the LNB and FGR systems in accordance with manufacturer specifications.

4.0

VOC RACT II ANALYSIS

This section provides the detailed RACT analysis for affected VOC sources. The sources are identified as exempt, presumptive, or case-by-case. Sources that are not classified as either exempt or presumptive are subject to a case-by-case analysis.

4.1

EXEMPT VOC RACT II SOURCES

VOC sources with less a potential to emit less than 1 TPY are classified as exempt sources (25 PA Code §129.96(c)) and summarized in **Table 4-1**. **Table 4-2** summarizes VOC sources classified as exempt because they are regulated by another section in Chapter 129 as specified in 25 PA Code §129.96(a).

Table 4-1 *Exempt VOC RACT II Sources < 1 TPY VOC*

Source ID	Source Name	Permitted Capacity	Potential VOC Emissions (TPY)	Exempt RACT Category	RACT Citation
113	(6) Diesel Engine Pumps	1250 - 2250 HP	0.91 for all 6 engines	VOC PTE < 1 TPY	§129.96(c)
701	Wastewater Treatment System	NA	0.9	VOC PTE < 1 TPY	§129.96(c)

Table 4-2 *Exempt VOC RACT II Sources regulated by Chapter 129*

Source ID	Source Name	Permitted Capacity	Regulated By	Exempt RACT Category	RACT Citation
300	Miscellaneous Tanks	Varies	§129.56	Regulated by other 129 Section	§129.96(a)
T003	NESHAP Subpart R Tanks	Varies	§129.56 and NESHAP Subpart R		
T004	NESHAP Subpart EEEE Tanks	Varies	§129.65 and NESHAP Subpart EEEE		

NESHAP = National Emission Standard for Hazardous Air Pollutants.

4.2

PRESUMPTIVE VOC RACT II SOURCES

Presumptive VOC RACT II sources include VOC sources which have the potential to emit greater than or equal to 1 TPY, but less than 2.7 TPY.

Table 4-3 presents a list of the presumptive sources at the Complex.

Table 4-3 Presumptive VOC RACT II Sources

Source ID	Source Name	Potential VOC Emissions (TPY)	Presumptive RACT Category	RACT Citation
31	Auxiliary Boiler 1	5.49 (3 sources combined)	Combustion Source at a major VOC emitting facility.	§129.97(d)
33	Auxiliary Boiler 3			
34	Auxiliary Boiler 4			
139	Cooling Towers	15-6: 1.47 17-1P: 2.21	PTE ≥ 1 and < 2.7 TPY	§129.97(c)(2)

Note that the third cooling tower in Source ID 139, Tower 15-2B, is a case-by-case VOC RACT source and is discussed further in **Section 4.7**.

4.3

CASE-BY-CASE VOC RACT II SOURCES

A case-by-case RACT analysis must be performed for VOC sources that are not classified as exempt or Presumptive VOC RACT sources. **Table 4-4** presents a list of the case-by-case VOC sources at the Complex.

Table 4-4 Case-by-Case VOC RACT II Sources

Source ID	Source Name	Permitted Capacity	VOC PTE (TPY)	Regulated By
T001	NSPS Kb Ext Float Tanks	Various External Floating Roof Tanks	Varies	NSPS Subpart Kb
T002	NSPS Kb Int Float Tanks	Various Internal Floating Roof Tanks	Varies	NSPS Subpart Kb
115	Marine Vessel Loading	N/A	N/A	§129.81 and NESHAP Subpart Y
116	Marine Vessel Ballasting	N/A	N/A	§129.81
139	Cooling Towers	15-2B = 1,500 Mgal/hr	15-2B = 4.6	N/A
367	Diesel Storage Tank	10,000 gal	NA	NSPS Subpart Kb

Source ID	Source Name	Permitted Capacity	VOC PTE (TPY)	Regulated By
368	Vehicle Refueling (Gas/Diesel)	N/A	N/A	§129.61, §129.82, and NSPS Subpart Kb
402	Blind Changing	N/A	N/A	NSPS Subpart VV
800	NESHAP Fugitive Equipment	N/A	N/A	NSPS Subpart VV
801	Fugitive Equipment	N/A	N/A	NSPS Subpart VV

NESHAP = National Emission Standard for Hazardous Air Pollutants. NSPS = New Source Performance Standards.

4.4 STORAGE TANKS - VOC RACT ANALYSIS

SPMT operates various storage tanks at the MHIC to store petroleum liquids. Internal floating roof tanks (IFRT), external floating roof tanks (EFRT), and fixed roof tanks (FRT) are maintained and operated at the MHIC. TVOP 23-00119 groups the tanks into six separate sources:

- Source ID T001 - NSPS Kb External Floating Tanks;
- Source ID T002 - NSPS Kb Internal Floating Tanks;
- Source ID 367 - Diesel Storage Tank;
- Source ID T003 - NESHAP Subpart R Tanks;
- Source ID T004 - NESHAP Subpart EEEE Tanks;
- Source ID 300 - Miscellaneous tanks.

As discussed in **Section 4.1**, Source IDs T003, T004, and 300 are exempt from RACT II requirements since they are currently subject to §129.56, §129.65, and §129.56, respectively. All floating roof tanks, either external (T001) or internal (T002), are regulated by NSPS 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”. Source ID 367, Diesel Storage Tank, is also subject to NSPS Subpart Kb.

The permit requirements from NSPS Subpart Kb are very similar to the requirements in 25 PA Code §129.56 and §129.57. A comparison of the various requirements is summarized in **Table 4-5** and **Table 4-6**.

Table 4-5 Comparison of 25 PA Code §129.56 Versus NSPS Subpart Kb Storage Tank Requirements

25 PA Code §129.56	NSPS Equivalent Requirement
<p>Vapor pressure in the tank cannot exceed 15 psia under actual storage conditions, unless it is equipped with one of the following:</p> <ol style="list-style-type: none"> 1) External or internal floating roof (only if vapor pressure is < 11 psia) 2) Vapor recovery system 	<p>NSPS Subpart Kb – §60.112(b)(a)</p>
<p>An external floating roof shall be fitted with a primary seal and a continuous secondary seal and comply with the following:</p> <ul style="list-style-type: none"> - Seal closure shall not have no visible holes, tears or other openings in the seals or seal fabric. Seals must be intact and uniformly in place around the circumference of the floating roof. - Tanks with vapor-mounted primary seals, the accumulated area of gaps exceeding 1/8 inch in width between the secondary seal and the tank wall shall not exceed 1 square inch per foot of tank diameter. 	<p>NSPS Subpart Kb – §60.112b(a)(1) through (3)</p>
<p>Openings in the external floating roof, except for automatic bleeder vents, rim space vents and leg sleeves must be :</p> <ul style="list-style-type: none"> - Equipped with covers, seals or lids in the closed position except when the openings are in actual use. - Equipped with projections into the tank which remain below the liquid surface at all times. - Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports. - Rim vents are set to open when the roof is being floated off the leg supports or at the recommended setting of the manufacturer. - Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90% of the area of the opening. 	<p>NSPS Subpart Kb – §60.112b(a)(1) through (3)</p>

25 PA Code §129.56	NSPS Equivalent Requirement
<p>An internal floating roof shall have a primary seal and comply with the following:</p> <ul style="list-style-type: none"> - Equipped with covers, seals or lids in the closed position except when the openings are in actual use. - Equipped with projections into the tank which remain below the liquid surface at all times. - Automatic bleeder vents are closed at all times except when the roof is floated off or landed on the roof leg supports. - Rim vents are set to open when the roof is being floated off the leg supports or at the recommended setting of the manufacturer. - Emergency roof drains are provided with slotted membrane fabric covers or equivalent covers which cover at least 90% of the area of the opening. 	NSPS Subpart Kb – §60.112b(a)(1) through (3)
Perform annual inspections to ensure compliance with internal or external roof requirements. Repair any failure detected during an inspection within 45 days.	NSPS Subpart Kb – §60.113b(a)(4)
Maintain records of the liquid stored, maximum true vapor pressure, and inspection results	NSPS Subpart Kb – §60.115b

Table 4-6 Comparison of 25 PA Code §129.57 Versus NSPS Subpart Kb Storage Tank Requirements

25 PA Code §129.57	NSPS Equivalent Requirement
The provisions of this section apply to above ground stationary storage tanks with a capacity equal to or greater than 2,000 gallons which contain volatile organic compounds with vapor pressure greater than 1.5 psia (10.5 kilopascals) under actual storage conditions.	NSPS Subpart Kb – §60.110b
Storage tanks covered under this section shall have pressure relief valves which are maintained in good operating condition and which are set to release at no less than .7 psig (4.8 kilopascals) of pressure or .3 psig (2.1 kilopascals) of vacuum or the highest possible pressure and vacuum in accordance with state or local fire codes or the National Fire Prevention Association guidelines or other national consensus standards acceptable to the Department.	NSPS Subpart Kb – §60.112b

25 PA Code §129.57	NSPS Equivalent Requirement
Section 129.56(g) (relating to storage tanks greater than 40,000 gallons capacity containing VOCs) applies to this section. Petroleum liquid storage vessels which are used to store produced crude oil and condensate prior to lease custody transfer shall be exempt from the requirements of this section.	NSPS Subpart Kb - §60.116b

External and internal floating roof tanks in Source ID T001 and T002 are subject to NSPS Subpart Kb. As summarized in **Table 4-5**, the NSPS Subpart Kb requirements are as stringent or more stringent than the requirements outlined in 25 PA Code §129.56 “Storage Tanks Greater Than 40,000 Gallons Capacity Containing VOCs”. Note that 25 PA Code §129.96(a) outlines that sources with a requirement or emission limitation from various sections in 129, including §129.56, are exempt from RACT requirements.

Diesel Storage Tank (Source 367) is also subject to NSPS Subpart Kb. As summarized in **Table 4-6**, the NSPS Subpart Kb requirements are as stringent or more stringent than the requirements listed in 25 PA Code §129.57 “Storage Tanks Less Than Or Equal To 40,000 Gallons Capacity Containing VOCs”. Note that 25 PA Code §129.96(a) outlines that sources with a requirement or emission limitation from various sections in 129, including §129.57, are exempt from RACT requirements.

SPMT proposes that compliance with the existing NSPS Subpart Kb satisfies RACT for the tanks in Source T001 - NSPS Kb External Floating Tanks, Source T002 - NSPS Kb Internal Floating Tanks, and Source 367 - Diesel Storage Tank.

4.5

MARINE VESSEL LOADING - VOC RACT ANALYSIS

Gasoline blending components and crude oil are loaded at the MHIC dock. Condition #014 for Source ID 115 - Marine vessel loading of the current TVOP 23-00119 states that SPMT “shall limit the loading of tank trucks, railcars, and marine vessels to tank trucks, railcars, and marine vessels whose collection systems are connected to the source’s vapor collection system”. All marine vessel loading is controlled by a marine vapor recovery (MVR) system which captures gases and directs them to the fuel gas system to be combusted as a fuel in the Auxiliary Boilers. If the gas cannot be sent to one of the Auxiliary Boilers, it is directed to the Ethylene Complex (EC) flare. The control efficiency of the MVR system is 98%.

The source is subject to leak detection and repair (LDAR) requirements, including an annual leak inspection. Marine Vessel loading is subject to 25

PA Code §129.81 requirements and NESHAP Subpart Y “National Emission Standards for Marine Tank Vessel Loading Operations”.

However, since there are technically feasible and available control options for Marine Vessel Loading, SPMT conservatively elected to conduct a case-by-case evaluation of those options. As described in **Sections 4.5.1 through 4.5.3**, SPMT evaluated add-on control options. The following sections provide an overview of the technologies available for control of VOC emissions for the Marine Vessel loading at the MHIC.

4.5.1 *Marine Vessel Loading - Available VOC Control Options*

The sections below provide an overview of additional technologies available for controlling VOC emissions from loading operations at the MHIC. The technologies selected for consideration are listed below and are based on USEPA’s *Air Pollution Control Cost Manual Sixth Edition* EPA/452/B-02-001 – January 2002, including:

- Thermal Incinerator;
- Condenser; and
- Adsorption.

4.5.1.1 *Thermal Incinerator*

Incineration, or thermal oxidation, is the process of oxidizing combustible materials by raising the temperature of the material above its auto-ignition point in the presence of oxygen, and maintaining it at high temperature for sufficient time to complete combustion to carbon dioxide and water. Most thermal units are designed to provide no more than 1 second of residence time to the waste gas with typical temperatures of 1,200 to 2,000°F.

VOC reduction levels using thermal incinerators range up to 98% and beyond.

4.5.1.2 *Condenser*

Condensation is a separation technique in which one or more volatile components of a vapor mixture are separated from the remaining vapors through saturation followed by a phase change. The phase change from gas to liquid can be achieved in two ways: (a) the system pressure can be increased at a given temperature, or (b) the temperature may be lowered at a constant pressure. In a two-component system where one of the components

is non-condensable (e.g., air), condensation occurs at dew point (saturation) when the partial pressure of the volatile compound is equal to its vapor pressure. Refrigeration is often employed to obtain the low temperatures required for acceptable removal efficiencies. The basic equipment required for a refrigerated condenser system includes a VOC condenser, a refrigeration unit(s), and auxiliary equipment (e.g., precooler, recovery/storage tank, pump/blower, and piping).

VOC reduction levels using condensers range up to 90%.

4.5.1.3 *Adsorption*

Adsorption is a phenomenon where VOC gas molecules passing through a bed of solid particles (in this case activated carbon) are selectively held there by attractive forces which are weaker and less specific than those of chemical bonds. During adsorption, a VOC gas molecule migrates from the gas stream to the surface of the carbon where it is held by physical attraction. Most gases (“adsorbates”) can be removed (“desorbed”) from the carbon adsorbent by heating to a sufficiently high temperature, usually via steam or hot combustion gases, or by reducing the pressure to a sufficiently low value (vacuum desorption).

Fixed-bed adsorbers may be operated in either intermittent or continuous modes. In intermittent operation, the adsorber removes VOC for a specified time (the “adsorption time”), which corresponds to the time during which the controlled source is emitting VOC. After the adsorber and the source are shut down, the unit begins the desorption cycle during which the captured VOC is removed from the carbon. This cycle, in turn, consists of three steps: (1) regeneration of the carbon by heating, generally by blowing steam through the bed in the direction opposite to the gas flow; (2) drying of the bed, with compressed air or a fan; and (3) cooling the bed to its operating temperature via a fan.

VOC reduction levels using adsorption range from 95 to 98%⁶.

4.5.2 *Marine Vessel Loading - Technical Feasibility*

For the control of VOC loading vapors from marine vessel loading at the MHIC, a thermal incinerator, condenser, adsorption were found to be technically feasible.

⁶ US EPA Technical Bulletin, *Choosing An Adsorption System for VOC: Carbon, Zeolite, or Polymers*, EPA 456/F-99-004, May 1999.

4.5.3

Marine Vessel Loading – Ranking of VOC Control Options

Table 4-7 provides a ranking of the remaining VOC control options for the Marine Vessel Loading at the MHIC. Note that **Table 4-7** also reflects the control efficiency of the current VOC control technology, the MVR system, described further in **Section 4.5**.

Table 4-7 *Marine Vessel Loading - Ranking of VOC Control Options*

Control Option	Control Efficiency
Existing MVR System	98%
Thermal Incinerator	98%
Adsorption	98%
Condenser	90%

SPMT identified the technically feasible control options for controlling VOC emissions from marine vessel loading. As shown in **Table 4-7**, there is no feasible control with a greater efficiency than the current control technology. Therefore, SPMT proposes that the existing MVR system satisfies RACT and did not conduct a cost-effectiveness analysis for the remaining feasible control options.

SPMT proposes that the existing §129.81 and NESHAP Subpart Y requirements, LDAR program, and continued operation of the existing MVR system during all marine vessel loading of any material satisfies RACT.

4.6

MARINE VESSEL BALLASTING – VOC RACT ANALYSIS

Marine vessel ballasting activities rarely occur at the MHIC. This activity is subject to requirements in 25 PA Code §129.81. SPMT only uses clean water, with insignificant VOC content.

SPMT proposes that the existing 25 PA Code §129.81 requirements and the use of clean water for ballasting satisfies RACT for Marine Vessel Ballasting at the MHIC.

4.7

COOLING TOWERS – VOC RACT ANALYSIS

As described in **Section 4.2**, two cooling towers (15-6 and 17-1P) are subject to presumptive RACT requirements based on their potential VOC emissions. The remaining 15-2B Cooling Tower in “Source 139 – Cooling Towers” has a

VOC potential to emit of 4.6 tons per year, and is therefore subject to a case-by-case analysis.

Emissions from cooling towers can occur due to leaks in facility heat exchangers, which allow VOCs to enter cooling water streams. These VOCs are volatilized from the cooling water as the water passes through the towers. There is no technically feasible add-on control option for the fugitive VOC emissions from the cooling towers. As required by the current TVOP 23-00119, SPMT uses an equipment inspection and monitoring program to minimize and repair exchanger leaks and reduce VOC emissions from the cooling towers.

SPMT proposes that the continued use of the equipment inspection and monitoring program satisfies VOC RACT for the 15-2B Cooling Tower.

4.8 *VEHICLE REFUELING - VOC RACT ANALYSIS*

Two above ground storage tanks at the Complex store gasoline and diesel to be dispensed to vehicles at the MHIC. Tank 367 (10,000 gal) stores diesel fuel and is subject to NSPS Subpart Kb requirements. As discussed in **Section 4.3.1**, the NSPS Subpart Kb requirements for Tank 367 are as stringent or more stringent than 25 PA Code §129.57 requirements. Tank 368 (12,000 gal capacity) stores gasoline and is subject to 25 PA Code §129.61 “Small gasoline storage tank control (Stage I control)” requirements. Sources subject to §129.61 are exempt from RACT requirements⁷. The gasoline dispenser is subject to 25 PA Code §129.82 “Control of VOCs form Gasoline Dispensing Facilities (Stage II)” requirements. This Stage II recovery system has a control efficiency of 90%.

SPMT proposes that the existing NSPS Subpart Kb, §129.61, and §129.82 requirements satisfy RACT for the vehicle refueling activities at MHIC.

4.9 *FUGITIVES - VOC RACT ANALYSIS*

At the MHIC, the following fugitive sources are subject to a case-by-case VOC RACT analysis:

- Blind Changing - Source ID 402;
- NESHAP Fugitive Equipment - Source ID 800; and

⁷ 25 PA Code §129.96 states that sources subject to a requirement and/or emission limitations established in §§129.52 --129.52c, 129.54--129.69, 129.71--129.73, 129.75, 129.77, 129.101--129.107 and 129.301--129.310 are exempt from RACT II requirements.

- Fugitive Equipment – Source ID 801.

In the current facility permit, these fugitive sources are subject to leak detection and repair (LDAR) requirements as specified in TVOP 23-00119. SPMT is in the process of updating the current TVOP. In the new draft permit, Source ID 800 and Source ID 801 are consolidated into Source ID 801 “NSPS Subpart VV Fugitive Leaks”. Source ID 800 is subject to the monitoring, testing, and recordkeeping requirements of NSPS Subpart VV “Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry”. In the updated TVOP, Source ID 402 – Blind Changing is also subject to the requirements of NSPS Subpart VV.

Fugitive emissions, by definition, are those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. According to the *New Source Review Workshop Manual* (EPA 1990), it is “unreasonable to expect that relatively small quantities of VOC emissions, caused by leaking valves at outside storage tanks...could be captured and vented to a stack.” Therefore, the only feasible control technology for fugitive emissions is LDAR. SPMT proposes that the NSPS Subpart VV requirements satisfy RACT for fugitive sources at the MHIC.

5.0 COMPLIANCE DEMONSTRATION

This section outlines the facility requirements to demonstrate compliance with 25 PA Code §129.100.

5.1 NO_x RACT COMPLIANCE

Section 5.1 details the compliance requirements for NO_x RACT Sources at the MHIC.

5.1.1 Exempt NO_x Sources

There are no exempt sources at the MHIC.

5.1.2 Presumptive NO_x Sources

Table 3-1 presents a summary of the presumptive NO_x RACT II sources. The Diesel Engine pumps, which are emergency engines limited to less than 500 hours per year, must operate in accordance with the manufacturer's specifications and with good operating practices. As required by 25 PA Code §129.100(d), SPMT will maintain records to demonstrate compliance with presumptive RACT requirements.

5.1.3 Case-by-Case NO_x Sources

SPMT conducted a NO_x RACT case-by-case analysis for three Auxiliary Boilers listed in **Table 3-2**. In **Section 3.4**, SPMT evaluated feasible NO_x controls and concluded that no feasible controls were cost effective for controlling NO_x emissions at the Auxiliary Boilers.

SPMT proposes that the emission limits in the current TVOP, existing NESHAP Subpart DDDDD requirements, and NSPS Subpart Db requirements satisfy RACT for the Auxiliary Boilers. SPMT shall meet an emission rate of 0.05 lb NO_x/MMBtu for the Auxiliary Boilers, as outlined in TVOP 23-00119 Condition #001 for Sources 031, 033, and 034. NO_x emissions from the Auxiliary Boilers are monitored using Continuous Emissions Monitoring Systems (CEMS). SPMT will continue to operate and maintain the LNB and FGR systems in accordance with manufacturer specifications.

SPMT will submit an updated CEMS monitoring plan to incorporate the new averaging period for the RACT emission limitation. SPMT will follow requirements from Chapter 139 Subchapter C and calculate the emission rate based on a 30 operating day rolling average, including start-ups, shutdowns, and malfunctions. SPMT will maintain records of CEMS reading and NO_x

emission calculations to demonstrate compliance with the RACT II NO_x emission limitation of 0.05 lb NO_x/MMBtu on a 30 operating day rolling average in accordance with 25 PA Code Chapter 139, Subchapter C and *Pennsylvania Continuous Source Monitoring Manual*, Revision 8.

5.1.4 NO_x RACT Compliance Summary

Table 5-1 outlines the NO_x RACT sources, NO_x RACT category, RACT requirement, and RACT compliance demonstration.

Table 5-1 NO_x RACT II Compliance Summary

Source ID	Source	NO _x RACT Category	NO _x RACT Proposed Requirements	Compliance Demonstration
31	Auxiliary Boiler 1	Case-by-Case	Case-by-Case analysis performed. Technically feasible controls were determined to not be cost effective. Comply with existing NSPS Subpart Db and NESHAP Subpart DDDDD requirements and 0.05 lb NO _x /MMBtu emission rate.	In accordance with Chapter 139 Subchapter C and Pennsylvania Continuous Source Monitoring Manual (Rev 8), maintain records of CEMS reading and NO _x emission calculations.
33	Auxiliary Boiler 3	Case-by-Case		
34	Auxiliary Boiler 4	Case-by-Case		
113	(6) Diesel Engine Pumps	Presumptive	Operate according to manufacturer specifications and good operating practices (§129.97(c)(8)).	Maintain records according to §129.100(d).

5.2 VOC RACT COMPLIANCE

Section 5.2 details the various VOC RACT II sources (exempt, presumptive, or case-by-case) and the requirements for SPMT to demonstrate compliance with RACT.

5.2.1 Exempt VOC Sources

Tables 4-1 and **Table 4-2** summarize the exempt VOC RACT II sources at the site. As required by 25 PA Code §129.100(f), SPMT will maintain records at the facility to demonstrate that the sources are exempt from additional RACT II requirements based on the exemption provisions provided in 25 PA Code §129.96.

5.2.2 *Presumptive VOC Sources*

Table 4-3 shows the presumptive VOC RACT II sources. Sources matching specifications outlined in 25 PA Code §129.97(c) must operate in accordance with the manufacturer's specifications and with good operating practices. As required by 25 PA Code §129.100(d), SPMT will maintain records to demonstrate compliance with presumptive RACT requirements.

5.2.3 *Case-by-Case VOC Sources*

SPMT conducted a VOC RACT case-by-case analysis for the sources summarized in **Table 4-4**.

In **Table 4-5** and **Table 4-6**, SPMT compared the 25 PA Code §129.56 and §129.57 requirements to NSPS Subpart Kb requirements. The NSPS Subpart Kb requirements are as stringent or more stringent than the 25 PA code restrictions. According to §129.96(a), sources subject to an emission limitation or restriction from 25 PA Code §129.56 and §129.57 are exempt from RACT II requirements. SPMT proposes that compliance with the existing NSPS satisfy RACT for the tanks covered by Source T001 - NSPS Kb External Floating Tanks, Source T002 - NSPS Kb Internal Floating Tanks, and Source 367 - Diesel Storage Tank.

SPMT conducted a case-by-case analysis for Source 115 - Marine Vessel Loading in **Section 4.5**. The existing MVR system achieves the highest control efficiency of any identified control option. Therefore, SPMT proposes that the existing §129.81 and NESHAP Subpart Y requirements, LDAR program, and continued operation of the existing MVR system during all material loading satisfies RACT for Marine Vessel Loading (Source 115).

SPMT proposes that the existing 25 PA Code §129.81 requirements and the use of clean ballast water satisfy RACT for Marine Vessel Ballasting (Source 116) at the MHIC.

As discussed in **Section 4.7**, there are no technically feasible add-on control options for the VOC fugitive emissions at the cooling towers. SPMT proposes that the continued use of the equipment inspection and monitoring program satisfies VOC RACT for 15-2B cooling tower (Source 139).

SPMT proposes that the existing NSPS Subpart Kb, §129.61, and §129.82 requirements satisfy RACT for the Vehicle Refueling Activities (Source 368) at MHIC.

As discussed in **Section 4.9**, the only feasible control technology for fugitive emissions is LDAR. Therefore, SPMT proposes that NSPS Subpart VV

requirements satisfy RACT for fugitive sources at the MHIC, Source 402 – Blind Changing, Source 800 – NESHAP Fugitive equipment, Source 801 – Fugitive Equipment.

5.2.4 VOC RACT Summary

Table 5-2 outlines the VOC RACT sources, VOC RACT category, RACT requirement, and RACT compliance demonstration.

Table 5-2 VOC RACT II Compliance Summary

Source ID	Source	VOC RACT Category	VOC RACT Proposed Requirements	Compliance Demonstration
31	Auxiliary Boiler 1	Presumptive	Meets 25 PA Code §129.97(d). Will continue to comply with 0.004 lb VOC/MMBtu emission rate and existing NSPS Subpart Db and NESHAP Subpart DDDDD requirements.	Maintain records of compliance with NESHAP Subpart DDDDD, NSPS Subpart Db, and emission rate limitation of 0.004 lb VOC/MMBtu.
33	Auxiliary Boiler 3	Presumptive		
34	Auxiliary Boiler 4	Presumptive		
T001	NSPS Kb Ext Float Tanks	Case-by-Case	Comply with existing NSPS Subpart Kb requirements for these tanks.	Maintain record of compliance with NSPS Subpart Kb.
T002	NSPS Kb Int Float Tanks	Case-by-Case		
T003	NESHAP Subpart R Tanks	Exempt	Subject to §129.56	Maintain records in accordance with §129.100(d)
T004	NESHAP Subpart EEEE Tanks	Exempt	Subject to §129.65	
300	Miscellaneous Tanks	Exempt	Subject to §129.56	
113	(6) Diesel Engine Pumps	Exempt	PTE less than 1 TPY	Maintain records in accordance with §129.100(f)
115	Marine Vessel Loading	Case-by-Case	Case-by-Case analysis performed. Current control achieves highest control efficiency of all feasible control options. Continue to operate MVR system, use LDAR program, and follow §129.81 and NESHAP Subpart Y requirements.	Maintain records required by the LDAR program, §129.81, and NESHAP Subpart Y. Continue to operate MVR system during gasoline and distillate loading.
116	Marine Vessel Ballasting	Case-by-Case	Case-by-Case analysis performed. Comply with existing §129.81 requirements and use clean ballast water.	Maintain records required by §129.81.

Source ID	Source	VOC RACT Category	VOC RACT Proposed Requirements	Compliance Demonstration
139	Cooling Towers	Presumptive/ Case-by-Case	15-6 and 17-1P are Presumptive RACT II units. Case-by-Case analysis performed for Tower 15-2B only. No technically feasible add-on control options for source. Continue to use equipment inspection and monitoring program to reduce VOC emissions.	Maintain records of the required equipment inspection and monitoring program.
367	Diesel Storage Tank	Case-by-Case	Comply with existing NSPS Subpart Kb requirements for these tanks.	Maintain records of compliance with NSPS Subpart Kb.
368	Vehicle Refueling (Gas/Diesel)	Case-by-Case	Comply with existing §129.61, §129.82, and NSPS Subpart Kb requirements.	Maintain records of compliance with §129.61, §129.82, and NSPS Subpart Kb.
701	Wastewater Treatment System	Exempt	PTE less than 1 TPY	Maintain records in accordance with §129.100(f)
402	Blind Changing	Case-by-Case	Case-by-Case analysis performed. Only feasible control is LDAR. Existing NSPS Subpart VV requirements proposed for RACT.	Maintain records required by NSPS Subpart VV for these fugitive sources.
800	NESHAP Fugitive Equipment	Case-by-Case		
801	Fugitive Equipment	Case-by-Case		

Attachment A

PADEP

General Information Form (GIF)



GENERAL INFORMATION FORM – AUTHORIZATION APPLICATION

Before completing this General Information Form (GIF), read the step-by-step instructions provided in this application package. This version of the General Information Form (GIF) must be completed and returned with any program-specific application being submitted to the Department.

Related ID#s (If Known)		DEP USE ONLY	
Client ID# 161585	APS ID# _____	Date Received & General Notes	
Site ID# 270459	Auth ID# _____		
Facility ID# _____			

CLIENT INFORMATION

DEP Client ID#	Client Type / Code NPACO			
Organization Name or Registered Fictitious Name Sunoco Partners Marketing & Terminals, L.P.		Employer ID# (EIN) 23-3102655	Dun & Bradstreet ID#	
Individual Last Name	First Name	MI	Suffix	SSN
Additional Individual Last Name	First Name	MI	Suffix	SSN
Mailing Address Line 1 100 Green Street		Mailing Address Line 2		
Address Last Line – City Marcus Hook		State PA	ZIP+4 19061-0426	Country U.S.A
Client Contact Last Name Smith	First Name Kevin	MI	Suffix	
Client Contact Title Specialist – Environmental Compliance		Phone (610) 859-1279	Ext	
Email Address KWSMITH@sunocologistics.com		FAX		

SITE INFORMATION

DEP Site ID#	Site Name Marcus Hook Industrial Complex				
EPA ID#	Estimated Number of Employees to be Present at Site				
Description of Site					
County Name Delaware	Municipality Marcus Hook	City <input type="checkbox"/>	Boro <input checked="" type="checkbox"/>	Twp <input type="checkbox"/>	State
County Name	Municipality	City <input type="checkbox"/>	Boro <input type="checkbox"/>	Twp <input type="checkbox"/>	State
Site Location Line 1 100 Green Street		Site Location Line 2			
Site Location Last Line – City Marcus Hook Facility		State PA	ZIP+4 19061-0426		
Detailed Written Directions to Site Follow I-95 S; Take the MARKET STREET / PA-452 exit- EXIT 2; Turn LEFT onto MARKET ST / PA-452. Continue to follow MARKET ST.; Turn RIGHT onto 11TH ST.; Turn LEFT onto GREEN ST. Enter at Visitors Entrance. Request escort by Environmental Dept. Personnel					
Site Contact Last Name Smith	First Name Kevin	MI W	Suffix		
Site Contact Title Specialist – Environmental Compliance		Site Contact Firm Sunoco Partners Marketing & Terminals, L.P.			
Mailing Address Line 1 100 Green Street		Mailing Address Line 2			

Mailing Address Last Line – City Marcus Hook		State PA	ZIP+4 19061
Phone (610) 859-1279	Ext	FAX	Email Address KWSMITH@sunocologistics.com
NAICS Codes (Two- & Three-Digit Codes – List All That Apply) 493			6-Digit Code (Optional) 493190
Client to Site Relationship OWNOP			

FACILITY INFORMATION

Modification of Existing Facility	Yes	No
1. Will this project modify an existing facility, system, or activity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Will this project involve an addition to an existing facility, system, or activity?	<input checked="" type="checkbox"/>	<input type="checkbox"/>

If "Yes", check all relevant facility types and provide DEP facility identification numbers below.

Facility Type	DEP Fac ID#	Facility Type	DEP Fac ID#
<input type="checkbox"/> Air Emission Plant	_____	<input type="checkbox"/> Industrial Minerals Mining Operation	_____
<input type="checkbox"/> Beneficial Use (water)	_____	<input type="checkbox"/> Laboratory Location	_____
<input type="checkbox"/> Blasting Operation	_____	<input type="checkbox"/> Land Recycling Cleanup Location	_____
<input type="checkbox"/> Captive Hazardous Waste Operation	_____	<input type="checkbox"/> MineDrainageTrmt/LandRecyProjLocation	_____
<input type="checkbox"/> Coal Ash Beneficial Use Operation	_____	<input type="checkbox"/> Municipal Waste Operation	_____
<input type="checkbox"/> Coal Mining Operation	_____	<input type="checkbox"/> Oil & Gas Encroachment Location	_____
<input type="checkbox"/> Coal Pillar Location	_____	<input checked="" type="checkbox"/> Oil & Gas Location	292970
<input type="checkbox"/> Commercial Hazardous Waste Operation	_____	<input type="checkbox"/> Oil & Gas Water Poll Control Facility	_____
<input type="checkbox"/> Dam Location	_____	<input type="checkbox"/> Public Water Supply System	_____
<input type="checkbox"/> Deep Mine Safety Operation -Anthracite	_____	<input type="checkbox"/> Radiation Facility	_____
<input type="checkbox"/> Deep Mine Safety Operation -Bituminous	_____	<input type="checkbox"/> Residual Waste Operation	_____
<input type="checkbox"/> Deep Mine Safety Operation -Ind Minerals	_____	<input type="checkbox"/> Storage Tank Location	_____
<input type="checkbox"/> Encroachment Location (water, wetland)	_____	<input type="checkbox"/> Water Pollution Control Facility	_____
<input type="checkbox"/> Erosion & Sediment Control Facility	_____	<input type="checkbox"/> Water Resource	_____
<input type="checkbox"/> Explosive Storage Location	_____	<input type="checkbox"/> Other:	_____

Latitude/Longitude Point of Origin	Latitude			Longitude		
	Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
Plant Entrance (general)	39	48	41	-75	25	32

Horizontal Accuracy Measure Feet 5 --or-- Meters

Horizontal Reference Datum Code

North American Datum of 1927

North American Datum of 1983

World Geodetic System of 1984

Horizontal Collection Method Code

Reference Point Code

Altitude Feet 12 --or-- Meters

Altitude Datum Name

The National Geodetic Vertical Datum of 1929

The North American Vertical Datum of 1988 (NAVD88)

Altitude (Vertical) Location Datum Collection Method Code

Geometric Type Code

Data Collection Date 7/29/2015

Source Map Scale Number Inch(es) = Feet

--or-- Centimeter(s) = Meters

PROJECT INFORMATION

Project Name RACT II Proposal			
Project Description See attached proposal			
Project Consultant Last Name McGroarty	First Name Colin	MI	Suffix
Project Consultant Title Principal Consultant		Consulting Firm Environmental Resources Management	
Mailing Address Line 1 75 Valley Stream Parkway		Mailing Address Line 2 Suite 200	

Address Last Line – City Malvern		State PA	ZIP+4 19355
Phone 484-913-0409	Ext 0409	FAX	Email Address colin.mcgroarty@erm.com
Time Schedules NA	Project Milestone (Optional)		

1. **Have you informed the surrounding community and addressed any concerns prior to submitting the application to the Department?** Yes No

2. **Is your project funded by state or federal grants?** Yes No
Note: If "Yes", specify what aspect of the project is related to the grant and provide the grant source, contact person and grant expiration date.
 Aspect of Project Related to Grant _____
 Grant Source: _____
 Grant Contact Person: _____
 Grant Expiration Date: _____

3. **Is this application for an authorization on Appendix A of the Land Use Policy? (For referenced list, see Appendix A of the Land Use Policy attached to GIF instructions)** Yes No
Note: If "No" to Question 3, the application is not subject to the Land Use Policy.
 If "Yes" to Question 3, the application is subject to this policy and the Applicant should answer the additional questions in the **Land Use Information** section.

LAND USE INFORMATION

- Note:** Applicants are encouraged to submit copies of local land use approvals or other evidence of compliance with local comprehensive plans and zoning ordinances.
1. **Is there an adopted county or multi-county comprehensive plan?** Yes No

 2. **Is there an adopted municipal or multi-municipal comprehensive plan?** Yes No

 3. **Is there an adopted county-wide zoning ordinance, municipal zoning ordinance or joint municipal zoning ordinance?** Yes No
Note: If the Applicant answers "No" to either Questions 1, 2 or 3, the provisions of the PA MPC are not applicable and the Applicant does not need to respond to questions 4 and 5 below.
 If the Applicant answers "Yes" to questions 1, 2 and 3, the Applicant should respond to questions 4 and 5 below.

 4. **Does the proposed project meet the provisions of the zoning ordinance or does the proposed project have zoning approval?** Yes No
 If zoning approval has been received, attach documentation.

 5. **Have you attached Municipal and County Land Use Letters for the project?** Yes No

COORDINATION INFORMATION

Note: The PA Historical and Museum Commission must be notified of proposed projects in accordance with DEP Technical Guidance Document 012-0700-001 and the accompanying Cultural Resource Notice Form.

If the activity will be a mining project (i.e., mining of coal or industrial minerals, coal refuse disposal and/or the operation of a coal or industrial minerals preparation/processing facility), respond to questions 1.0 through 2.5 below.

If the activity will not be a mining project, skip questions 1.0 through 2.5 and begin with question 3.0.

1.0	Is this a coal mining project? If "Yes", respond to 1.1-1.6. If "No", skip to Question 2.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
1.1	Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be equal to or greater than 200 tons/day?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.2	Will this coal mining project involve coal preparation/ processing activities in which the total amount of coal prepared/processed will be greater than 50,000 tons/year?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.3	Will this coal mining project involve coal preparation/ processing activities in which thermal coal dryers or pneumatic coal cleaners will be used?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.4	For this coal mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.5	Will this coal mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
1.6	Will this coal mining project involve underground coal mining to be conducted within 500 feet of an oil or gas well?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.0	Is this a non-coal (industrial minerals) mining project? If "Yes", respond to 2.1-2.6. If "No", skip to Question 3.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
2.1	Will this non-coal (industrial minerals) mining project involve the crushing and screening of non-coal minerals other than sand and gravel?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.2	Will this non-coal (industrial minerals) mining project involve the crushing and/or screening of sand and gravel with the exception of wet sand and gravel operations (screening only) and dry sand and gravel operations with a capacity of less than 150 tons/hour of unconsolidated materials?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.3	Will this non-coal (industrial minerals) mining project involve the construction, operation and/or modification of a portable non-metallic (i.e., non-coal) minerals processing plant under the authority of the General Permit for Portable Non-metallic Mineral Processing Plants (i.e., BAQ-PGPA/GP-3)?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.4	For this non-coal (industrial minerals) mining project, will sewage treatment facilities be constructed and treated waste water discharged to surface waters?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
2.5	Will this non-coal (industrial minerals) mining project involve the construction of a permanent impoundment meeting one or more of the following criteria: (1) a contributory drainage area exceeding 100 acres; (2) a depth of water measured by the upstream toe of the dam at maximum storage elevation exceeding 15 feet; (3) an impounding capacity at maximum storage elevation exceeding 50 acre-feet?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No

3.0	Will your project, activity, or authorization have anything to do with a well related to oil or gas production, have construction within 200 feet of, affect an oil or gas well, involve the waste from such a well, or string power lines above an oil or gas well? If "Yes", respond to 3.1-3.3. If "No", skip to Question 4.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
3.1	Does the oil- or gas-related project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water (including wetlands)?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.2	Will the oil- or gas-related project involve discharge of industrial wastewater or stormwater to a dry swale, surface water, ground water or an existing sanitary sewer system or storm water system? If "Yes", discuss in <i>Project Description</i> .	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
3.3	Will the oil- or gas-related project involve the construction and operation of industrial waste treatment facilities?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
4.0	Will the project involve a construction activity that results in earth disturbance? If "Yes", specify the total disturbed acreage.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	4.0.1 Total Disturbed Acreage				
5.0	Does the project involve any of the following? If "Yes", respond to 5.1-5.3. If "No", skip to Question 6.0.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
5.1	Water Obstruction and Encroachment Projects – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a watercourse, floodway or body of water?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.2	Wetland Impacts – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a wetland?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
5.3	Floodplain Projects by the commonwealth, a Political Subdivision of the commonwealth or a Public Utility – Does the project involve any of the following: placement of fill, excavation within or placement of a structure, located in, along, across or projecting into a floodplain?	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
6.0	Will the project involve discharge of stormwater or wastewater from an industrial activity to a dry swale, surface water, ground water or an existing sanitary sewer system or separate storm water system? <i>Storm water is collected through existing storm inlets and conveyed to on-site pretreatment followed by DELCORA treatment facility.</i>	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
7.0	Will the project involve the construction and operation of industrial waste treatment facilities?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
8.0	Will the project involve construction of sewage treatment facilities, sanitary sewers, or sewage pumping stations? If "Yes", indicate estimated proposed flow (gal/day). Also, discuss the sanitary sewer pipe sizes and the number of pumping stations/treatment facilities/name of downstream sewage facilities in the <i>Project Description</i> , where applicable.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	8.0.1 Estimated Proposed Flow (gal/day)				
9.0	Will the project involve the subdivision of land, or the generation of 800 gpd or more of sewage on an existing parcel of land or the generation of an additional 400 gpd of sewage on an already-developed parcel, or the generation of 800 gpd or more of industrial wastewater that would be discharged to an existing sanitary sewer system?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	9.0.1 Was Act 537 sewage facilities planning submitted and approved by DEP? If "Yes" attach the approval letter. Approval required prior to 105/NPDES approval.	<input type="checkbox"/>	Yes	<input type="checkbox"/>	No
10.0	Is this project for the beneficial use of biosolids for land application within Pennsylvania? If "Yes" indicate how much (i.e. gallons or dry tons per year).	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
	10.0.1 Gallons Per Year (residential septage) _____				
	10.0.2 Dry Tons Per Year (biosolids) _____				

11.0	Does the project involve construction, modification or removal of a dam? If "Yes", identify the dam. 11.0.1 Dam Name	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
12.0	Will the project interfere with the flow from, or otherwise impact, a dam? If "Yes", identify the dam. 12.0.1 Dam Name	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
13.0	Will the project involve operations (excluding during the construction period) that produce air emissions (i.e., NOX, VOC, etc.)? If "Yes", identify each type of emission followed by the amount of that emission. 13.0.1 Enter all types & amounts of emissions; separate each set with semicolons.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
14.0	Does the project include the construction or modification of a drinking water supply to serve 15 or more connections or 25 or more people, at least 60 days out of the year? If "Yes", check all proposed sub-facilities. 14.0.1 Number of Persons Served _____ 14.0.2 Number of Employee/Guests _____ 14.0.3 Number of Connections _____ 14.0.4 Sub-Fac: Distribution System <input type="checkbox"/> Yes <input type="checkbox"/> No 14.0.5 Sub-Fac: Water Treatment Plant <input type="checkbox"/> Yes <input type="checkbox"/> No 14.0.6 Sub-Fac: Source <input type="checkbox"/> Yes <input type="checkbox"/> No 14.0.7 Sub-Fac: Pump Station <input type="checkbox"/> Yes <input type="checkbox"/> No 14.0.8 Sub Fac: Transmission Main <input type="checkbox"/> Yes <input type="checkbox"/> No 14.0.9 Sub-Fac: Storage Facility <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
15.0	Will your project include infiltration of storm water or waste water to ground water within one-half mile of a public water supply well, spring or infiltration gallery?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
16.0	Is your project to be served by an existing public water supply? If "Yes", indicate name of supplier and attach letter from supplier stating that it will serve the project. 16.0.1 Supplier's Name _____ 16.0.2 Letter of Approval from Supplier is Attached	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
17.0	Will this project involve a new or increased drinking water withdrawal from a stream or other water body? If "Yes", should reference both Water Supply and Watershed Management. 17.0.1 Stream Name	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
18.0	Will the construction or operation of this project involve treatment, storage, reuse, or disposal of waste? If "Yes", indicate what type (i.e., hazardous, municipal (including infectious & chemotherapeutic), residual) and the amount to be treated, stored, re-used or disposed. 18.0.1 Type & Amount	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
19.0	Will your project involve the removal of coal, minerals, etc. as part of any earth disturbance activities?	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
20.0	Does your project involve installation of a field constructed underground storage tank? If "Yes", list each Substance & its Capacity. Note: Applicant may need a Storage Tank Site Specific Installation Permit. 20.0.1 Enter all substances & capacity of each; separate each set with semicolons.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No
21.0	Does your project involve installation of an aboveground storage tank greater than 21,000 gallons capacity at an existing facility? If "Yes", list each Substance & its Capacity. Note: Applicant may need a Storage Tank Site Specific Installation Permit. 21.0.1 Enter all substances & capacity of each; separate each set with semicolons.	<input type="checkbox"/>	Yes	<input checked="" type="checkbox"/>	No

- 22.0 Does your project involve installation of a tank greater than 1,100 gallons which will contain a highly hazardous substance as defined in DEP's Regulated Substances List, 2570-BK-DEP2724? If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. Yes No
- 22.0.1 Enter all substances & capacity of each; separate each set with semicolons.
-
- 23.0 Does your project involve installation of a storage tank at a new facility with a total AST capacity greater than 21,000 gallons? If "Yes", list each Substance & its Capacity. **Note:** Applicant may need a Storage Tank Site Specific Installation Permit. Yes No
- 23.0.1 Enter all substances & capacity of each; separate each set with semicolons.
-
- 24.0 Will the intended activity involve the use of a radiation source? Yes No

CERTIFICATION

I certify that I have the authority to submit this application on behalf of the applicant named herein and that the information provided in this application is true and correct to the best of my knowledge and information.

Type or Print Name Edward G. Human



Director of Marcus Hook Operations

Title

11/9/14

Date

Signature

Attachment B

*Compliance History
Review Form*



COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

AIR POLLUTION CONTROL ACT COMPLIANCE REVIEW FORM

Fully and accurately provide the following information, as specified. Attach additional sheets as necessary.

Type of Compliance Review Form Submittal (check all that apply)

- Original Filing
 Amended Filing
- Date of Last Compliance Review Form Filing: 03/11/2016

Type of Submittal

- New Plan Approval
 Extension of Plan Approval
 Other: _____
- New Operating Permit
 Change of Ownership
- Renewal of Operating Permit
 Periodic Submission (@ 6 mos)

SECTION A. GENERAL APPLICATION INFORMATION

Name of Applicant/Permittee/("applicant") (non-corporations-attach documentation of legal name)

Sunoco Partners Marketing & Terminals, L.P.

Address 4041 Market Street
Aston, PA 19014

Telephone 610-670-3297 **Taxpayer ID#** 23-310-2655

Permit, Plan Approval or Application ID#

Identify the form of management under which the applicant conducts its business (check appropriate box)

- Individual
 Municipality
 Proprietorship
 Public Corporation
 Private Corporation
- Syndicate
 Municipal Authority
 Fictitious Name
 Partnership
 Limited Partnership
- Government Agency
 Joint Venture
 Association
 Other Type of Business, specify below:

Describe below the type(s) of business activities performed.

SIC Code: 4226 - Petroleum & Chemical Bulk Stations & Terminals for Hire
 SIC Code: 4612 - Crude Petroleum Pipeline
 SIC Code 4613 - Refined Petroleum Pipeline
 SIC Code 1321- Natural Gas Liquids

SECTION B. GENERAL INFORMATION REGARDING "APPLICANT"

If applicant is a corporation or a division or other unit of a corporation, provide the names, principal places of business, state of incorporation, and taxpayer ID numbers of all domestic and foreign parent corporations (including the ultimate parent corporation), and all domestic and foreign subsidiary corporations of the ultimate parent corporation with operations in Pennsylvania. Please include all corporate divisions or units, (whether incorporated or unincorporated) and privately held corporations. (A diagram of corporate relationships may be provided to illustrate corporate relationships.) Attach additional sheets as necessary.

Unit Name	Principal Places of Business	State of Incorporation	Taxpayer ID	Relationship to Applicant
Sunoco Partners LLC	PA	PA	23-3096839	Parent of Applicant and General Partner of Sunoco Logistics Partners L.P.
Sunoco Logistics Partners L.P.	PA	DE	23-3096839	Parent of Sunoco Partners Operations L.P. and Sunoco Logistics Partners GP
Sunoco Logistics Partners Operations L.P.	PA	DE	23-3102657	Parent of Sunoco Logistics Partners Operations, LLC and Sunoco Partners Marketing & Terminals L.P.
Sunoco Logistics Partners Operations GP, LLC	PA	DE	23-3102658	General Partner of Sunoco Partners Marketing & Terminals L.P.
ETE Common Holdings LLC	PA	DE	46-2638935	Parent of Energy Transfer Partners L.P.
Energy Transfer Partners L.P.	PA	DE	73-1493906	Ultimate Parent and General Partner of Sunoco Logistics Partners Operations GP, LLC
Sunoco Partners Marketing & Terminals I.P.	PA	TX	23-3102655	Applicant
Subsidiaries of ultimate parent with operations in PA- See Attachment 2				

SECTION C. SPECIFIC INFORMATION REGARDING APPLICANT AND ITS "RELATED PARTIES"

Pennsylvania Facilities. List the name and location (mailing address, municipality, county), telephone number, and relationship to applicant (parent, subsidiary or general partner) of applicant and all Related Parties' places of business, and facilities in Pennsylvania. Attach additional sheets as necessary.

Unit Name	Street Address	County and Municipality	Telephone No.	Relationship to Applicant
see attachment #1				

Provide the names and business addresses of all general partners of the applicant and parent and subsidiary corporations, if any.

Name	Business Address
Sunoco Logistics Partners Operations GP, LLC	4041 Market Street, Aston, PA 19014

List the names and business address of persons with overall management responsibility for the process being permitted (i.e. plant manager).

Name	Business Address
see attachment #1	

Plan Approvals or Operating Permits. List all plan approvals or operating permits issued by the Department or an approved local air pollution control agency under the APCA to the applicant or related parties that are currently in effect or have been in effect at any time 5 years prior to the date on which this form is notarized. This list shall include the plan approval and operating permit numbers, locations, issuance and expiration dates. Attach additional sheets as necessary.

Air Contamination Source	Plan Approval/ Operating Permit#	Location	Issuance Date	Expiration Date
see attachment #2				

Compliance Background. (Note: Copies of specific documents, if applicable, must be made available to the Department upon its request.) List all documented conduct of violations or enforcement actions identified by the Department pursuant to the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. Attach additional sheets as necessary. See the definition of "documented conduct" for further clarification. Unless specifically directed by the Department, deviations which have been previously reported to the Department in writing, relating to monitoring and reporting, need not be reported.

Date	Location	Plan Approval/ Operating Permit#	Nature of Documented Conduct	Type of Department Action	Status: Litigation Existing/Continuing or Corrected/Date	Dollar Amount Penalty
07/27/02	No. 2 Tank Farm	23-00044	The VOC RACT fugitive emissions monitoring did not occur during the 2 nd qtr. Of 2002. Failure to monitor	NOV	Monitoring was performed for 2 nd qtr. 2002 and the Department was notified.	\$ 0
05/20/04	Ft. Mifflin Terminal	23-00037	Product discovered on roof of a tank, as well as open hatch	NOV	Corrected within 30 days.	\$ 0
03/06/06	Twin Oaks Terminal	23-00045	Failure to submit 05/01/05-10/31/05 semiannual monitoring report	NOV	Confusion with reporting dates in new permit issued on 10/05/05 resulted in semiannual report being submitted late. Report was issued to the Department on 02/21/06.	\$ 0
03/06/06	Twin Oaks Terminal	23-00045	Failure to complete stack test in a timely manner.	NOV	New permit required stack test to be completed by 2/15/06. Stack test completed on 03/01/06.	\$ 0
06/12/07	Darby Creek Tank Farm	23-00011	Product on tank roofs, in oil/water boxes, around roof drain outlets, on ground below crude mixers, open vacuum breakers, open roof drain cover, absence of required records, absence of required seal gap notifications, lack of records of annual PRV checks.	NOV/CACP	Response to PADEP submitted on 6/29/07, challenging all findings of NOV and requesting NOV to be rescinded. Awaiting response. CACP issued May 2008. A review of the findings is pending.	\$37,730
03/01/07	Fort Mifflin Terminal	23-00037	Failure to submit semi-annual compliance certification/deviation report in a timely manner.	NOV	Response to PADEP, submitted on 4/4/07, requesting NOV to be rescinded. NOV issued before the due date of report. Awaiting response.	\$0
07/20/07	Fort Mifflin Terminal	23-00037	Observed seal gaps, observed torn seals, vapor pressure exceedances.	NOV/CACP	Response to PADEP submitted on 7/24/07, challenging all findings of NOV and requesting NOV to be rescinded. CACP issued May 2008. Entered into agreement to settle in order to avoid time and expense of challenging the findings.	\$2,700
07/20/07	No. 2 Tank Farm	23-00044	Failure to submit semiannual deviation report in a timely manner, absence of required records, absence of required seal gap notifications.	NOV/CACP	Response to PADEP submitted on 7/31/07, challenging two of three findings of NOV. CACP issued May 2008. Entered into agreement to settle in order to avoid time and expense of challenging the findings.	\$2,200

10/02/07	Willow Grove Terminal	46-00091	Failure to obtain required approval prior to installing a control device and operating a source without a permit.	NOV/CACP	Response to PADEP in July 2008 agreeing to violations and penalty	\$5,000
10/28/09	Montello Terminal	06-05064B	Construction of a Vapor Recovery Unit prior to approval from the department	NOV	Response to PADEP submitted 11/03/09 explaining problems associated with obtaining plan approval. Plan approval issued 11/19/09.	\$1,500
02/09/11	Mechanicsburg Terminal	Plan Approval 21-05029B	Failure to submit an administrative amendment application to roll plan approval conditions into operating permit at least 15 days prior to the end of the initial 180-day shakedown period	NOV	Administrative amendment submitted to Department 12/10/2010.	\$0
02/09/11	Montello Terminal	Plan Approval 06-05064B	Failure to submit an administrative amendment application to roll plan approval conditions into operating permit at least 15 days prior to the end of the initial 180-day shakedown period	NOV	Administrative amendment submitted to Department 12/10/2010.	\$0
12/28/11	Willow Grove Terminal	46-0091	Failure to notify PADEP 30 days prior to conducting a stack test	NOV/FOV	Corrective Action submitted Jan 10,2012	\$1,300
8/12/13	Delmont Terminal	65-00354	Exceedances of tank 701 and 702 annual VOC limitation	NOV	Correspondence with PADEP to revise permit	\$0
5/2014	Belmont Terminal	PLID No: 01507	Failure to submit annual compliance certification to the Philadelphia Depart. Of Health	NOV/FOV	SXL submitted report but it was not recorded by the AMS.	\$1,500
3/24/15	Marcus Hook Industrial Complex	23-00119	Failure to submit an extension for a plan approval.	NOV/FOV	The plan approval extension request was submitted on February 26, 2015.	\$4,000
5/11/15	Twin Oaks Terminal	23-00045	PADEP issued an NOV for late submittal of a Permit Application.	NOV	The abatement plan was submitted on June 11, 2015.	\$0
05/26/15	Ft. Mifflin Terminal	23-00037	PADEP issued an NOV for late submittal of a permit application.	NOV	Received a letter from PADEP stating that the application was administratively complete. The abatement plan was submitted on June 11, 2015.	\$0
6/16/15	Marcus Hook Industrial Complex	23-00119	Failure to maintain permit required records regarding tank repair work	NOV	Corrective action submitted to PADEP July 9, 2015	\$0
8/20/15	Marcus Hook Industrial Complex	23-00119	Failure to maintain permit records regarding sample collection of process gas to analyze for sulfur, for failure to maintain Stage II Vapor Recovery Test Results and for exceeding NOX emissions during ozone season in 2013 and 2014.	NOV	Corrective Action submitted to PADEP September 16, 2015 and October 30, 2015.	
10/23/15	Malvern Terminal	15-00043	PADEP issued a NOV for not having records available at the time of an unannounced inspection.	NOV	The requested information was provided on November 11, 2015.	\$0
11/09/15	Marcus Hook #2 Tank Farm	23-00044	Failure to post a Title V public notice within the required time frame.	NOV	Corrective Action was submitted on 11/9/15. On 12/15 no further action is required.	\$0

11/23/15	Marcus Hook #2 Tank Farm	23-00045	Operating without a valid permit for 9 days. Lost the permit shield during the permit renewal process because the public notice was not published within the required time period.	NOV	Talked with the PADEP on November 23, 2015 no action required.	\$0
06/07/16	MHIC	23-00119	Exceeded 12 month rolling emission limit for tanks 607, 611 and 23.	NOV	Submitted plan approval for increase in tank emissions.	

List all incidents of deviations of the APCA, regulations, terms and conditions of an operating permit or plan approval or order by applicant or any related party, using the following format grouped by source and location in reverse chronological order. This list must include items both currently known and unknown to the Department. Attach additional sheets as necessary. See the definition of "deviations" for further clarification.

Date	Location	Plan Approval/ Operating Permit#	Nature of Deviation	Incident Status: Litigation Existing/Continuing Or Corrected/Date
7/01/2014	Malvern Terminal	15-00043	VRU Daily Calibration Drift Check	7/02/2014
7/17/2014	Malvern Terminal	15-00043	VRU Daily Calibration Drift Check	7/19/2014
12/6/2014	Malvern	15-00043	VRU Daily Calibration Drift Check	12/7/2014
12/16/2014	Malvern Terminal	15-00043	VRU Daily Calibration Drift Check	12/18/2014
12/23/2014	Malvern Terminal	15-00043	VRU Daily Calibration Drift Check	1/02/2015

CONTINUING OBLIGATION. Applicant is under a continuing obligation to update this form using the Compliance Review Supplemental Form if any additional deviations occur between the date of submission and Department action on the application.

VERIFICATION STATEMENT

Subject to the penalties of Title 18 Pa.C.S. Section 4904 and 35 P.S. Section 4009(b)(2), I verify under penalty of law that I am authorized to make this verification on behalf of the Applicant/Permittee. I further verify that the information contained in this Compliance Review Form is true and complete to the best of my belief formed after reasonable inquiry. I further verify that reasonable procedures are in place to ensure that "documented conduct" and "deviations" as defined in 25 Pa Code Section 121.1 are identified and included in the information set forth in this Compliance Review Form.



Signature

7/20/16

Date

David R. Chalson

Name (Print or Type)

President & CEO, by Sunoco Logistics Partners Operations, GP LLC, General Partner for Sunoco Partners Marketing & Terminals L.P.

Title

Attachment #1: Names, Locations and Facility Managers for all Sunoco Partners Marketing & Terminals L.P. Related Parties in PA.

Facility Name	Owner/Operator	Federal Tax ID #	SIC Code	Facility Address	City	Zip Code	County	Facility Manager	Office Number
Belmont Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	2700 West Passyunk Ave	Philadelphia	19145	Philadelphia	Jacelyn Abdala	610-859-5752
Blawnox Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	Freeport Road & Boyd	Pittsburgh	15238	Allegheny	Mark Whalen	412-828-7500
Darby Creek Tank Farm	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4612	Calcon Hook Road	Sharon Hill	19079	Delaware	Eric Scheivert	215-937-6242
Delmont Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	Route 66	North Delmont	15626	Westmoreland	Mark Whalen	724-468-4072
Eldorado (Altoona) Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	Rt. 764 N. & Sugar Run Road	Altoona	16601	Blair	Mark Whalen	814-944-8153
Exton Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	601 E. Lincoln Highway	Exton	19134	Chester	Michael Billman	215-778-0206
Ft. Mifflin	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	Hog Island Road	Essington	19029	Delaware	Eric Scheivert	215-937-6242
Fullerton Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	2480 Main Street	Fullerton	18052	Lehigh	Terry Wolfe	610-264-0526
Hog Island Warf	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	4 Atlantic Avenue	Essington	19029	Delaware	Eric Scheivert	215-937-6242
Kingston Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	Rt. 11, Box 1479	Kingston	18704-3102	Luzerne	Terry Wolfe	570-288-2555
Malvern Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	41 Malin Road	Malvern	10355	Chester	Michael Billman	215-778-0206
Marcus Hook Industrial Complex	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	100 Green Street	Marcus Hook	19061	Chester	Jonathan Hunt	610-859-1043
Mechanicsburg Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	5145 Simpson Ferry Road	Mechanicsburg	17055	Cumberland	Terry Wolfe	717-766-2526
Montello Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	PO Box 2089, Fritztown Road	Montello	19608	Berks	Terry Wolfe	610-927-2090
Northumberland Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	Rd#1, Box 285 E	Northumberland	17857	Northumberland	Terry Wolfe	570-473-3575
Pittsburgh Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	5733 Butler Street	Pittsburgh	15210	Allegheny	Mark Whalen	412-784-3460
Tamaqua Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	Tuscarara Street And Park	Tamaqua	18252	Schuylkill	Terry Wolfe	570-668-0430
Twin Oaks Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	4041 Market Street	Aston	19014	Delaware	Jacolon Abdala	610-859-5742
#2 Tank Farm	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4613	7 Commerce Drive	Aston	19014	Delaware	John D'Ambrosio	610-586-6240
Willow Grove Term.	Sunoco Partners Marketing & Terminals L.P.	23-3102655	4226	3290 Sunset Lane	Hatboro	19040	Montgomery	Jacolon Abdala	610-859-5752

Attachment #2: Plan Approvals & Operating Permits

Facility	Owner / Operator	State	Permit Type	Permit #	Effective	Expiration
Belmont	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	V04-004	08/01/2010	08/01/2015 (permit renewal submitted 1/29/15)
Blawnox	Sunoco Partners Marketing & Terminals L.P.	PA	Synthetic Minor	0011	06/28/2011	06/27/2016
Darby Creek	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	23-00011	10/06/2011	10/06/2016
Delmont	Sunoco Partners Marketing & Terminals, L.P.	PA	Title V Permit	65-00354	01/31/2012	01/31/2017
Eldorado	Sunoco Partners Marketing & Terminals L.P.	PA	Synthetic Minor	07-05025	02/01/2014	01/31/2019
Exton	Sunoco Partners Marketing & Terminals L.P.	PA	Synthetic Minor	15-00044	05/01/2010	04/30/2015 (permit renewal submitted 10/29/14)
Fort Mifflin	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	23-00037	11/01/2015	10/15/2020
Fullerton	Sunoco Partners Marketing & Terminals L.P.	PA	Synthetic Minor	39-00022	09/17/2014	09/17/2019
Hog Island Wharf	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	23-00043	11/15/2011	11/14/2016
Kingston	Sunoco Partners Marketing & Terminals L.P.	PA	Synthetic Minor	40-00025	09/17/2014	09/17/2019
Marcus Hook Industrial Complex	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	23-0119	4/01/2015	4/01/2020
Marcus Hook Industrial Complex	Sunoco Partners Marketing & Terminals L.P.	PA	Plan Approval	23-0119	2/05/2013	2/06/2016 Extension request submitted 12/11/2015
Marcus Hook Industrial Complex	Sunoco Partners Marketing & Terminals, L.P.	PA	Plan Approval	23-0119A	9/05/2013	6/30/2016
Marcus Hook Industrial Complex	Sunoco Partners Marketing & Terminals, L.P.	PA	Plan Approval	23-0119B	1/30/2015	1/31/2016 Extension Request submitted 12/18/2015

Marcus Hook Industrial Complex	Sunoco Partners Marketing & Terminals, L.P.	PA	Plan Approval	23-0119C	11/19/2014	5/19/2016
Marcus Hook Industrial Complex	Sunoco Partners Marketing & Terminals, L.P.	PA	Plan Approval	23-0119D	2/26/2015	2/26/2018
Marcus Hook Industrial Complex	Sunoco Partners Marketing & Terminals, L.P.	PA	Plan Approval	23-0001AD	9/12/2012	3/13/2016
Malvern	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	15-00043	05/01/2014	04/30/2019
Mechanicsburg	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	21-05029	04/01/2014	03/31/2019
Montello	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	06-05064	10/01/2014	9/30/2019
Northumberland	Sunoco Partners Marketing & Terminals L.P.	PA	Synthetic Minor	49-00019	12/26/2014	12/25/2019
#2 Tank Farm	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	23-00044	10/01/2015	10/08/2020
Pittsburgh	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	0007	06/30/2011	06/29/2016
Tamaqua	Sunoco Partners Marketing & Terminals L.P.	PA	Synthetic Minor	54-00015	8/31/2009	8/31/2014
Twin Oaks	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	23-00045	12/02/2015	12/01/2020
Willow Grove	Sunoco Partners Marketing & Terminals L.P.	PA	Title V Permit	46-00091	6/23/2011	6/23/2016

Attachment 2
 APCA Compliance Review Form
 Subsidiaries with Operations in Pennsylvania of
 Ultimate Parent Energy Transfer Partners, L.P. of Applicant Sunoco Partners Marketing & Terminals L.P.
 July 20, 2016

Entity Name	Entity Main Address	Domestic Jurisdiction	Taxpayer ID	Relationship to Applicant
Sunoco Partners LLC	3807 West Chester Pike, Newtown Square, PA 19073	Pennsylvania	23-3096838	Indirect subsidiary of ultimate parent
Sunoco Logistics Partners L.P.	3807 West Chester Pike, Newtown Square, PA 19073	Delaware	23-3096839	Indirect subsidiary of ultimate parent
Sunoco Logistics Partners Operations L.P.	3807 West Chester Pike, Newtown Square, PA 19073	Delaware	23-3102657	Indirect subsidiary of ultimate parent
Sunoco Logistics Partners GP LLC	3807 West Chester Pike, Newtown Square, PA 19073	Delaware	23-3102658	Indirect subsidiary of ultimate parent
Sunoco Logistics Partners Operations GP LLC	3807 West Chester Pike, Newtown Square, PA 19073	Delaware	23-3102660	Indirect subsidiary of ultimate parent
Sunoco Partners Marketing & Terminals L.P.	3807 West Chester Pike, Newtown Square, PA 19073	Texas	23-3102655	Indirect subsidiary of ultimate parent
Sunoco Pipeline L.P.	3807 West Chester Pike, Newtown Square, PA 19073	Texas	23-3102656	Indirect subsidiary of ultimate parent

Attachment 2 (cont'd)
 APCA Compliance Review Form
 Subsidiaries with Operations in Pennsylvania of
 Ultimate Parent Energy Transfer Partners, L.P. of Applicant Sunoco Partners Marketing & Terminals L.P.
 July 20, 2016

Entity Name	Entity Main Address	Domestic Jurisdiction	Taxpayer ID	Relationship to Applicant
Regency Marcellus Gas Gathering LLC	8111 Westchester Drive Suite 600 Dallas, TX 75225	Delaware	27-2142725	Indirect subsidiary of ultimate parent
Regency NEPA Gas Gathering LLC	8111 Westchester Drive Suite 600 Dallas, TX 75225	Texas	38-3877838	Indirect subsidiary of ultimate parent
ET Rover Pipeline LLC	8111 Westchester Drive Suite 600 Dallas, TX 75225	Delaware	46-5655475	Indirect subsidiary of ultimate parent and Member, Rover Pipeline LLC joint venture
Rover Pipeline LLC	8111 Westchester Drive Suite 600 Dallas, TX 75225	Delaware	47-1958303	Joint Venture of ET Rover Pipeline LLC and a non-affiliated company, AE-MidCo Rover, LLC
PEI Power Corporation	1 P E I CTR Wilkes-Barre, PA 18711-0601	Pennsylvania	23-2933578	Indirect subsidiary of ultimate parent

Attachment C

*Pennsylvania
Title V Operating Permit
Application Forms for
Permit No. 23-00119*



FOR OFFICIAL USE ONLY	
Title V OP Number:	_____
Reviewed by:	_____
Date:	_____

TITLE V OPERATING PERMIT APPLICATION

Section 1 - General Information

1.1 Application Type

Type of permit for which application is made: (Check one)

Initial

Renewal Operating Permit No.: _____

Application Revision - provide date of original Title V Application or OP No.: 23-00119

1.2 Plant Information

Federal Tax ID/Plant Code: 23-1743283-12 Firm Name: SUNOCO PARTNERS MARKETING & TERMINALS L.P.

Plant Name: SUNOCO PARTNERS MARKETING & TERMINALS L.P.

NAICS Code: 486990 SIC Code: 1321

Description of NAICS Code: All Other Pipeline Transportation

Description of SIC Code: Natural Gas Liquids

County: Delaware Municipality: Marcus Hook Borough

Latitude: 39° 48 50.8700 Longitude: -75° 24 48.9057

Horizontal Reference Datum: North American Datum of 1983
Geographic coordinate determination method based on GPS code measurements

Horizontal Collection Method: (pseudo range) differential (DGPS)

Reference Point: Plant entrance (general) - The general entrance to a plant

1.3 Contact Information

Name: Kevin Smith Title: ENV. SPECIALIST

Address: 100 Green Street, Marcus Hook PA 19061-0426

Telephone Number: (610) 859-1279

Email Address: KWSMITH@sunocologistics.com

1.4 Certification of Truth, Accuracy and Completeness

Note: This certification must be signed by a responsible official. Applications without a signed certification will be returned as incomplete.

I certify under penalty of law that, based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete.



11/9/16

Name (Typed): Edward G. Human

Title: Director of Marcus Hook Operations

Section 3 - Site Inventory

Give a complete list of all air pollution sources, control equipment, emission points, and fuel material locations within this site.

For renewals, only list sources not included in current Title V Operating Permit or sources which are now subject to Compliance Assurance Monitoring (CAM) requirements of 40 CFR Part 64. If preprinted information is provided, correct and/or add any new sources as necessary. Note: one (1) of the following sections (5, 6 or 7) of the application must be completed for each new source listed here.

Unit ID	Company Designation	Unit Type	CAM
031	Auxiliary Boiler 1	Combustion Unit	
033	Auxiliary Boiler 3	Combustion Unit	
034	Auxiliary Boiler 4	Combustion Unit	
115	Marine Vessel Loading	Process	
116	Marine Vessel Ballasting	Process	
139	Cooling Towers	Process	
367	Diesel Storage Tank	Process	
368	Vehicle Loading (Gas/Diesel)	Process	
402	Blind Changing	Process	
800	NESHAP Fugitive Equipment	Process	
801	Nsps Fugitive Equipment	Process	
T001	Nsps Kb Ext Float Tanks	Process	
T002	Nsps Kb Int Float Tanks	Process	
C031	Low Nox Burners And Fgr (Aux Boiler #1)	Control Device	
C033	Low Nox Burners And Fgr (Aux Boiler #3)	Control Device	
C034	Low Nox Burners And Fgr (Aux Boiler #4)	Control Device	
C115	Vapor Recovery System	Control Device	
S031	Aux Boiler 1 Stack	Point of Air Emission	
S033	Aux Boiler 3 Stack	Point of Air Emission	
S034	Aux Boiler 4 Stack	Point of Air Emission	
Y402	Blind Changing Fugitives	Fugitive Air Emission	
Z115	Marine Vessel Loading Fugitives	Fugitive Air Emission	
Z116	Marine Vessel Ballasting Fugitives	Fugitive Air Emission	
Z139	Cooling Tower Fugitives	Fugitive Air Emission	
Z368	Vehicle Loading (Gas/Diesel) Fugitives	Fugitive Air Emission	
Z800	Liquid Petroleum Fugitive Emissions	Fugitive Air Emission	
Z801	Nsps Fugitives	Fugitive Air Emission	
FML01	Natural Gas	Fuel Material Location	
FML02	Process Gas	Fuel Material Location	

Section 5 - Combustion Operational Inventory

(Complete this section for each combustion source in this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new combustion unit listed in Section 3 of this application.

5.1 General Source Information

a. Unit ID: 031 b. Company Designation: AUXILIARY BOILER 1

c. Plan Approval or Operating Permit No.: _____

d. Manufacturer: FOSTER WHEELER e. Model No.: AG5257

f. Source Description: Combustion Unit

g. Rated Heat Input/Throughput: 392.5 mmBtu/hr h. Installation Date: 03/01/2003

i. Exhaust Temperature _____ Units _____ j. Exhaust % Moisture _____ k. Exhaust Flow Volume: _____ SCFM

5.2 CAM Information

- Yes No
- Emissions unit uses a control device to achieve compliance with emissions limitations or standards.
- Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both boxes are checked "Yes")

5.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
031	Combustion Unit	C031	Control Device	100
C031	Control Device	S031	Point of Air Emission	100

5.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence
Natural Gas/Process Gas	1-02-006-01	392.50 MCF/hr	

Section 5 - Combustion Operational Inventory

(Complete this section for each combustion source in this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new combustion unit listed in Section 3 of this application.

5.1 General Source Information

a. Unit ID: 033 b. Company Designation: AUXILIARY BOILER 3
 c. Plan Approval or Operating Permit No.: _____
 d. Manufacturer: FOSTER WHEELER e. Model No.: AG5257
 f. Source Description: Combustion Unit
 g. Rated Heat Input/Throughput: 392.5 mmBtu/hr h. Installation Date: 03/01/2003
 i. Exhaust Temperature _____ Units _____ j. Exhaust % Moisture _____ k. Exhaust Flow Volume: _____ SCFM

5.2 CAM Information

Yes No

Emissions unit uses a control device to achieve compliance with emissions limitations or standards.

Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both boxes are checked "Yes")

5.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
033	Combustion Unit	C033	Control Device	100
C033	Control Device	S033	Point of Air Emission	100

5.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence
Natural Gas/Process Gas	1-02-006-01	392.50 MCF/hr	

5.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

5.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 5.1 of the application.

Maximum amount of hours of source operation per year: _____

Fuel/SCC	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Thruput	Units/Time

5.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/SCC	Citation No.	Citation Limitation	Limitation Used

Section 5 - Combustion Operational Inventory

(Complete this section for each combustion source in this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new combustion unit listed in Section 3 of this application.

5.1 General Source Information

a. Unit ID: 034 b. Company Designation: AUXILIARY BOILER 4

c. Plan Approval or Operating Permit No.: _____

d. Manufacturer: FOSTER WHEELER e. Model No.: AG5257

f. Source Description: Combustion Unit

g. Rated Heat Input/Throughput: 392.5 mmBtu/hr h. Installation Date: 03/01/2003

i. Exhaust Temperature _____ Units _____ j. Exhaust % Moisture _____

 k. Exhaust Flow Volume: _____ SCFM

5.2 CAM Information

Yes No

 Emissions unit uses a control device to achieve compliance with emissions limitations or standards.

 Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both boxes are checked "Yes")

5.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
034	Combustion Unit	C034	Control Device	100
C034	Control Device	S034	Point of Air Emission	100

5.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence
Natural Gas/Process Gas	1-02-006-01	392.50 MCF/hr	

5.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML*	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

5.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 5.1 of the application.

Maximum amount of hours of source operation per year: _____

Fuel/SCC	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Thruput	Units/Time

5.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/SCC	Citation No.	Citation Limitation	Limitation Used

Section 6 - Incinerator Operational Inventory – Not Applicable

(Complete this section for each incinerator at the site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new incinerator listed in Section 3 of this application.

6.1 General Source Information

a. Unit ID: _____ b. Company Designation: _____

c. Plan Approval or Operating Permit No.: _____

d. Manufacturer: _____ e. Model No.: _____

f. Source Description: _____

g. Rated Heat Input/Throughput: _____ h. Installation Date: _____

i. Exhaust Temperature _____ Units _____ j. Exhaust % Moisture _____ k. Exhaust Flow Volume: _____ SCFM

l. Incin. Capacity: _____ Lbs/Hr m. Primary Burner Heat Input: _____ Units _____

n. Exhaust % CO₂: _____ o. Secondary Burner Heat Input: _____ Units _____

p. Incinerator Class: _____

q. Waste Type: _____ r. Waste BTU/Lb: _____

6.2 CAM Information

Yes No

Emissions unit uses a control device to achieve compliance with emissions limitations or standards.

Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both boxes are checked "Yes")

6.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow

6.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel / Material	Associated SCC	Max Throughput Rate	Firing Sequence

6.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

Maximum amount of hours of source operation per year: _____

SCC/Fuel Burned	FML*			

*FML = Fuel Material Location

6.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 6.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel/Waste	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Thruput	Units/Time

6.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Waste	Citation No.	Citation Limitation	Limitation Used

Section 7 - Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 115 b. Company Designation: MARINE VESSEL LOADING

c. Plan Approval or Operating Permit Number: 23-0119B

d. Manufacturer: _____ e. Model Number: _____

f. Source Description: Process

g. Rated Heat Input/Throughput: _____ h. Installation Date: 01/01/1901

i. Exhaust Temperature _____ Units _____ j. Exhaust % Moisture _____ k. Exhaust Flow Volume: _____ SCFM

7.2 CAM Information

Yes No

 Emissions unit uses a control device to achieve compliance with emission limitations or standards.

 Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both are checked "Yes")

7.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
115	Process	Z115	Point of Air Emission	100

7.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence
PETROLEUM PRODUCTS	4-06-002-40	.00 BBL/hr	

7.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 7.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Throughput	Units/Time

7.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Product	Citation Number	Citation Limitation	Limitation Used

7.8 Raw Materials

List all of the raw materials used in this process to the extent that this information is needed to determine or regulate emissions.

7.9 Processing Steps

To the extent that this information is needed to determine or regulate emissions, list all of the processing steps and raw materials for each step utilized to complete the material or product.

Step		

7.10 Request for Confidentiality

Do you request that the information on this page be considered kept confidential?

Yes No

If yes, include a justification for confidentiality that meets the requirement of 25 Pa. Code § 127.411(d).

Section 7 - Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 116 b. Company Designation: Marine Vessel Ballasting

c. Plan Approval or Operating Permit Number: _____

d. Manufacturer: _____ e. Model Number: _____

f. Source Description: Process

g. Rated Heat Input/Throughput: _____ h. Installation Date: _____

i. Exhaust Temperature 70 Units deg F j. Exhaust % Moisture 0 k. Exhaust Flow Volume: 1 SCFM

7.2 CAM Information

Yes No

- Emissions unit uses a control device to achieve compliance with emission limitations or standards.
- Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both are checked "Yes")

7.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
116	Process	Z116	Marine Vessel Ballasting Fugitives	100%

7.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence
Ballast Water	4-06-002-53	0.00 Th Bbl/hr	

7.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 7.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Throughput	Units/Time

7.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Product	Citation Number	Citation Limitation	Limitation Used

7.8 Raw Materials

List all of the raw materials used in this process to the extent that this information is needed to determine or regulate emissions.

7.9 Processing Steps

To the extent that this information is needed to determine or regulate emissions, list all of the processing steps and raw materials for each step utilized to complete the material or product.

Step		

7.10 Request for Confidentiality

Do you request that the information on this page be considered kept confidential?

Yes No

If yes, include a justification for confidentiality that meets the requirement of 25 Pa. Code § 127.411(d).

Section 7 - Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 139 b. Company Designation: Cooling Towers

c. Plan Approval or Operating Permit Number: _____

d. Manufacturer: _____ e. Model Number: _____

f. Source Description: Process

g. Rated Heat Input/Throughput: _____ h. Installation Date: _____

i. Exhaust Temperature 68 Units deg F j. Exhaust % Moisture 15 k. Exhaust Flow Volume: 1 SCFM

7.2 CAM Information

Yes No

 Emissions unit uses a control device to achieve compliance with emission limitations or standards.

 Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both are checked "Yes")

7.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
139	Process	Z139	Fugitive Air Emissions	100%

7.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence
Recycle Water	3-06-007-02	0.00 M Gal/hr	

7.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 7.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Throughput	Units/Time

7.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Product	Citation Number	Citation Limitation	Limitation Used

7.8 Raw Materials

List all of the raw materials used in this process to the extent that this information is needed to determine or regulate emissions.

7.9 Processing Steps

To the extent that this information is needed to determine or regulate emissions, list all of the processing steps and raw materials for each step utilized to complete the material or product.

Step		

7.10 Request for Confidentiality

Do you request that the information on this page be considered kept confidential?

Yes No

If yes, include a justification for confidentiality that meets the requirement of 25 Pa. Code § 127.411(d).

Section 7 - Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 367 b. Company Designation: Diesel Storage Tank

c. Plan Approval or Operating Permit Number: _____

d. Manufacturer: _____ e. Model Number: _____

f. Source Description: Process

g. Rated Heat Input/Throughput: _____ h. Installation Date: _____

i. Exhaust Temperature _____ Units _____ j. Exhaust % Moisture _____ k. Exhaust Flow Volume: _____ SCFM

7.2 CAM Information

Yes No

 Emissions unit uses a control device to achieve compliance with emission limitations or standards.

 Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both are checked "Yes")

7.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow

7.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence
40400121	Diesel Fuel- Standing Loss – Fixed Roof Tank		
40400122	Diesel Fuel- Working Loss – Fixed Roof Tank		

7.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 7.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Throughput	Units/Time

7.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Product	Citation Number	Citation Limitation	Limitation Used

7.8 Raw Materials

List all of the raw materials used in this process to the extent that this information is needed to determine or regulate emissions.

7.9 Processing Steps

To the extent that this information is needed to determine or regulate emissions, list all of the processing steps and raw materials for each step utilized to complete the material or product.

Step		

7.10 Request for Confidentiality

Do you request that the information on this page be considered kept confidential?

Yes No

If yes, include a justification for confidentiality that meets the requirement of 25 Pa. Code § 127.411(d).

Section 7 - Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 368 b. Company Designation: Vehicle Loading (Gas/Diesel)

c. Plan Approval or Operating Permit Number: _____

d. Manufacturer: _____ e. Model Number: _____

f. Source Description: Process

g. Rated Heat Input/Throughput: _____ h. Installation Date: _____

i. Exhaust Temperature 68 Units deg F j. Exhaust % Moisture 10 k. Exhaust Flow Volume: 1 SCFM

7.2 CAM Information

Yes No

 Emissions unit uses a control device to achieve compliance with emission limitations or standards.

 Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both are checked "Yes")

7.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
368	Process	Z368	Fugitive Air Emission	100%

7.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence

7.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 7.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Throughput	Units/Time

7.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Product	Citation Number	Citation Limitation	Limitation Used

7.8 Raw Materials

List all of the raw materials used in this process to the extent that this information is needed to determine or regulate emissions.

7.9 Processing Steps

To the extent that this information is needed to determine or regulate emissions, list all of the processing steps and raw materials for each step utilized to complete the material or product.

Step		

7.10 Request for Confidentiality

Do you request that the information on this page be considered kept confidential?

Yes No

If yes, include a justification for confidentiality that meets the requirement of 25 Pa. Code § 127.411(d).

Section 7 - Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 402 b. Company Designation: Blind Changing

c. Plan Approval or Operating Permit Number: _____

d. Manufacturer: _____ e. Model Number: _____

f. Source Description: Process

g. Rated Heat Input/Throughput: _____ h. Installation Date: 01/01/1972

i. Exhaust Temperature 70 Units deg F j. Exhaust % Moisture 0 k. Exhaust Flow Volume: 1 SCFM

7.2 CAM Information

Yes No

 Emissions unit uses a control device to achieve compliance with emission limitations or standards.

 Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both are checked "Yes")

7.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
402	Process	Y402	Fugitive Air Emissions	100%

7.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence
Petro. Liquids	3-06-008-07	0.00 Bbl/hr	

7.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 7.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Throughput	Units/Time

7.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Product	Citation Number	Citation Limitation	Limitation Used

7.8 Raw Materials

List all of the raw materials used in this process to the extent that this information is needed to determine or regulate emissions.

7.9 Processing Steps

To the extent that this information is needed to determine or regulate emissions, list all of the processing steps and raw materials for each step utilized to complete the material or product.

Step		

7.10 Request for Confidentiality

Do you request that the information on this page be considered kept confidential?

Yes No

If yes, include a justification for confidentiality that meets the requirement of 25 Pa. Code § 127.411(d).

Section 7 - Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: 800 b. Company Designation: STATE FUGITIVE EQUIPMENT

c. Plan Approval or Operating Permit Number: 23-0119, 23-0119A, 23-0119B, 23-0119D

d. Manufacturer: _____ e. Model Number: _____

f. Source Description: Process

g. Rated Heat Input/Throughput: _____ h. Installation Date: _____

i. Exhaust Temperature _____ Units _____ deg F j. Exhaust % Moisture _____ k. Exhaust Flow Volume: _____ SCFM

7.2 CAM Information

Yes No

 Emissions unit uses a control device to achieve compliance with emission limitations or standards.

 Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both are checked "Yes")

7.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
800	Process	Z800	Point of Air Emission	100

7.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence
FUGITIVES	4-03-888-05	.00 Gal/hr	

7.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 7.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Throughput	Units/Time

7.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Product	Citation Number	Citation Limitation	Limitation Used

7.8 Raw Materials

List all of the raw materials used in this process to the extent that this information is needed to determine or regulate emissions.

7.9 Processing Steps

To the extent that this information is needed to determine or regulate emissions, list all of the processing steps and raw materials for each step utilized to complete the material or product.

Step		

7.10 Request for Confidentiality

Do you request that the information on this page be considered kept confidential?

Yes No

If yes, include a justification for confidentiality that meets the requirement of 25 Pa. Code § 127.411(d).

Section 7 - Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.

7.1 General Source Information

- a. Unit ID: 801 b. Company Designation: NSPS Fugitive Equipment
- c. Plan Approval or Operating Permit Number: _____
- d. Manufacturer: _____ e. Model Number: _____
- f. Source Description: Process
- g. Rated Heat Input/Throughput: _____ h. Installation Date: _____
- i. Exhaust Temperature _____ Units deg F j. Exhaust % Moisture _____ k. Exhaust Flow Volume: _____ SCFM

7.2 CAM Information

Yes No

- Emissions unit uses a control device to achieve compliance with emission limitations or standards.
- Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both are checked "Yes")

7.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow
801	Process	Z801	Fugitive Air Emissions	100%

7.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence
VOC Fugitives	4-03-888-05	0.00 Gal/hr	

7.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 7.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Throughput	Units/Time

7.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Product	Citation Number	Citation Limitation	Limitation Used

7.8 Raw Materials

List all of the raw materials used in this process to the extent that this information is needed to determine or regulate emissions.

7.9 Processing Steps

To the extent that this information is needed to determine or regulate emissions, list all of the processing steps and raw materials for each step utilized to complete the material or product.

Step		

7.10 Request for Confidentiality

Do you request that the information on this page be considered kept confidential?

Yes No

If yes, include a justification for confidentiality that meets the requirement of 25 Pa. Code § 127.411(d).

Section 7 - Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: T001 b. Company Designation: External Floating Roof Tanks

c. Plan Approval or Operating Permit Number: _____

d. Manufacturer: _____ e. Model Number: _____

f. Source Description: Process

g. Rated Heat Input/Throughput: _____ h. Installation Date: _____

i. Exhaust Temperature _____ Units deg F j. Exhaust % Moisture _____ k. Exhaust Flow Volume: _____ SCFM

7.2 CAM Information

Yes No

- Emissions unit uses a control device to achieve compliance with emission limitations or standards.
- Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both are checked "Yes")

7.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow

7.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence

7.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 7.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Throughput	Units/Time

7.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Product	Citation Number	Citation Limitation	Limitation Used

7.8 Raw Materials

List all of the raw materials used in this process to the extent that this information is needed to determine or regulate emissions.

7.9 Processing Steps

To the extent that this information is needed to determine or regulate emissions, list all of the processing steps and raw materials for each step utilized to complete the material or product.

Step		

7.10 Request for Confidentiality

Do you request that the information on this page be considered kept confidential?

Yes No

If yes, include a justification for confidentiality that meets the requirement of 25 Pa. Code § 127.411(d).

Section 7 - Process Operational Inventory

(Complete this section for each process at this site. Duplicate this section as needed).

For renewals, review and correct any pre-printed information and add additional sections for any new process listed in Section 3 of this application.

7.1 General Source Information

a. Unit ID: T002 b. Company Designation: Internal Floating Roof Tanks

c. Plan Approval or Operating Permit Number: _____

d. Manufacturer: _____ e. Model Number: _____

f. Source Description: Process

g. Rated Heat Input/Throughput: _____ h. Installation Date: _____

i. Exhaust Temperature _____ Units _____ deg F j. Exhaust % Moisture _____ k. Exhaust Flow Volume: _____ SCFM

7.2 CAM Information

Yes No

 Emissions unit uses a control device to achieve compliance with emission limitations or standards.

 Potential precontrol emissions of applicable pollutant are at least 100 percent of the major source amount.

(Addendum 3 must be completed if both are checked "Yes")

7.3 Exhaust System Components

Explain how the exhaust components are configured:

From Unit	Unit Description	To Unit	Unit Description	Percent Flow

7.4 Source Classification Code (SCC) Listing for Standard Operation

Fuel/Material	Associated SCC	Max Throughput Rate	Firing Sequence

7.5 Maximum Fuel Physical Characteristics

If taking limitations on Fuel Physical Characteristics, see instructions.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

*FML = Fuel Material Location

7.6 Limitations on Source Operation

Complete this section if you are requesting a limitation on operational hours and/or a permit limitation on the throughput rate equal to or lower than that stated in Section 7.3 of this application.

Maximum amount of hours of source operation per year: _____

Fuel	Hours/Day	Days/Week	Days/Year	Hours/Year	Max Throughput	Units/Time

7.7 Source Applicable Requirements

Describe and cite all applicable requirements pertaining to this source.

Note: A Method of Compliance Worksheet (Addendum 1) must be completed for each requirement listed.

For renewals, only list source level requirements not included in the current Title V Operating Permit. If there are no changes, check the box to the right.

No changes from current Title V Operating Permit.

Fuel/Product	Citation Number	Citation Limitation	Limitation Used

7.8 Raw Materials

List all of the raw materials used in this process to the extent that this information is needed to determine or regulate emissions.

7.9 Processing Steps

To the extent that this information is needed to determine or regulate emissions, list all of the processing steps and raw materials for each step utilized to complete the material or product.

Step		

7.10 Request for Confidentiality

Do you request that the information on this page be considered kept confidential?

Yes No

If yes, include a justification for confidentiality that meets the requirement of 25 Pa. Code § 127.411(d).

Section 9 - Stack/Flue Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new stack/flue listed in Section 3 of this application.

9.1 General Stack/Vent Information

a. Unit ID: S031 b. Company Designation: AUX BOILER 1 STACK

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): 6.5 Height (ft): 275 Base Elevation (ft): 25

e. Exhaust Temperature: 306 deg F Exhaust % Moisture: 8 Exhaust Velocity (m/Sec): 18

f. Exhaust Volume: 117,550 ACFM Exhaust Volume: 74,827 SCFM

g. Distance to Nearest Property Line (ft): _____

h. Weather Cap?: Yes No

i. Used by Sources: C031

j. Latitude: 39° 48 50.87 Longitude: -75° 24 48.9057

Horizontal Reference Datum: North American Datum of 1983

Horizontal Collection Method: Geographic coordinate determination method based on GPS code measurements (pseudo range) differential (DGPS)

Reference Point: Plant entrance (general) - The general entrance to a plant

9.1 General Stack/Vent Information

a. Unit ID: S033 b. Company Designation: AUX BOILER 3 STACK

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): 6.5 Height (ft): 275 Base Elevation (ft): 25

e. Exhaust Temperature: 306 deg F Exhaust % Moisture: 8 Exhaust Velocity (m/Sec): 18

f. Exhaust Volume: 117,550 ACFM Exhaust Volume: 74,827 SCFM

g. Distance to Nearest Property Line (ft): _____

h. Weather Cap?: Yes No

i. Used by Sources: C033

j. Latitude: 39° 48 50.87 Longitude: -75° 24 48.9057

Horizontal Reference Datum: North American Datum of 1983

Horizontal Collection Method: Geographic coordinate determination method based on GPS code measurements (pseudo range) differential (DGPS)

Reference Point: Plant entrance (general) - The general entrance to a plant

Section 9 - Stack/Flue Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new stack/flue listed in Section 3 of this application.

a. Unit ID: S034 b. Company Designation: AUX BOILER 4 STACK

c. Discharge Type: VERTICAL: UNOBSTRUCTED OPENING

d. Diameter (ft): 6.5 Height (ft): 275 Base Elevation (ft): 25

e. Exhaust Temperature: 306 deg F Exhaust % Moisture: 8 Exhaust Velocity (m/Sec): 18

f. Exhaust Volume: 117,550 ACFM Exhaust Volume: 74,827 SCFM

g. Distance to Nearest Property Line (ft): _____

h. Weather Cap?: Yes No

i. Used by Sources: C034

j. Latitude: 39° 48 50.87 Longitude: -75° 24 48.9057
Horizontal Reference Datum: North American Datum of 1983
Horizontal Collection Method: Geographic coordinate determination method based on GPS code measurements (pseudo range) differential (DGPS)
Reference Point: Plant entrance (general) - The general entrance to a plant

9.1 General Stack/Vent Information

a. Unit ID: Z115 b. Company Designation: MARINE VESSEL LOADING FUGITIVES

c. Discharge Type: FUGITIVE EMISSIONS

d. Diameter (ft): _____ Height (ft): _____ Base Elevation (ft): _____

e. Exhaust Temperature: _____ Exhaust % Moisture: _____ Exhaust Velocity : _____

f. Exhaust Volume: _____ ACFM Exhaust Volume: _____ SCFM

g. Distance to Nearest Property Line (ft): _____

h. Weather Cap?: Yes No

i. Used by Sources: 115

j. Latitude: 39° 48 50.87 Longitude: -75° 24 48.9057
Horizontal Reference Datum: North American Datum of 1983
Horizontal Collection Method: Geographic coordinate determination method based on GPS code measurements (pseudo range) differential (DGPS)
Reference Point: Plant entrance (general) - The general entrance to a plant

Section 9 - Stack/Flue Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new stack/flue listed in Section 3 of this application.

a. Unit ID: Z116 b. Company Designation: Marine Vessel Ballasting Fugitives

c. Discharge Type: FUGITIVE EMISSIONS

d. Diameter (ft): _____ Height (ft): _____ Base Elevation (ft): _____

e. Exhaust Temperature: _____ Exhaust % Moisture: _____ Exhaust Velocity : _____

f. Exhaust Volume: _____ ACFM Exhaust Volume: _____ SCFM

g. Distance to Nearest Property Line (ft): _____

h. Weather Cap?: Yes No

i. Used by Sources: 116

j. Latitude: 39° 48 50.87 Longitude: -75° 24 48.9057
Horizontal Reference Datum: North American Datum of 1983
Horizontal Collection Method: Geographic coordinate determination method based on GPS code measurements (pseudo range) differential (DGPS)
Reference Point: Plant entrance (general) - The general entrance to a plant

9.1 General Stack/Vent Information

a. Unit ID: Z139 b. Company Designation: Cooling Tower Fugitives

c. Discharge Type: FUGITIVE EMISSIONS

d. Diameter (ft): _____ Height (ft): _____ Base Elevation (ft): _____

e. Exhaust Temperature: 70 deg F Exhaust % Moisture: 0 Exhaust Velocity : _____

f. Exhaust Volume: 1 ACFM Exhaust Volume: _____ SCFM

g. Distance to Nearest Property Line (ft): _____

h. Weather Cap?: Yes No

i. Used by Sources: 139

j. Latitude: 39° 48 50.87 Longitude: -75° 24 48.9057
Horizontal Reference Datum: North American Datum of 1983
Horizontal Collection Method: Geographic coordinate determination method based on GPS code measurements (pseudo range) differential (DGPS)
Reference Point: Plant entrance (general) - The general entrance to a plant

Section 9 - Stack/Flue Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new stack/flue listed in Section 3 of this application.

a. Unit ID: Z368 b. Company Designation: Gas Vehicle Fugitives

c. Discharge Type: _____

d. Diameter (ft): _____ Height (ft): _____ Base Elevation (ft): _____

e. Exhaust Temperature: 68 deg F Exhaust % Moisture: 10 Exhaust Velocity : _____

f. Exhaust Volume: 1 ACFM Exhaust Volume: 1 SCFM

g. Distance to Nearest Property Line (ft): _____

h. Weather Cap?: Yes No

i. Used by Sources: 368

j. Latitude: _____ Longitude: _____

Horizontal Reference Datum: North American Datum of 1983
Geographic coordinate determination method based on GPS code measurements

Horizontal Collection Method: (pseudo range) differential (DGPS)

Reference Point: Plant entrance (general) - The general entrance to a plant

9.1 General Stack/Vent Information

a. Unit ID: Y402 b. Company Designation: Blind Changing Fugitives

c. Discharge Type: FUGITIVE EMISSIONS

d. Diameter (ft): _____ Height (ft): _____ Base Elevation (ft): _____

e. Exhaust Temperature: 70 deg F Exhaust % Moisture: 0 Exhaust Velocity : _____

f. Exhaust Volume: 1 ACFM Exhaust Volume: _____ SCFM

g. Distance to Nearest Property Line (ft): _____

h. Weather Cap?: Yes No

i. Used by Sources: 402

j. Latitude: 39° 48 50.87 Longitude: -75° 24 48.9057

Horizontal Reference Datum: North American Datum of 1983
Geographic coordinate determination method based on GPS code measurements

Horizontal Collection Method: (pseudo range) differential (DGPS)

Reference Point: Plant entrance (general) - The general entrance to a plant

Section 9 - Stack/Flue Information (duplicate this section as needed)

For renewals, review and correct any pre-printed information and add additional sections for any new stack/flue listed in Section 3 of this application.

9.1 General Stack/Vent Information

a. Unit ID: Z800 b. Company Designation: Liquid Petroleum Fugitive Emissions

c. Discharge Type: FUGITIVE EMISSIONS

d. Diameter (ft): _____ Height (ft): _____ Base Elevation (ft): _____

e. Exhaust Temperature: 68 deg F Exhaust % Moisture: _____ Exhaust Velocity : _____

f. Exhaust Volume: _____ ACFM Exhaust Volume: _____ SCFM

g. Distance to Nearest Property Line (ft): _____

h. Weather Cap?: Yes No

i. Used by Sources: 800

j. Latitude: 39° 48 50.87 Longitude: -75° 24 48.9057
Horizontal Reference Datum: North American Datum of 1983
Horizontal Collection Method: Geographic coordinate determination method based on GPS code measurements (pseudo range) differential (DGPS)
Reference Point: Plant entrance (general) - The general entrance to a plant

a. Unit ID: Z801 b. Company Designation: NSPS Equipment Fugitives

c. Discharge Type: FUGITIVE EMISSIONS

d. Diameter (ft): _____ Height (ft): _____ Base Elevation (ft): _____

e. Exhaust Temperature: 68 deg F Exhaust % Moisture: _____ Exhaust Velocity : _____

f. Exhaust Volume: _____ ACFM Exhaust Volume: _____ SCFM

g. Distance to Nearest Property Line (ft): _____

h. Weather Cap?: Yes No

i. Used by Sources: 801

j. Latitude: 39° 48 50.87 Longitude: -75° 24 48.9057
Horizontal Reference Datum: North American Datum of 1983
Horizontal Collection Method: Geographic coordinate determination method based on GPS code measurements (pseudo range) differential (DGPS)
Reference Point: Plant entrance (general) - The general entrance to a plant

Section 10 - Fuel Material Location (FML) Information (Optional)

For renewals review and correct any pre-printed information and add additional sections for any new FML listed in Section 3 of this application.

10.1 Fuel Material Location Information

- a. FML ID No.: FML01 b. Name: NATURAL GAS
- c. Capacity: _____ Units: _____ d. Fuel: Natural Gas
- e. Maximum Fuel Characteristics: If fuel is coal, what is the moisture content? _____
- % Ash _____ % Sulfur: 0 BTU Content: 1020 Units: Btu/cu ft
- f. Used by Source:
031, 033, 034

10.1 Fuel Material Location Information

- a. FML ID No.: FML02 b. Name: PROCESS GAS
- c. Capacity: _____ Units: _____ d. Fuel: Process Gas
- e. Maximum Fuel Characteristics: If fuel is coal, what is the moisture content? _____
- % Ash _____ % Sulfur: 0 BTU Content: 1090 Units: Btu/cu ft
- f. Used by Source:
031, 033, 034

Section 11 - Compliance Plan for the Facility

- | | Yes | No |
|---|-------------------------------------|--------------------------|
| 11.1 Will your facility be in compliance with all applicable requirements at the time of permit issuance and continue to comply with these requirements during the permit duration? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11.2 Will your facility be in compliance with all applicable requirements presently scheduled to take effect during the term of the permit? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 11.3 Will these requirements be met by the regulatory required dates? | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

If you checked "No" in Part 11.1, 11.2 or 11.3, answer the following questions:

11.4 Identify applicable requirement(s) for which compliance is not or will not be achieved:

Source ID No.	Citation No.

11.4.1 Briefly describe how compliance with this/these applicable requirement(s) will be achieved:

11.4.2. Provide a detailed schedule of compliance for the noncomplying sources or activities identified in this section of the application. Include an enforceable sequence of corrective actions with milestone and projected compliance dates.

Date	Action/Milestone

11.4.3. Indicate the submittal frequency for the progress report (s): _____

11.4.4. Starting date for the submittal of the progress report(s): _____

Section 12 – Alternative Operating Scenario (optional) – Not Applicable

Duplicate this section for each source participated in this alternative scenario.

12.1 General Information

- a. Alternative Operating Scenario Name or ID No.: _____
- b. Source ID No.: _____ c. Source Name: _____
- d. Source Type (check one): Combustion Incinerator Process
- e. Give a brief description of this alternative scenario stating how it is different from the standard operation:

12.2 Operational Flexibility Request

Check all that apply.

- Alternative exhaust system component configuration
If this box is checked, complete Sections 12.3 and 12.7
- Alternative type of fuel usage replacing or in addition to an existing fuel in standard operation.
If this box is checked, complete Sections 12.4 and/or 12.5 and 12.7
- Alternative process method replacing or in addition to a process SCC existing in standard operation.
If this box is checked, complete Section 12.6 and 12.7

12.3 Exhaust System Components

Specify the complete exhaust system component configuration for this alternative operating scenario.

From Component Type	From Component Number	To Component Type	To Component Number	Percent Flow	Begin Date	End Date

12.4 Source Classification Code (SCC) Listing for Alternative Operation

Give a complete listing of all fuels burned, products produced by a process or waste incinerated for this alternative operating scenario.

Fuel	Associated SCC	Max Throughout Rate	Firing Sequence

12.5 Alternative Fuel Physical Characteristics

Give a complete listing of all fuels physical characteristics for this alternative operating scenario.

SCC/Fuel Burned	FML	% Sulfur	% Ash	BTU Content (Units)

12.6 Alternative Process/Product Description

a. Briefly describe the change(s) in raw materials and/or process methods used in this operating scenario, if applicable:

b. Provide and briefly describe the process SCC associated with this alternative operating scenario:

Process SCC:

SCC Description:

c. Alternative Product(s):

12.7 Source Potential to Emit

Give Potential Emission estimate for all air pollutants emitted at this source for this operating scenario.

Pollutant or CAS Number	Fuel	Emission/Activity Allowable per Unit	Calc. Method			

Section 13 – Compliance Certification

13.1 Schedule for Compliance Certification Submission

- a. Frequency of Submittal: Semi-annually
- b. Schedule specified in current Title V
Operating Permit or proposed starting date: April 1st and October 1st

13.2 Monitoring Compliance

Is the site identified in this application in compliance with all applicable requirements and compliance certification requirements:

Yes No

If "NO", describe which requirements are not being met:

13.3 Certification of Compliance

Subject to the penalties of Title 18 Pa. C.S. Section 4904 and 35 P.S. Section 4009(b)(2), I certify that I have the authority to submit this Permit Application on behalf of the applicant herein and that based on information and belief formed after reasonable inquiry, the statements and information contained in this application are true, accurate, and complete.

(Signed) 

Date 11/5/16

Name (Type) EDWARD G. HUMAN

Title: DIRECTOR OF MARCUS HOOK OPERATIONS

Attachment D

Title V Operating Permit Application Addendums



COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF AIR QUALITY

ADDENDUM 1
METHOD OF COMPLIANCE WORKSHEET

SECTION A. APPLICABLE REQUIREMENT	
Federal Tax ID	
Firm Name	Sunoco Partners Marketing & Terminals L.P.
Plant Code	23-1743283-12
Plant Name	Marcus Hook Industrial Complex
Applicable Requirement for: (check only one)	
<input checked="" type="checkbox"/> Entire Site	
<input type="checkbox"/> Group of Sources	Group ID _____
<input type="checkbox"/> Single Source	Unit ID _____
<input type="checkbox"/> Alternative Operating Scenario	Scenario Name _____
Citation No.	25 PA Code §129.99
Compliance Method Based Upon	<input checked="" type="checkbox"/> Applicable Requirement <input type="checkbox"/> CAM <input type="checkbox"/> Other
Method of Compliance Type: [check all that apply and complete all appropriate section(s)]	
<input type="checkbox"/> Monitoring	<input type="checkbox"/> Testing <input type="checkbox"/> Reporting
<input type="checkbox"/> Record Keeping	<input type="checkbox"/> Work Practice Standard
SECTION B. MONITORING	
No change from current permit conditions	
Monitoring Device Type (stack test, CEM, etc.)	
Monitoring Device Location	
Describe all parameters being monitored along with the frequency and duration of monitoring each parameter.	
How will data be reported?	
SECTION C. TESTING	
No change from current permit conditions	
Reference Test Method Description	
Reference Test Method Citation	
SECTION D. RECORD KEEPING	
No change from current permit conditions	
Describe what parameters will be recorded and the frequency of recording.	
SECTION E. REPORTING	
No change from current permit conditions	
Describe what is to be reported and the frequency of reporting.	
Reporting Start Date	
SECTION F. WORK PRACTICE STANDARD	
No change from current permit conditions	
Describe any work practice standard(s).	



COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF AIR QUALITY

ADDENDUM 3
CAM APPLICABILITY WORKSHEET FOR SOURCES

SECTION A. GENERAL INFORMATION

Federal Tax ID				
Firm Name	Sunoco Partners Marketing & Terminals L.P.			
Plant Code	23-1743283-12	Source I.D.	031	
Control Type	Low NOx Burners and FGR	AIRS Code No.	Pollutant	NOx
Control Make	Not applicable	Control Model No.	Not applicable	Control Efficiency
Control I.D.	C031	Source or Emission Unit Name	Auxiliary Boiler 1	

SECTION B. MONITORING

The emissions unit is exempted from CAM because the emission limitations or standards are:

- | | | |
|-------------------------------------|-------------------------------------|---|
| Yes | No | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Proposed by the EPA Administrator after November 15, 1990 pursuant to Sections 111 or 112 of the Clean Air Act. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Stratospheric ozone protection requirements under Title VI of the Act. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Acid Rain Program requirements pursuant to sections 404-407(b) or 410 of the Clean Air Act |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Approved under an emissions trading program. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | An emissions cap that meets the requirements specified in 40 CFR § 70.4(b)(12). |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Determined by a continuous compliance method that does not use an assumed control factor |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Requirements for a backup utility power emissions unit as defined in § 72.2 which: |
| | Yes | No |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> |

SECTION C. CAM STATUS

- | | | |
|--------------------------|-------------------------------------|---|
| Yes | No | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | CAM applies (be sure to include appropriate citation numbers under Source Applicable Requirements section of the application) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | CAM Plan is attached or has been submitted |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | An Implementation Plan is attached |



COMMONWEALTH OF PENNSYLVANIA
 DEPARTMENT OF ENVIRONMENTAL PROTECTION
 BUREAU OF AIR QUALITY

ADDENDUM 3
CAM APPLICABILITY WORKSHEET FOR SOURCES

SECTION A. GENERAL INFORMATION

Federal Tax ID				
Firm Name	Sunoco Partners Marketing & Terminals L.P.			
Plant Code	23-1743283-12	Source I.D.	033	
Control Type	Low NOx Burners and FGR	AIRS Code No.	Pollutant	NOx
Control Make	Not applicable	Control Model No.	Not applicable	Control Efficiency
Control I.D.	C033	Source or Emission Unit Name	Auxiliary Boiler 3	

SECTION B. MONITORING

The emissions unit is exempted from CAM because the emission limitations or standards are:

- | | | |
|-------------------------------------|-------------------------------------|---|
| Yes | No | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Proposed by the EPA Administrator after November 15, 1990 pursuant to Sections 111 or 112 of the Clean Air Act. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Stratospheric ozone protection requirements under Title VI of the Act. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Acid Rain Program requirements pursuant to sections 404-407(b) or 410 of the Clean Air Act |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Approved under an emissions trading program. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | An emissions cap that meets the requirements specified in 40 CFR § 70.4(b)(12). |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Determined by a continuous compliance method that does not use an assumed control factor |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Requirements for a backup utility power emissions unit as defined in § 72.2 which: |
| | Yes | No |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> |
| | <input type="checkbox"/> | <input type="checkbox"/> |

SECTION C. CAM STATUS

- | | | |
|--------------------------|-------------------------------------|---|
| Yes | No | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | CAM applies (be sure to include appropriate citation numbers under Source Applicable Requirements section of the application) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | CAM Plan is attached or has been submitted |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | An Implementation Plan is attached |



**COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY**

ADDENDUM 3 CAM APPLICABILITY WORKSHEET FOR SOURCES

SECTION A. GENERAL INFORMATION

Federal Tax ID				
Firm Name	Sunoco Partners Marketing & Terminals L.P.			
Plant Code	23-1743283-12	Source I.D.	034	
Control Type	Low NOx Burners and FGR	AIRS Code No.	Pollutant	NOx
Control Make	Not applicable	Control Model No.	Not applicable	Control Efficiency
Control I.D.	C034	Source or Emission Unit Name	Auxiliary Boiler 4	

SECTION B. MONITORING

The emissions unit is exempted from CAM because the emission limitations or standards are:

- | Yes | No | | |
|-------------------------------------|-------------------------------------|---|--|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Proposed by the EPA Administrator after November 15, 1990 pursuant to Sections 111 or 112 of the Clean Air Act. | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Stratospheric ozone protection requirements under Title VI of the Act. | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Acid Rain Program requirements pursuant to sections 404-407(b) or 410 of the Clean Air Act | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Approved under an emissions trading program. | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | An emissions cap that meets the requirements specified in 40 CFR § 70.4(b)(12). | |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Determined by a continuous compliance method that does not use an assumed control factor | |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Requirements for a backup utility power emissions unit as defined in § 72.2 which: | |
| | Yes | No | |
| | <input type="checkbox"/> | <input type="checkbox"/> | Is owned by a municipality and |
| | <input type="checkbox"/> | <input type="checkbox"/> | Is exempt from all Part 75 monitoring requirements |
| | <input type="checkbox"/> | <input type="checkbox"/> | Is operated solely for providing power during peak electrical demand or emergency situations |
| | <input type="checkbox"/> | <input type="checkbox"/> | Has annual average emissions (for previous 3 years) of less than 50% of the major source cut off and emissions are expected to remain below 50 % |

SECTION C. CAM STATUS

- | Yes | No | |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | CAM applies (be sure to include appropriate citation numbers under Source Applicable Requirements section of the application) |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | CAM Plan is attached or has been submitted |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | An Implementation Plan is attached |

Attachment E
County and Municipal
Notification Letters



Sunoco Logistics



**Sunoco Partners Marketing &
Terminals, L.P.**
4041 Market Street
Aston, PA 19014

FedEx Tracking Number: 8070 5489 1518

November 8, 2016

Gene Taylor
President
Borough Council
Borough of Marcus Hook
10th and Green Street
Marcus Hook, Pennsylvania, U.S. 19061

**RE: Sunoco Partners Marketing & Terminals L.P. – Marcus Hook
Municipal Notification**

Dear Mr. Taylor:

In accordance with the Commonwealth of Pennsylvania's Administrative Code, Section 1905-A, please be advised that Sunoco Partners Marketing & Terminals, L.P., located in the Borough of Marcus Hook, Delaware County, Pennsylvania, submitted a Title V Major Modification application in order to comply with the recently promulgated requirements codified at 25 PA Code §§129.96 through §129.100 for major sources of nitrogen oxides (NOx) and volatile organic compounds (VOC).

A thirty (30) day comment period begins upon your receipt of this notice. Any comments should be forwarded to:

Pennsylvania Department of Environmental Protection
Southeast Regional Office (Air Quality)
2 East Main St.
Norristown, PA 19401
(484) 250-5920

A copy of this letter and verification of receipt will be forwarded to the Department with the permit application.

Please contact me at (610) 859-1279 if you require any additional information on this matter.

Sincerely,

Kevin W. Smith
Specialist – Environmental Compliance



Sunoco Logistics



**Sunoco Partners Marketing &
Terminals, L.P.**
4041 Market Street
Aston, PA 19014

FedEx Tracking Number: 8070 5489 1529

November 7, 2016

Tom McGarrigle, Chairman
Delaware County Council
201 West Front Street
Media, PA 19063

**RE: Sunoco Partners Marketing & Terminals L.P. – Marcus Hook
County Notification**

Dear McGarrigle:

In accordance with the Commonwealth of Pennsylvania's Administrative Code, Section 1905-A, please be advised that Sunoco Partners Marketing & Terminals, L.P., located in the Borough of Marcus Hook, Delaware County, Pennsylvania, submitted a Title V Major Modification application in order to comply with the recently promulgated requirements codified at 25 PA Code §§129.96 through §129.100 for major sources of nitrogen oxides (NOx) and volatile organic compounds (VOC).

A thirty (30) day comment period begins upon your receipt of this notice. Comments should be forwarded to:

Pennsylvania Department of Environmental Protection
Southeast Regional Office (Air Quality)
2 East Main St.
Norristown, PA 19401
(484) 250-5920

A copy of this letter and verification of receipt will be forwarded to the Department with the permit application.

Please contact me at (610) 859-1279 if you require any additional information on this matter.

Sincerely,

Kevin W. Smith
Specialist – Environmental Compliance



Sunoco Logistics



**Sunoco Partners Marketing &
Terminals, L.P.**
4041 Market Street
Aston, PA 19014

FedEx Tracking Number: 8070 5489 1530

November 7, 2016

Mr. Ali Mirzakhali
Air Quality Mgmt. Program Administrator
Div. of Air & Waste Mgmt.
Dept. of Natural Resources & Env. Control
100 West Water Street, Suite 6A
Dover, DE 19904

**RE: Sunoco Partners Marketing & Terminals L.P. – Marcus Hook
State Notification**

Dear Mirzakhali:

In accordance with the Commonwealth of Pennsylvania's Administrative Code, Section 1905-A, please be advised that Sunoco Partners Marketing & Terminals, L.P., located in the Borough of Marcus Hook, Delaware County, Pennsylvania, submitted a Title V Major Modification application in order to comply with the recently promulgated requirements codified at 25 PA Code §§129.96 through §129.100 for major sources of nitrogen oxides (NOx) and volatile organic compounds (VOC).

A thirty (30) day comment period begins upon your receipt of this notice. Comments should be forwarded to:

Pennsylvania Department of Environmental Protection
Southeast Regional Office (Air Quality)
2 East Main St.
Norristown, PA 19401
(484) 250-5920

A copy of this letter and verification of receipt will be forwarded to the Department with the permit application.

Please contact me at (610) 859-1279 if you require any additional information on this matter.

Sincerely,

Kevin W. Smith
Specialist – Environmental Compliance



Sunoco Logistics



**Sunoco Partners Marketing &
Terminals, L.P.**
4041 Market Street
Aston, PA 19014

FedEx Tracking Number: 8070 5489 1551

November 9, 2016

Mr. William O'Sullivan
Air Quality Mgmt., Permitting Administrator
NJ State Dept. of Env. Protection
401 East State Street, CN 027
Trenton, NJ 08625

**RE: Sunoco Partners Marketing & Terminals L.P. – Marcus Hook
State Notification**

Dear O'Sullivan:

In accordance with the Commonwealth of Pennsylvania's Administrative Code, Section 1905-A, please be advised that Sunoco Partners Marketing & Terminals, L.P., located in the Borough of Marcus Hook, Delaware County, Pennsylvania, submitted a Title V Major Modification application in order to comply with the recently promulgated requirements codified at 25 PA Code §§129.96 through §129.100 for major sources of nitrogen oxides (NOx) and volatile organic compounds (VOC).

A thirty (30) day comment period begins upon your receipt of this notice. Comments should be forwarded to:

Pennsylvania Department of Environmental Protection
Southeast Regional Office (Air Quality)
2 East Main St.
Norristown, PA 19401
(484) 250-5920

A copy of this letter and verification of receipt will be forwarded to the Department with the permit application.

Please contact me at (610) 859-1279 if you require any additional information on this matter.

Sincerely,

Kevin W. Smith
Specialist – Environmental Compliance



Sunoco Logistics



**Sunoco Partners Marketing &
Terminals, L.P.**
4041 Market Street
Aston, PA 19014

FedEx Tracking Number: 8070 5489 1540

November 8, 2016

Mr. George Aburn, Jr., Director
Air and Radiation Management Administration
Maryland Dept. of Environment
1800 Washington Blvd.
Baltimore, MD 21230-1720

**RE: Sunoco Partners Marketing & Terminals L.P. – Marcus Hook
State Notification**

Dear Aburn:

In accordance with the Commonwealth of Pennsylvania's Administrative Code, Section 1905-A, please be advised that Sunoco Partners Marketing & Terminals, L.P., located in the Borough of Marcus Hook, Delaware County, Pennsylvania, submitted a Title V Major Modification application in order to comply with the recently promulgated requirements codified at 25 PA Code §§129.96 through §129.100 for major sources of nitrogen oxides (NOx) and volatile organic compounds (VOC).

A thirty (30) day comment period begins upon your receipt of this notice. Comments should be forwarded to:

Pennsylvania Department of Environmental Protection
Southeast Regional Office (Air Quality)
2 East Main St.
Norristown, PA 19401
(484) 250-5920

A copy of this letter and verification of receipt will be forwarded to the Department with the permit application.

Please contact me at (610) 859-1279 if you require any additional information on this matter.

Sincerely,

Kevin W. Smith
Specialist – Environmental Compliance

Attachment F
Permit Application
Fee

Attachment G
Case-by-Case NO_x RACT Cost Effectiveness Analysis

SPMT RACT II Proposal
RACT II Control Cost Effectiveness

Assumptions for all equipment:

Number of Years (n)	10
Number of Years (n) - SCR/SNCR	20
Interest Rate, % (i)	10
Annualized Cost Factor (ACF)	0.163

$$ACF = \frac{i(1+i)^n}{(1+i)^n - 1}$$

EPA Air Pollution Control Cost Manual, Sixth Edition, EPA/452/B-02-001 - Equation 2.8a

Year	Chemical Engineering Cost Index
1982	314
1986	318.4
1988	342.5
1990	357.6
1991	361
1994	368.1
1998	389.5
1999	390.6
2000	394.1
2002	395.6
2013	567.3
2014	576.1
2015	556.8
Cost Escalation Factor for LNB, SNCR, and SCR ¹	1.51

¹ Cost data from *Alternative Control Techniques Document - NOx Emissions from Utility Boilers - EPA-453/R-94-023* scaled from 1994 to 2015 costs using the Cost Escalation Factor.

Source		Boiler Control Efficiency	Comment
Ultra-low NO _x burners and Selective Catalytic Reduction	ULNB & SCR	96%	Combining both removal efficiencies of ULNB and SCR (0.02 lb/MMBtu).
Selective Catalytic Reduction	SCR	85%	Based on past engineering experience (0.02 lb/MMBtu).
Ultra-low NO _x burners	ULNB	50% to 86%	Based on vendor experience at 0.035 lb/MMBtu.
Selective Non-Catalytic Reduction	SNCR	40%	Heater stack temperatures below 700°F results in low NO _x removal efficiency. EPA Air Pollution Control Technology Fact Sheet - EPA-452/F-03-031.

SPMT RACT II Proposal
Auxiliary Boiler RACT Cost Effectiveness Summary

	A	B	C	D	E	F	G	H	I	J
Control Option	Potential Firing Rates (MMBtu/hr)	Current Emission Rate (lb/MMBtu)	Potential Emissions (TPY)	Control Efficiency ² (%)	Maximum Post Control Emissions (TPY)	Potential NO _x Reduced (TPY)	2015 Total Capital Cost (\$)	2015 O&M Cost (\$)	2015 Annualized Cost ¹ (\$)	2015 Cost Effectiveness (\$/Ton)
ULNB & SCR	392.5	0.05	86.0	60%	34.4	51.6	15,115,132	547,646	2,644,292	51,271
SCR	392.5	0.05	86.0	60%	34.4	51.6	8,021,767	352,578	1,294,812	25,106
SNCR	392.5	0.05	86.0	30%	60.2	25.8	2,141,154	61,191	312,690	12,126
ULNB	392.5	0.05	86.0	30%	60.2	25.8	7,093,366	195,068	1,349,480	52,331
Calculation			= A * B * 8760 / 2000		= C * (1 - D)	= C - E			= (G * ACF) + H	= I / F

Technical Infeasibilities:

LNB and FGR are currently implemented at the auxiliary boilers and therefore were not evaluated in this cost analysis.

The exhaust temperature of the auxiliary boiler is likely too low for SNCR to be an efficient control. However, to be conservative, SPMT evaluated the cost effectiveness of SNCR.

Notes:

¹ See "RACT Cost Summary" tab for details on the Annualized Cost Factor (ACF).

² Control efficiency for SCR and ULNB & SCR were based on a minimum 0.02 lb/MMBtu emission rate. Further reductions in the emissions rate have not been demonstrated for retrofit applications and therefore were not evaluated.

SPMT RACT II Proposal

NOx RACT Control Cost Effectiveness

Source	Auxiliary Boiler	
Control	ULNB	
Rated Heat Input	392.5	MMBtu/hr
Number of Burners	1.0	Burners
Potential Emissions	85.96	tpy
Current Emission Rate	0.050	lb/MMBtu
Control Efficiency	30%	
Heater Capacity	414.1	GJ/hr
Burner Heat Release Rate	487.5	GJ/hr

Evaluated at New Firing Limit at 2015 Cost and Efficiencies

Costs derived from *Alternative Control Techniques Document - NOx Emissions from Utility Boilers - EPA-453/R-94-023*

COST COMPONENT:	COST (\$)
<i>DIRECT COSTS</i>	
<i>Purchased Equipment Costs</i>	
Equipment Cost (EC = BSC * RF * Heat Input)	5,456,435
Instrumentation (Included in above costs)	---
Sales taxes (Included in above costs)	---
Freight (Included in above costs)	---
Subtotal - Purchased Equipment Costs (PEC)	5,456,435
<i>Direct Installation Costs</i>	
Foundations & supports; handling & erection; electrical; piping; etc.	---
Site Preparation / Buildings- Included above	---
Subtotal - Direct Installation Costs	0
TOTAL DIRECT COSTS (TDC)	5,456,435
<i>TOTAL INDIRECT COSTS, IC</i> Assumed to be 30% of Direct Costs	1,636,931
TOTAL CAPITAL INVESTMENT (TCI)	7,093,366

COST COMPONENT:	COST (\$)
<i>ANNUAL DIRECT COSTS</i>	
<i>Operation and Maintenance Labor</i>	
Maintenance Labor and Material (2.75% of TCI)	195,068
Subtotal - O&M Labor	195,068
Subtotal - Utilities	0.0
TOTAL ANNUAL DIRECT COSTS	195,068

COST COMPONENT:	COST (\$)
TOTAL ANNUAL O&M COSTS	195,068
<i>Annualized Cost Factor</i>	
Equipment Life (years) = 10	
Interest Rate (%) = 10	
Annualized Cost Factor	0.16
<i>CAPITAL RECOVERY COSTS</i>	
TOTAL CAPITAL REQUIREMENT	7,093,366
TOTAL ANNUAL CAPITAL REQUIREMENT	1,154,413
TOTAL ANNUALIZED COST <i>(Total annual O&M cost and annualized capital cost)</i>	1,349,480

SPMT RACT II Proposal

NOx RACT Control Cost Effectiveness

Source	Auxiliary Boiler	
Control	SCR	
Rated Heat Input	392.5	MMBtu/hr
Number of Burners	1.0	Burners
Potential Emissions	85.96	tpy
Current Emission Rate	0.050	lb/MMBtu
Control Efficiency	60%	
Heater Capacity	414.1	GJ/hr
Burner Heat Release Rate	487.5	GJ/hr

Evaluated at New Firing Limit at 2015 Cost and Efficiencies

Costs derived from *Alternative Control Techniques Document - NOx Emissions from Utility Boilers - EPA-453/R-94-023*

COST COMPONENT:	COST (\$)
<i>DIRECT COSTS</i>	
<i>Purchased Equipment Costs</i>	
Equipment Cost (EC)	6,170,590
Instrumentation (Included in above costs)	---
Sales taxes (Included in above costs)	---
Freight (Included in above costs)	---
Subtotal - Purchased Equipment Costs (PEC)	6,170,590
<i>Direct Installation Costs</i>	
Foundations & supports; handling & erection; electrical; piping; etc.	---
Site Preparation / Buildings- Included above	---
Subtotal - Direct Installation Costs	0
TOTAL DIRECT COSTS (TDC)	6,170,590
TOTAL INDIRECT COSTS, IC Assumed to be 30% of Direct Costs	1,851,177
TOTAL CAPITAL INVESTMENT (TCI)	8,021,767

COST COMPONENT:	COST (\$)
<i>ANNUAL DIRECT COSTS</i>	
<i>Operation and Maintenance Labor</i>	
Maintenance Labor and Material (2.75% of TCI)	220,599
Subtotal - O&M Labor	220,599
<i>Utilities</i>	
Ammonia Cost	12,013
Catalyst Replacement Cost	119,966
Electricity Cost	0.9
Subtotal - Utilities	131,980
TOTAL ANNUAL DIRECT COSTS	352,578

COST COMPONENT:	COST (\$)
TOTAL ANNUAL O&M COSTS	352,578
<i>Annualized Cost Factor</i>	
Replacement Life, years (n) = 20	
Interest Rate, % (i) = 10	
Annualized Cost Factor	0.12
<i>CAPITAL RECOVERY COSTS</i>	
TOTAL CAPITAL REQUIREMENT	8,021,767
TOTAL ANNUAL CAPITAL REQUIREMENT	942,234
TOTAL ANNUALIZED COST <i>(Total annual O&M cost and annualized capital cost)</i>	1,294,812

SPMT RACT II Proposal

NOx RACT Control Cost Effectiveness

Source	Auxiliary Boiler	
Control	SNCR	
Rated Heat Input	392.5	MMBtu/hr
Number of Burners	1.0	Burners
Potential Emissions	85.96	tpy
Current Emission Rate	0.050	lb/MMBtu
Control Efficiency	30%	
Heater Capacity	414.1	GJ/hr
Burner Heat Release Rate	487.5	GJ/hr

Evaluated at New Firing Limit at 2015 Cost and Efficiencies

Costs derived from *Alternative Control Techniques Document - NOx Emissions from Utility Boilers - EPA-453/R-94-023*

COST COMPONENT:	COST (\$)
<i>DIRECT COSTS</i>	
<i>Purchased Equipment Costs</i>	
Equipment Cost (EC)	1,647,042
Instrumentation (Included in above costs)	---
Sales taxes (Included in above costs)	---
Freight (Included in above costs)	---
Subtotal - Purchased Equipment Costs (PEC)	1,647,042
<i>Direct Installation Costs</i>	
Foundations & supports; handling & erection; electrical; piping; etc.	---
Site Preparation / Buildings- Included above	---
Subtotal - Direct Installation Costs	0
TOTAL DIRECT COSTS (TDC)	1,647,042
<i>TOTAL INDIRECT COSTS, IC</i> Assumed to be 30% of Direct Costs	494,112
TOTAL CAPITAL INVESTMENT (TCI)	2,141,154

COST COMPONENT:	COST (\$)
<i>ANNUAL DIRECT COSTS</i>	
<i>Fixed Operation and Maintenance</i>	
Maintenance Labor and Material (included in above costs)	47,857
Subtotal - Fixed O&M Costs	47,857
<i>Utilities</i>	
Ammonia Cost	12,013
Other Variable O&M Costs (11% of Ammonia Cost)	1,321
Subtotal - Variable O&M Costs	13,334
TOTAL ANNUAL DIRECT COSTS	61,191

COST COMPONENT:	COST (\$)
TOTAL ANNUAL O&M COSTS	61,191
<i>Annualized Cost Factor</i>	
Replacement Life, years (n) = 20	
Interest Rate, % (i) = 10	
Annualized Cost Factor	0.12
<i>CAPITAL RECOVERY COSTS</i>	
TOTAL CAPITAL REQUIREMENT	2,141,154
TOTAL ANNUAL CAPITAL REQUIREMENT	251,499
TOTAL ANNUALIZED COST <i>(Total annual O&M cost and annualized capital cost)</i>	312,690

SPMT RACT II Proposal
 NOx RACT Control Cost Effectiveness

Source	Auxiliary Boiler	
Control	ULNB & SCR	
Rated Heat Input	392.5	MMBtu/hr
Number of Burners	1.0	Burners
Potential Emissions	85.96	tpy
Current Emission Rate	0.050	lb/MMBtu
Control Efficiency	60%	
Heater Capacity	414.1	GJ/hr
Burner Heat Release Rate	487.5	GJ/hr

Evaluated at New Firing Limit at 2015 Cost and Efficiencies
 Costs derived from *Alternative Control Techniques Document - NOx Emissions from Utility Boilers - EPA-453/R-94-023*

COST COMPONENT:	COST (\$)
<i>DIRECT COSTS - ULNB</i>	
<i>Purchased Equipment Costs</i>	
Equipment Cost (EC) - Average equipment and labor from Vendor Quotation	5,456,435
Instrumentation (Included in above costs)	---
Sales taxes (Included in above costs)	---
Freight (Included in above costs)	---
Subtotal - Purchased Equipment Costs (PEC)	5,456,435
<i>Direct Installation Costs</i>	
Foundations & supports; handling & erection; electrical; piping; etc.	---
Site Preparation / Buildings- Included above	---
Subtotal - Direct Installation Costs	0
TOTAL DIRECT COSTS (TDC) - ULNB	5,456,435
TOTAL INDIRECT COSTS, IC Assumed to be 30% of Direct Costs	1,636,931
<i>DIRECT COSTS - SCR</i>	
<i>Purchased Equipment Costs</i>	
Equipment Cost (EC)	6,170,590
Instrumentation (Included in above costs)	---
Sales taxes (Included in above costs)	---
Freight (Included in above costs)	---
Subtotal - Purchased Equipment Costs (PEC)	6,170,590
<i>Direct Installation Costs</i>	
Foundations & supports; handling & erection; electrical; piping; etc.	---
Site Preparation / Buildings- Included above	---
Subtotal - Direct Installation Costs	0
TOTAL DIRECT COSTS (TDC) - SCR	6,170,590
TOTAL INDIRECT COSTS, IC Assumed to be 30% of Direct Costs	1,851,177
TOTAL CAPITAL INVESTMENT (TCI) - ULNB	7,093,366
TOTAL CAPITAL INVESTMENT (TCI) - SCR	8,021,767
TOTAL CAPITAL INVESTMENT (TCI)	15,115,132

COST COMPONENT:	COST (\$)
<i>ANNUAL DIRECT COSTS</i>	
<i>Operation and Maintenance Labor</i>	
Maintenance Labor and Material (2.75% of TCI)	415,666
<i>Subtotal - O&M Labor</i>	415,666
 <i>Utilities</i>	
Ammonia Cost	12,013
Catalyst Replacement Cost	119,966
Electricity Cost	0.9
<i>Subtotal - Utilities</i>	131,980
TOTAL ANNUAL DIRECT COSTS	547,646

COST COMPONENT:	COST (\$)
TOTAL ANNUAL O&M COSTS	547,646
<i>Annualized Cost Factor - ULNB</i>	
Equipment Life (years) = 10	
Interest Rate (%) = 10	
Annualized Cost Factor	0.16
<i>Annualized Cost Factor - SCR</i>	
Equipment Life (years) = 20	
Interest Rate (%) = 10	
Annualized Cost Factor	0.12
<i>CAPITAL RECOVERY COSTS</i>	
TOTAL CAPITAL REQUIREMENT	15,115,132
TOTAL ANNUAL CAPITAL REQUIREMENT	2,096,646
TOTAL ANNUALIZED COST <i>(Total annual O&M cost and annualized capital cost)</i>	2,644,292