ENERGY TRANSFER

FedEx Tracking #: 8170 0985 1420

December 20, 2022

Mr. James Rebarchak
Southeast Region Air Program Manager
Pennsylvania Department of Environmental Protection
2 East Main Street
Norristown, PA 19401

Re: Energy Transfer Marketing & Terminals L.P. – Marcus Hook Terminal
Title V Operating Permit 23-00119
RACT III Significant Operating Permit Modification Application

Dear Mr. Rebarchak,

Energy Transfer Marketing & Terminals L.P. hereby submits the attached RACT III Alternative Compliance Proposal and Signification Operating Permit Modification Application for the Marcus Hook Terminal. A check in the amount of $4,000.00 is also included.

If you have any questions regarding this submittal, please feel free to contact me at 610-859-1279.

Sincerely,

Kevin W. Smith

Kevin W. Smith
Sr. Specialist – Environmental Compliance

RACT III Alternative Compliance Proposal and Significant Operating Permit Modification Application

Energy Transfer Marketing & Terminals, LP

December 2022

Submitted by:

ENERGY TRANSFER

Energy Transfer Marketing & Terminals, LP
100 Green Street
Marcus Hook, PA 19061-4800

Submitted to:

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

Pennsylvania Department of Environmental Protection – Southeast Regional Office
2 East Main Street
Norristown, PA 19401

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1. INTRODUCTION

Energy Transfer Marketing & Terminals, LP (Energy Transfer) owns and operates the Marcus Hook Terminal located in Marcus Hook, PA (Facility). Energy Transfer operates the Facility under Title V Operating Permit (TVOP) No. 23-00119 issued by the Pennsylvania Department of Environmental Protection (PADEP) on March 2, 2015. Energy Transfer is providing an alternative Reasonably Available Control Technology (RACT) determination in accordance with 25 Pa. Code §§129.114(a), (c), and (d) for the sources identified in Table 1-1.

Table 1-1
Sources Evaluated for Alternative RACT

Source ID	Source Name	Pollutant(s) for Which an Alternative RACT Analysis Must Be Conducted
102	Refrigerated Propane Tank (500K BBL)	Volatile Organic Compounds (VOC)
103	NSPS Subpart VVa Fugitive Equipment Leaks	VOC
104	Marine Vessel Loading (Refrigerated)	VOC
105	Cavern	VOC
106A	Demethanizer	VOC
111	Natural Gasoline Loading Rack	VOC
112	New Cooling Towers	VOC
119	Refrigerated Propane Tank (900K BBL)	VOC
120	Refrigerated Propane Tank (589K BBL)	VOC

Per 25 Pa. Code §127.541, PADEP has specified that the appropriate permitting action to incorporate proposed alternative RACT limits into the Facility's current TVOP No. 23-00119 is a Significant Operating Permit Modification Application (Application). In accordance with 25 Pa. Code §129.115(a), Energy Transfer has submitted a notification of RACT III applicability to PADEP under separate cover.

1.1 FACILITY DESCRIPTION

Energy Transfer owns and operates the Marcus Hook Terminal, a petroleum handling and storage facility, located in Marcus Hook, PA in Marcus Hook Borough, Delaware County. The Facility receives natural gas liquid feedstock via pipeline from the Marcellus Shale region. These feedstocks are processed, if necessary, and stored onsite in various storage tanks or underground caverns before being distributed to local, regional, and international markets. To support the

petroleum operations, Energy Transfer also uses boilers, flares, cooling towers, emergency generators, and fire water pumps. A facility location map is provided in Figure 1-1.

1.2 RACT III RULE DESCRIPTION

PADEP published 25 Pa. Code §§129.111-129.115, "Additional RACT Requirements for Major Sources of NO_X and VOCs for the 2015 Ozone NAAQS" (RACT III Rule) on November 12, 2022. Because the Facility is a major nitrogen oxides (NO_X) and VOC emitting facility, it is subject to both the NO_X and VOC provisions of RACT III in accordance with 25 Pa. Code §129.111(a).

For the purposes of the RACT III Rule, 25 Pa. Code §121.1 defines a major NO_X emitting facility and a major VOC-emitting facility as follows:

- Major NO_X emitting facility – facility-wide NO_X potential to emit (PTE) greater than 100 tons per year (tpy)
- Major VOC emitting facility – a facility-wide VOC PTE greater than 50 tpy

The RACT III Rule requirements or emissions limitations supersede the requirements or emissions limitations of a RACT permit previously issued in accordance with 25 Pa. Code §§129.91-129.95 and 129.96-129.100, except in cases where an existing RACT permit specifies more stringent requirements and/or emissions limitations. Compliance with applicable RACT III Rule requirements or emissions limitations must be demonstrated no later than January 1, 2023. Because the Facility was a major NO_X and major VOC emitting facility prior to August 3, 2018, this submittal is being made on or before December 31, 2022, in accordance with 25 Pa. Code §129.115(a)(1)(i).

1.3 APPLICATION ORGANIZATION

Energy Transfer has prepared this Application to incorporate the Alternative RACT and Compliance Proposals included herein into TVOP No. 23-00119, in accordance with 25 Pa. Code §127.541. Energy Transfer is submitting a check payable to the "Commonwealth of Pennsylvania – Clean Air Fund" in the amount of $4,000.00 as established in 25 Pa. Code §127.704(b)(4) to cover the application fee. The Application is organized as follows:

- **Section 1 – Introduction:** Provides an overview of the Facility and RACT III Rule and outlines the remainder of the Significant Operating Permit Modification Application.

- **Section 2 – Alternative RACT Analysis:** Describes the analysis completed for each of the alternative RACT III sources as required by 25 Pa. Code §129.114.

- **Section 3 – Compliance Demonstration and Recordkeeping Requirements:** Describes how each source will comply with RACT.

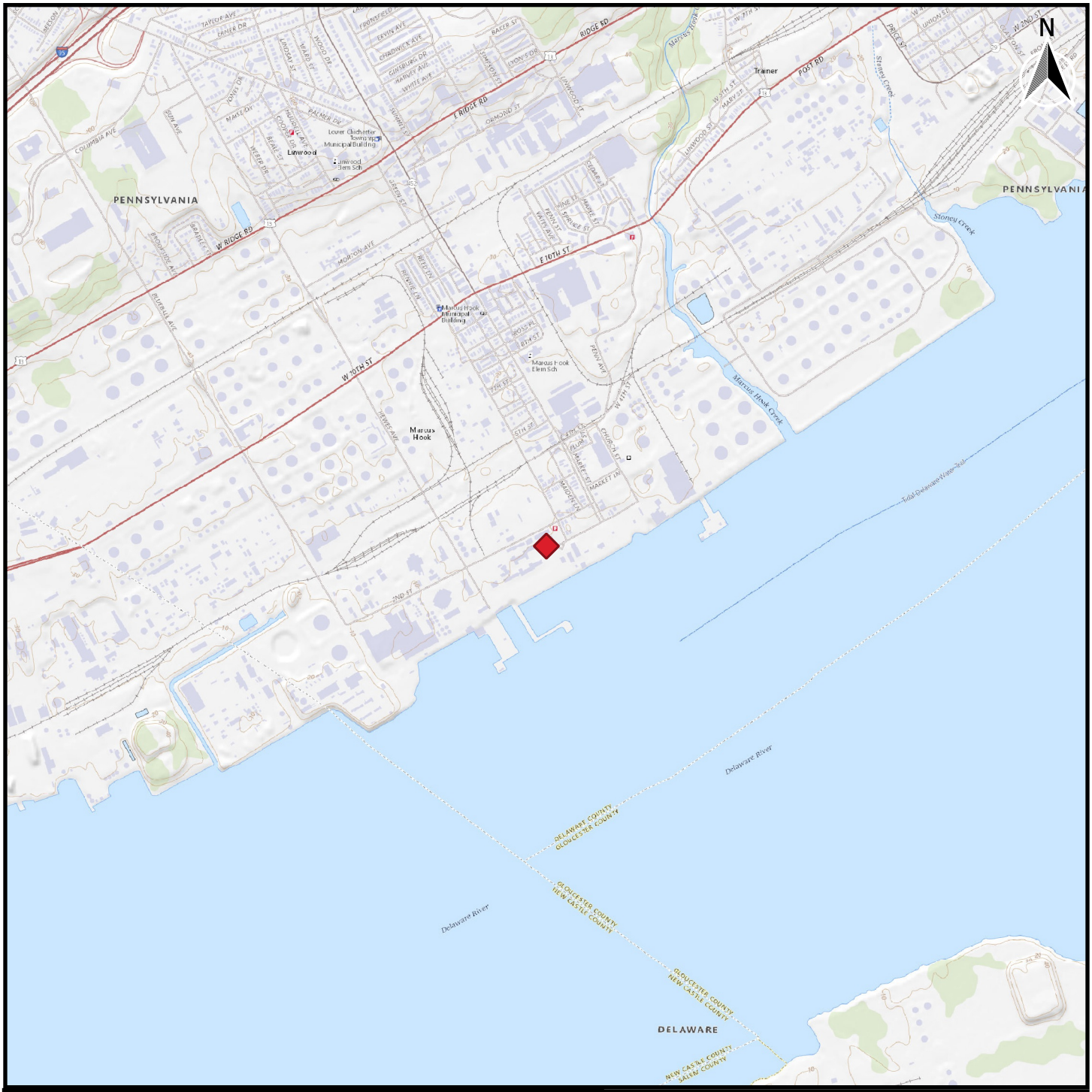
The appendices to this Application are organized as follows:

- **Appendix A – Top-Down Evaluation of RACT**

- **Appendix B – Descriptions of Available Control Technologies**

- **Appendix C – Significant Operating Permit Modification Application Forms**

- **Appendix D – Municipal Notifications**



Legend

◆ Energy Transfer Marketing and Terminals, LP Facility

0 0.25 0.5 mi

Figure 1-1
Facility Location Map

100 Green Street
Marcus Hook, PA

DRAWN BY: L.S.	CHECKED BY: L.Z.
DATE: December 2022	PROJ NO.: --

ALL4

Topographic map courtesy of the United States Geological Survey

2. ALTERNATIVE RACT ANALYSIS

As summarized in Table 1-1, Energy Transfer has identified sources that are considered VOC air contamination sources with a PTE equal to or greater than the thresholds identified in 25 Pa. Code §§129.114(a) and (c) [i.e., 2.7 tpy of VOC] and are subject to the RACT III Rule. These sources either do not fit into any of the presumptive RACT categories under 25 Pa. Code §129.112 or cannot meet the applicable presumptive RACT requirement or RACT emissions limitation of 25 Pa. Code §129.112.

The alterative RACT analyses for the affected emissions sources included herein were performed in accordance with 25 Pa. Code §129.92(b) by conducting a "top-down" analysis, where applicable, as outlined in the United States Environmental Protection Agency (U.S. EPA) Draft "New Source Review Workshop Manual"[1] as discussed in Appendix A of this document. As part of these RACT analyses, searches were performed using the U.S. EPA RACT/Best Available Control Technology (BACT)/Lowest Achievable Emissions Rate (LAER) Clearinghouse (RBLC) to identify potential air pollution control strategies for the sources identified in Table 1-1. The following section describes the analyses conducted for each source identified in Table 1-1, and includes a proposed alternative RACT requirement, emissions limitation, or both in accordance with 25 Pa. Code §129.114(d).

2.1 RACT ANALYSIS FOR THE REFRIGERATED PROPANE TANKS

The Facility operates three refrigerated propane storage tanks: Refrigerated Propane Tank (500K BBL) (Source ID 102), Refrigerated Propane Tank (900K BBL) (Source ID 119), and Refrigerated Propane Tank (589K BBL) (Source ID 120). These sources are all controlled by the Facility's West Cold Flare (Modified) (Source ID C01) and/or East Cold Flare (New Tanks Project) (Source ID C02) to minimize VOC emissions. In addition, the tanks have fixed roofs and are equipped with vapor recovery systems which condense tank vapors to a liquid state before being hard-piped

[1] U.S. EPA, Draft New Source Review Workshop Manual, Prevention of Significant Deterioration and Nonattainment Area Permitting, October 1990 (1990 Workshop Manual).

back to the individual storage tanks. This section presents the RACT evaluation for the refrigerated propane tanks for VOC.

2.1.1 Volatile Organic Compounds

VOC emissions are generated from the refrigerated propane tanks due to fugitive equipment leaks. Currently, all three tanks comply with New Source Performance Standards (NSPS) under 40 CFR Part 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 and 40 CFR Part 60, Subpart VVa – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry for Which Construction, Reconstruction, or Modification Commenced After November 7, 2006. Periodic monitoring of these tanks under a leak detection and repair (LDAR) program is required.

2.1.1.1 Step 1 – Identify Available Control Technologies

As determined through a search of the RBLC database, a flare is the only control technology that was identified as an available option for reducing emissions of VOC from the tanks. The Facility currently uses the West Cold Flare (Modified) (Source ID C01) and/or the East Cold Flare (New Tanks Project) (Source ID C02), therefore, further evaluation is not required.

2.1.1.2 Step 5 – Proposed RACT

Energy Transfer is proposing to continue the use of two of the Facility's flares (i.e., Source ID C01 and C02) and good operating practices, which includes LDAR monitoring for fugitive VOC emissions, as RACT for Source IDs 102, 119, and 120. Energy Transfer will operate the closed vent system and flare in accordance with 40 CFR Part 60, Subpart Kb and conduct LDAR monitoring in accordance with the fugitive equipment leak requirements of 40 CFR Part 60, Subpart VVa to identify propane tank leaks and to conduct repairs as needed. Good operating practices for the three propane tanks include:

- Installing the closed vent system and flares to comply with 40 CFR §60.112b.

- Designing the closed vent system to collect all VOC vapors and gases discharged from the storage vessel and operate with no detectable emissions as indicated by an instrument reading of less than 500 parts per million (ppm) above background and visual inspections, as determined in 40 CFR §60.485a(b).

Additional good operating practices are outlined in Section 2.2.1.2 for Source ID 103.

Energy Transfer will demonstrate compliance with the proposed RACT requirements as described in Section 3.1 and by keeping the records described in Section 3.8.

2.2 RACT ANALYSIS FOR FUGITIVE EMISSIONS LEAKS

NSPS Subpart VVa Fugitive Equipment Leaks (Source ID 103) includes the applicable 40 CFR Part 60, Subpart VVa requirements for equipment leaks for the following Source IDs: 101, 102, 104, 106A, 111, 117, 118, 119, 120, 133, 136, 178, 179, 188, 190, 192, 204, 212, 402, C01, C02, and C03. This also includes unintentional VOC losses from valves, piping connections, or other equipment joints. This section presents the RACT evaluation for the NSPS Subpart VVa Fugitive Equipment Leaks for VOC.

2.2.1 Volatile Organic Compounds

VOC emissions are generated from the NSPS Subpart VVa Fugitive Equipment Leaks on the sources listed above. Currently, this source, that consists of requirements for multiple sources listed above, complies with 40 CFR Part 60, Subpart VVa which requires periodic monitoring of these sources under a LDAR program.

2.2.1.1 Step 1 – Identify Available Control Technologies

As determined through a search of the RBLC database, good operating practices and a LDAR program are the only control technologies that were identified as an available option for reducing emissions of VOC from NSPS Subpart VVa Fugitive Equipment Leaks. The Facility currently uses these control options, therefore, further evaluation is not required.

2.2.1.2 Step 5 – Proposed RACT

Energy Transfer is proposing to use good operating practices, which includes LDAR monitoring for fugitive VOC emissions, as RACT for Source ID 103. Energy Transfer will conduct LDAR

monitoring in accordance with the requirements of 40 CFR Part 60, Subpart VVa to identify fugitive equipment leaks and to conduct repairs as needed. Good operating practices for fugitive equipment leaks include:

- Welding or flanging all piping connections except threaded connections on piping smaller than two-inch diameter. Performing gas or hydraulic testing of the piping connections at no less than operating pressure prior to installation or returning the components to service, or they monitoring for leaks using an approved gas analyzer within eight hours of the components being returned to service. Adjustments will be made as necessary to obtain leak-free performance. Inspecting connectors by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

- Equipping each open-ended valve or line with a cap, blind flange, plug, or a second valve. Except during sampling, the second valve is closed. If the removal of a component for repair or replacement results in an open-ended line or valve, it is exempt from the requirement to install a cap, blind flange, plug, or second valve for 24 hours. If the repair or replacement is not completed within 24 hours, a cap, blind flange, plug, or second valve must be installed.

- Tagging damaged or leaking valves, pump, compressor, and agitator seals found to be emitting compounds by visual inspection to be leaking (e.g., dripping process fluids) with the date, a weatherproof, and readily visible identification number and date the leak was found. The tag is in place until the component is replaced or repaired.

- Repairing a leak as soon as practical, but no later than 15 days after it is detected. A first attempt of repair is made no later than five calendar days after the leak is detected. Following the repair or replacement, the part is monitored for leakage and the results recorded.

- All underground piping are not buried valves, and all buried connectors are welded.

Energy Transfer will demonstrate compliance with the proposed RACT requirements as described in Section 3.2 and by keeping the records described in Section 3.8.

2.3 RACT ANALYSIS FOR MARINE VESSEL LOADING (REFRIGERATED)

Marine vessels that transport petroleum products are loaded at the Facility's marine docks. This section presents the RACT evaluation for Marine Vessel Loading (Refrigerated) (Source ID 104) for VOC.

2.3.1 Volatile Organic Compounds

VOC emissions are generated by Marine Vessel Loading (Refrigerated) operations. These emissions include vapors released from the material being loaded, as well as vapors that are displaced from the hold of the vessel during loading operations. VOC emissions from Marine Vessel Loading (Refrigerated) at the Facility are controlled by a marine vapor recovery (MVR) system which is installed on the vessels. The vapors recovered by an MVR system are recycled back into the tank and are recondensed into a liquid; there is no combustion of these vapors. Source ID 104 is also subject to 40 CFR Part 60, Subpart VVa which requires periodic monitoring of this source under a LDAR program.

2.3.1.1 Step 1 – Identify Available Control Technologies

Energy Transfer uses an MVR system that captures the vapors from Marine Vessel Loading (Refrigerated). The captured vapors are compressed and routed the tanks and recondensed into a liquid. A search of the RBLC revealed no control technologies other than vapor recovery, vapor combustion, and good operating practices. Therefore, potential control technologies include:

- Good Operating Practices
- MVR System
- Vapor Combustion (VC)

A more detailed description of each control technology is provided in Appendix B.

2.3.1.2 Step 2 – Eliminate Technically Infeasible Options

All of the control technologies are considered technically feasible and must be evaluated further.

2.3.1.3 Step 3 – Rank Remaining Control Technologies by Control Effectiveness

An MVR system and VC have similar effectiveness for controlling VOC emissions. Energy Transfer currently utilizes an MVR system in conjunction with good operating practices and a robust LDAR monitoring program to reduce VOC emissions.

2.3.1.4 Step 4 – Evaluate Economic, Environmental, and Energy Impacts of Technically Feasible Control Technologies

Energy Transfer has evaluated the economic, environmental, and energy impacts of the MVR system and VC. Due to the combustion of the recovered product, the installation of VC would result in additional products of combustion (POC) emissions released to the atmosphere. In addition, Energy Transfer would be destroying material that could potentially be used as product. Therefore, the use of VC is not environmentally or economically feasible. Energy Transfer currently employs the use of an MVR system and good operating practices to reduce VOC emissions from the fugitive equipment leaks. Therefore, the economic, environmental, and energy impacts of MVR system and good operating practices have not been assessed in this RACT analysis

2.3.1.5 Step 5 – Proposed RACT

Energy Transfer is proposing to use the existing MVR system and good operating practices, which includes LDAR monitoring for fugitive VOC emissions, as RACT for Source ID 104. Energy Transfer will conduct LDAR monitoring in accordance with the fugitive equipment leak requirements of 40 CFR Part 60, Subpart VVa to identify fugitive equipment leaks and to conduct repairs as needed. In addition to those practices outlined for Source ID 103, good operating practices for fugitive equipment leaks from marine vessel unloading include:

- Product is not pumped into the loading arm until the loading arm has been properly attached to the marine vessel and the return vapor line and its equipment is functioning properly.
- Prior to breaking the seal between the loading arm and the marine vessel, it is ensured all ethane and propane is sent to the vapor recovery system.

Energy Transfer will demonstrate compliance with the proposed RACT requirements as described in Section 3.3 and by keeping the records described in Section 3.8.

2.4 RACT ANALYSIS FOR THE CAVERN

The Cavern (Source ID 105) is equivalent to an underground storage tank. The granite underneath the Facility was mined and now acts as the tank's walls. There are four caverns included in this source: Caverns 1, 2, 3, and 5.

2.4.1 Volatile Organic Compounds

Fugitive VOC emissions are generated from the storage of VOC-containing materials underground in the Caverns. The Caverns are equipped with pressure relief valves which are maintained and operated in accordance with good operating practices. This section presents the RACT evaluation for the Caverns for VOC.

2.4.1.1 Step 1 – Identify Available Control Technologies

There are no available control technologies for the Caverns identified in the RBLC search. The fugitive emissions generated from the Caverns are managed by the Facility's existing robust LDAR monitoring program required by TVOP No. 23-00119. The Facility currently uses these control options; therefore, further evaluation is not required.

2.4.1.2 Step 5 – Proposed RACT

Energy Transfer is proposing the use of good operating practices, which includes LDAR monitoring for fugitive VOC emissions as RACT for Source ID 105. Energy Transfer will conduct LDAR monitoring to identify fugitive equipment leaks and to conduct repairs as needed. The requirements listed in TVOP No. 23-00119, Section D, Source ID 105 are equivalent to the requirements of 25 Pa. Code §129.58. According to 25 Pa. Code §129.111(a), the RACT III Rule exempts air contamination sources already subject to Chapter 129 RACT requirements, including 25 Pa. Code §129.58. Thus, Energy Transfer is proposing that the continued compliance with LDAR requirements in TVOP No. 23-00119 for Source ID 105 is RACT. Good operating practices for fugitive equipment leaks from the Caverns include:

- Not installing or operating a valve at the end of a pipe or line containing VOCs unless the pipe or line is sealed with a second valve, a blind flange, a plug or a cap; except for safety pressure relief valves and fittings on all valves one inch or smaller. The sealing device will only be removed when a sample is being taken or during maintenance operations.

- Repairing and retesting the leaking components as soon as possible. Every reasonable effort is made to repair each leak within 15 days, unless a unit shutdown is required to make the necessary repair and identify leaking components which cannot be repaired while the unit is shutdown.

- Marking pipeline valves and pressure relief valves in gaseous VOC service in some manner that is obvious to both the personnel performing the monitoring and PADEP.
- Submitting an alternative plan for the control of leaks from equipment to PADEP.
- Submitting a list of components, the inspection of which would involve a significant element of danger to PADEP.

Energy Transfer will demonstrate compliance with the proposed RACT requirements as described in Section 3.4 and by keeping the records described in Section 3.8.

2.5 RACT ANALYSIS FOR THE DEMETHANIZER

The Demethanizer (Source ID 106A) is a system that processes natural gas by separating the methane from heavier hydrocarbons. This process involves feeding ethane into a fractionation column with a temperature gradient to purify methane which comes out of the top of the column. This section presents the RACT evaluation for the Demethanizer for VOC.

2.5.1 Volatile Organic Compounds

VOC emissions from the Demethanizer are generated from equipment leaks. Currently, this source complies with 40 CFR Part 60, Subpart VVa which requires periodic monitoring of Source ID 106A under the Facility's existing LDAR program.

2.5.1.1 Step 1 – Identify Available Control Technologies

As determined through a search of the RBLC database, good operating practices and a LDAR program are the only control technologies identified as available options for reducing emissions of VOC from fugitive sources such as the demethanizer. The Facility currently uses these control options; therefore, further evaluation is not required.

2.5.1.2 Step 5 – Proposed RACT

Energy Transfer is proposing to use good operating practices, which includes LDAR monitoring for fugitive VOC emissions, as RACT for Source ID 106A. Energy Transfer will conduct LDAR monitoring in accordance with applicable 40 CFR Part 60, Subpart VVa requirements to identify fugitive emissions resulting from equipment leaks and conduct repairs as needed. In addition to

those practices outlined for Source ID 103, good operating practices for fugitive equipment leaks from the demethanizer include:

- Welding or flanging all piping connections except threaded connections on piping smaller than two-inch diameter. Performing gas or hydraulic testing of the piping connections at no less than operating pressure prior to installation or returning the components to service, or monitoring for leaks using an approved gas analyzer within eight hours of the components being returned to service. Adjustments will be made as necessary to obtain leak-free performance. Inspecting connectors by visual, audible, and/or olfactory means at least weekly by operating personnel walk-through.

- Tagging damaged or leaking valves or connectors seals found to be emitting compounds by visual inspection to be leaking (e.g., dripping process fluids) with the date, a weatherproof, and readily visible identification number and date the leak was found. The tag is in place until the component is replaced or repaired.

- Tagging damaged or leaking pump, compressor, and agitator seals found to be emitting compounds by visual inspection to be leaking (e.g., dripping process fluids) with the date, a weatherproof, and readily visible identification number and date the leak was found. The tag is in place until the component is replaced or repaired.

- Repairing a leak as soon as practical, but no later than 15 days after it is detected. A first attempt of repair is made no later than five calendar days after the leak is detected. Following the repair or replacement, the part is monitored for leakage and the results recorded.

- Ensuring all underground valves and piping are not buried, and all buried connectors are welded.

Energy Transfer will demonstrate compliance with the proposed RACT requirements as described in Section 3.5 and by keeping the records described in Section 3.8.

2.6 RACT ANALYSIS FOR NATURAL GASOLINE LOADING RACK

The Natural Gasoline Loading Rack (Source ID 111) is used to transfer fuel from large storage tanks to tanker trucks for the transport of fuel. This section presents the RACT evaluation for the Natural Gasoline Loading Rack for VOC.

2.6.1 Volatile Organic Compounds

VOC emissions are generated by Natural Gasoline Loading Rack operations. These emissions include vapors released from the natural gasoline loading operations, as well as vapors that are

displaced from the holding vessel during loading operations. VOC emissions from natural gasoline loading operations at the Facility are controlled by a vapor balance system. The vapors recovered by the vapor balance system are recycled back into the storage tanks and recondensed into a liquid; there is no combustion of these vapors. Source ID 111 is also subject to 40 CFR Part 60, Subpart VVa which requires periodic monitoring of this source under an existing LDAR program.

2.6.1.1 Step 1 – Identify Available Control Technologies

Energy Transfer uses a vapor balance system that captures the vapors from natural gas loading operations. The captured vapors are compressed and routed to the tanks and recondensed into a liquid. A search of the RBLC revealed no control technologies other than vapor balance system, VC, and good operating practices. Therefore, potential control technologies include:

- Good Operating Practices
- Vapor Balance System
- VC

A more detailed description of each control technology is provided in Appendix B.

2.6.1.2 Step 2 – Eliminate Technically Infeasible Options

All of the control technologies are considered technically feasible and must be evaluated further.

2.6.1.3 Step 3 – Rank Remaining Control Technologies by Control Effectiveness

A vapor balance system and VC have similar effectiveness for controlling VOC emissions. Energy Transfer currently utilizes a vapor balance system in conjunction with good operating practices and an existing robust LDAR program to reduce VOC emissions.

2.6.1.4 Step 4 – Evaluate Economic, Environmental, and Energy Impacts of Technically Feasible Control Technologies

Energy Transfer has evaluated the economic, environmental, and energy impacts of the vapor balance system and VC. Due to the combustion of the recovered product, the installation of VC would result in additional POC emissions released to the atmosphere. In addition, Energy Transfer would be destroying material that could potentially be used as product. Therefore, the use of VC is not environmentally or economically feasible. Energy Transfer currently employs the use of a

vapor balance system (Source ID C111) and good operating practices to reduce VOC emissions from the natural gasoline unloading operations. Therefore, the economic, environmental, and energy impacts of a vapor balance system and good operating practices have not been assessed in this RACT analysis.

2.6.1.5 Step 5 – Proposed RACT

Energy Transfer is proposing to use good operating practices, which includes LDAR monitoring for fugitive VOC emissions, as RACT for Source ID 111. Energy Transfer will conduct LDAR monitoring in accordance with 40 CFR Part 60, Subpart VVa to identify fugitive emissions associated with equipment leaks and to conduct repairs as needed. In addition to those practices identified for Source ID 103, good operating practices for fugitive equipment leaks at the Natural Gasoline Loading Rack include:

- For this loading/unloading rack, ensuring all liquid and vapor lines are equipped with fittings that provide vapor-tight connections and which close upon disconnection.
- For each tank truck, ensuring that there are no visually or audibly detectable leaks in the truck, the pressure/vacuum relief valves, hatch covers, or associated vapor and liquid lines during loading or unloading.
- Ensuring loading and unloading take place only if the tank trucks are equipped with vapor collection equipment that is compatible with the Facility's vapor collection system.
- Ensuring the Facility's and the tank truck's vapor collection systems are connected during each loading and unloading operation. Examples of actions to accomplish this include training drivers in the hookup procedures and posting visible reminder signs at the loading racks.

Energy Transfer will demonstrate compliance with the proposed RACT requirements as described in Section 3.6 and by keeping the records described in Section 3.8.

2.7 RACT ANALYSIS FOR THE NEW COOLING TOWERS

Energy Transfer uses New Cooling Towers (Source ID 112) to provide cooling water to process units at the Facility. The Mariner East 1 and 2 cooling towers process 30,000 gallons per minute (gpm) of water each. Non-contact water is used throughout the Facility to cool fluids during petroleum handling/processing and to cool various production units while in operation. To

continually reuse and conserve water, non-contact cooling water used at the Facility process units is recirculated through the New Cooling Towers. In the New Cooling Towers, circulating water is distributed amongst multiple cells, where it cascades downward through each cell and then collects in the basin of each cooling tower. The cascading circulating water is partially evaporated, and the evaporated water is dispersed to the atmosphere through each cooling tower cell. The circulating water is cooled by its partial evaporation. This section presents the RACT evaluation for the New Cooling Towers for VOC.

2.7.1 Volatile Organic Compounds

Non-contact water is the primary means used by the Facility to cool liquid hydrocarbons associated with the various processing units. The transfer of heat from process liquids occurs through several non-contact process heat exchangers. Leaks can occur in the process heat exchangers thereby allowing hydrocarbon liquids or gases to mix with the circulating non-contact cooling water. In the event of a heat exchanger leak, the hydrocarbon liquids can be stripped from the cooling water and emitted by the New Cooling Towers serving the heat exchange system.

2.7.1.1 Step 1 – Identify Available Control Technologies

As determined through a search of the RBLC database, good operating practices, including non-contact design, is the only control technology that was identified as an available option for reducing emissions of VOC from the New Cooling Towers. The Facility currently uses this control option; therefore, further evaluation is not required.

2.7.1.2 Step 5 – Proposed RACT

Energy Transfer is proposing to use good operating practices as RACT for Source ID 112. Good operating practices for the New Cooling Towers include:

- Use of non-contact design cooling towers.
- Troubleshooting and investigating when a VOC leak is detected for the source. Monitoring the leak monthly until the leak has been repaired. The first attempt to isolate the leak and perform the necessary repairs is made no later than 14 days after the second sample results indicating a leak is returned.
- No chromium-based water treatment chemicals are used in this cooling tower.

- Cooling towers and equipment are installed, maintained, and operated in accordance with manufacturer's specifications.

Energy Transfer will demonstrate compliance with the proposed RACT requirements as described in Section 3.7 and by keeping the records described in Section 3.8.

3. COMPLIANCE DEMONSTRATION AND RECORDKEEPING REQUIREMENTS

The following subsections present the proposed compliance demonstration activities and recordkeeping procedures to assure compliance with the applicable alternative RACT requirements identified in Section 2. The proposed language to demonstrate compliance with the applicable RACT requirements has been included in the Significant Operating Permit Modification Application forms included in Appendix C.

3.1 SOURCE IDS 102, 119, AND 120 – REFRIGERATED PROPANE TANKS COMPLIANCE DEMONSTRATION REQUIREMENTS

Energy Transfer is proposing VOC RACT for the refrigerated propane tanks to be the operation of the Facility's flares and compliance with the LDAR requirements of 40 CFR Part 60, Subpart VVa for Source IDs 102, 119, and 120. Energy Transfer will demonstrate compliance by keeping the following records in accordance with 40 CFR Part 60, Subpart Kb as required in TVOP No. 23-00119 for Source IDs 102, 119, 120:

- Record periods of operation during which the flare pilot flame is absent.
- Maintain records of the storage vessel dimensions and an analysis of the capacity of the storage vessel for the life of the source.
- Record the volatile organic liquid stored, the period of storage, and the maximum true vapor pressure of the volatile organic liquid during the storage period. These records are maintained for five years.

3.2 SOURCE ID 103 – NSPS SUBPART VVA FUGITIVE EQUIPMENT LEAKS COMPLIANCE DEMONSTRATION REQUIREMENTS

Energy Transfer is proposing VOC RACT for the NSPS Subpart VVa Fugitive Equipment Leaks to be the use of good operating practices as well as the continued compliance with 40 CFR Part 60, Subpart VVa. Energy Transfer will demonstrate compliance by keeping the following records required in TVOP No. 23-00119, Section D, Source ID 103, Conditions #005 and #006:

- Records of first attempts of repair.

- For each monitoring event required by 40 CFR §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, records of monitoring instrument identification, operator identification, equipment identification date of monitoring, and instrument reading.

- When each leak is detected as specified in 40 CFR §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following requirements apply:

    - A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

    - The identification on a valve may be removed after it has been monitored for two successive months as specified in 40 CFR §60.482-7a(c), and no leak has been detected during those two months.

    - The identification on a connector may be removed after it has been monitored as specified in 40 CFR §60.482-11a(b)(3)(iv), and no leak has been detected during that monitoring.

    - The identification on equipment, except on a valve or connector, may be removed after it has been repaired.

- When each leak is detected as specified in 40 CFR §§60.482-2a, 60.482-3a, 60.482-7a, 60.482-8a, 60.482-11a, and 60.483-2a, the following information shall be kept in a log:

    - The instrument and operator identification numbers and the equipment identification number, except when indications of liquids dripping from a pump are designated as a leak.

    - The date the leak was detected and the dates of each attempt to repair the leak

    - Repair methods applied in each attempt to repair the leak

    - Maximum instrument reading measured by Method 20 of Appendix A-7 of 40 CFR 60 at the time the leak was successfully repaired or determined to be nonrepairable, except when a pump is repaired by eliminating indications of liquids dripping.

    - "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

    - The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

    - The expected date of successful repair of the leak if a leak is not repaired within 15 days.

- Dates of process unit shutdowns that occur while the equipment is unrepaired.
- The date of successful repair of the leak.

- For closed vent systems and control devices described in 40 CFR §60.482-10a:
  - Detailed schematics, design specifications, and piping and instrumentation diagrams.
  - The dates and descriptions of any changes in the design specifications.
  - A description of the parameter or parameters monitored, as required in 40 CFR §60.482-10a(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.
  - Periods when the closed vent systems and control devices required in 40 CFR §§60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a are not operated as designed, including periods when a flare pilot light does not have a flame.
  - Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR §§60.482-2a, 60.482-3a, 60.482-4a, and 60.482-5a.

- For equipment subject to the requirements in 40 CFR §§60.482-1a to 60.482-11a:
  - A list of identification numbers for equipment subject to the requirements of this subpart.
  - A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR §§60.482-2a(e), 60.482-3a(i), and 60.482-7a(f). The designation of equipment as subject to these requirements shall be signed by Energy Transfer. Alternatively, Energy Transfer may establish a mechanism with PADEP that satisfies this requirement.
  - A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR §60.482-4a.
  - The dates of each compliance test as required in 40 CFR §§60.482-2a(e), 60.482-3a(i), 60.482-4a, and 60.482-7a(f).
    - The background level measured during each compliance test.
    - The maximum instrument reading measured at the equipment during each compliance test.
  - A list of identification numbers for equipment that Energy Transfer designates as operating in VOC service less than 300 hour per year in accordance with 40 CFR

§60.482-1a(e), a description of the conditions under which the equipment is in VOC service, and rationale supporting the designation that it is in VOC service less than 300 hr/yr.

- The date and results of the weekly visual inspection for indications of liquids dripping from pumps in light liquid service.
- Records of the information specified below, for monitoring instrument calibrations conducted according to Sections 8.1.2 and 10 of Method 21 of Appendix A-7 of 40 CFR 60 and 40 CFR §60.485a(b):
  - Date of calibration and initials of operator performing the calibration.
  - Calibration gas cylinder identification, certification date, and certified concentration.
  - Instrument scale(s) used.
  - A description of any corrective action taken if the meter readout could not be adjusted to correspond to the calibration gas value in accordance with Section 10.1 of Method 21 of Appendix A-7 of 40 CFR 60.
  - Results of each calibration drift assessment required by 40 CFR §60.485a(b)(2) (i.e., instrument reading for calibration at end of monitoring day and the calculated percent difference from the initial calibration value).
  - If Energy Transfer makes their own calibration gas, a description of the procedure used.
- The connector monitoring schedule for each process unit as specified in 40 CFR §60.482-11a(b)(3)(v).
- Records of each release from a pressure relief device subject to 40 CFR § 60.482-4a.
- If applicable, a list of identification numbers for equipment in vacuum service.

- For all valves subject to the requirements of 40 CFR §60.482-7a(g) and (h), all pumps subject to the requirements of 40 CFR §60.482-2a(g), and all connectors subject to the requirements of 40 CFR §60.482-11a(e):
  - A list of identification numbers for valves, pumps, and connectors that are designated as unsafe-to-monitor, an explanation for each valve, pump, or connector stating why the valve, pump, or connector is unsafe-to-monitor, and the plan for monitoring each valve, pump, or connector.

  - A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating why the valve is difficult-to-monitor, and the schedule for monitoring each valve.

- For valves complying with 40 CFR §60.483-2a:
  - A schedule of monitoring.
  - The percent of valves found leaking during each monitoring period.
- Design criterion required in 40 CFR §§60.482-2a(d)(5) and 60.482-3a(e)(2), an explanation of the design criterion, and any changes to this criterial and the reason for the changes.
- An analysis demonstrating the design capacity of the affected facility; a statement listing the feed or raw materials and products from the affected facilities and an analysis demonstrating whether these chemicals are heavy liquids or beverage alcohol; and, an analysis demonstrating that equipment is not in VOC service.
- Information and data used to demonstrate that a piece of equipment is not in VOC service.

3.3 SOURCE ID 104 – MARINE VESSEL LOADING (REFRIGERATED) COMPLIANCE DEMONSTRATION REQUIREMENTS

Energy Transfer is proposing VOC RACT for the Marine Vessel Loading (Refrigerated) to be the use of an MVR system and good operating practices as well as the continued compliance with 40 CFR Part 60, Subpart VVa. TVOP No. 23-00119, Section D, Source ID 104, Conditions #004 and #005 listed in the Facility's TVOP No. 23-00119 include good operating and maintenance practices specific to this source. Energy Transfer will demonstrate compliance by keeping the following records required in TVOP No. 23-00119, Section D, Source ID 104, Condition #003 and the recordkeeping requirements previously discussed for Source ID 103:

- Records of the findings of the monitoring of the pumping pressures and the operating parameters of the vapor recovery unit during vessel loading operations.
- Records of visual checks for cracks or other deformations in the seals between the loading arm and marine vessel before loading ethane, propane, or butane into marine vessels.

3.4 SOURCE ID 105 – CAVERN COMPLIANCE DEMONSTRATION REQUIREMENTS

Energy Transfer is proposing VOC RACT for the Caverns to be the use of good operating practices and compliance with LDAR requirements outlined in Section D, Source ID 105, Conditions #005 through #008 listed in TVOP No. 23-00119. These LDAR requirements are the same as 25 Pa. Code §129.58 which is a requirement that exempts a source according to 25 Pa. Code §129.111(a). Therefore, Energy Transfer proposes complying with the existing permit as RACT. Energy Transfer will demonstrate compliance by keeping the following records required in TVOP No. 23-00119, Section D, Source ID 105, Condition #002:

- A leaking components' monitoring log containing, at a minimum, the following data:
  - The name and process unit where the component is located.
  - The type of component.
  - The tag number of component.
  - The dates on which the leaking component was discovered and repaired.
  - The date and instrument reading of the recheck procedure after a leaking component was repaired.
  - A record of the calibration of the monitoring instrument.
  - Those leaks that cannot be repaired until a turnaround.
  - The total number of components checked and the total number of components found leaking.

3.5 SOURCE ID 106A – DEMETHANIZER COMPLIANCE DEMONSTRATION REQUIREMENTS

Energy Transfer is proposing VOC RACT for the Demethanizer to be the use of good operating practices as well as continued compliance with 40 CFR Part 60, Subpart VVa. Energy Transfer will demonstrate compliance by keeping the records previously discussed for Source ID 103. There are no other applicable recordkeeping requirements for Source ID 106A in TVOP No. 23-00119.

3.6 SOURCE ID 111 – NATURAL GASOLINE LOADING RACK COMPLIANCE DEMONSTRATION REQUIREMENTS

Energy Transfer is proposing VOC RACT for the Natural Gasoline Loading Rack to be the use of a vapor balance system and good operating practices, as well as continued compliance with 40

CFR Part 60, Subpart VVa. Section D, Source ID 111, Conditions #004 through #006 listed in the Facility's TVOP No. 23-00119 outline additional good operating and maintenance practices specific to Source ID 111. Energy Transfer will demonstrate compliance by keeping the following records as required in TVOP No. 23-00119, Section D, Source ID 111, Conditions #003, and the recordkeeping requirements previously discussed for Source ID 103:

- Daily throughput and type of petroleum products loaded and unloaded at this loading rack.
- 12-month rolling summation of the throughput of petroleum products.
- The results of the weekly hose/fitting inspections.

3.7 SOURCE ID 112 – NEW COOLING TOWERS COMPLIANCE DEMONSTRATION REQUIREMENTS

Energy Transfer is proposing VOC RACT for the New Cooling Towers to be the use of good operating practices. Section D, Source ID 112, Conditions #010 through #013 listed in TVOP No. 23-00119 outline the good operating and maintenance practices that must be conducted. Energy Transfer will demonstrate compliance by keeping the records required in TVOP No. 23-00119, Section D, Source ID 112, Conditions #008 and #009.

- For each cooling tower:
    - Results of the 3-year (preventative maintenance cycle) inspections of the high efficiency drift eliminators.
    - Monthly records of the total/suspended solids and/or conductivity readings of the cooling water.
    - Average monthly cooling water circulation flow rate through the cooling tower.
    - Manufacturer's specifications for the design drift rate for the cooling tower.
    - Emissions of particulate matter and VOC, including VOCs from leaks (monthly and 12 consecutive month).
    - Results of the daily visual inspection of the cooling tower water basin.
- To delay the repair of leaks:
    - The reason(s) for delaying repair.

- A schedule for completing the repair as soon as practical.
- The date and concentration of the leak as first identified and the results of all subsequent testing/monitoring events during the delay of repair period.
- An estimate of the potential VOC emissions from the leaking cooling tower for each required delay of repair monitoring interval following the procedures below:
    - Determine the leak concentration and convert the stripping gas leak concentration (in ppm) to an equivalent liquid concentration, in ppmw.
    - Determine the mass flow rate of the cooling water at the monitoring location where the leak was detected. If the monitoring location is an individual cooling tower riser, determine the total cooling water mass flow rate. Cooling water mass flow rates may be determined using direct measurement, pump curves, heat balance calculations, or other engineering methods. Volumetric flow measurements may be used and converted to mass flow rates using the density of water at the specific monitoring location temperature or using the default density of water at 8.32 pounds per gallon.
    - For delay of repair monitoring intervals prior to repair of the leak, calculate the potential VOC emissions for the leaking cooling tower for the monitoring interval by multiplying the leak concentration in the cooling water (in ppmw) by the mass flow rate of the cooling water and by the duration of the delay of repair monitoring interval. The duration of the delay of repair monitoring interval is the time period starting at midnight on the day of the previous monitoring event or at midnight on the day the repair would have had to be completed if the repair had not been delayed, whichever is later, and ending at midnight of the day the of the current monitoring event.
    - For delay of repair monitoring intervals ending with a repaired leak, calculate the potential VOC emissions by multiplying the duration of the final delay of repair monitoring interval by the leak concentration and cooling water flow rates determined for the last monitoring event prior to the re-monitoring event used to verify the leak was repaired. The duration of the final delay of repair monitoring interval is the time period starting at midnight of the day of the last monitoring event prior to re-monitoring to verify the leak was repaired and ending at the time of the re-monitoring event that verified that the leak was repaired.

3.8 RECORDKEEPING REQUIREMENTS

In accordance with 25 Pa. Code §129.115(f), Energy Transfer will keep sufficient records for demonstrating compliance with the RACT III Rule. Sufficient records include, but are not limited to:

- The records shall include sufficient data and calculations to demonstrate that the requirements of 25 Pa. Code §§129.112 through 129.114 are met.
- Data or information required to determine compliance shall be recorded and maintained in a timeframe consistent with the averaging period of the requirement.
- The records necessary to determine compliance shall be reported to PADEP or appropriate approved local air pollution control agency on a schedule specified in the applicable regulation or as otherwise specified in the operating permit or Plan Approval for the air contamination source.

All data used to comply with the proposed RACT requirements will be recorded and maintained in a timeframe that is consistent with the averaging period of the limitation (i.e., on a monthly basis). Energy Transfer will also maintain manufacturer's specified information and documentation of good operating practices for each emissions source identified in this Application. Pursuant to 25 Pa. Code §129.115(k), all records will be maintained for at least five years and will be made available to PADEP upon receipt of a written request.

APPENDIX A –
TOP-DOWN EVALUATION OF RACT

A. Top-Down Evaluation of RACT

RACT evaluations are alternative analyses that involve an assessment of the available control technologies capable of reducing emissions of a specific pollutant and are conducted using a "five-step, top-down" approach considering technical feasibility, as well as, economic, environmental, and energy impacts. RACT is defined in 25 Pa. Code §121.1 as follows:

> *Reasonably available control technology — the lowest emission limit for VOCs or NO_X that a particular source is capable of meeting by the application of control technology that is reasonably available considering technological and economic feasibility.*

The RACT analyses presented in this Application generally follow the 25 Pa. Code §129.92 RACT proposal requirements and U.S. EPA guidance outlined in Chapter B of the U.S. EPA Draft "New Source Review Workshop Manual."[2] A "five-step, top-down" RACT analysis includes the following five basic steps:

- Step 1: Identify Available Control Technologies
- Step 2: Eliminate Technically Infeasible Options
- Step 3: Rank Remaining Control Technologies by Control Effectiveness
- Step 4: Evaluate Economic, Environmental, and Energy Impacts of Technically Feasible Control Technologies
- Step 5: Identify RACT

A detailed summary of the five-step approach taken to perform a "top-down" RACT analysis for each of the sources is described below.

[2] U.S. EPA, Draft New Source Review Workshop Manual, Prevention of Significant Deterioration and Nonattainment Area Permitting, October 1990 (1990 Workshop Manual).

Step 1 – Identify Available Control Technologies

The first step in the "five-step, top-down" RACT analysis process is to identify "available" control options. Available control options are those air pollution control technologies or techniques (including lower-emitting processes and practices) that have the potential for practical application to the emissions source and pollutant under evaluation, with a focus on technologies that have been demonstrated to achieve the highest levels of control for the pollutant in question, regardless of the source type in which the demonstration has occurred.

The scope of potentially applicable control options is determined based on a review of the RBLC database for entries within the last 10 years. The determinations identified from the RBLC database are, as applicable, supplemented with determinations from other permitted facilities. Entries that are not representative of the sources evaluated are excluded from further consideration of the emissions unit, or fuel being fired were excluded from further consideration.

Step 2 – Eliminate Technically Infeasible Options

In the second step of the RACT analysis, an available control technique listed in Step 1 may be eliminated from further consideration if it is not technically feasible for the specific source being evaluated. A demonstration of technical infeasibility must be documented and show, based upon physical, chemical, or engineering principles, technical reasons that would preclude the successful use of the control option on the emissions source being evaluated. In general, a technology is considered to be technically feasible if it has been demonstrated and operated successfully on the same type of emissions source under review or is available and applicable to the emissions source type being evaluated. If a technology has been operated on the same type of emissions source, it is presumed to be technically feasible. However, an available technology from Step 1 cannot be eliminated as infeasible simply because it has not been used on the same type of unit that is being evaluated. If the technology has not been operated successfully on the type of unit being evaluated, then questions regarding "availability" and "applicability" to the particular unit type being evaluated should be considered for the technology to be eliminated as technically infeasible.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

In the third step of the analysis, the remaining control technologies are listed in order of their overall control effectiveness for the pollutant being assessed. The most effective control alternative (i.e., the option with the highest control efficiency that achieves the lowest emissions level) should be ranked at the top of the list. The remaining technologies should then be ranked in descending order of control effectiveness with the least effective control alternative at the bottom. The ranking of control options in Step 3 determines where to start the selection process in Step 4. In determining and ranking technologies based on control effectiveness, facilities may include information on control efficiency (e.g., percent pollutant removed, emissions per unit of product), expected emissions rate [e.g., tpy, pounds per hour (lb/hr), pounds per unit of product, pounds per unit of input, parts per million volume, dry (ppmvd)], and expected emissions reduction in tpy associated with each technology. The metrics chosen for ranking should best represent the array of control technology alternatives under consideration for the pollutant included in the evaluation. If the top ranked control is selected prior to Step 4, then Step 4 may not be necessary.

Step 4 – Evaluate Economic, Environmental, and Energy Impacts of Technically Feasible Control Technologies

In the fourth step of a RACT analysis, facilities can consider the economic, environmental, and energy impacts associated with each remaining option under consideration. Accordingly, after available and technically feasible control options have been ranked in terms of control effectiveness, which occurs in Step 3, facilities should consider specific economic, environmental, and energy impacts identified with those technologies to either confirm that the "top" control alternative is appropriate or inappropriate. The "top" control option should be established as RACT unless the applicant demonstrates that the economic, environmental, and energy impacts are so constraining such that the most stringent technology is not "achievable" in that case. If the most stringent technology is eliminated in this fashion, then the next most stringent alternative is considered, and so on. Both direct and indirect impacts of the emissions control option or strategy being evaluated should be considered.

Step 5 – Identify Reasonably Available Control Technology

During the fifth and final step of a five-step, top-down RACT analysis, the most effective control option not eliminated in Step 4 should be selected as RACT for the specific pollutant and emissions source under review.

APPENDIX B –
DESCRIPTIONS OF AVAILABLE CONTROL TECHNOLOGIES

B. Descriptions of Available Control Technologies

This section describes the control technologies discussed throughout the narrative for VOC.

B.1 VOLATILE ORGANIC COMPOUNDS

The following subsections identify and provide a description of identified VOC control technologies for the sources discussed above.

Good Operating Practices

Good operating practices are a method of controlling VOC emissions. Good operating practices include implementation of an LDAR program for detecting and repairing fugitive equipment leaks and operating in accordance with manufacturer specifications, as applicable. Depending on the operation of the emissions sources, other techniques may be used as recommended by the manufacturer.

Vapor Balance System/MVR System

VOC emissions associated with loading operations include vapors released from the product transferred as well as vapors from the vessel hold that may be displaced during loading and unloading. Recovery/re-use options include vapor compression and use as a fuel and adsorption/absorption and recovery as a product. A closed vapor balance system is used to capture and route displaced vapors to a capture device (e.g., absorption system such as lean oil, adsorption system such as activated carbon) or to a compressor for re-use as a fuel. Once the vapors are compressed, the fuel is sent to process units to be used.

Vapor Combustion

VOC emissions associated with loading operations include vapors released from the product transferred as well as vapors from the vessel hold that may be displaced during loading and unloading. Recovery/re-use options include vapor compression and use as a fuel and adsorption/absorption and recovery as a product. The hydrocarbon vapors captured by the recovery system are then destroyed in a combustor, flare, or thermal oxidizer.

APPENDIX C –
SIGNIFICANT OPERATING PERMIT
MODIFICATION APPLICATION FORMS

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

FOR OFFICIAL USE ONLY

OP #: _____

Date: _____

OPERATING PERMIT MODIFICATION APPLICATION

Section 1 – General Information

1.1 Application Type

Type of permit for which application is made:

☐ Minor Modification ☐ State-Only Operating Permit

☒ Significant Modification ☐ Title V Operating Permit

Existing Operating Permit No: ***23-00119***

1.2 Facility Information

Firm Name: ***Energy Transfer Marketing & Terminals, LP*** Federal Tax ID: ***23-3102655***

Facility Name: ***Marcus Hook Terminal*** Plant Code: ***3***

NAICS Code: ***493190*** SIC Code: ***4226***

Description of NAICS Code: ***Other Warehousing and Storage***

Description of SIC Code: ***Trans. & Utilities – Special Warehousing and Storage, Not Elsewhere Classified***

County: ***Delaware County*** Municipality: ***Marcus Hook Borough***

Latitude: **39.811952** Longitude: **-75.414248**

Horizontal Reference Datum: ***North American Datum of 1983***

Horizontal Collection Method: ***Geographic coordinate determination method based on interpolation - map***

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

1.3 Permit Contact Information

Name: ***Kevin Smith*** Title: ***Senior Specialist – Environmental Compliance***

Address: ***100 Green Street***

City: ***Marcus Hook*** State: ***PA*** ZIP: ***19061***

Telephone: ***(610) 859-1279***

Email: ***Kevin.smith2@energytransfer.com***

1.4 Small Business Question

Are you a small business as defined by the Pennsylvania Air Pollution Control Act? ☐ Yes ☒ No

Are you a small business as defined by the U.S. Small Business Administration? ☐ Yes ☒ No

1.5 Request for Confidentiality

Do you request any information on this application to be treated as "Confidential"? ☐ Yes ☒ No

Place confidential information on separate page(s) marked "Confidential".

In order to request confidential treatment for information in any document, you must submit a redacted version of the relevant document with the confidential information blacked out (and thus suitable for public disclosure), along with a letter of request containing a table identifying the page and line number of each redaction, along with a justification for each redacted item as to why it should be deemed confidential under the specific criteria allowed under 25 Pa. Code §127.12(d) and Section 13.2 of the APCA.

1.6 Certification of Truth, Accuracy and Completeness by a Responsible Official

I certify that, subject to the penalties of Title 18 Pa. C.S.A. Section 4904 and 35 P.S. Section 4009(b)(2), I am the responsible official having primary responsibility for the design and operation of the facilities to which this application applies and that the information provided in this application is true, accurate, and complete to the best of my knowledge, information, and belief formed after reasonable inquiry.

(Signed) _____ Date: _____

Name (Typed): ***Edward G. Human*** Title: ***Senior Director – Marcus Operations***

Telephone: ***(610) 859-1912***

Email: ***Edward.human@energytransfer.com***

Section 2 – Inventory of Units Being Modified		
Unit ID No.	Unit Name	Unit Type
102	***Refrigerated Propane Tank (500K BBL)***	***Process***
103	***NSPS Subpart VVa Fugitive Equipment Leaks***	***Process***
104	***Marine Vessel Loading (Refrigerated)***	***Process***
105	***Cavern***	***Process***
106A	***Demethanizer***	***Process***
111	***Natural Gasoline Loading Rack***	***Process***
112	***New Cooling Towers***	***Process***
119	***Refrigerated Propane Tank (900K BBL)***	***Process***
120	***Refrigerated Propane Tank (589K BBL)***	***Process***

Section 3 – Facility Changes – *N/A See Section 4*

Complete this section ONLY if the changes are for the entire facility. If changes are for a source or sources, skip this Section and complete Section 4 for each Source in which a change is proposed.

3.1 Describe all proposed changes to this facility:

3.2 If the proposed facility changes involve any changes in actual emissions, please complete the following table. Attach another table if needed.

Pollutant Name	CAS Number	Change in Actual Emissions (+ or -)

3.3 Anticipated date on which proposed change is scheduled to occur: _____

3.4 List the proposed revision language for the operating permit conditions. This includes all changes to the emissions, monitoring, testing, record-keeping, reporting requirements and work practice standard requirements. Write in the type of applicable requirements in the column provided. Attach another table if needed.

Citation Number	Type of Applicable Requirement	Existing Operating Permit Condition or Condition Number	Proposed Language for Permit Condition

3.5 Provide a listing of all changes in chronological order (additions and subtractions) made at a facility since the last submittal and attach it to this application. For example:

- March 2016 - Added shot blast booth 5, exempted by the attached Request for Determination.
- Dec 2017 - Installed new paint line in accordance with Plan Approval XX-XXXXX

3.6 For renewals, please review the current operating permit. If you are proposing any changes to the conditions of the permit, please provide the condition number, the requested change, and justification for the requested change.

Section 4 – Unit Information (duplicate this section for each unit as needed)

4.1 Unit Type: ☐ Combustion ☐ Incinerator ☒ Process ☐ Control Device

4.2 General Source Information (Combustion/Incinerator/Process)

a. Source ID: ***102*** b. Source Name: ***Refrigerated Propane Tank (500K BBL)***

c. Manufacturer: ***Custom Design*** d. Model No.: ***Custom Design***

e. Source Description: ***Process***

f. Rated Capacity (for engines use BHP): ***500K barrels (BBL)*** g. Installation Date: ***01/01/2016***

h. Rated Power/Electric Output: ***N/A***

i. Exhaust Temperature: ***N/A*** Units: _____ j. Exhaust % Moisture: ***N/A*** k. Exhaust Flow Volume: ***N/A*** SCFM

4.3 General Control Device Information

a. Unit ID: ***C01*** b. Unit Name: ***West Cold Flare (Modified)***

c Used by Sources: ***101, 102, 117, 118, 119, 120, FML01, FML02***

d. Type: ***Flare***

e. Pressure Drop (in. H_2O): ***N/A*** f. Capture Efficiency: ***N/A***

g. Flow Rate (specify unit): ***240 standard cubic feet per hour (scfh)***

h. Manufacturer: ***Flaregas Corporation*** i. Model No.: ***FCA-3/10***

j. Installation Date: ***2017***

4.4 Proposed Changes to Unit

a. Describe all proposed changes to this unit:

N/A – No changes are proposed to this emissions unit. Please refer to the Application narrative.

b. If the proposed unit changes involve any changes in actual emissions, please complete the following table. Attach another table if needed.

Pollutant Name	CAS Number	Change in Actual Emissions (+ or -)
N/A – No changes are proposed to this emissions unit.		

c. Anticipated date on which proposed change is scheduled to occur: ***Upon Approval, but no later than January 1, 2023***

d. List the proposed revision language for the operating permit condition. This includes all changes to the emission, monitoring, testing, record-keeping, reporting requirements and work practice standard requirement. Write in the type of applicable requirements in the column provided. Attach another table if needed.

Citation Number	Type of Applicable Requirement	Existing Operating Permit Condition or Condition Number	Proposed Language for Permit Condition
25 Pa. Code §127.441	***Additional Requirements***	***Section D, Source ID 102, Condition #008***	***Additional applicable requirements for this source can be found in Source 103 (Fugitive Equipment Leaks). Compliance with this condition ensures compliance with 25 Pa. Code §129.114.***

Section 4 – Unit Information (duplicate this section for each unit as needed)

4.1 Unit Type: ☐ Combustion ☐ Incinerator ☒ Process ☐ Control Device

4.2 General Source Information (Combustion/Incinerator/Process)

a. Source ID: ***103*** b. Source Name: ***NSPS Subpart VVa Fugitive Equipment Leaks***

c. Manufacturer: ***Various*** d. Model No.: ***Various***

e. Source Description: ***Process***

f. Rated Capacity (for engines use BHP): ***N/A*** g. Installation Date: ***N/A***

h. Rated Power/Electric Output: ***N/A***

i. Exhaust Temperature: ***N/A*** Units: _____ j. Exhaust % Moisture: ***N/A*** k. Exhaust Flow Volume: ***N/A*** SCFM

4.3 General Control Device Information – *N/A*

a. Unit ID: _____ b. Unit Name: _____

c Used by Sources: _____

d. Type: _____

e. Pressure Drop (in. H_2O): _____ f. Capture Efficiency: _____

g. Flow Rate (specify unit): _____

h. Manufacturer: _____ i. Model No.: _____

j. Installation Date: _____

4.4 Proposed Changes to Unit

a. Describe all proposed changes to this unit:

N/A – No changes are proposed to this emissions unit. Please refer to Application Narrative.

b. If the proposed unit changes involve any changes in actual emissions, please complete the following table. Attach another table if needed.

Pollutant Name	CAS Number	Change in Actual Emissions (+ or -)
N/A – No changes are proposed to this emissions unit.		

c. Anticipated date on which proposed change is scheduled to occur: ***Upon Approval, but no later than January 1, 2023***

d. List the proposed revision language for the operating permit condition. This includes all changes to the emission, monitoring, testing, record-keeping, reporting requirements and work practice standard requirement. Write in the type of applicable requirements in the column provided. Attach another table if needed.

Citation Number	Type of Applicable Requirement	Existing Operating Permit Condition or Condition Number	Proposed Language for Permit Condition
25 Pa. Code §129.114	***Additional Requirements***	***N/A – New proposed operating permit requirement for Section D, Source ID 103***	***These specific sources (i.e., 102, 104, 106A, 111, 119, and 120) comply with the requirements of 25 Pa. Code §129.114 by complying with the requirements outlined in Source 103.***

Section 4 – Unit Information (duplicate this section for each unit as needed)

4.1 Unit Type: ☐ Combustion ☐ Incinerator ☒ Process ☐ Control Device

4.2 General Source Information (Combustion/Incinerator/Process)

a. Source ID: ***104*** b. Source Name: ***Marine Vessel Loading (Refrigerated)***

c. Manufacturer: ***Custom Design*** d. Model No.: ***Custom Design***

e. Source Description: ***Process***

f. Rated Capacity (for engines use BHP): ***N/A*** g. Installation Date: ***N/A***

h. Rated Power/Electric Output: ***N/A***

i. Exhaust Temperature: ***N/A*** Units: _____ j. Exhaust % Moisture: ***N/A*** k. Exhaust Flow Volume: ***N/A*** SCFM

4.3 General Control Device Information – *N/A*

a. Unit ID: _____ b. Unit Name: _____

c Used by Sources: _____

d. Type: _____

e. Pressure Drop (in. H_2O): _____ f. Capture Efficiency: _____

g. Flow Rate (specify unit): _____

h. Manufacturer: _____ i. Model No.: _____

j. Installation Date: _____

4.4 Proposed Changes to Unit

a. Describe all proposed changes to this unit:

N/A – No changes are proposed to this emissions unit. Please refer to Application Narrative.

b. If the proposed unit changes involve any changes in actual emissions, please complete the following table. Attach another table if needed.

Pollutant Name	CAS Number	Change in Actual Emissions (+ or -)
N/A – No changes are proposed to this emissions unit.		

c. Anticipated date on which proposed change is scheduled to occur: ***Upon Approval, but no later than January 1, 2023***

d. List the proposed revision language for the operating permit condition. This includes all changes to the emission, monitoring, testing, record-keeping, reporting requirements and work practice standard requirement. Write in the type of applicable requirements in the column provided. Attach another table if needed.

Citation Number	Type of Applicable Requirement	Existing Operating Permit Condition or Condition Number	Proposed Language for Permit Condition
25 Pa. Code §127.441	***Additional Requirements***	***Section D, Source ID 104, Condition #006***	***Additional applicable requirements for this source can be found in Source 103 (Fugitive Equipment Leaks). Compliance with this condition ensures compliance with 25 Pa. Code §129.114.***

Section 4 – Unit Information (duplicate this section for each unit as needed)

4.1 Unit Type: ☐ Combustion ☐ Incinerator ☒ Process ☐ Control Device

4.2 General Source Information (Combustion/Incinerator/Process)

a. Source ID: ***105*** b. Source Name: ***Cavern***

c. Manufacturer: ***Custom Design*** d. Model No.: ***Custom Design***

e. Source Description: ***Process***

f. Rated Capacity (for engines use BHP): ***N/A*** g. Installation Date: ***Unknown***

h. Rated Power/Electric Output: ***N/A***

i. Exhaust Temperature: ***N/A*** Units: _____ j. Exhaust % Moisture: ***N/A*** k. Exhaust Flow Volume: ***N/A*** SCFM

4.3 General Control Device Information – *N/A*

a. Unit ID: _____ b. Unit Name: _____

c Used by Sources: _____

d. Type: _____

e. Pressure Drop (in. H_2O): _____ f. Capture Efficiency: _____

g. Flow Rate (specify unit): _____

h. Manufacturer: _____ i. Model No.: _____

j. Installation Date: _____

4.4 Proposed Changes to Unit

a. Describe all proposed changes to this unit:

N/A – No changes are proposed to this emissions unit. Please refer to Application Narrative.

b. If the proposed unit changes involve any changes in actual emissions, please complete the following table. Attach another table if needed.

Pollutant Name	CAS Number	Change in Actual Emissions (+ or -)
N/A – No changes are proposed to this emissions unit		

c. Anticipated date on which proposed change is scheduled to occur: ***Upon Approval, but no later than January 1, 2023***

d. List the proposed revision language for the operating permit condition. This includes all changes to the emission, monitoring, testing, record-keeping, reporting requirements and work practice standard requirement. Write in the type of applicable requirements in the column provided. Attach another table if needed.

Citation Number	Type of Applicable Requirement	Existing Operating Permit Condition or Condition Number	Proposed Language for Permit Condition
25 Pa. Code §127.441	***Additional Requirements***	***Section D, Source ID 105, Condition #009***	***The following plant areas shall adhere to the above conditions for this source. The Leak Detection and Repair (LDAR) requirements outlined in conditions for this source ensure compliance with 25 Pa. Code §129.114.***

Section 4 – Unit Information (duplicate this section for each unit as needed)

4.1 Unit Type: ☐ Combustion ☐ Incinerator ☒ Process ☐ Control Device

4.2 General Source Information (Combustion/Incinerator/Process)

a. Source ID: ***106A*** b. Source Name: ***Demethanizer***

c. Manufacturer: ***Custom Design*** d. Model No.: ***Custom Design***

e. Source Description: ***Process***

f. Rated Capacity (for engines use BHP): ***N/A*** g. Installation Date: ***1/1/2016***

h. Rated Power/Electric Output: ***N/A***

i. Exhaust Temperature: ***N/A*** Units: _____ j. Exhaust % Moisture: ***N/A*** k. Exhaust Flow Volume: ***N/A*** SCFM

4.3 General Control Device Information – *N/A*

a. Unit ID: _____ b. Unit Name: _____

c Used by Sources: _____

d. Type: _____

e. Pressure Drop (in. H_2O): _____ f. Capture Efficiency: _____

g. Flow Rate (specify unit): _____

h. Manufacturer: _____ i. Model No.: _____

j. Installation Date: _____

4.4 Proposed Changes to Unit

a. Describe all proposed changes to this unit:

N/A – No changes are proposed to this emissions unit. Please refer to Application Narrative.

b. If the proposed unit changes involve any changes in actual emissions, please complete the following table. Attach another table if needed.

Pollutant Name	CAS Number	Change in Actual Emissions (+ or -)
N/A – No changes are proposed to this emissions unit.		

c. Anticipated date on which proposed change is scheduled to occur: ***Upon Approval, but no later than January 1, 2023***

d. List the proposed revision language for the operating permit condition. This includes all changes to the emission, monitoring, testing, record-keeping, reporting requirements and work practice standard requirement. Write in the type of applicable requirements in the column provided. Attach another table if needed.

Citation Number	Type of Applicable Requirement	Existing Operating Permit Condition or Condition Number	Proposed Language for Permit Condition
25 Pa. Code §127.441	***Additional Requirements***	***Section D, Source ID 106A, Condition #001***	***Additional applicable requirements for this source can be found in Source 103 (Fugitive Equipment Leaks). Compliance with this condition ensures compliance with 25 Pa. Code §129.114.***

Section 4 – Unit Information (duplicate this section for each unit as needed)

4.1 Unit Type: ☐ Combustion ☐ Incinerator ☒ Process ☐ Control Device

4.2 General Source Information (Combustion/Incinerator/Process)

a. Source ID: ***111*** b. Source Name: ***Natural Gasoline Loading Rack***

c. Manufacturer: ***Custom Design*** d. Model No.: ***Custom Design***

e. Source Description: ***Process***

f. Rated Capacity (for engines use BHP): ***N/A*** g. Installation Date: ***12/01/2014***

h. Rated Power/Electric Output: ***N/A***

i. Exhaust Temperature: ***N/A*** Units: _____ j. Exhaust % Moisture: ***N/A*** k. Exhaust Flow Volume: ***N/A*** SCFM

4.3 General Control Device Information

a. Unit ID: ***C111*** b. Unit Name: ***Nat Gas Loading Rack Vapor Balance Sys***

c Used by Sources: ***111***

d. Type: ***Vapor Lock Balance Recovery***

e. Pressure Drop (in. H_2O): ***N/A*** f. Capture Efficiency: ***N/A***

g. Flow Rate (specify unit): ***N/A***

h. Manufacturer: ***Custom Design*** i. Model No.: ***Custom Design***

j. Installation Date: ***12/1/2015***

4.4 Proposed Changes to Unit

a. Describe all proposed changes to this unit:

N/A – No changes are proposed to this emissions unit. Please refer to Application Narrative.

b. If the proposed unit changes involve any changes in actual emissions, please complete the following table. Attach another table if needed.

Pollutant Name	CAS Number	Change in Actual Emissions (+ or -)
N/A – No changes are proposed to this emissions unit.		

c. Anticipated date on which proposed change is scheduled to occur: ***Upon Approval, but no later than January 1, 2023***

d. List the proposed revision language for the operating permit condition. This includes all changes to the emission, monitoring, testing, record-keeping, reporting requirements and work practice standard requirement. Write in the type of applicable requirements in the column provided. Attach another table if needed.

Citation Number	Type of Applicable Requirement	Existing Operating Permit Condition or Condition Number	Proposed Language for Permit Condition
25 Pa. Code §127.441	***Additional Requirements***	***Section D, Source ID 111, Condition #008***	***Additional applicable requirements for this source can be found in Source 103 (Fugitive Equipment Leaks). Compliance with this condition ensures compliance with 25 Pa. Code §129.114.***

Section 4 – Unit Information (duplicate this section for each unit as needed)

4.1 Unit Type: ☐ Combustion ☐ Incinerator ☒ Process ☐ Control Device

4.2 General Source Information (Combustion/Incinerator/Process)

a. Source ID: ***112*** b. Source Name: ***New Cooling Towers***

c. Manufacturer: ***Custom Design*** d. Model No.: ***Custom Design***

e. Source Description: ***Process***

f. Rated Capacity (for engines use BHP): ***1.8 Mgal/hr of water*** g. Installation Date: ***1/1/2016***

h. Rated Power/Electric Output: ***N/A***

i. Exhaust Temperature: ***N/A*** Units: _____ j. Exhaust % Moisture: ***N/A*** k. Exhaust Flow Volume: ***N/A*** SCFM

4.3 General Control Device Information – *N/A*

a. Unit ID: _____ b. Unit Name: _____

c Used by Sources: _____

d. Type: _____

e. Pressure Drop (in. H_2O): _____ f. Capture Efficiency: _____

g. Flow Rate (specify unit): _____

h. Manufacturer: _____ i. Model No.: _____

j. Installation Date: _____

4.4 Proposed Changes to Unit

a. Describe all proposed changes to this unit:

N/A – No changes are proposed to this emissions unit. Please refer to Application Narrative.

b. If the proposed unit changes involve any changes in actual emissions, please complete the following table. Attach another table if needed.

Pollutant Name	CAS Number	Change in Actual Emissions (+ or -)
N/A – No changes are proposed to this emissions unit.		

c. Anticipated date on which proposed change is scheduled to occur: ***Upon Approval, but no later than January 1, 2023***

d. List the proposed revision language for the operating permit condition. This includes all changes to the emission, monitoring, testing, record-keeping, reporting requirements and work practice standard requirement. Write in the type of applicable requirements in the column provided. Attach another table if needed.

Citation Number	Type of Applicable Requirement	Existing Operating Permit Condition or Condition Number	Proposed Language for Permit Condition
25 Pa. Code §129.114	***Additional Requirements***	***N/A – New proposed operating permit requirement for Section D, Source ID 112***	***Good operating practices outlined in the conditions above for this source ensure compliance with 25 Pa. Code §129.114.***

Section 4 – Unit Information (duplicate this section for each unit as needed)

4.1 Unit Type: ☐ Combustion ☐ Incinerator ☒ Process ☐ Control Device

4.2 General Source Information (Combustion/Incinerator/Process)

a. Source ID: ***119*** b. Source Name: ***Refrigerated Propane Tank (900K BBL)***

c. Manufacturer: ***Custom Design*** d. Model No.: ***Custom Design***

e. Source Description: ***Process***

f. Rated Capacity (for engines use BHP): ***900K BBL*** g. Installation Date: ***12/1/2017***

h. Rated Power/Electric Output: ***N/A***

i. Exhaust Temperature: ***N/A*** Units: _____ j. Exhaust % Moisture: ***N/A*** k. Exhaust Flow Volume: ***N/A*** SCFM

4.3 General Control Device Information

a. Unit ID: ***C01*** b. Unit Name: ***West Cold Flare (Modified)***

c Used by Sources: ***101, 102, 117, 118, 119, 120, FML01, FML02***

d. Type: ***Flaring***

e. Pressure Drop (in. H_2O): ***N/A*** f. Capture Efficiency: ***98%***

g. Flow Rate (specify unit): ***240 scfh***

h. Manufacturer: ***Flaregas Corporation*** i. Model No.: ***FCA-3/10***

j. Installation Date: ***12/1/2015***

4.3 General Control Device Information

a. Unit ID: ***C02*** b. Unit Name: ***East Cold Flare (New Tank Project)***

c Used by Sources: ***117, 118, 119, 120, FML01, FML02***

d. Type: ***Flaring***

e. Pressure Drop (in. H_2O): ***N/A*** f. Capture Efficiency: ***98%***

g. Flow Rate (specify unit): ***117 scfh***

h. Manufacturer: ***Flare Industries*** i. Model No.: ***Custom Design***

j. Installation Date: ***8/11/2017***

4.4 Proposed Changes to Unit

a. Describe all proposed changes to this unit:

N/A – No changes are proposed to this emissions unit. Please refer to Application Narrative.

b. If the proposed unit changes involve any changes in actual emissions, please complete the following table. Attach another table if needed.

Pollutant Name	CAS Number	Change in Actual Emissions (+ or -)
N/A – No changes are proposed to this emissions unit.		

c. Anticipated date on which proposed change is scheduled to occur: ***Upon Approval, but no later than January 1, 2023***

d. List the proposed revision language for the operating permit condition. This includes all changes to the emission, monitoring, testing, record-keeping, reporting requirements and work practice standard requirement. Write in the type of applicable requirements in the column provided. Attach another table if needed.

Citation Number	Type of Applicable Requirement	Existing Operating Permit Condition or Condition Number	Proposed Language for Permit Condition
25 Pa. Code §127.441	***Additional Requirements***	***Section D, Source ID 119, Condition #008***	***Additional applicable requirements for this source can be found in Source 103 (Fugitive Equipment Leaks). Compliance with this condition ensures compliance with 25 Pa. Code §129.114***

Section 4 – Unit Information (duplicate this section for each unit as needed)

4.1 Unit Type: ☐ Combustion ☐ Incinerator ☒ Process ☐ Control Device

4.2 General Source Information (Combustion/Incinerator/Process)

a. Source ID: ***120*** b. Source Name: ***Refrigerated Propane Tank (589K BBL)***

c. Manufacturer: ***Custom Design*** d. Model No.: ***Custom Design***

e. Source Description: ***Process***

f. Rated Capacity (for engines use BHP): ***589K BBL*** g. Installation Date: ***8/11/2017***

h. Rated Power/Electric Output: ***N/A***

i. Exhaust Temperature: ***N/A*** Units: _____ j. Exhaust % Moisture: ***N/A*** k. Exhaust Flow Volume: ***N/A*** SCFM

4.3 General Control Device Information

a. Unit ID: ***C01*** b. Unit Name: ***West Cold Flare (Modified)***

c Used by Sources: ***101, 102, 117, 118, 119, 120, FML01, FML02***

d. Type: ***Flaring***

e. Pressure Drop (in. H_2O): ***N/A*** f. Capture Efficiency: ***98%***

g. Flow Rate (specify unit): ***240 scfh***

h. Manufacturer: ***Custom Design*** i. Model No.: ***Custom Design***

j. Installation Date: ***12/1/2015***

4.3 General Control Device Information

a. Unit ID: ***C02*** b. Unit Name: ***East Cold Flare (New Tank Project)***

c Used by Sources: ***117, 118, 119, 120, FML01, FML02***

d. Type: ***Flaring***

e. Pressure Drop (in. H_2O): ***N/A*** f. Capture Efficiency: ***98%***

g. Flow Rate (specify unit): ***117 scfh***

h. Manufacturer: ***Flare Industries*** i. Model No.: ***Custom Design***

j. Installation Date: ***8/11/2017***

4.4 Proposed Changes to Unit

a. Describe all proposed changes to this unit:

N/A – No changes are proposed to this emissions unit. Please refer to Application Narrative.

b. If the proposed unit changes involve any changes in actual emissions, please complete the following table. Attach another table if needed.

Pollutant Name	CAS Number	Change in Actual Emissions (+ or -)
N/A – No changes are proposed to this emissions unit.		

c. Anticipated date on which proposed change is scheduled to occur: ***Upon Approval, but no later than January 1, 2023***

d. List the proposed revision language for the operating permit condition. This includes all changes to the emission, monitoring, testing, record-keeping, reporting requirements and work practice standard requirement. Write in the type of applicable requirements in the column provided. Attach another table if needed.

Citation Number	Type of Applicable Requirement	Existing Operating Permit Condition or Condition Number	Proposed Language for Permit Condition
25 Pa. Code §127.441	***Additional Requirements***	***Section D, Source ID 120, Condition #008***	***Additional applicable requirements for this source can be found in Source 103 (Fugitive Equipment Leaks). Compliance with this condition ensures compliance with 25 Pa. Code §129.114.***

Section 5 – Compliance Plan for the Facility			
		Yes	No
5.1	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?	☒	☐
5.2	Will your facility be in compliance with all applicable requirements presently scheduled to take effect during the term of the permit?	☒	☐

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 — Date of Last Compliance Review Form Filing:
☒ Amended Filing — 03/09/2022

Type of Submittal

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

SECTION A. GENERAL APPLICATION INFORMATION

Name of Applicant/Permittee/("applicant")
(non-corporations-attach documentation of legal name)
Energy Transfer Marketing & Terminals, L.P.

Address 8111 Westchester Drive, Suite 600
Dallas, Texas 75225

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

Describe below the type(s) of business activities performed.
SIC Code 4226 – Petroleum & Chemical Bulk Stations & Terminals for Hire
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
Energy Transfer Marketing & Terminals L.P.	PA, NJ, NY, MD, VA, MA, OH, MI, IN, TX	TX	23-3102655	Applicant
Energy Transfer Operations GP LLC	PA, NJ, NY, MD, VA, MA, OH, MI, IN, TX	DE	23-3102660	General Partner of Applicant
Energy Transfer L.P.	PA, NJ, NY, MD, VA, MA, OH, MI, IN, TX, OK, NM, LA, IL, KY	DE	73-1493906	Ultimate Parent – owner of the General Partner of the Applicant
Subsidiaries of ultimate parent with operations in PA- See Attachment 3				

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

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
02/22/22	Marcus Hook Terminal	23-00119 & Plan Approval 23-0119E	LDAR Program violations reported on semiannual compliance report and discovered during PADEP inspection	NOV	Corrective Action Plan to be submitted to PADEP within 15 days	$0
10/5/2021	Marcus Hook Terminal	23-0119	LDAR Program violations reported on semiannual compliance report	NOV	Causes of the violations and corrective actions were identified in the semiannual compliance report submitted 9/2021	$0
2/24/2021	Marcus Hook Terminal	23-0119	Butane release to the outdoor atmosphere	NOV/CACP	CACP settlement 11/4/2021	11/4/21 global settlement $301,105
2/4/2021	Marcus Hook Terminal	23-0119	LDAR Program violations reported on semiannual compliance report	NOV/CACP	CACP settlement 11/4/2021	11/4/21 global settlement $301,105
12/23/2020	Delmont Terminal	65-00354	Modifying an air contamination source without authorization	NOV/CACP	Corrected - GP-2 Permit issued by PADEP 10/12/2021	$0
12/14/2020	Marcus Hook Terminal	23-0119	LDAR Program violations discovered during PADEP inspection	NOV/CACP	CACP settlement 11/4/2021	11/4/21 global settlement $301,105
3/19/2020	Marcus Hook Terminal	23-0119	Failure to conduct multiple weekly truck rack inspections; oily water leaking from process water pipe into concrete conveyance; multiple pressure and temperature deviations on Diesel Engine 2B; V-29 carbon canister not changed out within 24 hours; and H-5 Truck Rack hose venting emissions not reported in annual air emissions inventories.	NOV/CACP	CACP settlement 11/4/2021	11/4/21 global settlement $301,105
3/3/2020	Marcus Hook Terminal	23-0119	An application for a minor operating permit modification was not submitted prior to making a physical change.	NOV/CACP	CACP settlement 11/4/2021	11/4/21 global settlement $301,105
5/16/2019	Belmont Terminal	V04-004	Operation of emergency generator on an air action day	NOV	Corrected	$1,650
5/14/2019	Fullerton Terminal	39-00022	Failure to submit stack test within 60 days	NOV/CACP*	Joint CACP settlement for Fullerton/Kingston Terminals	$3,200
5/9/2019	Marcus Hook Terminal	23-00119	Failure to conduct weekly inspections of loading rack	NOV/CACP	Entered into a CACP with DEP on 3/27/2020.	03/27/20 global settlement $304,700

5/2/2019	Kingston Terminal	40-00025	Failure to submit stack test within 60 days	NOV/CACP*	Joint CACP settlement for Fullerton/Kingston Terminals	$3,200
3/18/2019	Marcus Hook Terminal	23-00119	Butane release to the outdoor atmosphere	NOV/CACP	Entered into a CACP with DEP on 3/27/2020.	03/27/20 global settlement
7/10/18	Marcus Hook Terminal	23-0119D	Allegedly failed to monitor valves in gas/vapor service and light liquid service within 30 days of the end of startup.	NOV/CACP*	All valves have been monitored.	03/15/19 global settlement $110,000
1/12/18	Marcus Hook Terminal	23-00119	Propane release to the outdoor atmosphere.	NOV/CACP	Corrective actions completed and summarized in a letter to the Department dated April 26, 2018.	03/27/20 global settlement
12/19/17	Pittsburgh Terminal	TVOP 0007	Exceeded Emission limit for tank 4 & 321	FOV	A Permit modification is pending to increase emissions	$0

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

<u>CONTINUING OBLIGATION</u>. 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 — 12/14/22 (Date)
Jonathan A. Hunt
Name (Print or Type)
Senior Vice President, Energy Transfer 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
Blawnox Term.	Energy Transfer Marketing & Terminals L.P..	23-3102655	4226	Freeport Road & Boyd	Pittsburgh	15238	Allegheny	Adam Bechtel	412-828-7500
Delmont Term.	Energy Transfer Marketing & Terminals L.P.	23-3102655	4226	Route 66	North Delmont	15626	Westmoreland	Adam Bechtel	724-468-4072
Eldorado (Altoona) Term.	Energy Transfer Marketing & Terminals L.P.	23-3102655	4226	Rt. 764 N. & Sugar Run Road	Altoona	16601	Blair	Adam Bechtel	412-784-3460
Exton Term.	Energy Transfer Marketing & Terminals L.P.	23-3102655	4226	601 E. Lincoln Highway	Exton	19134	Chester	Eric Scheivert	215-778-0206
Fullerton Term.	Energy Transfer Marketing & Terminals L.P.	23-3102655	4226	2480 Main Street	Fullerton	18052	Lehigh	Steve Kutney	610-264-0526
Kingston Term.	Energy Transfer Marketing & Terminals L.P.	23-3102655	4226	Rt. 11, Box 1479	Kingston	18704-3102	Luzerne	Steve Kutney	570-288-2555
Malvern Term.	Energy Transfer Marketing & Terminals L.P.	23-3102655	4226	41 Malin Road	Malvern	10355	Chester	Eric Scheivert	215-778-0206
Marcus Hook Terminal	Energy Transfer Marketing & Terminals L.P.	23-3102655	4226	100 Green Street	Marcus Hook	19061	Delaware	Ed Human	610-859-1912
Mechanicsburg Term.	Energy Transfer Marketing & Terminals L.P.	23-3102655	4226	5145 Simpson Ferry Road	Mechanicsburg	17055	Cumberland	Terry Wolfe	717-766-2526
Montello Term.	Energy Transfer Marketing & Terminals L.P..	23-3102655	4226	PO Box 2089, Fritztown Road	Montello	19608	Berks	Steven Kutney	610-927-2090
Northumberland Term.	Energy Transfer Marketing & Terminals L.P.	23-3102655	4226	Rd#1, Box 285 E	Northumberland	17857	Northumberland	Steve Kutney	570-473-3575
Pittsburgh Term.	Energy Transfer Marketing & Terminals L.P.	23-3102655	4226	5733 Butler Street	Pittsburgh	15210	Allegheny	Adam Bechtel	412-784-3460
Twin Oaks Term.	Energy Transfer Marketing & Terminals L.P..	23-3102655	4226	4041 Market Street	Aston	19014	Delaware	Eric Scheivert	610-859-5742

Attachment #2: Plan Approvals & Operating Permits

Facility	Owner / Operator	State	Permit Type	Permit #	Effective	Expiration
Blawnox	Energy Transfer Marketing & Terminals L.P.	PA	ACHD Synthetic Minor	0011-OP21	07/07/2021	07/06/2026
Delmont	Energy Transfer Marketing & Terminals L.P.	PA	Title V Permit	65-00354	03/25/2022	03/11/2027
Eldorado	Energy Transfer Marketing & Terminals L.P.	PA	Synthetic Minor	07-05025	07/01/2019	06/30/2024
Fullerton	Energy Transfer Marketing & Terminals L.P.	PA	Synthetic Minor	39-00022	09/17/2019	09/17/2024
Kingston	Energy Transfer Marketing & Terminals L.P.	PA	Synthetic Minor	40-00025	09/17/2019	09/17/2024
Marcus Hook	Energy Transfer Marketing & Terminals L.P.	PA	Title V Permit	23-00119	08/25/2020	04/01/2025
Marcus Hook	Energy Transfer Marketing & Terminals L.P.	PA	Plan Approval	23-0119E	02/12/2021	08/21/2023
Marcus Hook	Energy Transfer Marketing & Terminals L.P.	PA	Plan Approval	23-0119J	02/12/2021	02/12/2024
Malvern	Energy Transfer Marketing & Terminals L.P.	PA	Title V Permit	15-00043	05/09/2019	05/08/2024
Mechanicsburg	Energy Transfer Marketing & Terminals L.P.	PA	Title V Permit	21-05029	07/01/2019	06/30/2024
Montello	Energy Transfer Marketing & Terminals L.P.	PA	Title V Permit	06-05064	10/01/2019	9/30/2024
Northumberland	Energy Transfer Marketing & Terminals L.P.	PA	Synthetic Minor	49-00019	05/08/2020	05/07/2025
Pittsburgh	Energy Transfer Marketing & Terminals L.P.	PA	ACHD Title V Permit	0007	02/25/2021	02/04/2026
Twin Oaks	Energy Transfer Marketing & Terminals L.P.	PA	Title V Permit	23-00045	03/24/2021	03/23/2026

Attachment 3
APCA Compliance Review Form
Subsidiaries with Operations in Pennsylvania of
Parent Energy Transfer L.P. of Applicant Energy Transfer Marketing & Terminals L.P.
December 2022

Entity Name	Entity Main Address	Domestic Jurisdiction	Taxpayer ID	Relationship to Applicant
Sunoco Pipeline L.P.	8111 Westchester Drive Dallas, TX 75225	TX	23-3102656	Indirect subsidiary of ultimate parent
Regency Marcellus Gas Gathering LLC	101 West Third Street, 3rd Flr Williamsport, PA 17701	DE	27-2142725	Indirect subsidiary of ultimate parent
ETC Production LLC	8111 Westchester Drive Dallas, TX 75225	DE	88-1911493	Indirect subsidiary of ultimate parent
ETC Northeast Pipeline LLC	6051 Wallace Road Ext., Suite 300 Wexford, PA 15090	DE	26-2863396	Indirect subsidiary of ultimate parent
ETC Northeast Field Services LLC	6051 Wallace Road Ext., Suite 300 Wexford, PA 15090	DE	35-2497449	Indirect subsidiary of ultimate parent
ET Rover Pipeline LLC	1300 Main Street, Houston, TX 77002	DE	46-5655475	Indirect subsidiary of ultimate parent and Member Rover Pipeline LLC joint venture
Rover Pipeline LLC	1300 Main Street, Houston, TX 77002	DE	47-1958303	Joint Venture of ET Rover Pipeline LLC, and non-affiliated company, AE-MidCo Rover, LLC

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF AIR QUALITY

QUALITY FEES FOR TITLE V OPERATING PERMIT

Company Information	
Federal Tax ID: ***23-3102655***	Firm Name: ***Energy Transfer Marketing & Terminals, LP***
Permit # (If any): ***23-00119***	Facility Name: ***Marcus Hook Terminal***
Municipality: ***Marcus Hook Borough***	County: ***Delaware County***
Contact Person Name: ***Kevin Smith***	Telephone Number: ***(610) 859-1279***
E-mail: ***Kevin.smith2@energytransfer.com***	

Title V Operating Permit				
Line #	**Check the appropriate box below**	**Type of Authorization**	**Fee 2021 - 2025**	**Total Fees**
1	☐	New Application, Subchapter G	$5,000	
2	☐	Renewal	$4,000	
3	☐	Minor Modification	$1,500	
4	☒	Significant Modification	$4,000	***$4,000***
5	☐	Administrative Amendment / Change of Ownership	$1,500	
6	☐	Plantwide Applicability Limit (PAL) for NSR regulated pollutants or PAL for PSD regulated pollutants or both	$10,000	

Pay maximum amount of fee when one or more authorizations are requested. For example, when a renewal application and a change of ownership forms are submitted, please pay only the highest amount of fee ($4,000).

APPENDIX D –
MUNICIPAL NOTIFICATIONS

December 16, 2022

FedEx Tracking # 8170 0985 1464

Dr. Monica Taylor, Chairman
Delaware County Council
201 West Front Street
Media, PA 19063

Re: Notification of Significant Operating Permit Modification Application
Energy Transfer Marketing & Terminals, LP – Marcus Hook Terminal
Title V Operating Permit No. 23-00119

Dear Dr. Taylor:

In accordance with Title 25, Subpart C, Article III, §127.413 of the Pennsylvania Code, Energy Transfer Marketing & Terminals, LP (Energy Transfer) hereby notifies Delaware County of its submittal of a Significant Operating Permit Modification Application (Application) to the Pennsylvania Department of Environmental Protection (PADEP). Energy Transfer currently operates a facility in Marcus Hook, PA. The Application proposes revisions to Title V Operating Permit (TVOP) No. 23-00119 to address the applicable Reasonably Available Control Technology (RACT) requirements of 25 Pa. Code §§129.111-129.115.

PADEP will accept comments on the Application during a 30-day period which begins upon your receipt of this notification. A copy of the Application is available for your review at PADEP's Southeast Regional Office located at 2 East Main Street, Norristown, Pennsylvania. Any comments concerning the application should be transmitted to PADEP within 30 days of your receipt of this letter. If you have any questions or concerns regarding the above information, please contact me at (610) 859-1279 or via email at kevin.smith2@energytransfer.com.

Sincerely,
Energy Transfer Marketing & Terminals, LP

Kevin W. Smith

Kevin Smith
Senior Environmental Compliance Specialist

December 20, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 817009851464

Delivery Information:			
Status:	Delivered	**Delivered To:**	Shipping/Receiving
Signed for by:	C.SIEKERSKI	**Delivery Location:**	
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday		PA,
		Delivery date:	Dec 19, 2022 09:33

Shipping Information:			
Tracking number:	817009851464	**Ship Date:**	Dec 16, 2022
		Weight:	

Recipient:	**Shipper:**
PA, US,	MARCUS HOOK, PA, US,

Thank you for choosing FedEx

ENERGY TRANSFER

December 16, 2022

FedEx Tracking #: 8170 0985 1512

Gregory Grillone, Borough Manager
Marcus Hook Borough Municipal Building
1111 Market Street
Marcus Hook, PA 19061

RE: Notification of Significant Operating Permit Modification Application
Energy Transfer Marketing & Terminals, LP – Marcus Hook Terminal
Title V Operating Permit No. 23-00119

Dear Mr. Grillone:

In accordance with Title 25, Subpart C, Article III, §127.413 of the Pennsylvania Code, Cooperation with Municipalities, Energy Transfer Marketing & Terminals, LP (Energy Transfer) hereby notifies Marcus Hook Borough of its submittal of a Significant Operating Permit Modification Application (Application) to the Pennsylvania Department of Environmental Protection (PADEP). Energy Transfer currently operates a facility in Marcus Hook, PA. The Application proposes revisions to Title V Operating Permit (TVOP) No. 23-00119 to address the applicable Reasonably Available Control Technology (RACT) requirements of 25 Pa. Code §§129.111-129.115.

PADEP will accept comments on the Application during a 30-day period which begins upon your receipt of this notification. A copy of the Application is available for your review at PADEP's Southeast Regional Office located at 2 East Main Street, Norristown, Pennsylvania. Any comments concerning the application should be transmitted to PADEP within 30 days of your receipt of this letter. If you have any questions or concerns regarding the above information, please contact me at (610) 859-1279 or via email at kevin.smith2@energytransfer.com.

Sincerely,
Energy Transfer Marketing & Terminals, LP

Kevin W. Smith

Kevin Smith
Senior Environmental Compliance Specialist

December 20, 2022

Dear Customer,

The following is the proof-of-delivery for tracking number: 817009851512

Delivery Information:

Status:	Delivered	**Delivered To:**	Receptionist/Front Desk
Signed for by:	M.SENDEK	**Delivery Location:**	
Service type:	FedEx Priority Overnight		
Special Handling:	Deliver Weekday		PA,
		Delivery date:	Dec 19, 2022 09:32

Shipping Information:

Tracking number:	817009851512	**Ship Date:**	Dec 16, 2022
		Weight:	

Recipient:	**Shipper:**
PA, US,	MARCUS HOOK, PA, US,

Thank you for choosing FedEx