AIR AND RADIATION ADMINISTRATION
DRAFT PART 70 OPERATING PERMIT

DOCKET # 24-510-0703

COMPANY: Energy Transfer Partners & Marketing Terminals

LOCATION: 2155 Northbridge Road
Baltimore, Maryland, 21226

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TITLE V – PART 70 OPERATING PERMIT PROGRAM OVERVIEW

Title V of the Clean Air Act (amended) requires each state to implement a federally enforceable operating permit program for major sources of air pollution. This program, the Part 70 Permit Program, also known as the Title V Permit Program, is designed to provide a comprehensive administrative document (a Part 70 Operating Permit) that identifies all air emissions sources at a given facility and the federal air quality regulations applicable to those sources. The permit establishes the methodology by which the owner/operator will demonstrate compliance, and includes testing, monitoring, record-keeping, and reporting requirements for each emissions source.

A Part 70 Operating Permit does not authorize new construction, and does not add any new emissions limitations, standards, or work practices on an affected facility. There may, however, be additional testing, record keeping, monitoring, and reporting requirements. A Part 70 Operating Permit is a five-year renewable permit. A responsible official for each facility subject to a Part 70 Operating Permit is required to annually certify compliance with each applicable requirement for that facility.

When an application for a Part 70 Operating Permit is received, the Department will complete a technical review of the application and will prepare a draft Part 70 Operating Permit and Fact Sheet. The Fact Sheet will explain the basis and technical analysis used by the Department to develop the federally enforceable permit conditions, including the required testing, monitoring, record keeping, and reporting provisions for each emissions unit at the permitted facility. The Fact Sheet will also include a description of the facility operations and the current compliance status with applicable requirements. If there are any discrepancies between the Part 70 Operating Permit application and the draft permit, the Fact Sheet will contain a discussion of the inconsistencies and the final resolution.

Public Participation Process

The Part 70 Operating Permit Program provides the public, adjacent states, and EPA the opportunity to review and submit comments on draft permits. The public may also request a public hearing on the draft permit.

The purpose of a public hearing is to give interested parties the opportunity to submit comments for the record which are germane to the draft federally enforceable permit conditions. Comments made at the hearing, or in writing to the Department during the comment period, should address errors and deficiencies in the permit such as unidentified emissions units, incorrect or deficient regulation citation, deficient record keeping, monitoring, reporting or testing requirements and unresolved compliance issues. After the public comment period has closed, the Department will review the formal testimony as part of the final review and prepare a Response to Comments document which will be sent to the EPA along with the draft Part 70 Operating Permit and Fact Sheet.

Testimony on state-only requirements will be kept on file at the Department as part of the formal record, however, state-only rules and regulations are not federally enforceable, and therefore are not within the scope of the EPA review. The Department will keep a record of the identity of the commenters, their statements, a summary of the issues raised during the public comment period, and the Response to Comments document for at least five years.

Citizen Petition to EPA to Object to Permit Issuance

Interested parties may petition the EPA to object to the Part 70 Permit if the EPA has not already objected, within 60 days after the 45-day EPA review period has ended. The petition period will be posted on the EPA website. The EPA will only consider objections to the federally enforceable provisions of the draft permit which were raised with reasonable specificity during the public comment period, unless: (1) the petitioner demonstrates that it was impractical to raise the objections within the public comment period, or (2) the grounds for the objection arose after the comment period. If the EPA agrees with the petition, the Department will reopen, revise, or revoke the permit as determined.

Applicant Objection to Permit Issuance and Recourse

If the applicant objects to the federally enforceable permit conditions contained in the issued Part 70 Operating permit, the applicant has 15 days from receipt of the issued permit to request a contested case hearing. More information on that can be found in 40 CFR, Part 70, and COMAR 26.11.03.11.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION

NOTICE OF INTENT TO ISSUE PART 70 OPERATING PERMIT, OPPORTUNITY TO SUBMIT WRITTEN COMMENTS OR TO REQUEST A PUBLIC HEARING

The Department of the Environment, Air and Radiation Administration (ARA) has completed its review of the application for a renewal Part 70 Operating Permit submitted by Energy Transfer Marketing & Terminals for the Baltimore City location. The facility includes multiple petroleum product storge tanks, a cargo tank loading rack, and a pentane blending operation.

The applicant is represented by: Mr. Jed Warner, Manager
Energy Transfer Marketing & Terminals
2155 Northbridge Road
Baltimore MD 21226

The Department has prepared a draft Part 70 Operating Permit for review and is now ready to receive public comment. A docket containing the application, draft permit, and supporting documentation is available for review on the Department's website, under the Air Quality Permitting Page's Title V link under "Draft Title V Permits" and may be viewed here:

https://tinyurl.com/DraftTitleV

Interested persons may submit written comments or request a public hearing on the draft permit. Written comments must be received by the Department no later than 30 days from the date of this notice. Requests for a public hearing must be submitted in writing and must also be received by the Department no later than 30 days from the date of this notice.

Comments and requests for a public hearing will be accepted by the Department if they raise issues of law or material fact regarding applicable requirements of Title V of the Clean Air Act, and/or regulations implementing the Title V Program in Maryland found in COMAR.

A Request for public hearing shall include the following:

1) The name, mailing address, and telephone number of the person making the request;

2) The names and addresses of any other persons for whom the person making the request is representing; and

3) The reason why a hearing is requested, including the air quality concern that forms the basis for the request and how this concern relates to the person making the request.

All written comments and requests for a public hearing should be directed to the attention of Ms. Shannon Heafey via email at Shannon.heafey@maryland.gov or by post at Air Quality Permits Program, Air and Radiation Administration, 1800 Washington Boulevard Suite 720, Baltimore, Maryland 21230-1720. Further information may be obtained by calling Ms. Shannon Heafey at (410) 537-4433.

ENERGY TRANSFER MARKETING & TERMINALS
BALTIMORE TERMINAL
2155 NORTHBRIDGE AVENUE, BALTIMORE, MARYLAND 21226
PERMIT NO. 24-510-0703
PART 70 OPERATING PERMIT FACT SHEET

BACKGROUND

Energy Transfer Marketing & Terminals (Energy Transfer) owns and operates a petroleum bulk storage and transfer facility at 2155 Northbridge Avenue, Baltimore, Maryland 21226 in Baltimore City in Maryland Air Quality Region III. The primary SIC code for the facility is 4226 and the corresponding NAICS code is 493190.

Gasoline and distillate oils are received at the facility via pipeline and barge. The petroleum products are stored in large storage tanks. Petroleum products are loaded into cargo tanks from an eight-bay loading rack. All vapors from gasoline loading operations are controlled by a vapor recovery unit (VRU) or a vapor combustion unit (VCU). Gasoline is not loaded into marine vessels at this facility.

The following table summarizes the actual emissions from Energy Transfer based on its Annual Emission Certification Reports:

Table 1: Actual Emissions

Year	NO_x (TPY)	SO_x (TPY)	PM_{10} (TPY)	CO (TPY)	VOC (TPY)	Total HAP (TPY)
2018	0.21	0.04	0.0	0.45	42.8	0.09
2019	0.39	0.07	0.0	0.85	28.7	0.10
2020	0.10	0.07	0.0	0.14	32.5	0.08
2021	0.08	0.0	0.0	0.08	30.4	0.08
2022	0.06	0.04	0.0	0.08	36.0	0.11
2023	0.06	0.0	0.0	0.15	59.1	0.15

The major source threshold for triggering Title V permitting requirements in Baltimore City is 25 tons per year for VOC, 25 tons for NOx, and 100 tons per year for any other criteria pollutants and 10 tons for a single HAP or 25 tons per year for total HAPS . Since the actual VOC emissions from the facility are greater than the major source threshold, Energy Transfer is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

Energy Transfer's current Title V – Part 70 Operating Permit was issued on March 1, 2019 and expired on February 28, 2024. The renewal Title V – Part 70 Operating Permit will be issued to replace the current permit. The facility's Title V – Part 70 Operating Permit renewal application was received by the Department on February 24, 2023. An administrative completeness review was conducted and the application was deemed administratively complete. An administrative completeness letter was sent on August 28, 2023 granting Energy Transfer an application shield.

APPLICABILITY OF FEDERAL REGULATIONS

NSPS Applicability

Energy Transfer operates two (2) volatile organic liquid storage tanks (Tank No. 6 and Tank No. 10) that are subject to the requirements of 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. Each tank has a capacity greater than 75 cubic meters and each tank was modified after July 23, 1984 to store gasoline.

The NSPS requirements of 40 CFR, Part 60, Subpart Kb are included in the Title V – Part 70 Operating Permit for these tanks. No other NSPS regulations apply to Energy Transfer at this time.

NESHAP Applicability

Energy Transfer is not a major source of HAP emissions and therefore not subject to the requirements of any major HAP source federal regulation in 40 CFR Part 63. Energy Transfer is an area source of HAP emissions and is subject to the following area source NESHAP requirements:

- 40 CFR, Part 63, Subpart BBBBBB - Gasoline Distribution Bulk Terminals, Bulk Plants and Pipeline Facilities. The compliance date for existing sources was January 10, 2011.

- 40 CFR, Part 63, Subpart JJJJJJ – Industrial, Commercial, and Institutional Boilers for the one (1) No. 2 oil fired boiler rated at 1.3 million Btu per hour. The compliance date for existing sources was March 21, 2014.

All applicable requirements of 40 CFR, Part 63, Subpart BBBBBB and Subpart JJJJJJ are included in the renewal permit. No other NESHAP requirements apply to Energy Transfer at this time.

CAM APPLICABILITY

Compliance Assurance Monitoring (CAM), as specified in 40 CFR, Part 64, applies to any emission unit at a Title V major source that meets all of the following criteria:

(1) The emission unit is subject to a federally enforceable emission limit or standard for a regulated pollutant;

(2) The emission unit uses a control device to achieve compliance with any such emission limitation or standard; and

(3) The emission unit has the potential to emit pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year required for a source to be classified as a major source and must not otherwise be exempt from CAM.

The storage vessels at Energy Transfer do not employ control devices as defined in 40 CFR §64.1. CAM requirements do not apply to the storage vessels.

The loading rack at Energy Transfer uses a VRU equipped with a continuous emission monitoring system (CEMS) or a VCU to control emissions from the loading rack to meet federally enforceable emission limits. The VOC emissions from the loading rack, pre-control, would be greater than the major source threshold of 25 tons per year. A CAM plan is not required for the VRU because the use of a CEMS satisfies the requirements of 40 CFR, Part 64. A CAM plan is required for the VCU and is included in Table IV-CAM of the renewal Title V – Part 70 Operating Permit.

GREENHOUSE GAS (GHG) EMISSIONS

Energy Transfer emits the following greenhouse gases (GHGs) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from the fuel burning equipment at the premises. The facility has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements. While there may be no applicable requirements as a result of PSD, emission certifications reports for the years 2019, 2020, 2021, 2022, and 2023, showed that Energy Transfer is not a major source (threshold: 100,000tpy CO_2e) for GHGs (see Table 3 shown below). The Permittee shall quantify facility wide GHGs emissions and report them in accordance with Section 3 of the Part 70 permit.

The following table summarizes the actual emissions from Energy Transfer based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	Conversion factor	2019 tpy CO_2e	2020 tpy CO_2e	2021 tpy CO_2e	2022 tpy CO_2e	2023 tpy CO_2e
Carbon dioxide CO_2	1	482.9	118.2	92.7	71.7	75.2
Methane CH_4	25	0.002	0.0	0.0	0.0	0.0
Nitrous Oxide N_2O	298	0.002	0.0	0.0	0.0	0.0
Total GHG CO_{2eq}		**483.5**	**118.2**	**92.7**	**71.7**	**75.2**

CHANGES AND MODIFICATIONS TO THE PART 70 OPERATING PERMIT

Energy Transfer officially changed the name of the facility from Sunoco Partners Marketing and Terminals, L.P. to Energy Transfer Marketing and Terminals.

Energy Transfer removed one (1) No. 2 oil-fired boiler rated at 1.3 MMBTU/hr (EU-6, ARA Registration No. 510-0703-4-3125) and replace it with one (1) propane-fired boiler rated at 0.6 MMBTU/hr. The replacement boiler is included in the insignificant activities section of the permit and did not require a Permit to Construct because it is less than 1.0 MMBTU/hr heat input capacity.

EMISSION UNIT IDENTIFICATION

Energy Transfer has identified the following emission units as being subject to Title V permitting requirements and having applicable requirements.

Table 3: Emission Unit Identification

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
EU-1a	510-0703-9-0999	Tank No. 4 - 3,885,000-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	prior to 1970
		Tank No. 11 – 2,074,800-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	

		Tank No. 12 – 1,629,000-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	
		Tank No. 13 – 953,400-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	
		Tank No. 16 – 873,600-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	
EU-1b	510-0703-9-1000	Tank No. 6 – 3,045,000-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	prior to 1970, modified to store gasoline in 1992
	510-0703-9-1151	Tank No. 10 – 2,150,610-gallon, closed top petroleum product storage tank with an internal floating roof equipped with mechanical shoe seals.	prior to 1970, modified to store gasoline in 2008
EU-4	510-0703-9-0999	Eight (8) bay cargo tank loading rack with three (3) bays to bottom load gasoline controlled by a vapor recovery unit (VRU) or a vapor combustion unit (VCU).	prior to 1970, control devices replaced in 1992, 2005, and 2009
EU-X	510-0703-9-1326	Pentane Blending Operation consisting of one (1) 80,000-gallon pentane tank and associated pumps and piping	2015
EU-General	N/A	General facility wide requirements	N/A

AN OVERVIEW OF THE PART 70 PERMIT

The Fact Sheet is an informational document. If there are any discrepancies between the Fact Sheet and the Part 70 permit, the Part 70 permit is the enforceable document.

Section I of the Part 70 Permit contains a brief description of the facility and an inventory list of the emissions units for which applicable requirements are identified in Section IV of the permit.

Section II of the Part 70 Permit contains the general requirements that relate to administrative permit actions. This section includes the procedures for renewing, amending, reopening, and transferring permits, the relationship to permits to construct and approvals, and the general duty to provide information and to comply with all applicable requirements.

Section III of the Part 70 Permit contains the general requirements for testing, record keeping and reporting; and requirements that affect the facility as a whole, such as open burning, air pollution episodes, particulate matter from construction and demolition activities, asbestos provisions, ozone depleting substance provisions, general conformity, and acid rain permit. This section includes the requirement to report excess emissions and deviations, to submit an annual

emissions certification report and an annual compliance certification report, and results of sampling and testing.

Section IV of the Part 70 Permit identifies the emissions standards, emissions limitations, operational limitations, and work practices applicable to each emissions unit located at the facility. For each standard, limitation, and work practice, the permit identifies the basis upon which the Permittee will demonstrate compliance. The basis will include testing, monitoring, record keeping, and reporting requirements. The demonstration may include one or more of these methods.

Section V of the Part 70 Permit contains a list of insignificant activities. These activities emit very small quantities of regulated air pollutants and do not require a permit to construct or registration with the Department. For insignificant activities that are subject to a requirement under the Clean Air Act, the requirement is listed under the activity.

Section VI of the Part 70 Permit contains State-only enforceable requirements. Section VI identifies requirements that are not based on the Clean Air Act, but solely on Maryland air pollution regulations. These requirements generally relate to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE METHODOLOGY

EU-1a – Tank Nos. 4, 11, 12, 13, and 16 (ARA Registration No. 510-0703-9-0999)

Tank Nos. 4, 11, and 12 are large (greater than 40,000 gallons) closed top, gasoline storage tanks. Tank Nos. 13 and 16 are large (greater than 40,000 gallons) closed top tanks that currently store ethanol, with the flexibility to store gasoline as needed. All of the tanks were constructed prior to 1970 and registered with the Department under ARA Registration No. 510-0703-9-0999. The tanks are covered under the current, premises-wide, permit to construct issued on September 15, 2009 that superseded all previous permits to construct issued to Energy Transfer and a permit to construct for a replacement IFR on Tank 13 issued September 8, 2016 in conjunction with the premises-wide permit to construct. None of the tanks have been modified or reconstructed in a manner that would trigger applicability of 40 CFR 60, Subpart Kb for volatile organic storage tanks.

The tanks are subject to VOC requirements in COMAR 26.11.13 for large VOC storage tanks and the area source HAP requirements of 40 CFR 63, Subpart BBBBBB for gasoline storage tanks at bulk gasoline terminals.

Applicable Requirements

Control of VOC and HAP

(1) **COMAR 26.11.13.03A(1)(a) and (b)** which require that:

(a) Each tank's gauging and sampling devices be gas tight except when in use.

(b) Each tank be equipped with one of the following properly installed, operating, and well maintained emission control systems:

(i) An internal floating roof equipped with a primary and secondary seal;

(ii) A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere; or

(iii) A vapor control system capable of collecting the vapors from the tank and disposing of the vapors to prevent their emission to the atmosphere.

(2) **COMAR 26.11.13.03A(2)** which requires the Permittee to meet the following seal requirements:

(a) There shall be no visible holes, tears, or other openings in the seal or seal fabric.

(b) Each seal shall be intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall.

(c) The accumulated area of the gaps between the secondary seal and the tank wall and between the seal and other obstructions inside the tank (that is, ladder, roof supports) that are greater than 1/8 inch in width may not exceed 1.0 square inch per foot of tank diameter.

(3) **40 CFR 63, Subpart BBBBBB** which requires the Permittee to meet emission limits and management practices for gasoline storage tanks at bulk gasoline terminals.

(a) For Tank No. 4, Tank No. 11, and Tank No. 12, the Permittee has elected to comply with 40 CFR 63, Subpart BBBBBB by equipping each tank with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall be equipped with a liquid-mounted seal or a mechanical shoe seal.

(ii) The floating roof shall float on the stored liquid surface at all times, except when the floating roof is supported by its leg supports or other support devices (e.g., hangers from the fixed roof).

(iii) When the storage vessel is storing liquid, but the liquid depth is insufficient to float the floating roof, the process of filling to the point of refloating the floating roof shall be continuous and shall be performed as soon as practical.

(iv) Each cover over an opening in the floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall be closed at all times, except when the cover must be open for access.

(v) Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be closed at all times, except when required to be open to relieve excess pressure or vacuum, in accordance with the manufacturer's design.

(vi) Each unslotted guide pole cap shall be closed at all times except when gauging the liquid level or taking liquid samples.

[Authority: 40 CFR §63.1063(a)(1)(i)(A) and (B), §63.1063(b), §63.11087(a) and (b) and Table 1, Option 2(d) of 40 CFR 63, Subpart BBBBBB]

(b) For Tank No. 13, and Tank No. 16, upon storing gasoline, must be in compliance with Subpart BBBBBB. **[Authority: 40 CFR §63.11087(b)]**

Compliance Demonstration for Control of VOC and HAP

Tank Nos. 4, 11, 12, 13, and 16 are each equipped with an internal floating roof with primary and secondary seal to meet the roof and seal requirements of COMAR 26.11.13.03 applicable to all tanks, and 40 CFR 63, Subpart BBBBBB for Tank No. 4, No. 11, and Tank No. 12. The Permittee is required to conduct annual visual inspections of each tank's gauging and sampling devices, roof, and seals and maintain records of the inspections and any actions taken or repairs made to maintain compliance with all applicable requirements. The Permittee must also conduct an internal inspection within 10 years from the date of the last internal inspection. The Permittee is required to notify the Department prior to conducting an internal tank inspection and submit semiannual reports.

Tank No. 13 and Tank No. 16 upon storing gasoline are required to come into compliance with 40 CFR 63, Subpart BBBBBB as the compliance date of January 10, 2018 has passed. The Permittee is required to submit a Notification of Compliance status with the semiannual report when each tank comes into compliance with 40 CFR 63, Subpart BBBBBB.

Rationale for Periodic Monitoring Strategy for Control of VOC and HAP

COMAR 26.11.13.03 and 40 CFR 63, Subpart BBBBBB outline the specific inspection methods and procedures for demonstrating compliance with the applicable roof and seal requirements for each storage tank. In addition, the Department requires annual inspections of each tank's gauging and sampling devices demonstrate compliance with the gas-tight device requirement. These inspections provide the appropriate amount of periodic monitoring required for compliance.

EU-1b – Tank No. 6 (ARA Registration No. 510-0703-9-1000) and Tank No. 10 (ARA Registration No. 510-0703-9-1151)

Tank No. 6 was constructed prior to 1970 and was originally used to store distillate oil. A permit to construct was issued in 1992 to convert the tank for ethanol or gasoline storage. The conversion subjected Tank No. 6 to the VOC requirements of COMAR 26.11.13 for large VOC storage tanks and the federal New Source Performance Standards 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.

Tank No. 10 was constructed prior to 1970 and was originally used to store kerosene. A permit to construct was issued in 1996 to convert the tank for ethanol or gasoline storage. The conversion subjected Tank No. 10 to the VOC

requirements of COMAR 26.11.13 for large VOC storage tanks and the federal New Source Performance Standards 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.

Applicable Requirements

Control of VOC

(1) **COMAR 26.11.13.03A(1)(a) and (b)** which require that:

(a) Each tank's gauging and sampling devices be gas tight except when in use.

(b) Each tank be equipped with one of the following properly installed, operating, and well maintained emission control systems:

(i) An internal floating roof equipped with a primary and secondary seal;

(ii) A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere; or

(iii) A vapor control system capable of collecting the vapors from the tank and disposing of the vapors to prevent their emission to the atmosphere.

(2) **COMAR 26.11.13.03A(2)** which requires the Permittee to meet the following seal requirements:

(a) There shall be no visible holes, tears, or other openings in the seal or seal fabric.

(b) Each seal shall be intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall.

(c) The accumulated area of the gaps between the secondary seal and the tank wall and between the seal and other obstructions inside the tank (that is, ladder, roof supports) that are greater than 1/8 inch in width may not exceed 1.0 square inch per foot of tank diameter.

(3) **40 CFR 60, Subpart Kb** which requires the Permittee to equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications:

(a) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(b) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(i) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(ii) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(iii) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(c) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(d) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(e) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(f) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(g) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(h) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(i) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. **[Authority: 40 CFR §60.112b(a)(1)(i) through (ix)]**

Control of HAP

Gasoline storage tanks subject to and in compliance with the control requirements of 40 CFR 60, Subpart Kb are deemed in compliance with the gasoline storage tank requirements under 40 CFR 63, Subpart BBBBBB. **[Authority: 40 CFR §63.11087(f)]**

Compliance Demonstration for Control of VOC and HAP

Tank No. 6 and Tank No. 10 are each equipped with an internal floating roof with primary and secondary seal to meet the roof and seal requirements of COMAR 26.11.13.03 and 40 CFR 60, Subpart Kb. The Permittee is required to conduct annual visual inspections of each tank's gauging and sampling devices, roof, and seals and maintain records of the inspections and any actions taken or repairs made to maintain compliance with all applicable requirements. The Permittee

must also conduct an internal inspection within 10 years from the date of the last internal inspection.

In the Notification of Compliance Status required under 40 CFR 63, Subpart BBBBBB, the Permittee identified Tank No. 6 and Tank No. 10 as tanks that are subject to, and in compliance with, 40 CFR 60, Subpart Kb. There are no additional compliance requirements under 40 CFR 63, Subpart BBBBBB for Tank No. 6 and Tank No. 10 as long as the tanks are subject to, and in compliance with 40 CFR 60, Subpart Kb.

Rationale for Periodic Monitoring Strategy for Control of VOC and HAP
COMAR 26.11.13.03 and 40 CFR 60, Subpart Kb outline the specific inspection methods and procedures for demonstrating compliance with the applicable roof and seal requirements for each storage tank. In addition, the Department requires annual inspections of each tank's gauging and sampling devices demonstrate compliance with the gas-tight device requirement. These inspections provide the appropriate amount periodic monitoring required for compliance.

EU-4 – Cargo Tank Loading Rack (ARA Registration No. 510-0703-9-0999)
The cargo tank loading rack was constructed prior to 1970 and was originally equipped with a vapor collection system for VOC emissions control. Energy Transfer uses three (3) bays to bottom load gasoline into cargo tanks and five (5) bays to load distillate oil into cargo tanks. A permit to construct was issued in 2005 for a VCU to replace the vapor collection system, and in 2009, a permit to construct was issued for a VRU. The emissions from the loading rack are now controlled by the VRU or the VCU.

The loading rack has never been modified or reconstructed in a manner that would trigger applicability of 40 CFR 60, Subpart XX for Bulk Gasoline Terminals. The loading rack is subject to VOC requirements in COMAR 26.11.13 for VOC loading operations and the area source HAP requirements of 40 CFR 63, Subpart BBBBBB for gasoline loading at bulk gasoline terminals.

Applicable Requirements
Visible Emissions Limitation
COMAR 26.11.06.02C(2), which prohibits visible emissions other than water in an uncombined form. This limitation applies to the VCU only.

Exceptions. **COMAR 26.11.06.02A(2)** establishes that COMAR 26.11.06.02C does not apply to emissions during start-up, and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) the visible emissions are not greater than 40 percent opacity; and (b) the visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period.

Compliance Demonstration for VE Limitation
The VCU is the only equipment associated with the loading rack that is capable of causing visible emissions. The Permittee shall observe the stack of the VCU for visible emissions at least once per week when the VCU is operating. The observation shall be conducted as specified under Indicator No. 2 of the CAM Plan for the VCU. The Permittee shall maintain records of the observations and shall report any excursions to the Department as specified under Indicator No. 2 of the CAM Plan for the VCU.

Rationale for Periodic Monitoring Strategy for VE Limitation
Visible emissions from the VCU are unlikely and would only occur if the unit is malfunctioning. A weekly visible emissions observation of the VCU stack when the VCU is operating is sufficient to demonstrate compliance with the no visible emission requirement. .

Control of VOC and HAP (Vapor Collection and Control Requirements)
COMAR 26.11.13.04A(1)(a) and 40 CFR 63, Subpart BBBBBB which require vapor collection and control as follows:

(1) The loading rack shall be equipped with a vapor collection and control system designed to collect the total organic compound vapors displaced from cargo tanks during product loading.

(2) The vapor collection and control system shall control at least 90 percent of all vapors and emissions may not exceed 10 milligrams of VOC per liter of gasoline or VOC loaded into gasoline cargo tanks at the loading rack.

[Authority: COMAR 26.11.13.04A(1)(a), 40 CFR §63.11088(a), §63.11092(d), Table 2, Items 1(a) and 1(b) of 40 CFR 63, Subpart BBBBBB, and Premises Wide ARA Permit to Construct issued September 15, 2009]

Compliance Demonstration for Vapor Collection and Control Requirements
In order to keep premises wide HAP emissions below major source levels, the Permittee has elected to limit VOC emissions from the loading rack to less than 10 milligrams of VOC per liter of gasoline of VOC loaded which is less than the 35 milligrams per liter standard required by COMAR and the 80 milligrams per liter standard required by 40 CFR 63, Subpart BBBBBB.

To demonstrate compliance with the vapor collection and control requirements, the Permittee uses a VRU equipped with a CEMS as the primary control device for the loading rack. The Permittee must perform semiannual preventive maintenance on the VRU and operate and maintain the CEMS in accordance with a quality control plan to ensure proper operation as specified in 40 CFR 63,

Subpart A. The CEMS is not subject to CEMS requirements in COMAR 26.11.01.11 because the Permittee is not required to install a CEMS due to a federal requirement. The CEMS is a compliance option under 40 CFR 63, Subpart BBBBBB. In addition to preventive maintenance and continuous emissions monitoring, a performance test on the VRU is required at least once every five years (but no more than 60 months after the previous performance test) during the period between May and September 15. The VRU was last tested in 2014. The test indicated that the VRU reduced VOC emissions to 2.40 milligrams per liter of gasoline loaded, demonstrating compliance with the 10 milligrams per liter emissions standard.

When the VCU is used as the control device for the loading rack, the Permittee shall monitor the VCU for the presence of a pilot flame and operate the VCU in accordance with a monitoring and inspection plan specified in 40 CFR 63, Subpart BBBBBB. The VCU must also be tested at least once every five years (but no more than 60 months after the previous performance test) during the period between May and September 15. The VCU was last tested in 2014. The test indicated that the VCU reduced VOC emissions to 8.64 milligrams per liter of gasoline loaded, demonstrating compliance with the 10 milligrams per liter emissions standard.

Rationale for Periodic Monitoring Strategy for Vapor Collection and Control Requirements

COMAR 26.11.13 and 40 CFR 63, Subparts A and BBBBBB outline very specific compliance methods for the capture and control of VOC from gasoline cargo tank loading racks. The use of a CEMS for the VRU is a continuous monitoring strategy and does not require any additional periodic monitoring for compliance with the requirements. The VCU is monitored through a required periodic monitoring and inspection plan and CAM Plan. In addition, COMAR requires performance testing of the VRU and the VCU every five years. No additional monitoring is required to demonstrate compliance.

<u>Control of VOC and HAP (Vapor Tight Cargo Tank Requirements)</u>

COMAR 26.11.13.05 and 40 CFR 63, Subpart BBBBBB which require the Permittee to load gasoline only into vapor tight gasoline cargo tanks that have been certified as capable of sustaining a pressure change of not more than 3 inches of water in 5 minutes when pressurized to a gauge pressure of 18 inches of water, or evacuated to a gauge pressure of 6 inches of water, during a test. **[Authority: COMAR 26.11.13.05A, 40 CFR §60.502(e), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]**

Compliance Demonstration for Vapor Tight Cargo Tank Requirements
To comply with the vapor tight cargo tank requirements of COMAR 26.11.13.05A, 40 CFR §60.502(e), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB, the Permittee uses an alternate procedure as allowed under Subpart BBBBBB. The Permittee uses a terminal automation system to prevent gasoline or VOC cargo tanks that do not have valid cargo tank vapor tightness documentation from loading. The Permittee is required to keep all documentation from the terminal automation system as specified in Subpart BBBBBB.

Rationale for Periodic Monitoring Strategy for Vapor Tight Cargo Tank Requirements
COMAR 26.11.13 and 40 CFR 63, Subpart BBBBBB outline the specific methods and procedures for demonstrating compliance with the vapor tight cargo tank requirements. No additional periodic monitoring is necessary to demonstrate compliance.

Control of VOC and HAP (Back Pressure and Leak Requirements)
COMAR 26.11.13.04A(1)(b) and 40 CFR 63, Subpart BBBBBB which require the Permittee design and operate the vapor collection and control system and the loading equipment so that during loading:

(1) The gauge pressure in the delivery tank does not exceed 4,500 pascals.

(2) No pressure-vacuum vent in the vapor collection and control system begins to open at a system pressure less than 4,500 pascals.

(3) The gasoline or VOC cargo tank pressure does not exceed 18 inches of water, and vacuum does not exceed 6 inches of water.

(4) There are no gasoline or VOC leaks in the system during loading or unloading operations.

[Authority: COMAR 26.11.13.04A(1)(b), 40 CFR §60.502(h), (i), and (j), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]

Compliance Demonstration for Back Pressure and Leak Requirements
The Permittee is required to conduct monthly leak inspections of the vapor collection system, the vapor processing system, and the loading rack when loading cargo tanks. This inspection is in addition to the facility wide leak inspections required by 40 CFR 63, Subpart BBBBBB. The Permittee is also required to conduct monthly back pressure checks. Records of leak inspections and back pressure checks must be maintained and any excursion reported as

part of the semiannual compliance and excess emissions reports required by 40 CFR 63, Subpart BBBBBB.

Rationale for Periodic Monitoring Strategy for Back Pressure and Leak Requirements

The loading rack, VRU, and VCU are all are designed to be leak tight during loading and to meet applicable back pressure requirements. Monthly back pressure and leak checks during loading are sufficient to demonstrate compliance with the requirements.

Control of VOC and HAP (Design and Operational Requirements)

COMAR 26.11.13.04A(1)(c) and 40 CFR 63, Subpart BBBBBB which specify the following design and operational requirements:

(1) The Permittee shall design and operate the vapor collection system to prevent any total organic compound vapors collected at one loading lane from passing through another loading lane to the atmosphere.

(2) The Permittee shall assure that loadings of gasoline or VOC cargo tanks are made only into tanks equipped with vapor collection equipment that is compatible with the facility's vapor collection system.

(3) The Permittee shall assure that the facility's and the cargo tank's vapor collection systems are connected during each loading of a gasoline or VOC cargo tank.

(4) The Permittee shall equip the facility's loading rack with a top submerged or bottom loading system.

(5) The exhaust gases from the loading rack shall vent through the VRU or the VCU prior to discharging to the atmosphere.

[Authority: COMAR 26.11.13.04A(1)(c), 40 CFR §60.502(f) and (g), 40 CFR §63.11088(a), Table 2, Items 1(c) and 1(d) of 40 CFR 63, Subpart BBBBBB, and Premises Wide ARA Permit to Construct issued September 15, 2009]

Compliance Demonstration and Rationale for Periodic Monitoring Strategy for Design and Operational Requirements

The loading rack and vapor collection and control systems are designed to operate as required by COMAR 26.11.13.04A(1)(c), 40 CFR §60.502(f) and (g), and 40 CFR 63, Subpart BBBBBB. Periodic monitoring is not required to demonstrate compliance.

CAM Plan Requirements

The loading rack at Energy Transfer uses a VRU equipped with a continuous emission monitoring system (CEMS) or a VCU to control emissions from the loading rack to meet a federally enforceable emission limit (COMAR 26.11.13.04A(1)(a)). The VOC emissions from the loading rack, pre-control, would be greater than the major source threshold of 25 tons per year. A CAM plan is not required for the VRU because the use of a CEMS satisfies the requirements of 40 CFR, Part 64. A CAM plan is required for the VCU and is included in Table IV-CAM of the renewal Title V – Part 70 Operating Permit.

Rationale for Selection of Performance Indicators in the CAM Plan

The following four performance indicators in the CAM Plan for the VCU were selected to provide a reasonable level of assurance that emissions of VOC from the loading of gasoline or VOC at the cargo tank loading rack would be controlled by at least 90% and would not exceed 10 milligrams of VOC per liter of gasoline or VOC loaded when the VCU is used to control emissions:

(1) Indicator No. 1 – Presence of Flame Within Stack of the VCU
Unless a pilot flame is detected, vapors cannot be introduced into the VCU. Cargo tanks cannot be loaded without the combustor in operation. Detection of flame failure automatically shuts down the loading operations. The pilot flame is continuously monitored with an electronic flame scanner to detect the presence of a flame. In addition, preventive maintenance is performed to ensure that the VCU continues to operate as designed. Note: This element of the CAM Plan begins at the time the Permittee uses the VCU to control the emissions of VOC from the cargo tank loading rack.

(2) Indicator No. 2 – Visible Emissions
Visible emissions observations of the VCU exhaust stack will be conducted weekly. The dampers on the VCU air assist blower are set in a manner that the gasoline vapors should combust smoke-free. Any visible smoke will indicate that the damper settings have malfunctioned. Note: This element of the CAM Plan begins at the time the Permittee uses the VCU to control the emissions of VOC from the cargo tank loading rack.

(3) Indicator No. 3 – Vapor Collection Line Back Pressure
The terminal operations and maintenance personnel will conduct a monthly check of the back pressure in the collection system. An excursion is defined as when the pressure gauge indicates 18” of water or greater and cargo tank loading is still occurring. Excess back

pressure can cause relief valves to discharge and increase fugitive emissions from leaks in the collection system.

(4) Indicator No. 4 – Equipment Leaks
The terminal operations and maintenance personnel will conduct a monthly leak check of the entire vapor collection and control system. Leaks of gasoline and gasoline vapors are readily detected by a person by use of sight, sound, and smell. This is a requirement for all components in gasoline service under 40 CFR 63, Subpart BBBBBB.

The following tables contain the CAM Plan for the VCU that is included in Table IV-CAM of the renewal Title V – Part 70 Operating Permit:

CAM Plan for VCU Table 1 of 2		
40 CFR, Part 64 Requirement	**Indicator No. 1**	**Indicator No. 2**
Indicator 40 CFR §64.4(a)(1)	Presence of flame within stack.	Visible Emissions
Measurement or Monitoring Approach	Pilot (flame) detector.	A visual observation is made of the exhaust gases at the outlet of the combustor stack during the loading of a gasoline cargo tank.
Indicator Range(s) 40 CFR §64.4(a)(2)	An excursion is defined as a failure for pilot detector to shutdown the VCU where there is not flame.	An excursion occurs if there are visible emissions observed. An excursion will trigger an investigation, corrective action, and a reporting requirement.
Reporting Threshold	All excursions shall be reported to the Department in semi-annual monitoring reports.	All excursions will be reported to the Department in semi-annual monitoring reports.
Performance Criteria - 40 CFR §64.4(a)(3)		
A. Data Representativeness	The pilot detector controls the operation of the VCU. When no pilot flame is detected, the VCU cannot start-up and if no flame is detected during operation, the VCU automatically shuts down and loading ceases.	The observer looks for visible emissions in the exhaust gases just above the point the gases exit the VCU stack.
B. Verification of Operational Status	The pilot detector is connected to an interlock system that ensures the VCU and loading rack cannot operate if no flame is detected.	N/A
C. QA/QC Practices and Criteria	VCU receives preventive maintenance two times per year. During each visit the following items are checked to ensure proper pilot operation: ● Pull and clean pilot gas strainer. ● Pull and clean assist gas strainer. ● Check all indicator lights and sensors, replace if faulty. ● Inspect spark ignition system.	The observers are trained on procedures in making an observation and the record keeping requirements.

	• Ensure burner scanner is operating properly – blocking scanner and starting unit. Unit must shut down on flame failure. • Complete start-up procedure check.	
D. Monitoring Frequency	Pilot detector operates continuously.	An observation will be made once per week when the VCU is operating.
E. Data Collection Procedures	Results of inspection and preventive maintenance of the pilot operation are manually recorded and maintained on site.	Results of observations will be manually recorded and maintained on site. Records will include date, time, and result of observation or reason.
F. Averaging Period	N/A	N/A

CAM Plan for VCU Table 2 of 2		
40 CFR, Part 64 Requirement	**Indicator No. 3**	**Indicator No. 4**
Indicator 40 CFR §64.4(a)(1)	Vapor Collection Line Back Pressure	Equipment Leaks
Measurement or Monitoring Approach	Pressure gauge reading when cargo tanks are loaded.	Monthly leak check of vapor collection system. Each calendar month, the vapor collection system from the cargo tank to the VCU will be inspected during the loading of gasoline cargo tanks for total organic compounds liquid or vapor leaks. The detection method will be sight, sound, or smell.
Indicator Range(s) 40 CFR §64.4(a)(2)	An excursion is defined as when the pressure gauge reading shows back pressure to be greater than 18" of water column. An excursion will trigger an investigation, corrective action, and a reporting requirement.	An excursion is defined as detection of a leak by sight, sound, or smell. An excursion will trigger an investigation, corrective action, and a reporting requirement. Leaks will be repaired within 15 days.
Reporting Threshold	All pressure gauge readings greater than 18 inches will be reported to the Department in semi-annual monitoring reports.	All excursions and corrective actions taken will be reported to the Department in semi-annual monitoring reports.
Performance Criteria - 40 CFR §64.4(a)(3)		
A. Data Representativeness	A pressure gauge that is attached to a spool piece is inserted between the vapor line connection of the cargo tank and the connection for the terminal's vapor collection line measures back pressure. The gauge measures pressure within ± 0.2 inches of water column.	The terminal operations personnel will be trained on the procedures to detect leaks, record results, and initiate corrective actions.
B. Verification of Operational Status	Monthly check on each loading bay with manual log entry.	N/A
C. QA/QC Practices and Criteria	Preventive maintenance is performed on back pressure gauge as recommended by	The operations personnel responsible for performing the monthly inspections will be

	the manufacturer and is calibrated or replaced at least once every five years.	trained on the procedures to follow. The terminal will maintain a record of employees trained to perform the inspections.
D. Monitoring Frequency	Monthly	Monthly
E. Data Collection Procedures	Monthly reading with manual entry.	Results of inspections, leaks found, and leaks repaired are recorded and kept on site.
F. Averaging Period	N/A	N/A

EU-X – Pentane Blending Operation (ARA Registration No. 510-0703-9-1326)

The Pentane Blending Operation consists of one (1) 80,000 gallon pentane storage tank and associated pumps and piping installed in 2015. The tank is pressurized under a nitrogen blanket maintained at 10-12 psig pressure to keep the pentane in a liquid state. During loading of the tank, any emissions from the tank will be vapor balanced to the tanker truck. Emissions of pentane will occur when the tanker truck is disconnected from loading into the storage tank and as equipment leaks through the transfer pump and piping system to the loading rack.

Applicable Requirements

Control of VOC

(1) **COMAR 26.11.13.03A(1)(a) and (b)** which require that:

(a) Each tank's gauging and sampling devices be gas tight except when in use.

(b) Each tank be equipped with one of the following properly installed, operating, and well maintained emission control systems:

(i) An internal floating roof equipped with a primary and secondary seal;

(ii)A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere; or

(iii) A vapor control system capable of collecting the vapors from the tank and disposing of the vapors to prevent their emission to the atmosphere.

(2) **COMAR 26.11.13.04D(1) and (2)** which prohibits the loading of VOC with a total TVP of 1.5 psia or greater into a tank truck, rail car, or other

contrivance unless the loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of the VOC from the fittings and the fittings are maintained and operated in a manner to prevent avoidable liquid leaks during loading or unloading operations. The Permittee shall obtain an approval from the Department prior to utilizing any alternative compliance procedures provided in COMAR 26.11.13.04E in lieu of the procedures provided in COMAR 26.11.13.04D(1).

Compliance Demonstration for Control of VOC

The Permittee shall not load VOC with a TVP of 1.5 psia or greater into a tank truck, rail car, other contrivance unless the loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of VOC from the fittings. The fittings must be maintained and operated in a manner to prevent avoidable liquid leaks during loading or unloading operations. The Permittee must conduct monthly inspections for all equipment and components associated with the Pentane Blending Operation for leaks. Records must be kept of the average monthly storage temperature and throughput for the storage tank, the hours and days of operation for the pentane blending system, the total amount of pentane blended into gasoline each operating day, and VOC leak detection and repair logs for the pentane blending operation.

Rationale for Periodic Monitoring Strategy for Control of VOC

The Pentane Blending Operation is maintained and operated to minimize VOC emissions. Monthly inspections for leaks is sufficient to demonstrate compliance with the requirements.

EU-General – General Facility Wide Requirements

Energy Transfer is also subject to facility wide operation and maintenance requirements and leak inspection requirements under 40 CFR, Part 63, Subpart BBBBBB for all equipment in gasoline service. In addition, without operational and emissions limits, Energy Transfer could potentially emit major source levels of HAP. Energy Transfer has elected to comply with synthetic minor limits on premises wide HAP emissions and gasoline and distillate loading throughput limits to maintain HAP emissions below major source levels.

Control of HAP

40 CFR 63, Subpart BBBBBB, which requires general emission minimization procedures and premises wide leak inspections for control of HAP emissions from bulk gasoline terminals.

Compliance Demonstration for Control of HAP

The Permittee must operate and maintain the facility in a manner that minimizes emissions and conduct monthly leak inspections of all equipment in gasoline service. The Permittee must keep records demonstrating that the facility is operated and maintained properly and leak inspection logs to document the results of each monthly leak inspection. The Permittee must also include these records in a semiannual report as specified in 40 CFR 63, Subpart BBBBBB.

Rationale for Periodic Monitoring Strategy for Control of HAP

40 CFR 63, Subpart BBBBBB outlines the specific procedures, and record keeping and reporting requirements that demonstrate continuous compliance with the subpart. No additional periodic monitoring is required.

Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements

(1) Premises wide HAP emissions shall be less than the following limits in any rolling 12-month period:

(a) 10 tons for any individual HAP; and

(b) 25 tons for the total combination of HAP.

(2) Premises wide throughputs of gasoline and distillate shall be less than the following limits in any rolling 12-month period unless the Permittee can demonstrate compliance with premises wide HAP limits at higher throughputs:

(a) 425,000,000 gallons of gasoline; and

(b) 1,386,000,000 gallons of distillate.

(3) The Permittee shall not load materials containing VOC into barges or other marine vessels unless the Permittee applies for and obtains a permit to construct to reactivate marine vessel loading operations at the premises. The Permittee may offload materials containing VOC from marine vessel storage tanks at the premises.

[Authority: Premises Wide ARA Permit to Construct issued September 15, 2009]

Compliance Demonstration for Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements

The Permittee shall maintain records of premises wide individual and total HAP emissions and gasoline and distillate throughput. The records shall be submitted to the Department with the Permittee's annual emission certification report.

Rationale for Periodic Monitoring Strategy for Control of HAP
Records of HAP emissions and gasoline and distillate throughput submitted annually are sufficient to demonstrate compliance with the HAP emissions and throughput limits.

COMPLIANCE SCHEDULE

Energy Transfer is currently in compliance with all applicable air quality regulations.

TITLE IV – ACID RAIN

Not Applicable

TITLE VI – OZONE DEPLETING SUBSTANCES

Energy Transfer is not subject to Title VI requirements.

SECTION 112(r) – ACCIDENTAL RELEASE

Energy Transfer is not subject to the requirements of Section 112(r).

PERMIT SHIELD

Energy Transfer did request a permit shield.

Energy Transfer requested that a permit shield be expressly included in the Permittee's Part 70 permit. Permit shields are granted on an emission unit by emission unit basis. If an emission unit is covered by a permit shield, a permit shield statement will follow the emission unit table in Section IV - Plant Specific Conditions of the permit. In this case, a permit shield was granted for each emission unit covered by the permit.

INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 1 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

[For Areas III and IV]

The one (1) gas-fired fuel burning unit is subject to the following requirements:

COMAR 26.11.09.05A(2), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

(a) The visible emissions are not greater than 40 percent opacity; and

(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

(2) Containers, reservoirs, or tanks used exclusively for:

(a) No. 4 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(b) No. 50 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(3) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 1 Marine Vessel Unloading (identified as EU-5 in the permit application)

STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contain state-only enforceable requirements. The requirements in this section will not be enforced by the U.S. Environmental Protection Agency. The requirements in this section are not subject to COMAR 26.11.03 10 - Public Petitions for Review to EPA Regarding Part 70 Permits.

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

   (a) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

   (b) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.

   (c) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health

2. Record Keeping and Reporting:

   The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

   (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

   (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

ENERGY TRANSFER MARKETING & TERMINALS
BALTIMORE TERMINAL
2155 NORTHBRIDGE AVENUE
BALTIMORE, MARYLAND 21226
DRAFT PART 70 OPERATING PERMIT NO. 24-510-0703

SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

Energy Transfer Marketing & Terminals (Energy Transfer) owns and operates a petroleum bulk storage and transfer facility at 2155 Northbridge Avenue, Baltimore, Maryland 21226 in Baltimore City in Maryland Air Quality Region III. The primary SIC code for the facility is 4226 and the corresponding NAICS code is 493190.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE - ARA Registration Number	Emissions Unit Name and Description	Date of Installation
EU-1a	510-0703-9-0999	Tank No. 4 - 3,885,000-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	prior to 1970
		Tank No. 11 – 2,074,800-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	
		Tank No. 12 – 1,629,000-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	
		Tank No. 13 – 953,400-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	
		Tank No. 16 – 873,600-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	
EU-1b	510-0703-9-1000	Tank No. 6 – 3,045,000-gallon, closed top petroleum product storage tank with an internal floating roof equipped with primary and secondary seals.	prior to 1970, modified to store gasoline in 1992
	510-0703-9-1151	Tank No. 10 – 2,150,610-gallon, closed top petroleum product storage tank with an internal floating roof equipped with mechanical shoe seals.	prior to 1970, modified to store gasoline in 2008
EU-4	510-0703-9-0999	Eight (8) bay cargo tank loading rack with three (3) bays to bottom load gasoline controlled by a vapor recovery unit (VRU) or a vapor combustion unit (VCU).	prior to 1970, control devices replaced in 1992, 2005, and 2009
EU-X	510-0703-9-1326	Pentane Blending Operation consisting of one (1) 80,000-gallon pentane tank and associated pumps and piping	2015
EU-General	N/A	General facility wide requirements	N/A

SECTION II GENERAL CONDITIONS

1. DEFINITIONS

[COMAR 26.11.01.01] and [COMAR 26.11.02.01]

The words or terms in this Part 70 permit shall have the meanings established under COMAR 26.11.01 and .02 unless otherwise stated in this permit.

2. ACRONYMS

ARA	Air and Radiation Administration
BACT	Best Available Control Technology
Btu	British thermal unit
CAA	Clean Air Act
CAM	Compliance Assurance Monitoring
CEM	Continuous Emissions Monitor
CFR	Code of Federal Regulations
CO	Carbon Monoxide
COMAR	Code of Maryland Regulations
EPA	United States Environmental Protection Agency
FR	Federal Register
gr	grains
HAP	Hazardous Air Pollutant
MACT	Maximum Achievable Control Technology
MDE	Maryland Department of the Environment
MVAC	Motor Vehicle Air Conditioner
NESHAPS	National Emission Standards for Hazardous Air Pollutants
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
NSR	New Source Review
OTR	Ozone Transport Region
PM	Particulate Matter
PM10	Particulate Matter with Nominal Aerodynamic Diameter of 10 micrometers or less
ppm	parts per million
ppb	parts per billion
PSD	Prevention of Significant Deterioration
PTC	Permit to construct
PTO	Permit to operate (State)

SIC	Standard Industrial Classification
SO_2	Sulfur Dioxide
TAP	Toxic Air Pollutant
tpy	tons per year
VE	Visible Emissions
VOC	Volatile Organic Compounds

3. EFFECTIVE DATE

The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

4. PERMIT EXPIRATION

[COMAR 26.11.03.13B(2)]

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

5. PERMIT RENEWAL

[COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements

that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

6. CONFIDENTIAL INFORMATION

[COMAR 26.11.02.02G]

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment.

7. PERMIT ACTIONS

[COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

8. PERMIT AVAILABILITY

[COMAR 26.11.02.13G]

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

9. REOPENING THE PART 70 PERMIT FOR CAUSE BY THE EPA

[COMAR 26.11.03.20B]

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

10. TRANSFER OF PERMIT

[COMAR 26.11.02.02E]

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

11. REVISION OF PART 70 PERMITS – GENERAL CONDITIONS

[COMAR 26.11.03.14] and [COMAR 26.11.03.06A(8)]

a. The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.

b. When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change and to determine whether it will comply with all applicable requirements of the Clean Air Act.

c. The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.

d. A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

12. SIGNIFICANT PART 70 OPERATING PERMIT MODIFICATIONS

[COMAR 26.11.03.17]

The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

a. A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.

b. This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a

source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

c. Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.

d. As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

e. Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.

f. The Permittee shall not make a significant permit modification that results in a violation of any applicable requirement of the Clean Air Act.

g. The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

13. MINOR PERMIT MODIFICATIONS

[COMAR 26.11.03.16]

The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:

a. A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification to this Part 70 permit.

b. Application for a Minor Permit Modification

The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

c. Permittee's Ability to Make Change

(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to

construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.

d. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.

e. Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

14. ADMINISTRATIVE PART 70 OPERATING PERMIT AMENDMENTS

[COMAR 26.11.03.15]

The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

a. An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

b. An administrative permit amendment:

(1) Is a correction of a typographical error;

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);

(7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

c. The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.

d. The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.

e. The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

15. OFF-PERMIT CHANGES TO THIS SOURCE

[COMAR 26.11.03.19]

The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:

a. The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject to any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.

b. For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and

the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

c. Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.

d. The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

e. Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

f. The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.

g. The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.

h. The Permittee is subject to enforcement action if it is determined that an off-permit change made under COMAR 26.11.03.19 is not within the scope of this regulation.

16. ON-PERMIT CHANGES TO SOURCES

[COMAR 26.11.03.18]

The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

a. The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

b. The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.

c. The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.

d. The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

e. On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.

f. Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.

g. The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.

h. The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

17. FEE PAYMENT

[COMAR 26.11.02.16A(2) & (5)(b)]

a. The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.

b. The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.

c. Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

18. REQUIREMENTS FOR PERMITS-TO-CONSTRUCT AND APPROVALS

[COMAR 26.11.02.09.]

The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct and approvals:

a. New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

b. Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;

c. New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

d. National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

e. A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;

f. All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;

g. In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

h. Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required b y (c.— g.) above.

19. CONSOLIDATION OF PROCEDURES FOR PUBLIC PARTICIPATION

[COMAR 26.11.02.11C] and [COMAR 26.11.03.01K]

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

20. PROPERTY RIGHTS

[COMAR 26.11.03.06E(4)]

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

21. SEVERABILITY

[COMAR 26.11.03.06A(5)]

If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

22. INSPECTION AND ENTRY

[COMAR 26.11.03.06G(3)]

The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

23. DUTY TO PROVIDE INFORMATION

[COMAR 26.11.03.06E(5)]

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not discloseable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

24. COMPLIANCE REQUIREMENTS

[COMAR 26.11.03.06E(1)] and [COMAR 26.11.03.06A(11)] and [COMAR 26.11.02.05]

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

25. CREDIBLE EVIDENCE

Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

26. NEED TO HALT OR REDUCE ACTIVITY NOT A DEFENSE

[COMAR 26.11.03.06E(2)]

The need to halt or reduce activity in order to comply with the conditions of this permit may not be used as a defense in an enforcement action.

27. CIRCUMVENTION

[COMAR 26.11.01.06]

The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

28. PERMIT SHIELD

[COMAR 26.11.03.23]

A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

29. ALTERNATE OPERATING SCENARIOS

[COMAR 26.11.03.06A(9)]

For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

SECTION III PLANT WIDE CONDITIONS

1. PARTICULATE MATTER FROM CONSTRUCTION AND DEMOLITION

[COMAR 26.11.06.03D]

The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

2. OPEN BURNING

[COMAR 26.11.07]

Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

3. AIR POLLUTION EPISODE

[COMAR 26.11.05.04]

When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

4. REPORT OF EXCESS EMISSIONS AND DEVIATIONS

[COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)]

The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

a. Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;

b. Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

c. When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

d. The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

e. When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

5. ACCIDENTAL RELEASE PROVISIONS

[COMAR 26.11.03.03B(23)] and [40 CFR 68]

Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

6. GENERAL TESTING REQUIREMENTS

[COMAR 26.11.01.04]

The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

7. EMISSIONS TEST METHODS

[COMAR 26.11.01.04]

Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

8. EMISSIONS CERTIFICATION REPORT

[COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D]

The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

a. The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;

b. The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certifications forms are submitted, and

(2) Responsible for the accuracy of the emissions information;

c. The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;

(3) Amounts, types and analyses of all fuels used;

(4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

(a) Significant maintenance performed,
(b) Malfunctions and downtime, and
(c) Episodes of reduced efficiency of all equipment;

(6) Limitations on source operation or any work practice standards that significantly affect emissions; and

(7) Other relevant information as required by the Department.

9. COMPLIANCE CERTIFICATION REPORT

[COMAR 26.11.03.06G(6) and (7)]

The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.

a. The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.

b. The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

10. CERTIFICATION BY RESPONSIBLE OFFICIAL

[COMAR 26.11.02.02F]

All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

11. SAMPLING AND EMISSIONS TESTING RECORD KEEPING

[COMAR 26.11.03.06C(5)]

The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

12. GENERAL RECORDKEEPING

[COMAR 26.11.03.06C(6)]

The Permittee shall retain records of all monitoring data and information that support the compliance certification for a period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

13. GENERAL CONFORMITY

[COMAR 26.11.26.09]

The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

14. ASBESTOS PROVISIONS

[40 CFR 61, Subpart M]

The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

15. OZONE DEPLETING REGULATIONS

[40 CFR 82, Subpart F]

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.155.

e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

16. ACID RAIN PERMIT

Not applicable

SECTION IV PLANT SPECIFIC CONDITIONS

This section provides tables that include the emissions standards, emissions limitations, and work practices applicable to each emissions unit located at this facility. The Permittee shall comply with all applicable emissions standards, emissions limitations and work practices included herein.

The tables also include testing, monitoring, record keeping and reporting requirements specific to each emissions unit. In addition to the requirements included here in **Section IV**, the Permittee is also subject to the general testing, monitoring, record keeping and reporting requirements included in **Section III – Plant Wide Conditions** of this permit.

Unless otherwise provided in the specific requirements for an emissions unit, the Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, all records that the Permittee is required under this section to establish. **[Authority: COMAR 26.11.03.06C(5)(g)]**

Table IV – 1	
1.0	**Emissions Unit Number: EU-1a** Storage Tank Nos. 4, 11, 12, 13, and 16 (MDE ARA Registration No. 510-0703-9-0999)
1.1	**Applicable Standards/Limits:** Control of VOC and HAP (1) **COMAR 26.11.13.03A(1)(a) and (b)** which require that: (a) Each tank's gauging and sampling devices be gas tight except when in use. (b) Each tank be equipped with one of the following properly installed, operating, and well maintained emission control systems: (i) An internal floating roof equipped with a primary and secondary seal;

(ii) A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere; or

(iii) A vapor control system capable of collecting the vapors from the tank and disposing of the vapors to prevent their emission to the atmosphere.

(2) **COMAR 26.11.13.03A(2)** which requires the Permittee to meet the following seal requirements:

(a) There shall be no visible holes, tears, or other openings in the seal or seal fabric.

(b) Each seal shall be intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall.

(c) The accumulated area of the gaps between the secondary seal and the tank wall and between the seal and other obstructions inside the tank (that is, ladder, roof supports) that are greater than 1/8 inch in width may not exceed 1.0 square inch per foot of tank diameter.

(3) **40 CFR 63, Subpart BBBBBB** which requires the Permittee to meet emission limits and management practices for gasoline storage tanks at bulk gasoline terminals.

(a) For Tank No. 4, Tank No. 11, and Tank No. 12, the Permittee has elected to comply with 40 CFR 63, Subpart BBBBBB by equipping each tank with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall be equipped with a liquid-mounted seal or a mechanical shoe seal.

(ii) The floating roof shall float on the stored liquid surface at all times, except when the floating roof is supported by its leg supports or other support devices (e.g., hangers from the fixed roof).

(iii) When the storage vessel is storing liquid, but the liquid depth is insufficient to float the floating roof,

	the process of filling to the point of refloating the floating roof shall be continuous and shall be performed as soon as practical. (iv) Each cover over an opening in the floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall be closed at all times, except when the cover must be open for access. (v) Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be closed at all times, except when required to be open to relieve excess pressure or vacuum, in accordance with the manufacturer's design. (vi) Each unslotted guide pole cap shall be closed at all times except when gauging the liquid level or taking liquid samples. **[Authority: 40 CFR §63.1063(a)(1)(i)(A) and (B), §63.1063(b), §63.11087(a) and (b) and Table 1, Option 2(d) of 40 CFR 63, Subpart BBBBBB]** (b) For Tank No. 13 and Tank No. 16, upon storing gasoline, must be in compliance with Subpart BBBBBB. **[Authority: 40 CFR §63.11087(b)]**
1.2	**<u>Testing Requirements</u>:** <u>Control of VOC and HAP</u> (1) See Monitoring, Record Keeping and Reporting Requirements. (2) and (3) The Permittee shall determine the total seal gap by summing the areas of the individual gaps. The lengths and widths of the gaps are measured by passing a 1/8 inch diameter probe between the seal and the tank wall and other obstructions in the tank. (The probe should move freely without forcing or binding against the seal.) **[Authority: COMAR 26.11.13.03A(4)]**

1.3 Monitoring Requirements:

Control of VOC and HAP

(1) The Permittee shall perform an annual visual inspection of each tank's gauging and sampling devices. If a visual inspection shows noncompliance with the gas tight requirement, the Permittee shall repair the device within 45 days or empty and remove the tank from service within 45 days.

If a repair cannot be made within 45 days and if the tank cannot be emptied within 45 days, a 30-day extension may be requested from the Department. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the Permittee will take that assure that the device will be repaired or the tank will be emptied as soon as possible. **[Authority: COMAR 26.11.02.02H and COMAR 26.11.13.03A(1)(a)]**

(2) and (3)

The Permittee shall comply with the following inspection requirements:

(a) At least once per year, the Permittee shall visually inspect the floating roof deck, deck fittings, and rim seal through openings in the fixed roof as per 40 CFR §63.1063(d)(2). Any of the following conditions: stored liquid on the floating roof, holes or tears in the primary or secondary seal, floating roof deck, deck fittings, or rim seals that are not functioning as designed, or failure to comply with the operational requirements of 40 CFR §63.1063(b) constitutes inspection failure. Identification of holes or tears in the rim seal is required only for the seal that is visible from the top of the storage vessel.

(b) The Permittee shall visually inspect the floating roof deck, deck fittings, and rim seals as per 40 CFR §63.1063(d)(1). The floating roof inspection shall be conducted by visually inspecting the floating roof deck, deck fittings and rim seals from within the storage vessel each time the storage vessel is completely emptied and degassed or within 10 years from the last internal inspection, whichever occurs first. Any of the following conditions: stored liquid on the floating roof, holes or tears in the primary or secondary seal, floating roof deck, deck fittings, or rim seals that are not functioning as

	designed, or failure to comply with the operational requirements of 40 CFR §63.1063(b) constitutes inspection failure. (c) Conditions causing inspection failures shall be repaired as follows: (i) If the inspection is performed while the storage vessel is not storing liquid, repairs shall be completed before the refilling of the storage vessel with liquid. (ii) If the inspection is performed while the storage vessel is storing liquid, repairs shall be completed or the vessel removed from service within 45 days. If a repair cannot be completed and the vessel cannot be emptied within 45 days, the Permittee may use up to 2 extensions of up to 30 additional days each. Documentation of a decision to use an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be completely emptied as soon as practical. **[Authority: COMAR 26.11.13.03A(3)(a), (b), and (c), 40 CFR §63.1063(c)(i), (d), and (e), §63.11087(c), and §63.11092(e)(1)]**
1.4	**<u>Record Keeping Requirements</u>:** <u>Control of VOC and HAP</u> (1) The Permittee shall record the results of all visual inspections of each tank's gauging and sampling devices. The Permittee shall also record all repairs or replacements including the date and the action taken. **[Authority: COMAR 26.11.03.06C]** (2) and (3) The Permittee shall keep the following records: (a) The Permittee shall keep records of the dimensions of the storage vessel, an analysis of the capacity of the storage

	vessel, and an identification of the liquid stored for as long as liquid is stored in the storage vessel. (b) The Permittee shall keep the following records in hard copy or computer-readable form for at least five years in such a manner that they can be readily accessed within 24 hours: (i) If the floating roof passes inspection, a record shall be kept that includes the identification of the storage vessel that was inspected and the date of the inspection. (ii) If the floating roof fails inspection, a record shall be kept that includes the identification of the storage vessel that was inspected, the date of the inspection, a description of all inspection failures, a description of all repairs and the dates they were made, and the date the storage vessel was removed from service, if applicable. (iii) A record of the date when a floating roof is set on its legs or other support devices. The Permittee shall also keep a record of the date when the roof was refloated, and the record shall indicate whether the process of refloating was continuous. (iv) Documentation required by 40 CFR §63.1063(e)(2) if the Permittee elects to use an extension in accordance with 40 CFR §63.1063(e)(2). (c) The Permittee shall record the average monthly storage temperature and throughput for each storage tank. **[Authority: COMAR 26.11.13.03C(1), (2), and (3), 40 CFR §63.1065(a), (b)(1), (c), and (d), §63.11087(e), and §63.11094(a)]**
1.5	**<u>Reporting Requirements</u>:** <u>Control of VOC and HAP</u> (1) Records of gauging and sampling device inspections shall be made available to the Department upon request. **[Authority: COMAR 26.11.03.06C]**

(2) and (3)

(a) To provide the Department the opportunity to have an observer present, the Permittee shall notify the Department at least 30 days before an internal inspection as required by 40 CFR §63.1063(d)(1). If an inspection is unplanned and the Permittee could not have known about the inspection 30 days in advance, then the Permittee shall notify the Department at least 7 days before the inspection. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Department at least 7 days before the inspection.

(b) The Permittee shall submit a semiannual compliance report to the Department as specified in 40 CFR §63.11095(a). The report shall include the following information:

(i) A copy of the inspection record required in 40 CFR §63.1065 when inspection failures occur.

(ii) Documentation required by 40 CFR §63.1063(e)(2) if the Permittee elects to use an extension in accordance with 40 CFR §63.1063(e)(2).

(iii) For Tank No. 11, Tank No. 13, and Tank No. 16, the Notification of Compliance Status information for each tank that achieves compliance with 40 CFR 63, Subpart BBBBBB during the reporting period.

[Authority: COMAR 26.11.13.03A(3)(d), 40 CFR §63.1066(b)(1), (2), and (4), §63.11087(e), and §63.11095(a)(1) and (4)]

Table IV – 2	
2.0	**Emissions Unit Number: EU-1b** Storage Tank No. 6 (MDE ARA Registration No. 510-0703-9-1000) Storage Tank No. 10 (MDE ARA Registration No. 510-0703-9-1151)
2.1	**Applicable Standards/Limits:** Control of VOC (1) **COMAR 26.11.13.03A(1)(a) and (b)** which require that: (a) Each tank's gauging and sampling devices be gas tight except when in use. (b) Each tank be equipped with one of the following properly installed, operating, and well maintained emission control systems: (i) An internal floating roof equipped with a primary and secondary seal; (ii) A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere; or (iii) A vapor control system capable of collecting the vapors from the tank and disposing of the vapors to prevent their emission to the atmosphere. (2) **COMAR 26.11.13.03A(2)** which requires the Permittee to meet the following seal requirements: (a) There shall be no visible holes, tears, or other openings in the seal or seal fabric. (b) Each seal shall be intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall. (c) The accumulated area of the gaps between the secondary seal and the tank wall and between the seal and other obstructions inside the tank (that is, ladder, roof supports)

that are greater than 1/8 inch in width may not exceed 1.0 square inch per foot of tank diameter.

(3) **40 CFR 60, Subpart Kb** which requires the Permittee to equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications:

(a) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(b) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(i) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(ii) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(iii) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular

space between the metal sheet and the floating roof.

(c) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(d) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(e) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(f) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(g) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(h) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(i) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover. **[Authority: 40 CFR §60.112b(a)(1)(i) through (ix)]**

	Control of HAP Gasoline storage tanks subject to and in compliance with the control requirements of 40 CFR 60, Subpart Kb are deemed in compliance with the gasoline storage tank requirements under 40 CFR 63, Subpart BBBBBB. **[Authority: 40 CFR §63.11087(f)]**
2.2	**Testing Requirements:** Control of VOC (1) See Monitoring, Record Keeping and Reporting Requirements. (2) and (3) The Permittee shall determine the total seal gap by summing the areas of the individual gaps. The lengths and widths of the gaps are measured by passing a 1/8 inch diameter probe between the seal and the tank wall and other obstructions in the tank. (The probe should move freely without forcing or binding against the seal.) **[Authority: COMAR 26.11.13.03A(4)]** Control of HAP See Monitoring, Record Keeping and Reporting Requirements.
2.3	**Monitoring Requirements:** Control of VOC (1) The Permittee shall perform an annual visual inspection of each tank's gauging and sampling devices. If a visual inspection shows noncompliance with the gas tight requirement, the Permittee shall repair the device within 45 days or empty and remove the tank from service within 45 days. If a repair cannot be made within 45 days and if the tank cannot be emptied within 45 days, a 30-day extension may be requested from the Department. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the Permittee will take that assure that the device will be repaired or the tank will be emptied as soon as possible. **[Authority: COMAR 26.11.02.02H and COMAR 26.11.13.03A(1)(a)]**

(2) and (3)

The Permittee shall comply with the following inspection requirements for each tank:

(a) The Permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling or refilling the storage vessel with volatile organic liquid. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the Permittee shall repair the items before filling or refilling the storage vessel. **[Authority: 40 CFR §60.113b(a)(1)]**

(b) The Permittee shall visually inspect the internal floating roof and the primary seal and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the volatile organic liquid inside the tank or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the tank from service within 45 days.

If a failure that is detected during the required inspection cannot be repaired with 45 days and if the tank cannot be emptied within 45 days, a 30-day extension may be requested from the Department. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the Permittee will take that will assure that the control equipment will be repaired or the tank will be emptied as soon as possible. **[Authority: COMAR 26.11.13.03A(3)(a) and (b), and 40 CFR §60.113b(a)(2) and (a)(3)(ii)]**

(c) The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the

	liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items as necessary so that none of the conditions exist before refilling the storage vessel with volatile organic liquid. The storage vessel shall be inspected within 10 years from the date of the last internal inspection. **[Authority: COMAR 26.11.13.03A(3)(c) and 40 CFR §60.113b(a)(4)]** Control of HAP See Monitoring Requirements for Table IV-2, 2.3A(2) and (3) above.
2.4	**Record Keeping Requirements:** Control of VOC (1) The Permittee shall record the results of all visual inspections of each tank's gauging and sampling devices. The Permittee shall also record all repairs or replacements including the date and the action taken. **[Authority: COMAR 26.11.03.06C]** (2) and (3) (a) The Permittee shall keep a record of each inspection performed as required by 40 CFR §60.113b(a)(1), (a)(2), (a)(3), and (a)(4) and COMAR 26.11.13.03A(3) for each storage tank. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). **[Authority: COMAR 26.11.13.03C(1) and 40 CFR §60.115b(a)(2)]** (b) The Permittee shall record all repairs or replacement of the seals, or internal floating roof including a detailed description of work performed and the date and the action taken for each storage tank. **[Authority: COMAR 26.11.13.03C(2)]** (c) The Permittee shall record the average monthly storage temperature and throughput for each storage tank. **[Authority: COMAR 26.11.13.03C(3)]** (d) The Permittee shall maintain readily accessible records showing the dimension of each storage vessel and an

	analysis showing the capacity of each storage vessel. The records shall be maintained on-site for the life of the storage vessels. **[Authority: 40 CFR §60.116b(a) and (b)]** (e) The Permittee shall maintain records of the volatile organic liquid stored, the period of storage, and the maximum true vapor pressure of the volatile organic liquid during the respective storage period for each storage tank. The maximum true vapor pressure shall be determined using the procedures listed in 40 CFR §60.116b(e). **[Authority: 40 CFR §60.116b(c) and (e)]** <u>Control of HAP</u> See Record Keeping Requirements for Table IV-2, 2.4A(2) and (3) above.
2.5	**<u>Reporting Requirements</u>:** <u>Control of VOC</u> (1) Records of gauging and sampling device inspections shall be made available to the Department upon request. **[Authority: COMAR 26.11.03.06C]** (2) and (3) (a) The Permittee shall notify the Department in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by 40 CFR §60.113b(a)(1) and (a)(4) to afford the Department the opportunity to have an observer present. If the inspection required by 40 CFR §60.113b(a)(4) is not planned and the Permittee could not have known about the inspection 30 days in advance of refilling the tank, the Permittee shall notify the Department at least seven (7) days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Department at least seven (7) days prior to the refilling. **[Authority: 40 CFR §60.113b(a)(5) and COMAR 26.11.13.03A(3)(d)]**

	(b) If any of the conditions described in 40 CFR §60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR §60.113b(a)(2), the Permittee shall furnish a report to the Department within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied, or the nature of and date the repair was made. **[Authority: 40 CFR §60.115b(a)(3)]** (c) After each inspection required by 40 CFR §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR §60.113b(a)(3)(ii), the Permittee shall furnish a report to the Department within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR §60.112b(a)(1) or §60.113b(a)(3) and list each repair made. **[Authority: 40 CFR §60.115b(a)(4)]** Control of HAP See Reporting Requirements for Table IV-2, 2.5A(2) and (3) above.

Table IV – 3	
3.0	**Emissions Unit Number: EU-4** Cargo Tank Loading Rack with three (3) bays to bottom load gasoline controlled by a vapor recovery unit (VRU) or a vapor combustion unit (VCU). (MDE ARA Registration No. 510-0703-9-0999)
3.1	**Applicable Standards/Limits:** Visible Emissions Limitation **COMAR 26.11.06.02C(2)**, which prohibits visible emissions other than water in an uncombined form. This limitation applies to the VCU only. Exceptions. **COMAR 26.11.06.02A(2)** establishes that COMAR 26.11.06.02C does not apply to emissions during start-up, and process modifications or adjustments, or occasional cleaning of control equipment,

	if: (a) the visible emissions are not greater than 40 percent opacity; and (b) the visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period. Control of VOC and HAP (Vapor Collection and Control Requirements) **COMAR 26.11.13.04A(1)(a) and 40 CFR 63, Subpart BBBBBB** which require vapor collection and control as follows: (1) The loading rack shall be equipped with a vapor collection and control system designed to collect the total organic compound vapors displaced from cargo tanks during product loading. (2) The vapor collection and control system shall control at least 90 percent of all vapors and emissions may not exceed 10 milligrams of VOC per liter of gasoline or VOC loaded into gasoline cargo tanks at the loading rack. **[Authority: COMAR 26.11.13.04A(1)(a), 40 CFR §63.11088(a), §63.11092(d), Table 2, Items 1(a) and 1(b) of 40 CFR 63, Subpart BBBBBB, and Premises Wide ARA Permit to Construct issued September 15, 2009]** Control of VOC and HAP (Vapor Tight Cargo Tank Requirements) **COMAR 26.11.13.05 and 40 CFR 63, Subpart BBBBBB** which require the Permittee to load gasoline only into vapor tight gasoline cargo tanks that have been certified as capable of sustaining a pressure change of not more than 3 inches of water in 5 minutes when pressurized to a gauge pressure of 18 inches of water, or evacuated to a gauge pressure of 6 inches of water, during a test. **[Authority: COMAR 26.11.13.05A, 40 CFR §60.502(e), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]** Control of VOC and HAP (Back Pressure and Leak Requirements) COMAR 26.11.13.04A(1)(b) and 40 CFR 63, Subpart BBBBBB which require the Permittee design and operate the vapor collection and control system and the loading equipment so that during loading: (1) The gauge pressure in the delivery tank does not exceed 4,500 pascals. (2) No pressure-vacuum vent in the vapor collection and control system begins to open at a system pressure less than 4,500 pascals.

	(3) The gasoline or VOC cargo tank pressure does not exceed 18 inches of water, and vacuum does not exceed 6 inches of water. (4) There are no gasoline or VOC leaks in the system during loading or unloading operations. **[Authority: COMAR 26.11.13.04A(1)(b), 40 CFR §60.502(h), (i), and (j), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]** <u>Control of VOC and HAP (Design and Operational Requirements)</u> COMAR 26.11.13.04A(1)(c) and 40 CFR 63, Subpart BBBBBB which specify the following design and operational requirements: (1) The Permittee shall design and operate the vapor collection system to prevent any total organic compound vapors collected at one loading lane from passing through another loading lane to the atmosphere. (2) The Permittee shall assure that loadings of gasoline or VOC cargo tanks are made only into tanks equipped with vapor collection equipment that is compatible with the facility's vapor collection system. (3) The Permittee shall assure that the facility's and the cargo tank's vapor collection systems are connected during each loading of a gasoline or VOC cargo tank. (4) The Permittee shall equip the facility's loading rack with a top submerged or bottom loading system. (5) The exhaust gases from the loading rack shall vent through the VRU or the VCU prior to discharging to the atmosphere. **[Authority: COMAR 26.11.13.04A(1)(c), 40 CFR §60.502(f) and (g), 40 CFR §63.11088(a), Table 2, Items 1(c) and 1(d) of 40 CFR 63, Subpart BBBBBB, and Premises Wide ARA Permit to Construct issued September 15, 2009]**
3.2	**<u>Testing Requirements</u>:** <u>Visible Emissions Limitations</u> See Monitoring, Record Keeping, and Reporting Requirements. <u>Control of VOC and HAP (Vapor Collection and Control Requirements)</u> (1) The Permittee shall conduct performance tests on the VRU to determine total organic emissions per liter of gasoline loaded at the

facility and to determine an overall VRU control efficiency for VOC emissions caused by the facility's loading operations at least once every five years, during the period between May and September 15. Each five year performance test for the VRU must be conducted no more than 60 months after the previous performance test for the VRU.

(2) The Permittee shall conduct performance tests on the VCU to determine total organic emissions per liter of gasoline loaded at the facility and to determine an overall control efficiency for VOC emissions caused by the facility's loading operations at least once every five years, during the period between May and September 15. Each five year performance test for the VCU must be conducted no more than 60 months after the previous performance test for the VCU.

(3) For the performance tests, the Permittee shall use Method 1009 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources", which is incorporated by reference in COMAR 26.11.01.04C; the test methods and procedures in 40 CFR §60.503, except a reading of 500 parts per million shall be used to determine the level of leaks to be repaired under 40 CFR §60.503(b); or other methods approved by the Department.
[Authority: COMAR 26.11.13.04A(2)(a)(i) and (3)(b), and 40 CFR §63.11092(a)]

Control of VOC and HAP (Vapor Tight Cargo Tank Requirements)
The annual certification test for gasoline cargo tanks shall consist of the following test methods: EPA Method 27, Appendix A-8, 40 CFR, Part 60 and Method 1007 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources," which is incorporated by reference in COMAR 26.11.01.04C.

The test shall be conducted using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (P_i) for the pressure test shall be 18 inches of water, gauge. The initial vacuum (V_i) for the vacuum test shall be 6 inches of water, gauge. The maximum allowable pressure and vacuum changes (Δ p, Δ v) for all affected gasoline cargo tanks is 3 inches of water, or less, in 5 minutes. Any needed repairs shall be completed and the cargo tank shall be retested within 15 days of the original test date.
[Authority: COMAR 26.11.13.05B, 40 CFR §63.11088(d), and §63.11092(f)(1)]

	Control of VOC and HAP (Back Pressure and Leak Requirements) (1) Testing for leak-tight conditions, as required in §A(1)(b)(ii) of this regulation, shall be conducted as prescribed in Method 1008 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources" which is incorporated by reference in COMAR 26.11.01.04C. **[Authority: COMAR 26.11.13.04A(3)(a)]** (2) A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with ±2.5 mm of water precision, shall be calibrated and installed on the facility's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline cargo tank. **[Authority: 40 CFR §60.502(h), §60.503(d), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]** Control of VOC and HAP (Design and Operational Requirements) The loading rack and vapor collection and control systems are designed to operate as required. **[Authority: COMAR 26.11.03.06C]**
3.3	**Monitoring Requirements:** Visible Emissions Limitations The Permittee shall observe the stack of the VCU for visible emissions as specified under Indicator 2 of the CAM Plan for the VCU. **[Authority: COMAR 26.11.03.06C and Indicator No. 2 of the CAM Plan for the VCU in Table IV-CAM of this permit.]** Control of VOC and HAP (Vapor Collection and Control Requirements) (1) When the VRU is used to control emissions from the loading rack, the Permittee shall comply with the following monitoring requirements unless the Department approves alternative monitoring requirements under 40 CFR §63.8(b), §63.8(f), and 40 CFR 63, Subpart BBBBBB: (a) The Permittee shall perform semi-annual preventive maintenance of the VRU according to the recommendations of the manufacturer of the system or other procedures approved by the Department. **[Authority: COMAR 26.11.03.06C]**

	(b) The Permittee shall monitor the operation of the VRU using a continuous emissions monitoring system (CEMS), installed in the VRU exhaust air stream, capable of measuring organic compound concentration. The CEMS shall meet applicable performance specifications in 40 CFR 60, Appendix B. (c) The Permittee shall maintain and operate the CEMS in a matter consistent with good air pollution control practices and as follows: (i) The Permittee must maintain and operate the CEMS as specified in 40 CFR §63.6(e)(1). (ii) The Permittee must keep the necessary parts for routine repairs of the affected CEMS equipment readily available. (iii) The Permittee must maintain a written startup, shutdown, and malfunction plan for CEMS as specified in 40 CFR §63.6(e)(3). (d) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, the CEMS shall be in continuous operation and shall meet minimum frequency of operation requirements as follows: the CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. (e) The Permittee must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under 40 CFR §63.8(e)(3)(i) and (ii). The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s). The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified.

(f) The CEMS is out of control if the zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification; or the CEMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(g) When the CEMS is out of control, the Permittee shall take necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The Permittee shall take corrective action and conduct retesting until the performance requirements are below the applicable limits.

The beginning of the out-of-control period is the hour the Permittee conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits.

During the period the CEMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement.

(h) The Permittee shall maintain a CEMS quality control program that includes, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CEMS;

(ii) Determination and adjustment of the calibration drift of the CEMS;

(iii) Preventive maintenance of the CEMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CEMS.

(i) The Permittee must reduce the CEMS monitoring data as follows:

(i) Data from CEMS shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in 40 CFR §63.2.

(ii) The data may be recorded in reduced or nonreduced form.

(iii) All emission data shall be converted into milligrams per liter for reporting purposes.

(iv) Monitoring data recorded during periods of unavoidable CEMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed unless the Permittee complies with the requirements of 40 CFR §63.10(b)(2)(vii)(A) or (B).

[Authority: 40 CFR §63.8(a), (b), (c), (d), and (g), and §63.11092(b)(1)(i)(A)]

(2) When the VCU is used to control emissions from the loading rack, the Permittee shall comply with the CAM Plan for the VCU in Table IV-CAM of this permit and the following requirements:

(a) The Permittee shall monitor the VCU for the presence of a pilot flame as specified under Indicator No. 1 of the CAM Plan for the VCU.

(b) The Permittee shall maintain a VCU monitoring and inspection plan that describes the Permittee's approach for meeting the following requirements:

(i) The VCU shall be equipped to automatically prevent gasoline loading operations from beginning at any time that the pilot flame is absent as specified under Indicator No. 1 of the CAM Plan for the VCU.

(ii) The Permittee shall verify, during each day of operation of the loading rack, the proper operation of the assist-air blower and the vapor line valve. Verification shall be through visual observation, or through an automated alarm or shutdown system that monitors system operation. A manual or electronic record of the start and end of a shutdown event may be used.

(iii) The Permittee shall perform semi-annual preventive maintenance inspections of the VCU, including the automated alarm or shutdown system, according to the recommendations of the manufacturer of the system and as specified under Indicator No. 1 of the CAM Plan for the VCU.

(iv) The monitoring and inspection plan shall specify conditions that would be considered malfunctions of the VCU during the inspections or automated monitoring, describe specific corrective actions that will be taken to correct any malfunction, and define what the Permittee owner or operator would consider to be a timely repair for each potential malfunction.

(c) Malfunctions that are discovered shall not constitute a violation of the emission standard in 40 CFR §63.11088(a) if corrective actions as described in the monitoring and inspection plan are followed. The Permittee must:

(i) Initiate corrective action to determine the cause of the problem within 1 hour;

(ii) Initiate corrective action to fix the problem within 24 hours;

(iii) Complete all corrective actions needed to fix the problem as soon as practicable consistent with good air pollution control practices for minimizing emissions;

(iv) Minimize periods of start-up, shutdown, or malfunction; and

(v) Take any necessary corrective actions to restore normal operation and prevent the recurrence of the cause of the problem.

[Authority: 40 CFR §63.11092(b)(1)(iii)(B)(*1*) and (*2*)(*i*) through (*iv*), §63.11092(d)(4) and the CAM Plan for the VCU in Table IV-CAM of this permit.]

Control of VOC and HAP (Vapor Tight Cargo Tank Requirements)

The Permittee shall assure that loadings of gasoline or VOC into cargo tanks are limited to vapor-tight cargo tanks using the following procedures:

(1) The Permittee shall obtain the vapor tightness documentation specified in 40 CFR §60.505(b) and COMAR 26.11.13.05D(2) for each gasoline or VOC cargo tank which is to be loaded at the facility.

(2) The Permittee shall require the tank identification number to be recorded as each gasoline or VOC cargo tank is loaded at the facility.

(3) The Permittee shall cross-check each tank identification number with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded.

(4) The Permittee shall take steps to assure that any nonvapor-tight cargo tank will not be reloaded at the facility until vapor tightness documentation for that tank is obtained.

(5) Alternative procedures may be approved by the Department as specified in 40 CFR §60.502(e)(6).

	[Authority: COMAR 26.11.13.05D(2), 40 CFR §60.502(e)(1), (2), (3), (5) and (6), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB] Control of VOC and HAP (Back Pressure and Leak Requirements) (1) Each calendar month, the vapor collection system, the vapor processing system, and the loading rack handling gasoline shall be inspected during the loading of gasoline cargo tanks for total organic compounds liquid or vapor leaks. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected. **[Authority: COMAR 26.11.13.04A(3)(a), 40 CFR §60.502(j), 40 CFR §63.11088(a), Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB, and Indicator No. 4 of the CAM Plan for the VCU in Table IV-CAM of this permit.]** (2) Each calendar month, the Permittee shall check the back pressure in the vapor collection system during loading of cargo tanks. **[Authority: COMAR 26.11.03.06C and Indicator No. 3 of the CAM Plan for the VCU in Table IV-CAM of this permit.]** Control of VOC and HAP (Design and Operational Requirements) The loading rack and vapor collection and control systems are designed to operate as required. **[Authority: COMAR 26.11.03.06C]**
3.4	**Record Keeping Requirements:** Visible Emissions Limitations The Permittee shall maintain records of visible emissions observations as specified under Indicator 2 of the CAM Plan for the VCU. **[Authority: COMAR 26.11.03.06C and Indicator No. 2 of the CAM Plan for the VCU in Table IV-CAM of this permit.]** Control of VOC and HAP (Vapor Collection and Control Requirements) (1) The Permittee shall keep the following records for the VRU: (a) Copies of all VRU performance test results. (b) Records of all maintenance and repairs performed on the VRU. (c) A copy of the performance evaluation results for the CEMS.

(d) The CEMS quality control program written procedures on record for the life of the VRU.

(e) An up-to-date, readily accessible record of the CEMS data. This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred, or alternatively, shall record the CEMS data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record.
[Authority: COMAR 26.11.13.04A(2)(a)(iii) and (b), 40 CFR §63.8(d)(3) and (e)(5), §63.11092(b)(1)(i)(A), and §63.11094(f)(1)]

(2) The Permittee shall keep the following records for the VCU:

(a) Copies of all VCU performance test results.

(b) Records of all maintenance and repairs performed on the VCU.

(c) An up-to-date, readily accessible copy of the VCU monitoring and inspection plan required under §63.11092(b)(1)(iii)(B)(*2*).

(d) Records, as specified in the VCU monitoring and inspection plan required under 40 CFR §63.11092(b)(1)(iii)(B)(*2*)(v), of any system malfunction and any activation of the automated alarm or shutdown system with a written entry into a log book or other permanent form of record. Such record shall also include a description of the corrective action taken and whether such corrective actions were taken in a timely manner, as defined in the VCU monitoring and inspection plan, as well as an estimate of the amount of gasoline loaded during the period of the malfunction.
[COMAR 26.11.13.04A(2)(a)(iii) and (b) and 40 CFR §63.11092(b)(1)(iii)(B)(*2*)(v) and the CAM Plan for the VCU in Table IV-CAM of this permit.]

<u>Control of VOC and HAP (Vapor Tight Cargo Tank Requirements)</u>

(1) The Permittee shall maintain records of each cargo tank's vapor tightness documentation on file at the facility in a permanent form available for inspection.

	The documentation file for each cargo tank shall be updated at least once per year to reflect current test results as determined by EPA Reference Method 27 or Method 1007 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources," which is incorporated by reference in COMAR 26.11.01.04C. This documentation shall include, at a minimum, the following information: (a) Test title: Gasoline Delivery Tank Pressure Test – EPA Reference Method 27 or Method 1007 of the Department's Technical Memorandum 91-01 (b) Tank owner and address. (c) Tank identification number. (d) Testing location. (e) Date of test. (f) Date and type of repair, if applicable. (g) Date of retest, if applicable. (h) Tester name and signature. (i) Witnessing inspector, if any: Name, signature, and affiliation. (j) Vapor tightness repair: nature of repair work and when performed in relation to vapor tightness testing. (k) Test results: Actual pressure change in 5 minutes, millimeters of water (average for two (2) runs). (l) Pressure testing: the initial and final test pressure, the time of each reading, and the actual pressure change. (m) Vacuum testing: the initial and final test vacuum, the time of each reading, and the actual vacuum change.

(n) Number of leaks found with an instrument and leak definition.
[Authority: COMAR 26.11.13.05D(1)(a), COMAR 26.11.13.05D(2), 40 CFR §60.505(b), 40 CFR §63.11088(f), and §63.11094(b)]

(2) As an alternative to keeping records at the facility of each gasoline cargo tank test result as required in 40 CFR §63.11094(b), the Permittee may comply with one of the following requirements:

(a) An electronic copy of each record is instantly available at the facility and the copy of each record is an exact duplicate image of the original paper record with certifying signatures; or

(b) For facilities that use a facility automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (e.g., via a card lock-out system), a copy of the documentation is made available (e.g., via facsimile) for inspection by the Department during the course of a site visit, or within a mutually agreeable time frame, and the copy of each record is an exact duplicate image of the original paper record with certifying signatures.
[Authority: 40 CFR 40 CFR §63.11088(f) and §63.11094(c)]

<u>Control of VOC and HAP (Back Pressure and Leak Requirements)</u>
The Permittee shall maintain the following records:
(1) Monthly leak inspection records including, as a minimum, the following information:

(a) Date of inspection.

(b) Findings (may indicate no leaks discovered; or location, nature, and severity of each leak.

(c) Leak determination method.

(d) Corrective action (date each leak repaired; reasons for any repair interval in excess of 15 days).

(e) Inspector name and signature.

	[Authority: COMAR 26.11.13.04A(3)(a), 40 CFR §60.502(j), 40 CFR §63.11088(a), Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB, and Indicator No. 4 of the CAM Plan for the VCU in Table IV-CAM of this permit.] (2) Monthly records of the back pressure reading in the vapor collection system. **[Authority: COMAR 26.11.03.06C and Indicator No. 3 of the CAM Plan for the VCU in Table IV-CAM of this permit.]** <u>Control of VOC and HAP (Design and Operational Requirements)</u> The loading rack and vapor collection and control systems are designed to operate as required. **[Authority: COMAR 26.11.03.06C]**
3.5	**<u>Reporting Requirements</u>:** <u>Visible Emissions Limitations</u> The Permittee shall submit reports of visible emissions observations as specified under Indicator 2 of the CAM Plan for the VCU. **[Authority: COMAR 26.11.03.06C and Indicator No. 2 of the CAM Plan for the VCU in Table IV-CAM]** <u>Control of VOC and HAP (Vapor Collection and Control Requirements)</u> (1) The Permittee shall submit the following for the VRU: (a) Written notification to conduct a performance test on the VRU at least 60 calendar days before the performance test is scheduled. The notification shall include the site-specific test plan required under COMAR 26.11.13.04A(2)(a)(ii) and 40 CFR §63.7(c). (b) Results of each VRU performance test not more than 60 days after each test date. (2) For the VCU, the Permittee shall submit to the Department the following information: (a) Written notification to conduct a performance test on the VCU at least 60 calendar days before the performance test is scheduled. The notification shall include the site-specific test plan required under COMAR 26.11.13.04A(2)(a)(ii) and 40 CFR §63.7(c).

(b) Results of each VCU performance test not more than 60 days after each test date.
[Authority: COMAR 26.11.13.04A(2)(a)(ii) and (iii), 40 CFR §63.9(e), and. §63.11093(c)]

(3) The Permittee shall submit an excess emissions report to the Department at the time the semiannual compliance report is submitted as specified in 40 CFR §63.11095(b). The report shall include the following information:

(a) Each exceedance or failure to maintain, as appropriate, a monitored operating parameter value determined under 40 CFR §63.11092(b). The report shall include the monitoring data for the days on which exceedances or failures to maintain have occurred, and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems or the continuous monitoring system (CMS).

(b) The Permittee shall submit all information concerning out-of-control periods for the CEMS, including start and end dates and hours and descriptions of corrective actions taken.

(c) Each instance in which malfunctions discovered during the monitoring and inspections required under 40 CFR §63.11092(b)(1)(iii)(B)(*2*) for the VCU were not resolved according to the necessary corrective actions described in the VCU monitoring and inspection plan. The report shall include a description of the malfunction and the timing of the steps taken to correct the malfunction.
[Authority: 40 CFR §63.8(c)(8), §63.11095(b)(3) and (4), and the CAM Plan for the VCU in Table IV-CAM of this permit.]

<u>Control of VOC and HAP (Vapor Tight Cargo Tank Requirements)</u>

(1) The Permittee shall notify the owner or operator of each non-vapor-tight gasoline or VOC cargo tank loaded at the facility within one (1) week of the documentation cross-check required by 40 CFR §60.502(e)(3), or within three (3) weeks after the loading has occurred.
[Authority: 40 CFR §60.502(e)(4), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]

	(2) The Permittee shall submit a semiannual compliance report to the Department as specified in 40 CFR §63.11095(a). The report shall include the following information for the loading rack: each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. **[Authority: 40 CFR §63.11088(f) and §63.11095(a)(3)]** (3) The Permittee shall submit an excess emissions report to the Department at the time the semiannual compliance report is submitted as specified in 40 CFR §63.11095(b). The report shall include the following information for gasoline cargo tanks: (a) Each instance of a non-vapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained. (b) Each reloading of a non-vapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with 40 CFR §63.11094(b). **[Authority: 40 CFR §63.11095(b)(1) and (2)]** <u>Control of VOC and HAP (Back Pressure and Leak Requirements)</u> The Permittee shall include leak inspection and back pressure records in the semiannual compliance report and excess emissions report as specified in 40 CFR §63.11095(a) and (b). **[Authority: 40 CFR §63.11088(f), §63.11095(a) and (b), and Indicator Nos. 3 and 4 of the CAM Plan for the VCU in Table IV-CAM of this permit.]** <u>Control of VOC and HAP (Design and Operational Requirements)</u> The loading rack and vapor collection and control systems are designed to operate as required. **[Authority: COMAR 26.11.03.06C]**

CAM Plan for VCU Table 1 of 2		
40 CFR, Part 64 Requirement	**Indicator No. 1**	**Indicator No. 2**
Indicator 40 CFR §64.4(a)(1)	Presence of flame within stack.	Visible Emissions
Measurement or Monitoring Approach	Pilot (flame) detector.	A visual observation is made of the exhaust gases at the outlet of the combustor stack during the loading of a gasoline cargo tank.
Indicator Range(s) 40 CFR §64.4(a)(2)	An excursion is defined as a failure for pilot detector to shutdown the VCU where there is not flame.	An excursion occurs if there are visible emissions observed. An excursion will trigger an investigation, corrective action, and a reporting requirement.
Reporting Threshold	All excursions shall be reported to the Department in semi-annual monitoring reports.	All excursions will be reported to the Department in semi-annual monitoring reports.
Performance Criteria - 40 CFR §64.4(a)(3)		
A. Data Representativeness	The pilot detector controls the operation of the VCU. When no pilot flame is detected, the VCU cannot start-up and if no flame is detected during operation, the VCU automatically shuts down and loading ceases.	The observer looks for visible emissions in the exhaust gases just above the point the gases exit the VCU stack.
B. Verification of Operational Status	The pilot detector is connected to an interlock system that ensures the VCU and loading rack cannot operate if no flame is detected.	N/A
C. QA/QC Practices and Criteria	VCU receives preventive maintenance two times per year. During each visit the following items are checked to ensure proper pilot operation: ● Pull and clean pilot gas strainer. ● Pull and clean assist gas strainer. ● Check all indicator lights and sensors, replace if faulty. ● Inspect spark ignition system. ● Ensure burner scanner is operating properly – blocking scanner and starting unit. Unit must shut down on flame failure. ● Complete start-up procedure check.	The observers are trained on procedures in making an observation and the record keeping requirements.
D. Monitoring Frequency	Pilot detector operates continuously.	An observation will be made once per week when the VCU is operating.
E. Data Collection Procedures	Results of inspection and preventive maintenance of the pilot operation are manually recorded and maintained on site.	Results of observations will be manually recorded and maintained on site. Records will include date, time, and result of observation or reason.
F. Averaging Period	N/A	N/A

Table IV-CAM (Table 2 of 2)		
CAM Plan for VCU		
40 CFR, Part 64 Requirement	**Indicator No. 3**	**Indicator No. 4**
Indicator 40 CFR §64.4(a)(1)	Vapor Collection Line Back Pressure	Equipment Leaks
Measurement or Monitoring Approach	Pressure gauge reading when cargo tanks are loaded.	Monthly leak check of vapor collection system. Each calendar month, the vapor collection system from the cargo tank to the VCU will be inspected during the loading of gasoline cargo tanks for total organic compounds liquid or vapor leaks. The detection method will be sight, sound, or smell.
Indicator Range(s) 40 CFR §64.4(a)(2)	An excursion is defined as when the pressure gauge reading shows back pressure to be greater than 18" of water column. An excursion will trigger an investigation, corrective action, and a reporting requirement.	An excursion is defined as detection of a leak by sight, sound, or smell. An excursion will trigger an investigation, corrective action, and a reporting requirement. Leaks will be repaired within 15 days.
Reporting Threshold	All pressure gauge readings greater than 18 inches will be reported to the Department in semi-annual monitoring reports.	All excursions and corrective actions taken will be reported to the Department in semi-annual monitoring reports.
Performance Criteria - 40 CFR §64.4(a)(3)		
A. Data Representativeness	A pressure gauge that is attached to a spool piece is inserted between the vapor line connection of the cargo tank and the connection for the terminal's vapor collection line measures back pressure. The gauge measures pressure within ± 0.2 inches of water column.	The terminal operations personnel will be trained on the procedures to detect leaks, record results, and initiate corrective actions.
B. Verification of Operational Status	Monthly check on each loading bay with manual log entry.	N/A
C. QA/QC Practices and Criteria	Preventive maintenance is performed on back pressure gauge as recommended by the manufacturer and is calibrated or replaced at least once every five years.	The operations personnel responsible for performing the monthly inspections will be trained on the procedures to follow. The terminal will maintain a record of employees trained to perform the inspections.
D. Monitoring Frequency	Monthly	Monthly
E. Data Collection Procedures	Monthly reading with manual entry.	Results of inspections, leaks found, and leaks repaired are recorded and kept on site.
F. Averaging Period	N/A	N/A

Table IV – 4	
4.0	**Emissions Unit Number: EU-X** Pentane Blending Operation consisting of one (1) 80,000-gallon pentane tank and associated pumps and piping
4.1	**Applicable Standards/Limits:** Control of VOC (1) **COMAR 26.11.13.03A(1)(a) and (b)** which require that: (a) Each tank's gauging and sampling devices be gas tight except when in use. (b) Each tank be equipped with one of the following properly installed, operating, and well maintained emission control systems: (i) An internal floating roof equipped with a primary and secondary seal; (ii) A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere; or (iii) A vapor control system capable of collecting the vapors from the tank and disposing of the vapors to prevent their emission to the atmosphere. (2) **COMAR 26.11.13.04D(1) and (2)** which prohibits the loading of VOC with a total TVP of 1.5 psia or greater into a tank truck, rail car, or other contrivance unless the loading connections on the vapor lines are equipped with fittings that have no leaks and that automatically and immediately close upon disconnection to prevent release of the VOC from the fittings and the fittings are maintained and operated in a manner to prevent avoidable liquid leaks during loading or unloading operations. The Permittee shall obtain an approval from the Department prior to utilizing any alternative compliance procedures provided in

	COMAR 26.11.13.04E in lieu of the procedures provided in COMAR 26.11.13.04D(1).
4.2	**Testing Requirements:** Control of VOC See Monitoring, Record Keeping and Reporting Requirements.
4.3	**Monitoring Requirements:** Control of VOC The Permittee shall visually inspect all equipment and components associated with the pentane blending operation for leaks at least once per calendar month. If leaks are detected, the Permittee shall: (1) Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date that the leak was discovered, and the identity of the person who discovered the leak. The tag shall remain in place until the leak has been repaired. (2) Initiate immediate action to repair all observed VOC leaks that can be repaired within 48 hours. (3) Repair all other leaking components within fifteen (15) days of discovery. If a replacement part is needed, the part shall be ordered within three (3) days of discovery of the leak, and the leak shall be repaired within 48 hours of receipt of the part. (4) Maintain a supply of components and component parts, such as seals, gaskets, packing and pipe fittings, that are known to wear or corrode, or that otherwise need to be routinely replaced. (5) Leaking components that cannot be repaired as required because they are inaccessible, or that cannot be repaired during operation of an installation, shall be identified in a log and included in the facility's maintenance schedule for repair during the next outage of the installation. **[Authority: ARA Permit to Construct issued July 2, 2015]**

4.4	**Record Keeping Requirements:** Control of VOC (1) The Permittee shall keep records of the average monthly storage temperature and throughput for the 80,000-gallon pentane storage tank in accordance with COMAR 26.11.13.03C(3); (2) a log of the hours and days of operation for the pentane blending system and the total amount of pentane blended into gasoline each operating day; and (3) VOC leak detection and repair logs for the pentane blending operation that include identification of the person who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered, and the date and nature of all leak repairs effected. **[Authority: ARA Permit to Construct issued July 2, 2015]**
4.5	**Reporting Requirements:** Control of VOC The Permittee shall make all records available to the Department upon request. **[Authority: ARA Permit to Construct issued July 2, 2015]**

Table IV – 5	
5.0	**Emissions Unit Number: EU - General** General Facility Wide Requirements
5.1	**Applicable Standards/Limits:** Control of HAP **40 CFR 63, Subpart BBBBBB**, which requires general emission minimization procedures and premises wide leak inspections for control of HAP emissions from bulk gasoline terminals. Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements

	(1) Premises wide HAP emissions shall be less than the following limits in any rolling 12-month period: (a) 10 tons for any individual HAP; and (b) 25 tons for the total combination of HAP. (2) Premises wide throughputs of gasoline and distillate shall be less than the following limits in any rolling 12-month period unless the Permittee can demonstrate compliance with premises wide HAP limits at higher throughputs: (a) 425,000,000 gallons of gasoline; and (b) 1,386,000,000 gallons of distillate. (3) The Permittee shall not load materials containing VOC into barges or other marine vessels unless the Permittee applies for and obtains a permit to construct to reactivate marine vessel loading operations at the premises. The Permittee may offload materials containing VOC from marine vessel storage tanks at the premises. **[Authority: Premises Wide ARA Permit to Construct issued September 15, 2009]**
5.2	**Testing Requirements:** Control of HAP See Monitoring, Record Keeping and Reporting Requirements. Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements See Record Keeping and Reporting Requirements.
5.3	**Monitoring Requirements:** Control of HAP The Permittee shall comply with the following monitoring requirements: (1) The Permittee must, at all times, operate and maintain the bulk gasoline terminal, including any associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing

	emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the premises. **[Authority: 40 CFR §63.11085(a)]** (2) The Permittee shall perform a monthly leak inspection of all equipment in gasoline service, as defined in 40 CFR §63.11100, in accordance with the following requirements: (a) For this inspection, detection methods incorporating sight, sound and smell are acceptable. (b) A log book shall be used and shall be signed by the Permittee at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the premises. (c) Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed with 15 calendar days after detection of each leak, except as provided in 40 CFR §63.11089(d). (d) Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The Permittee shall provide in the semiannual report specified in 40 CFR §63.11095(b), the reason(s) why the repair was not feasible and the date each repair was completed. **[Authority: 40 CFR §63.11089(a) through (d)]** <u>Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements</u> See Record Keeping and Reporting Requirements.
5.4	**<u>Record Keeping Requirements</u>:** <u>Control of HAP</u>

(1) For each deviation of an emissions limitation, work practice standard, or operation and maintenance requirement, the Permittee shall maintain the following records:

(a) Date, start time, and duration of each deviation.

(b) List of the affected sources or equipment for each deviation, and estimate of the quantity of each regulated pollutant emitted over any emission limit and a description of the method used to estimate emissions.

(c) Actions taken to minimize emissions in accordance with 40 CFR §63.11085(a).
[Authority: 40 CFR §63.11094(k)]

(2) The Permittee shall maintain the following leak inspection records:

(a) The Permittee shall prepare and maintain a record describing the types, identification numbers, and locations of all equipment in gasoline service. If the Permittee implements an instrument program under 40 CFR §63.11089, the record shall contain a full description of the program.

(b) The Permittee shall maintain a log book for leak inspections and record the following information for each leak that is detected:

(i) The equipment type and identification number.

(ii) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell).

(iii) The date the leak was detected and the date of each attempt to repair the leak.

(iv) Repair methods applied in each attempt to repair the leak.

(v) “Repair delayed” and the reason for the delay if the leak is not repaired within 15 calendar days after discovery of the leak.

	(vi) The expected date of successful repair of the leak if the leak is not repaired within 15 days. (vii) The date of successful repair of the leak. **[Authority: 40 CFR §63.11089(g), 40 CFR §63.11094(d) and (e)]** <u>Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements</u> The Permittee shall maintain the following records: (1) Premises wide emissions of each individual HAP in tons per month and total tons per rolling 12-month period. (2) Premises wide emissions of total HAP in tons per month and total tons per rolling 12-month period. (3) Total premises wide gasoline throughput in tons per month and total tons per rolling 12-month period. (4) Total premises wide distillate throughput in tons per month and total tons per rolling 12-month period. **[Authority: COMAR 26.11.03.06C and Premises Wide ARA Permit to Construct issued September 15, 2009]**
5.5	**<u>Reporting Requirements</u>:** <u>Control of HAP</u> (1) Prior to May 8, 2027, the Permittee shall submit a semiannual compliance report to the Department as specified in 40 CFR §63.11095(c) in accordance with 40 CFR §63.11095(e). The report shall include the following information: (a) The number, duration, and a brief description of each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the Permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR §63.11085(a), including actions taken to correct a malfunction. **[Authority: 40 CFR §63.11095(d)]**

(b) For equipment leak inspections, the following information:

i. The number of equipment leaks not repaired within 15 days after detection. **[Authority: 40 CFR §63.11095(a)(3)]**

ii. An excess emissions report to the Department at the time the semiannual compliance report is submitted that includes the following information for each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection:

a. The date on which the leak was detected;

b. The date of each attempt to repair the leak;

c. The reasons for the delay of repair; and

d. The date of successful repair.
[Authority: 40 CFR §63.11095(b)(5)]

(2) Beginning on May 8, 2027, the Permittee shall submit a semiannual compliance report to the Department as specified in 40 CFR §63.11095(d) in accordance with 40 CFR §63.11095(e). The report shall include the following information:

(a) The following general facility information:

i. Facility name.

ii. Facility physical address, including city, county, and State.

iii. Latitude and longitude of facility's physical location. Coordinates must be in decimal degrees with at least five decimal places.

iv. The following information for the contact person:

a. Name.

b. Mailing address.

c. Telephone number.

d. Email address.

v. The type of facility.

vi. Date of report and beginning and ending dates of the reporting period (not required when submitting through CEDRI).

vii. Statement by a responsible official, with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report. If the report is submitted through CEDRI, the certifier's electronic signature during the submission process replaces this requirement.

(b) For each leak detected during a leak inspection required under 40 CFR 63.11089(c), report:

i. The date of inspection.

ii. The leak determination method (OGI or Method 21)

iii. The total number and type of equipment for which leaks were detected.

iv. The total number and type of equipment for which leaks were repaired within 15 calendar days.

v. The total number and type of equipment for which no repair attempt was made within 5 calendar days of the leaks being identified.

vi. The total number and types of equipment placed on delay of repair, as specified in 40 CFR 60.502a(j)(8).

(c) For leaks identified under 40 CFR 63.11089(c) by audio/visual/olfactory methods during normal duties report:

	i. The total number and type of equipment for which leaks were identified. ii. The total number and type of equipment for which leaks were repaired within 15 calendar days. iii. The total number and type of equipment for which no repair attempt was made within 5 calendar days of the leaks being identified. iv. The total number and type of equipment placed on the delay of repair, as specified in 40 CFR 60.502a(j)(8). (d) If there were no deviations from the emission limitations, operating parameters, or work practice standards, then provide a statement that were no deviations from the emission limitations, operating parameters, or work practice standards during the reporting period. <u>Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements</u> The Permittee shall submit records of premises wide HAP emissions and gasoline and distillate throughput to the Department as part of the required annual emission certification. **[Authority: COMAR 26.11.02.19C and D]**

SECTION V INSIGNIFICANT ACTIVITIES

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 1 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

The one (1) gas-fired fuel burning unit is subject to the following requirements:

COMAR 26.11.09.05A(2), which establishes that the Permittee may not cause or permit the discharge of emissions from any fuel burning equipment, other than water in an uncombined form, which is visible to human observers.

Exceptions: COMAR 26.11.09.05A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if:

(a) The visible emissions are not greater than 40 percent opacity; and

(b) The visible emissions do not occur for more than 6 consecutive minutes in any sixty minute period.

(2) Containers, reservoirs, or tanks used exclusively for:

(a) No. 4 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(b) No. 50 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(3) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. 1 Marine Vessel Unloading (identified as EU-5 in the permit application)

SECTION VI STATE-ONLY ENFORCEABLE CONDITIONS

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

   (a) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

   (b) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.

   (c) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably endanger human health

2. Record Keeping and Reporting:

   The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

   (a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

   (b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

ENERGY TRANSFER

February 21, 2023

Maryland Department of the Environment
Air and Radiation Management Administration
Air Quality Permits Program
1800 Washington Blvd.
Baltimore, MD 21230

Re: Energy Transfer Marketing Terminals
Baltimore Terminal – TVOP #24-510-00703
Application for Renewal

Dear Mr. Hafner:

Enclosed, please find the Application for Renewal completed for Energy Transfer Marketing & Terminals- Baltimore Terminal. Energy Transfer requests that the conditions for EU-6 MDE ARA Registration Number 510-0703-4-3125 (One No. 2 Oil Fired Boiler rated at 1.3 MMBTU/hr) is removed from the permit as it has been replaced with a gas fired heater (propane). More information is included in Section 6 of the application and in Attachment 10.

If you have any questions or require additional information please contact me at 610-670-3297.

Sincerely,

Jed A. Werner

Jed A. Werner
Environmental Compliance Manager

Enc.

Cc: S. Russell – Air-2 – Baltimore

MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST

VI .Application Completeness Checklist

The purpose of this part is to list the information required to achieve a Part 70 application shield.

Cover Page

(✓) Name and address of owner or operator, including telephone number.

(✓) Name and address of facility, including the plant manager's name and telephone number.

(✓) A 24-hour emergency telephone number for air pollution matters.

Section 1 CERTIFICATION STATEMENTS

(X) The certification statement completed and signed by a responsible official.

Section 2 FACILITY DESCRIPTION SUMMARY

(✓) A brief description of each of the source's process(es), including all applicable SIC codes and end products.

(✓) Flow diagrams indicating all emissions units, emission points, and control devices.

(✓) A plot plan of the entire facility.

(✓) Emission Certification Report.

(✓) General Emissions Information.

Section 3 EMISSIONS UNIT DESCRIPTIONS –

This section must be completed for each emissions unit.

Part A

(✓) Emissions unit number.

(✓) Detailed description of unit, including all emission points.

(✓) Federally enforceable limit(s) on the operating schedule.

(✓) Fuel consumption information for <u>any</u> emissions unit that consumes fuel including the type of fuel, percent sulfur, and annual usage of fuel.

Part B

(✓) A citation and description of each federally enforceable requirement, including all emission standards, for each emissions unit.

(✓) A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.

(✓) The frequency of submittal of the compliance demonstration during the permit term.

Part C

(✓) Emissions unit number.

(✓) Permit to construct number.

(✓) Emissions point number(s).

(✓) Date(s) the permit to construct was issued.

(✓) Condition number(s) as indicated on the permit to construct.

(✓) Description of the permit condition(s) and the reason(s) why they are believed to be obsolete, extraneous, or insignificant.

Part D

(✓) Description of all alternate operating scenarios that apply to an emissions unit.

(✓) Number assigned to each scenario.

(✓) Emissions unit number.

(✓ Description of the operating parameters for the emissions unit and other information which describes the how the operation of the unit will change under the different scenario.

Part E

(✓ A citation and description of each federally enforceable requirement triggered by an operating scenario, including all emission standards, for each emissions unit.

(✓ As an attachment, the date and results of the most recent compliance demonstration for each emission standard and/or emissions certification report with relevant supporting documentation.

(✓ A statement of compliance demonstration techniques for each requirement, including a description of monitoring, record keeping, reporting requirements, and test methods.

(✓ The frequency of submittal of the compliance demonstration during the permit term.

Section 4 CONTROL EQUIPMENT

(✓ The type of each piece of air pollution control equipment

(✓ The capture and control efficiencies of the control equipment.

Section 5 SUMMARY SHEET OF POTENTIAL EMISSIONS

(✓ Quantity of potential emissions for criteria pollutants and HAPs emitted in tons per year for each emissions unit.

(✓ Fugitive emission estimations for the entire facility for criteria pollutants and HAPs emitted in tons per year.

(✓ Basis for all emission calculations.

Section 6 AN EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

(✓ An explanation of the proposed exemption.

MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION CHECKLIST

Section 7 COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

(☑) Identification of emissions unit(s) not in compliance, including the requirement being violated and the effective compliance date.

( ) Detailed description of methods to be used to achieve compliance.

( ) A schedule of remedial measures, including an enforceable sequence of actions with milestones.

Attachment

(☑) Checklist of Insignificant Activities

(☑) CAM Plan (If Applicable)

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard ● Baltimore MD 21230
(410) 537-3000 ● 1-800-633-6101 ● http://www.mde.state.md.us

PART 70 PERMIT APPLICATION FOR RENEWAL

AIR AND RADIATION ADMINISTRATION

Facilities required to obtain a Part 70 permit under COMAR 26.11.03.01 must complete and return this form. Applications are incomplete unless all applicable information required by COMAR 26.11.03.03 and 26.11.03.13 is supplied. Failure to supply additional information required by the Department to enable it to act on the application may result in loss of the application shield and denial of this application.

Owner and Operator:

Name of Owner or Operator:		
Energy Transfer Marketing & Terminals		
Street Address:		
8111 Westchester Drive		
City:	State:	Zip Code:
Dallas	TX	75225
Telephone Number		Fax Number
214-981-0700		214-981-0703

Facility Information:

Name of Facility:		
Energy Transfer Marketing & Terminals, Baltimore Terminal		
Street Address:		
2155 Northbridge Road		
City:	State:	Zip Code:
Baltimore	MD	21226
Plant Manager:	Telephone Number:	Fax Number:
Scott Russell	410-355-3351	866-257-8855
24-Hour Emergency Telephone Number for Air Pollution Matters:		
410-925-2276		

List, on a separate page, the names and telephone numbers of other facility owners and persons with titles.

SECTION 1. CERTIFICATION STATEMENTS

1. Compliance Status with Applicable Enhanced Monitoring and Compliance Certification Requirements

The emissions units identified in this application are in compliance with applicable enhanced monitoring and compliance certification requirements.

2. Certification of Current Compliance with All Applicable Federally Enforceable Requirements

Except for the requirements identified in Section 7 of this application, for which compliance is not achieved, I hereby certify, based on information and belief formed after reasonable inquiry, that the facility is currently in compliance with all applicable federally enforceable requirements and agree that the facility will continue to comply with those requirements during the permit term.

You must complete a Section 7 form for each non-complying emissions unit.

3. Statement of Compliance with Respect to All New Applicable Requirements Effective During the Permit Term

I hereby state, based on information and belief formed after reasonable inquiry, that the facility agrees to meet, in a timely manner, all applicable federally enforceable requirements that become effective during the permit term, unless a more detailed schedule is expressly required by the applicable requirement.

4. Risk Management Plan Compliance

I hereby certify that, based on information and belief formed after reasonable inquiry, that a Risk Management Plan as required under □112(r) of the Clean Air Act:

[ ] has been submitted;

[ ] will be submitted at a future date; or

[☑] does not need to be submitted.

5. Statement of Truth, Accuracy, and Completeness

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision and in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person(s) who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

RESPONSIBLE OFFICIAL:
X _____ 2/25/23

SIGNATURE DATE

Louis Gonzalves
PRINTED NAME

Director Terminal Operations
TITLE

SECTION 2. FACILITY DESCRIPTION SUMMARY

1. Major Activities of Facility

Briefly describe the major activities, including the applicable SIC Code(s) and end product(s).

SIC CODE: 4226

WAREHOUSING AND STORAGE, PETROLEUM AND CHEMICAL BULK STATIONS FOR HIRE.

CORRESPONDING NAICS CODE: 493190

2. Facility-Wide Emissions

A. This facility is required to obtain a Part 70 Operating Permit because it is: Check appropriate box:

- ☑ Actual Major
- ☐ Potential Major·
- ☐ Solid Waste Incineration Unit Requiring Permit Under § 129(e) of CAA

B. List the actual facility-wide emissions below:

PM10 0.007 NOx 0.22 VOC 32.10 SOx 0.002 CO 0.56 HAPs 1.09

3. Include With the Application:

Flow Diagrams showing all emissions units, emission points, and control devices;
Emissions Certification Report (copy of the most recent submitted to the Department.)

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: **EU-1a** 1a. Date of installation (month/year): PRIOR TO 1970	2. MDE Registration No.:(if applicable) 510-0703-9-0999

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):
TANK 4: 3,885,000 GALLON CLOSED TOP PETROLEUM PRODUCT STORAGE TANK WITH AN INTERNAL FLOATING ROOF. TANK IS EQUIPPED WITH PRIMARY AND SECONDARY SEALS.

TANK 11: 2,074,800 GALLON CLOSED TOP PETROLEUM PRODUCT STORAGE TANK WITH AN INTERNAL FLOATING ROOF. TANK IS EQUIPPED WITH PRIMARY AND SECONDARY SEALS.

TANK 12: 1,629,000 GALLON CLOSED TOP PETROLEUM PRODUCT STORAGE TANK WITH AN INTERNAL FLOATING ROOF. TANK IS EQUIPPED WITH PRIMARY AND SECONDARY SEALS.

TANK 13: 953,400 GALLON CLOSED TOP PETROLEUM PRODUCT STORAGE TANK WITH AN INTERNAL FLOATING ROOF. TANK IS EQUIPPED WITH PRIMARY AND SECONDARY SEALS.

TANK 16: 873,600 GALLON CLOSED TOP PETROLEUM PRODUCT STORAGE TANK WITH AN INTERNAL FLOATING ROOF. TANK IS EQUIPPED WITH PRIMARY AND SECONDARY SEALS.

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference:_____

Continuous Processes: 24 hours/day 365 days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1.		
2.		
3.		

6. Emissions in Tons:

A. Actual Major: 8.54 Potential Major: 19.46 (note: before control device) B. Actual Emissions: NOx_0 SOx__0_ VOC_8.54 PM10_0 HAPs_0.89

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: **EU-1b** 1a. Date of installation (month/year): **TANK 6:** PRIOR TO 1970, MODIFIED 1992 **TANK 10:** PRIOR TO 1970, MODIFIED 2008	2. MDE Registration No.:(if applicable) **TANK 6:** 510-0703-9-1000 **TANK 10:** 510-0703-9-1151

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):
TANK 6: 3,045,000 GALLON CLOSED TOP PETROLEUM PRODUCT STORAGE TANK WITH AN INTERNAL FLOATING ROOF. TANK IS EQUIPPED WITH PRIMARY AND SECONDARY SEALS.

TANK 10: 2,150,610 GALLON CLOSED TOP PETROLEUM PRODUCT STORAGE TANK WITH AN INTERNAL FLOATING ROOF. TANK IS EQUIPPED WITH MECHANICAL SHOE SEALS.

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference:_____

Continuous Processes: 24 hours/day 365 days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1.		
2.		
3.		

6. Emissions in Tons:

A. Actual Major: 15.08 Potential Major:18.42 (note: before control device)

C. Actual Emissions: NOx_0 SOx__0 VOC_15.08___ PM10__0 HAPs0.41

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: **EU-4** 1a. Date of installation (month/year): PRIOR TO 1970; MODIFIED 1992, 2005 AND 2009	2. MDE Registration No.:(if applicable) 510-0703-9-0999

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):
TRUCK LOADING RACK TO BOTTOM LOAD GASOLINE AND DISTILLATES EQUIPPED WITH A VAPOR RECOVERY UNIT (VRU) CONTROL DEVICE AND VAPOR COMBUSTION UNIT (VCU) FOR BACK UP EMISSION CONTROL.

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference:_____

Continuous Processes: 24 hours/day 365 days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1.		
2.		
3.		

6. Emissions in Tons:

A. Actual Major: 5.6 Potential Major:_27.39 (note: before control device)

D. Actual Emissions: NOx_0.2231 SOx_0.0023 VOC_5.6_ PM10_0.0068 HAPs_0.326

SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

1. Emissions Unit No.: EU-X 1a. Date of installation (month/year): 2015	2. MDE Registration No.:(if applicable) 510-0703-9-1326

3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):
TRANSFER OPERATIONS & PENTANE BLENDING: 80,000 GALLON PENTANE TANK AND ASSOCIATED PUMPS AND PIPING

4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:

General Reference:_____

Continuous Processes: 24 hours/day 365 days/year

Batch Processes: _____ hours/batch _____ batches/day

_____ days/year

5. Fuel Consumption:

Type(s) of Fuel	% Sulfur	Annual Usage (specify units)
1.		
2.		
3.		

6. Emissions in Tons:

A. Actual Major: _0.37 Potential Major: 0.37 (note: before control device)

G. Actual Emissions: NOx_ SOx_ VOC_0.37 PM10__ HAPs_____

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-GENERAL General Reference: GENERAL FACILITY

Briefly describe the Emission Standard/Limit or Operational Limitation:
12 MONTH ROLLING HAPS <10 TONS FOR ANY SINGLE HAP, <25 TONS FOR TOTAL HAPS
MAX TOTAL GASOLINE THROUGHPUT 425,000,000 GALLONS/12 MONTH ROLLING PERIOD
MAX TOTAL DISTILLATE THROUGHPUT 1,386,000,000 GALLONS/12 MONTH ROLLING PERIOD
Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report:_____
- ✓ Annual Compliance Certification: 4/1
- ✓ Semi-Annual Monitoring Report: 01/31 AND 7/30

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: _____

COMPLIANCE SCHEDULE FOR

Testing: Reference _____ Describe: _____
DOCUMENTATION OF HAP CONTENT TO SUPPORT 12-MONTH ROLLING HAP CALCULATION [COMAR 26.11.03.06C]

Record Keeping: Reference _____ Describe: _____
RECORDS KEPT FOR A PERIOD OF 5 YEARS [COMAR 26.11.03.06C]

Reporting: Reference _____ Describe: _____
ANNUAL EMISSION STATEMENTS TO INCLUDE HAPS [COMAR 26.11.02.19C&D]

Frequency of submittal of the compliance demonstration: SEMI-ANNUAL/ANNUAL

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1a **General Reference: TANKS 4, 11, 12, 13, 16**

Briefly describe the Emission Standard/Limit or Operational Limitation:
[COMAR 26.11.13.03A(1)(a) and (b)]
[COMAR 26.11.13.03A(2)]
AREA SOURCE RULE FOR GASOLINE DISTRIBUTION FACILITIES 40 CFR 63 SUBPART BBBBBB AS PER COMPLIANCE SCHEDULE SPECIFIED IN [40 CFR 63.11087(b)]
Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report:_____
- ✓ Annual Compliance Certification: 4/1
- ✓ Semi-Annual Monitoring Report: 01/31 AND 7/30

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: _____
ANNUAL VISIUAL INSPECTIONS [COMAR 26.11.03.06C]
10 YEAR INTERNAL INSPECTIONS [COMAR 26.11.13.03A(3) (a), (b) & (c)]

Testing: Reference _____ Describe: _____
SEAL GAP DETERMINATION [COMAR 26.11.13.03A(4)]
THE PERMITTEE SHALL COMPLY WITH APPLICABLE TESTING REQUIREMENTS SPECIFIED IN 40 CFR 63.11092(e)(1) AS APPLICABLE

Record Keeping: Reference _____ Describe: _____
ALL RECORDKEEPING ASSOC WITH [COMAR 26.11.03.06C]
ALL RECORDKEEPING ASSOC WITH [COMAR 26.11.03C(1), (2), (3), (4)]
THE PERMITTEE SHALL KEEP RECORDS AS SPECIFIED IN [40 CFR 63.11094] AS APPLICABLE

Reporting: Reference _____ Describe: _____
DEFECTS AND REPAIRS RELATED TO INSPECTIONS [COMAR 26.11.13.03A(3)(d)]
ANNUAL EMISSION CERTIFICATION[COMAR 26.11.02.19C and D]
EXCESS EMISSIONS AND DEVIATIONS[COMAR 26.11.03.06C(7)]
ANNUAL COMPLIANCE CERTIFICATION [COMAR 26.11.03.06G(6) and (7)]
THE PERMITTEE SHALL SUBMIT REPORTS AS SPECIFIED IN 40 CFR 63.11095 AS APPLICABLE

Frequency of submittal of the compliance demonstration: SEMI-ANNUAL/ANNUAL

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-1b **General Reference: TANKS 6 and 10**

Briefly describe the Emission Standard/Limit or Operational Limitation:
TANKS COMPLY WITH THE FOLLOWING:

[COMAR 26.11.13.03A(1)(a) and (b)]
[COMAR 26.11.13.03A(2)]
NEW SOURCE PERFORMANCE STANDARDS (NSPS) SUBPART Kb [40 CFR 60.112b(a)(1)(i) through (ix)]

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report:_____
- ✓ Annual Compliance Certification: 4/1
- ✓ Semi-Annual Monitoring Report: 01/31 AND 7/30

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: _____
ANNUAL VISIUAL INSPECTIONS [COMAR 26.11.03.06C]
PERMITTEE SHALL MEET THE MONITORING REQUIREMENTS OF [40 CFR 60.113b(a) AND [40 CFR 60.113b(a)(2)]

Testing: Reference _____ Describe: _____
SEAL GAP DETERMINATION [COMAR 26.11.13.03A(4)]

Record Keeping: Reference _____ Describe: _____
ALL RECORDKEEPING ASSOC WITH [COMAR 26.11.03.06C]
ALL RECORDKEEPING ASSOC WITH [COMAR 26.11.03C(1), (2), (3), (4)]
ALL RECORDKEEPING ASSOC WITH [40 CFR116b(a)-(e) and 40 CFR 115b(a)(2)]

Reporting: Reference _____ Describe: _____
INSPECTION NOTIFICATION [COMAR 26.11.13.03A(3)(d)] and [40 CFR 60.113b(a)(5)]
DEFECTS AND REPAIRS RELATED TO INSPECTIONS: [40 CFR 60.115b(a)(4)]
ANNUAL EMISSION CERTIFICATION[COMAR 26.11.02.19C and D]
EXCESS EMISSIONS AND DEVIATIONS[COMAR 26.11.03.06C(7)]
ANNUAL COMPLIANCE CERTIFICATION [COMAR 26.11.03.06G(6) and (7)]

Frequency of submittal of the compliance demonstration: SEMI-ANNUAL/ANNUAL

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-4 **General Reference: LOAD RACK/VRU & VCU**

Briefly describe the Emission Standard/Limit or Operational Limitation:
LOADING RACK EQUIPPED AS PER [COMAR 26.11.13.04A(1)(a)]
MAX VOC VRU: 10 mg/l GASOLINE LOADED
MAX VOC BACKUP VCU: 35 mg/l GASOLINE LOADED

[COMAR 26.11.13.04A(1)(b)(i) and (ii)]
[COMAR 26.11.13.04A(1)(c)]

[COMAR 26.11.13.05A]
[40 CFR 60.502(e) through (j)]

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report:_____
- ✓ Annual Compliance Certification: 4/1
- ✓ Semi-Annual Monitoring Report: 01/31 AND 7/30

Methods used to demonstrate compliance:

SECTION 3B. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Emissions Unit No.: EU-X **General Reference: PENTANE BLENDING**

Briefly describe the Emission Standard/Limit or Operational Limitation:

Permit Shield Request: _____

Compliance Demonstration:

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report:_____
- ✓ Annual Compliance Certification: 4/1
- ☐ Semi-Annual Monitoring Report:

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: _____
THE PERMITTEE MUST COMPLY WITH THE APPLICABLE MONITORING REQUIREMENTS SPECIFIED IN:
COMAR 26.11.13.04D(1)
COMAR 26.11.13.04E & D(1), D(2)
MONTHLY VISUAL INSPECTION OF ALL EQUIPMENT AND COMPONENTS

Testing: Reference _____ Describe: _____

Record Keeping: Reference _____ Describe: _____
THE PERMITTEE SHALL KEEP RECORDS AS SPECIFIED IN
COMAR 26.11.13.03C(3)

Reporting: Reference _____ Describe: _____
ANNUAL EMISSION CERTIFICATION[COMAR 26.11.02.19D and COMAR 26.11.01.05-1]
EXCESS EMISSIONS AND DEVIATIONS[COMAR 26.11.01.07]
ANNUAL COMPLIANCE CERTIFICATION [COMAR 26.11.15 &16

Frequency of submittal of the compliance demonstration: 1 Year

Monitoring: Reference _____ Describe: _____
THE PERMITTEE MUST COMPLY WITH THE APPLICABLE MONITORING REQUIREMENTS SPECIFIED IN:
CAM PLAN
[COMAR 26.11.13.05A AND D]
[COMAR 26.11.0306C]
[40 CFR 63.11092]

Testing: Reference _____ Describe: _____
LOADING REQUIREMENTS AS PER [COMAR 26.11.13.05]
TESTING OF VRU AND BACK UP VCU CONDUCTED IN COMPLIANCE WITH [COMAR 26.11.13.04(A)(2)(a)]
THE PERMITTEE MUST COMPLY WITH THE APPLICABLE TESTING REQUIREMENTS SPECIFIED IN [40 CFR 63.11092]

Record Keeping: Reference _____ Describe: _____

THE PERMITTEE SHALL KEEP RECORDS AS SPECIFIED IN
[COMAR 26.11.03.06C]
[COMAR 26.11.13.04A(2)(b)]
[40 CFR 63.11094]
AS SPECIFIED IN CAM PLAN

Reporting: Reference _____ Describe: _____
ANNUAL EMISSION CERTIFICATION[COMAR 26.11.02.19C and D]
EXCESS EMISSIONS AND DEVIATIONS[COMAR 26.11.03.06C(7)]
ANNUAL COMPLIANCE CERTIFICATION [COMAR 26.11.03.06G(6) and (7)]
TESTING NOTIFICATION AS PER [COMAR 26.11.13.04A(2)(ii) and (iii)]
THE PERMITTEE SHALL SUBMIT APPLICABLE NOTIFICATIONS AS REQUIRED UNDER [40 CFR 63.11093]
THE PERMITTEE MUST SUBMIT REPORTS AS SPECIFIED IN [40 CFR 63.11095]

Frequency of submittal of the compliance demonstration: SEMI-ANNUAL/ANNUAL

SECTION 3C. OBSOLETE, EXTRANEOUS, OR INSIGNIFICANT PERMIT CONDITIONS

List permit to construct conditions which should be considered to be obsolete, extraneous, or environmentally insignificant.

Emissions Unit No.: _____Permit to Construct No. _____

Emissions Point No.	Date Permit Issued	Condition No.	Brief Description of Condition and Reason for Exclusion
N/A			

SECTION 3D. ALTERNATE OPERATING SCENARIOS

Emissions Unit No.:_____

Briefly describe any alternate operating scenarios. Assign a number to each scenario for identification purposes.

_N/A_____

SECTION 3E. CITATION TO AND DESCRIPTION OF APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS FOR AN ALTERNATE OPERATING SCENARIO

Scenario No.: _____

Emissions Unit No.: _____ General Reference: _____

Briefly describe any applicable Emissions Standard/Limits/Operational Limitations:

_N/A_____

_____

_____

_____

_____

_____

Compliance Demonstration

Methods used to demonstrate compliance:

Monitoring: Reference _____ Describe: _____

_____

_____

_____

Testing: Reference _____ Describe: _____

_____

_____

_____

Record Keeping: Reference _____ Describe: _____

_____

_____

_____

Reporting: Reference _____ Describe: _____

_____

_____

_____

Frequency of submittal of the compliance demonstration: _____

SECTION 4. CONTROL EQUIPMENT

1. Associated Emissions Units No. : EU-4	2. Emissions Point No.:
3. Type and Description of Control Equipment:	
JOHN ZINK VAPOR COMBUSTION UNIT, INSTALLED 2005 JOHN ZINK VAPOR RECOVERY UNIT, INSTALLED 2009	
4. Pollutants Controlled:	Control Efficiency:
VRU: VOC, BENZENE, CUMENE, ETHYLBENZENE, TOLUNE, XYLENES, ETC	VRU: >90% ,10 mg/l GASOLINE LOADED
VCU: VOC, BENZENE, CUMENE, ETHYLBENZENE, TOLUNE, XYLENES, ETC	VCU: >90% ,35 mg/l GASOLINE LOADED
5. Capture Efficiency:	

SECTION 5. SUMMARY SHEET OF POTENTIAL EMISSIONS

List all applicable pollutants in tons per year (tpy) pertaining to this facility. The Emissions Unit No. should be consistent with numbers used in Section 3. Attach a copy of all calculations.

Pollutant	VOCs	HAPs			
CAS Number					
Emissions Unit # EU-1a	19.46	3.28			
Emissions Unit # EU-1b	18.42	0.45			
Emissions Unit # EU-4	27.39	3.19			
Emissions Unit # Fug	1.12	0.10			
Emissions Unit # Misc.	1.77	0.0			
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Fugitive Emissions					
Total	68.16	7.02			

SECTION 6. EXPLANATION OF PROPOSED EXEMPTIONS FROM OTHERWISE APPLICABLE FEDERALLY ENFORCEABLE REQUIREMENTS

Describe and cite the applicable requirements to be exempted. Complete this Section only if the facility is claiming exemptions from or the non-applicability of any federally enforceable requirements.

1. Applicable Requirement:
40 CFR 63 Subpart JJJJJJ

2. Brief Description:

Oil fired boiler (formally EU-6. MDE ARA Registration 510-0703-4-3125) was removed and replaced with a gas fired boiler.

3. Reasons for Proposed Exemption or Justification of Non-applicability:

Exempt under 40 CFR 63.11195(e)

SECTION 7. COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS UNITS

1. Emissions Unit #	Anticipated Compliance Date
N/A	
Applicable Federally Enforceable Requirement being Violated:	

2. Description of Plan to Achieve Compliance:

_____

_____

_____

_____

_____

_____

Certified Progress Reports for sources in noncompliance shall be submitted at least quarterly to the Department.

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STATE-ONLY ENFORCEABLE REQUIREMENTS

Facility Information:

Name of Facility: ENERGY TRANSFER MARKETING & TERMINALS-BALTIMORE TERMINAL County: BALTIMORE
Premises Number:
Street Address: 2155 NORTHBRIDGE AVENUE BALTIMORE MARYLAND 21226
24-hour Emergency Telephone Number for Air Pollution Matters: 410-925-2276
Type of Equipment (List Significant Units): EU-1a, EU-1b, EU-4

CITATION TO AND DESCRIPTION OF APPLICABLE STATE-ONLY ENFORCEABLE REQUIREMENTS

Registration No.: _____

EU: General Facility General Reference: No. 24-570-00703 (Part 70 Operating Permit)

Briefly describe the requirement and the emissions limit (if applicable):

(A) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

(B) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.

COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably

Methods used to demonstrate compliance: The Permittee shall submit to the

Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year. The analysis shall include either:

(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Attachment 1: Organization and Responsible Individuals Contact Information

ORGANIZATION AND RESPONSIBLE INDIVIDUALS

Name	*Title*	*Description of Responsibility*	*Contact*
Louis Gonzalves, Jr	Director	Oversees Terminal Operations Company Wide.	610-859-5403
Jack Frost	Senior Manager	Oversees Northeast Regional Operations.	973-465-8526
Scott Russell	Terminal Supervisor	Oversees Baltimore Terminal Operations.	410-355-3351
Daniel Burger	Terminal Operator	Completes Daily Operational Tasks at Baltimore Terminal.	410-355-7200
Leopoldo Cherenfant	Terminal Operator	Completes Daily Operational Tasks at Baltimore Terminal.	410-355-7200
David Wasserman	Terminal Operator	Completes Daily Operational Tasks at Baltimore Terminal.	410-355-7200
Mytokia Fair	Terminal Operator	Completes Daily Operational Tasks at Baltimore Terminal.	410-355-7200
Leonard Thomas	Terminal Operator	Completes Daily Operational Tasks at Baltimore Terminal.	410-355-7200
Cheryl Tate	Supervisor-Terminal Technical Services	Supervises Vapor Recovery Group.	267-559-5607
Kenny Garofalo	Lead Technician-Vapor Recovery	Provides Technical Support and Services Vapor Units.	732-977-5310

Corey Mortzfield	Technician-Vapor Recovery	Provides Technical Support and Services Vapor Units.	267-279-6758
Marguerite Porrini	Manager - Environmental Compliance	Provides Support for Environmental Compliance Related Issues.	610-368-0307
Erika Ezzo	Specialist-Environmental Compliance	Provides Support for Environmental Compliance Related Issues.	610-859-3309
Jed Werner	Manager-Environmental Compliance	Provides Support for Environmental Permit Application Submissions.	610-670-3297

Attachment 2: Delegation of Authority

Delegated Individual: **Louis Gonzalves, Director - Terminal Operations**
Facility: **Energy Transfer Marketing & Terminals L.P. – Baltimore Terminal**

I, James D. Robbins, Vice President - Terminal Operations for Energy Transfer Partners, L.P., the parent company of Energy Transfer Marketing and Terminals, L.P. hereby delegate to the above listed individual, authority to sign air quality permits and reports, that are submitted to government agencies regarding operations at the above identified facility. Such government agencies include, but are not limited to, Maryland Department of the Environment and the U. S. Environmental Protection Agency.

Dated 2/21/2023

James D. Robbins
Vice President-Terminal Operations
Energy Transfer Partners, L.P.

(air)

Delegated Individual: **Louis Gonzalves, Director Terminal Operations**
Facility: **Sunoco Partners Marketing & Terminals L.P. – Manassas Terminal**

I, James D. Robbins, Vice President - Terminal Operations for Energy Transfer Partners, L.P., the parent company of Energy Transfer Marketing and Terminals, L.P. hereby delegate to the above listed individual, authority to sign air quality permits and reports, that are submitted to government agencies regarding operations at the above identified facility. Such government agencies include, but are not limited to, Maryland Department of the Environment and the U. S. Environmental Protection Agency.

Dated 2/21/2023

James D. Robbins
Vice President-Terminal Operations
Energy Transfer Partners, L.P.

(water)

Attachment 3: RY2022 Annual Compliance Certification

ENERGY TRANSFER

Energy Transfer Partners, L.P.
2155 Northbridge Ave
Baltimore, MD 21226

January 26, 2023

Maryland Department of the Environment
Air and Radiation Management Administration
1800 Washington Boulevard, Suite 715
Baltimore, MD 21230-1720

RE: Energy Transfer Marketing & Terminals, L.P. – Baltimore Terminal
RY2022 Annual Compliance Certification
Title V Permit #24-510-00703

To whom it may concern:

Energy Transfer hereby submits this Ry2022 Annual Compliance Certification for the above-mentioned facility pursuant to the requirements of permit #24-510-00703.Please contact me at (610) 368-0307 if you have any questions.

Sincerely,

Marguerite Porrini
Environmental Specialist

Enc.

Cc:

R. Russell – Baltimore Terminal – Air-6

United States Environmental Protection Agency

OMB No. 2060-0336, Expires 11/30/2022

Federal Operating Permit Program (40 CFR Part 71)
ANNUAL COMPLIANCE CERTIFICATION (A-COMP)

A. GENERAL INFORMATION

Permit No. 24-510-00703

Reporting Period: Beg._01___/_01___/__2022_____ End.__12__/_31___/__2022____

Source / Company Name _Energy Transfer Marketing & Terminals, LP_

Mailing Address: Street or P.O. Box 2155 Northbridge Ave

City: Baltimore State: MD ZIP: 21226 _____

Contact person Scott Russell Title Terminal Supervisor

Telephone (410) 355 – 3351 Ext. _____

Continued on next page

B. COMPLIANCE STATUS

Describe the compliance status of each permit term for the reporting period. Copy this page as many times as necessary to cover all permit terms and conditions.

Emission Unit ID(s): General (3)

Permit Term (Describe requirements and cross-reference)
The effective date of the conditions in this Part 70 permit is the date of permit issuance, unless otherwise stated in the permit.

Compliance Methods for the Above (Description and Citation):

Permit condition understood, no action needed at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (4)

Upon expiration of this permit, the terms of the permit will automatically continue to remain in effect until a new Part 70 permit is issued for this facility provided that the Permittee has submitted a timely and complete application and has paid applicable fees under COMAR 26.11.02.16.

Otherwise, upon expiration of this permit the right of the Permittee to operate this facility is terminated.

Compliance Methods for the Above (Description and Citation):
Permit Expiration [COMAR 26.11.03.13B(2)]
Permit applications and fees are submitted in a timely manner.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (5)

The Permittee shall submit to the Department a completed application for renewal of this Part 70 permit at least 12 months before the expiration of the permit. Upon submitting a completed application, the Permittee may continue to operate this facility pending final action by the Department on the renewal.

The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall submit such supplementary facts or corrected information no later than 10 days after becoming aware that this occurred. The Permittee shall also provide additional information as necessary to address any requirements that become applicable to the facility after the date a completed application was submitted, but prior to the release of a draft permit. This information shall be submitted to the Department no later than 20 days after a new requirement has been adopted.

Compliance Methods for the Above (Description and Citation):

II.5 Permit Renewal [COMAR 26.11.03.02B(3)] and [COMAR 26.11.03.02E]
Permit application is submitted completely and in a timely manner.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (6)

In accordance with the provisions of the State Government Article, Sec. 10-611 et seq., Annotated Code of Maryland, all information submitted in an application shall be considered part of the public record and available for inspection and copying, unless the Permittee claims that the information is confidential when it is submitted to the Department. At the time of the request for inspection or copying, the Department will make a determination with regard to the confidentiality of the information. The Permittee, when requesting confidentiality, shall identify the information in a manner specified by the Department and, when requested by the Department, promptly provide specific reasons supporting the claim of confidentiality. Information submitted to the Department without a request that the information be deemed confidential may be made available to the public. Subject to approval of the Department, the Permittee may provide a summary of confidential information that is suitable for public review. The content of this Part 70 permit is not subject to confidential treatment

Compliance Methods for the Above (Description and Citation):

II.6 Confidential Information [COMAR 26.11.02.02G]

Permit condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (7)

This Part 70 permit may be revoked or reopened and revised for cause. The filing of an application by the Permittee for a permit revision or renewal; or a notification of termination, planned changes or anticipated noncompliance by the facility, does not stay a term or condition of this permit.

The Department shall reopen and revise, or revoke the Permittee's Part 70 permit under the following circumstances:

a. Additional requirements of the Clean Air Act become applicable to this facility and the remaining permit term is 3 years or more;

b. The Department or the EPA determines that this Part 70 permit contains a material mistake, or is based on false or inaccurate information supplied by or on behalf of the Permittee;

c. The Department or the EPA determines that this Part 70 permit must be revised or revoked to assure compliance with applicable requirements of the Clean Air Act; or

d. Additional requirements become applicable to an affected source under the Federal Acid Rain Program.

Compliance Methods for the Above (Description and Citation):
II.7 Permit Actions [COMAR 26.11.03.06E(3)] and [COMAR 26.11.03.20(A)]

Permit condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (8)

The Permittee shall maintain this Part 70 permit in the vicinity of the facility for which it was issued, unless it is not practical to do so, and make this permit immediately available to officials of the Department upon request.

Compliance Methods for the Above (Description and Citation):
II.8 Permit Availability [COMAR 26.11.02.13G]
Permit condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (9)

The EPA may terminate, modify, or revoke and reissue a permit for cause as prescribed in 40 CFR §70.7(g)

Compliance Methods for the Above (Description and Citation):

II.9 Reopening the Part 70 Permit for Cause by the EPA [COMAR 26.11.03.20B]
Permit condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (10)

The Permittee shall not transfer this Part 70 permit except as provided in COMAR 26.11.03.15.

Compliance Methods for the Above (Description and Citation):
II.10 Transfer of Permi t[COMAR 26.11.02.02E]
Permit condition understood, no action required at this time.

Permit condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (11)

The Permittee shall submit an application to the Department to revise this Part 70 permit when required under COMAR 26.11.03.15 -.17.
When applying for a revision to a Part 70 permit, the Permittee shall comply with the requirements of COMAR 26.11.03.02 and .03 except that the application for a revision need include only information listed that is related to the proposed change to the source and revision to the permit. This information shall be sufficient to evaluate the proposed change

and to determine whether it will comply with all applicable requirements of the Clean Air Act.
The Permittee may not change any provision of a compliance plan or schedule in a Part 70 permit as an administrative permit amendment or as a minor permit modification unless the change has been approved by the Department in writing.
A permit revision is not required for a change that is provided for in this permit relating to approved economic incentives, marketable permits, emissions trading, and other similar programs.

Compliance Methods for the Above (Description and Citation):

Applications are submitted as described.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (12)

"The Permittee may apply to the Department to make a significant modification to its Part 70 Permit as provided in COMAR 26.11.03.17 and in accordance with the following conditions:

A significant modification is a revision to the federally enforceable provisions in the permit that does not qualify as an administrative permit amendment under COMAR 26.11.03.15 or a minor permit modification as defined under COMAR 26.11.03.16.
"

"This permit does not preclude the Permittee from making changes, consistent with the provisions of COMAR 26.11.03, that would make the permit or particular terms and conditions of the permit irrelevant, such as by shutting down or reducing the level of operation of a source or of an emissions unit within the source. Air pollution control equipment shall not be shut down or its level of operation reduced if doing so would violate any term of this permit.

"

"Significant permit modifications are subject to all requirements of COMAR 26.11.03 as they apply to permit issuance and renewal, including the requirements for applications, public participation, and review by affected states and EPA, except:

(1) An application need include only information pertaining to the proposed change to the source and modification of this permit, including a description of the change and modification, and any new applicable requirements of the Clean Air Act that will apply if the change occurs;

(2) Public participation, and review by affected states and EPA, is limited to only the application and those federally enforceable terms and conditions of the Part 70 permit that are affected by the significant permit modification.
"

"As provided in COMAR 26.11.03.15B(5), an administrative permit amendment may be used to make a change that would otherwise require a significant permit modification if procedures for enhanced preconstruction review of the change are followed that satisfy the requirements of 40 CFR 70.7(d)(1)(v).

"

Before making a change that qualifies as a significant permit modification, the Permittee shall obtain all permits-to-construct and approvals required by COMAR 26.11.02.
The Permittee shall not make a significant permit modification that results in a violation of any

applicable requirement of the Clean Air Act.
The permit shield in COMAR 26.11.03.23 applies to a final significant permit modification that has been issued by the Department, to the extent applicable under COMAR 26.11.03.23.

Compliance Methods for the Above (Description and Citation):
Permit condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (13)

"The Permittee may apply to the Department to make a minor modification to the federally enforceable provisions of this Part 70 permit as provided in COMAR 26.11.03.16 and in accordance with the following conditions:
A minor permit modification is a Part 70 permit revision that:

(1) Does not result in a violation of any applicable requirement of the Clean Air Act;

(2) Does not significantly revise existing federally enforceable monitoring, including test methods, reporting, record keeping, or compliance certification requirements except by:

(a) Adding new requirements,

(b) Eliminating the requirements if they are rendered meaningless because the emissions to which the requirements apply will no longer occur, or

(c) Changing from one approved test method for a pollutant and source category to another;

(3) Does not require or modify a:

(a) Case-by-case determination of a federally enforceable emissions standard,

(b) Source specific determination for temporary sources of ambient impacts, or

(c) Visibility or increment analysis;

(4) Does not seek to establish or modify a federally enforceable permit term or condition for which there is no corresponding underlying applicable requirement of the Clean Air Act, but that the Permittee has assumed to avoid an applicable requirement to which the source would otherwise be subject, including:

(a) A federally enforceable emissions standard applied to the source pursuant to COMAR 26.11.02.03 to avoid classification as a Title I modification; and

(b) An alternative emissions standard applied to an emissions unit pursuant to regulations promulgated under Section 112(i)(5) of the Clean Air Act

(5) Is not a Title I modification; and

(6) Is not required under COMAR 26.11.03.17 to be processed as a significant modification

to this Part 70 permit.
"

"The Permittee shall submit to the Department an application for a minor permit modification that satisfies the requirements of COMAR 26.11.03.03 which includes the following:

(1) A description of the proposed change, the emissions resulting from the change, and any new applicable requirements that will apply if the change is made;

(2) The proposed minor permit modification;

(3) Certification by a responsible official, in accordance with COMAR 26.11.02.02F, that:

(a) The proposed change meets the criteria for a minor permit modification, and

(b) The Permittee has obtained or applied for all required permits-to-construct required by COMAR 26.11.03.16 with respect to the proposed change;

(4) Completed forms for the Department to use to notify the EPA and affected states, as required by COMAR 26.11.03.07-.12.

"

"(1) For changes proposed as minor permit modifications to this permit that will require the applicant to obtain a permit to construct, the permit to construct must be issued prior to the new change.

(2) During the period of time after the Permittee applies for a minor modification but before the Department acts in accordance with COMAR 26.11.03.16F(2):

(a) The Permittee shall comply with applicable requirements of the Clean Air Act related to the change and the permit terms and conditions described in the application for the minor modification.

(b) The Permittee is not required to comply with the terms and conditions in the permit it seeks to modify. If the Permittee fails to comply with the terms and conditions in the application during this time, the terms and conditions of both this permit and the application for modification may be enforced against it.
"

The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.16 is not within the scope of this regulation.
Minor permit modification procedures may be used for Part 70 permit modifications involving the use of economic incentives, marketable permits, emissions trading, and other similar approaches, but only to the extent that the minor permit modification procedures are explicitly provided for in regulations approved by the EPA as part of the Maryland SIP or in other applicable requirements of the Clean Air Act.

Compliance Methods for the Above (Description and Citation):

Permit condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (14)

"The Permittee may apply to the department to make an administrative permit amendment as provided in COMAR 26.11.03.15 and in accordance with the following conditions:

An application for an administrative permit amendment shall:

(1) Be in writing;

(2) Include a statement certified by a responsible official that the proposed amendment meets the criteria in COMAR 26.11.03.15 for an administrative permit amendment, and

(3) Identify those provisions of this part 70 permit for which the amendment is requested, including the basis for the request.

"

"An administrative permit amendment:

(1) Is a correction of a typographical error;

(2) Identifies a change in the name, address, or phone number of a person identified in this permit, or a similar administrative change involving the Permittee or other matters which are not directly related to the control of air pollution;

(3) requires more frequent monitoring or reporting by the Permittee;

(4) Allows for a change in ownership or operational control of a source for which the Department determines that no other revision to the permit is necessary and is documented as per COMAR 26.11.03.15B(4);

(5) Incorporates into this permit the requirements from preconstruction review permits or approvals issued by the Department in accordance with COMAR 26.11.03.15B(5), but only if it satisfies 40 CFR 70.7(d)(1)(v);

(6) Incorporates any other type of change, as approved by the EPA, which is similar to those in COMAR 26.11.03.15B(1)—(4);

(7) Notwithstanding COMAR 26.11.03.15B(1)—(6), all modifications to acid rain control provisions included in this Part 70 permit are governed by applicable requirements promulgated under Title IV of the Clean Air Act; or

(8) Incorporates any change to a term or condition specified as State-only enforceable, if the Permittee has obtained all necessary permits-to-construct and approvals that apply to the change.

"

The Permittee may make the change addressed in the application for an administrative amendment upon receipt by the Department of the application, if all permits-to-construct or approvals otherwise required by COMAR 26.11.02 prior to making the change have first been obtained from the Department.
The permit shield in COMAR 26.11.03.23 applies to administrative permit amendments made under Section B(5) of COMAR 26.11.03.15 , but only after the Department takes final action to revise the permit.
The Permittee is subject to enforcement action if it is determined at any time that a change made under COMAR 26.11.03.15 is not within the scope of this regulation.

Compliance Methods for the Above (Description and Citation):

Permit condition understood, no action required at this time.

Status (Check one): _ __ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (15)

"The Permittee may make off-permit changes to this facility as provided in COMAR 26.11.03.19 and in accordance with the following conditions:
The Permittee may make a change to this permitted facility that is not addressed or prohibited by the federally enforceable conditions of this Part 70 permit without obtaining a Part 70 permit revision if:

(1) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(2) The change is not subject to any requirements under Title IV of the Clean Air Act;

(3) The change is not a Title I modification; and

(4) The change does not violate an applicable requirement of the Clean Air Act or a federally enforceable term or condition of the permit.
"
"For a change that qualifies under COMAR 26.11.03.19, the Permittee shall provide contemporaneous written notice to the Department and the EPA, except for a change to an emissions unit or activity that is exempt from the Part 70 permit application, as provided in COMAR 26.11.03.04. This written notice shall describe the change, including the date it was made, any change in emissions, including the pollutants emitted, and any new applicable requirements of the Clean Air Act that apply as a result of the change.

"
Upon satisfying the requirements of COMAR 26.11.03.19, the Permittee may make the proposed change.
"The Permittee shall keep a record describing:

(1) Changes made at the facility that result in emissions of a regulated air pollutant subject to an applicable requirement of the Clean Air Act , but not otherwise regulated under this permit; and

(2) The emissions resulting from those changes.

"
"Changes that qualify under COMAR 26.11.03.19 are not subject to the requirements for Part 70 revisions.

"
The Permittee shall include each off-permit change under COMAR 26.11.03.19 in the application for renewal of the part 70 permit.
The permit shield in COMAR 26.11.03.23 does not apply to off-permit changes made under COMAR 26.11.03.19.
h. The Permittee is subject to enforcement action if it is determined that an off-permit

change made under COMAR 26.11.03.19 is not within the scope of this regulation.

Compliance Methods for the Above (Description and Citation):

Permit condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (16)

"The Permittee may make on-permit changes that are allowed under Section 502(b)(10) of the Clean Air Act as provided in COMAR 26.11.03.18 and in accordance with the following conditions:

The Permittee may make a change to this facility without obtaining a revision to this Part 70 permit if:

(1) The change is not a Title I modification;

(2) The change does not result in emissions in excess of those expressly allowed under the federally enforceable provisions of the Part 70 permit for the permitted facility or for an emissions unit within the facility, whether expressed as a rate of emissions or in terms of total emissions;

(3) The Permittee has obtained all permits and approvals required by COMAR 26.11.02 and .03;

(4) The change does not violate an applicable requirement of the Clean Air Act;

(5) The change does not violate a federally enforceable permit term or condition related to monitoring, including test methods, record keeping, reporting, or compliance certification requirements;

(6) The change does not violate a federally enforceable permit term or condition limiting hours of operation, work practices, fuel usage, raw material usage, or production levels if the term or condition has been established to limit emissions allowable under this permit;

(7) If applicable, the change does not modify a federally enforceable provision of a compliance plan or schedule in this Part 70 permit unless the Department has approved the change in writing; and

(8) This permit does not expressly prohibit the change under COMAR 26.11.03.18.

"

"The Permittee shall notify the Department and the EPA in writing of a proposed on-permit change under COMAR 26.11.03.18 not later than 7 days before the change is made. The written information shall include the following information:

(1) A description of the proposed change;

(2) The date on which the change is proposed to be made;

(3) Any change in emissions resulting from the change, including the pollutants emitted;

(4) Any new applicable requirement of the Clean Air Act; and

(5) Any permit term or condition that would no longer apply.
"
The responsible official of this facility shall certify in accordance with COMAR 26.11.02.02F that the proposed change meets the criteria for the use of on-permit changes under COMAR 26.11.03.18.
"The Permittee shall attach a copy of each notice required by condition b. above to this Part 70 permit.

"
On-permit changes that qualify under COMAR 26.11.03.18 are not subject to the requirements for part 70 permit revisions.
Upon satisfying the requirements under COMAR 26.11.03.18, the Permittee may make the proposed change.
The permit shield in COMAR 26.11.03.23 does not apply to on-permit changes under COMAR 26.11.03.18.
The Permittee is subject to enforcement action if it is determined that an on-permit change made under COMAR 26.11.03.18 is not within the scope of the regulation or violates any requirement of the State air pollution control law.

Compliance Methods for the Above (Description and Citation):

Permit condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (17)

The fee for this Part 70 permit is as prescribed in Regulation .19 of COMAR 26.11.02.
The fee is due on and shall be paid on or before each 12-month anniversary date of the permit.
Failure to pay the annual permit fee constitutes cause for revocation of the permit by the Department.

Compliance Methods for the Above (Description and Citation):

Fees are paid as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (18)

"The Permittee may not construct or modify or cause to be constructed or modified any of the following sources without first obtaining, and having in current effect, the specified permits-to-construct and approvals:

New Source Review source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;
"

Prevention of Significant Deterioration source, as defined in COMAR 26.11.01.01, approval required, except for generating stations constructed by electric companies;
New Source Performance Standard source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;
"National Emission Standards for Hazardous Air Pollutants source, as defined in COMAR 26.11.01.01, permit to construct required, except for generating stations constructed by electric companies;

"

A stationary source of lead that discharges one ton per year or more of lead or lead compounds measured as elemental lead, permit to construct required, except for generating stations constructed by electric companies;
All stationary sources of air pollution, including installations and air pollution control equipment, except as listed in COMAR 26.11.02.10, permit to construct required;
"In the event of a conflict between the applicability of (a.— e.) above and an exemption listed in COMAR 26.11.02.10, the provision that requires a permit applies.

"

Approval of a PSD or NSR source by the Department does not relieve the Permittee obtaining an approval from also obtaining all permits-to-construct required b y (c.— g.) above.

Compliance Methods for the Above (Description and Citation):

Prior to construction of any source, the facility will calculate PTE and notify MDE.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (19)

The Permittee may request the Department to authorize special procedures for the Permittee to apply simultaneously, to the extent possible, for a permit to construct and a revision to this permit.

These procedures may provide for combined public notices, informational meetings, and public hearings for both permits but shall not adversely affect the rights of a person, including EPA and affected states, to obtain information about the application for a permit, to comment on an application, or to challenge a permit that is issued.

These procedures shall not alter any existing permit procedures or time frames.

Compliance Methods for the Above (Description and Citation):

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (20)

This Part 70 permit does not convey any property rights of any sort, or any exclusive privileges.

Compliance Methods for the Above (Description and Citation):

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (21)

Permit Term (Describe requirements and cross-reference)
If any portion of this Part 70 permit is challenged, or any term or condition deemed unenforceable, the remainder of the requirements of the permit continues to be valid.

Compliance Methods for the Above (Description and Citation):

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (22)

Permit Term (Describe requirements and cross-reference)
The Permittee shall allow employees and authorized representatives of the Department, the EPA, and local environmental health agencies, upon presentation of credentials or other documents as may be required by law, to:

a. Enter at a reasonable time without delay and without prior notification the Permittee's property where a Part 70 source is located, emissions-related activity is conducted, or records required by this permit are kept;

b. Have access to and make copies of records required by the permit;

c. Inspect all emissions units within the facility subject to the permit and all related monitoring systems, air pollution control equipment, and practices or operations regulated or required by the permit; and

d. Sample or monitor any substances or parameters at or related to the emissions units at the facility for the purpose of determining compliance with the permit.

Compliance Methods for the Above (Description and Citation):

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (23)

Permit Term (Describe requirements and cross-reference)

The Permittee shall furnish to the Department, within a reasonable time specified by the Department, information requested in writing by the Department in order to determine whether the Permittee is in compliance with the federally enforceable conditions of this Part 70 permit, or whether cause exists for revising or revoking the permit. Upon request, the Permittee shall also furnish to the Department records required to be kept under the permit.

For information claimed by the Permittee to be confidential and therefore potentially not discloseable to the public, the Department may require the Permittee to provide a copy of the records directly to the EPA along with a claim of confidentiality.

The Permittee shall also furnish to the Department, within a reasonable time specified by the Department, information or records requested in writing by the Department in order to determine if the Permittee is in compliance with the State-only enforceable conditions of this permit.

Compliance Methods for the Above (Description and Citation):

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (24)

Permit Term (Describe requirements and cross-reference)

The Permittee shall comply with the conditions of this Part 70 permit. Noncompliance with the permit constitutes a violation of the Clean Air Act, and/or the Environment Article Title 2 of the Annotated Code of Maryland and may subject the Permittee to:

a. Enforcement action,

b. Permit revocation or revision,

c. Denial of the renewal of a Part 70 permit, or

d. Any combination of these actions.

The conditions in this Part 70 permit are enforceable by EPA and citizens under the Clean Air Act except for the State-only enforceable conditions.

Under Environment Article Section 2-609, Annotated Code of Maryland, the Department may seek immediate injunctive relief against a person who violates this permit in such a manner as to cause a threat to human health or the environment.

Compliance Methods for the Above (Description and Citation):

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (25)

Permit Term (Describe requirements and cross-reference)
Nothing in this permit shall be interpreted to preclude the use of credible evidence to demonstrate noncompliance with any term of this permit.

Compliance Methods for the Above (Description and Citation):

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (26)

Permit Term (Describe requirements and cross-reference)

Compliance Methods for the Above (Description and Citation):

II.26 Need to Halt or Reduce Activity Not a Defense [COMAR 26.11.03.06E(2)]

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (27)

Permit Term (Describe requirements and cross-reference)
The Permittee may not install or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total weight of emissions, conceals or dilutes emissions which would otherwise constitute a violation of any applicable air pollution control regulation.

Compliance Methods for the Above (Description and Citation):
II.27 Circumvention [COMAR 26.11.01.06]

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (28)

Permit Term (Describe requirements and cross-reference)
A permit shield as described in COMAR 26.11.03.23 shall apply only to terms and conditions in this Part 70 permit that have

been specifically identified as covered by the permit shield. Neither this permit nor COMAR 26.11.03.23 alters the following:

a. The emergency order provisions in Section 303 of the Clean Air Act, including the authority of EPA under that section;

b. The liability of the Permittee for a violation of an applicable requirement of the Clean Air Act before or when this permit is issued or for a violation that continues after issuance;

c. The requirements of the Acid Rain Program, consistent with Section 408(a) of the Clean Air Act;

d. The ability of the Department or EPA to obtain information from a source pursuant to Maryland law and Section 114 of the Clean Air Act; or

e. The authority of the Department to enforce an applicable requirement of the State air pollution control law that is not an applicable requirement of the Clean Air Act.

Compliance Methods for the Above (Description and Citation):
II.28 Permit Shield [COMAR 26.11.03.23]

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (29)

Permit Term (Describe requirements and cross-reference)
For all alternate operating scenarios approved by the Department and contained within this permit, the Permittee, while changing from one approved scenario to another, shall contemporaneously record in a log maintained at the facility each scenario under which the emissions unit is operating and the date and time the scenario started and ended.

Compliance Methods for the Above (Description and Citation):

II.29 Alternate Operating Scenarios [COMAR 26.11.03.06A(9)]

Alternate operating scenarios are tracked as described.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-1)

Permit Term (Describe requirements and cross-reference)
The Permittee shall not cause or permit any building, its appurtenances, or a road to be used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne.

Compliance Methods for the Above (Description and Citation):
III.1 Particulate Matter from Construction and Demolition [COMAR 26.11.06.03D]

All construction activity must be reported in to HES prior to its start. A plan is put in place to prevent particulate matter.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-2)

Permit Term (Describe requirements and cross-reference)
Except as provided in COMAR 26.11.07.04, the Permittee shall not cause or permit an open fire from June 1 through August 31 of any calendar year. Prior to any open burning, the Permittee shall request and receive approval from the Department.

Compliance Methods for the Above (Description and Citation):

III.2 Open Burning [COMAR 26.11.07]

Internal procedures prohibit open burning at the facility.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-3)

Permit Term (Describe requirements and cross-reference)
When requested by the Department, the Permittee shall prepare in writing standby emissions reduction plans, consistent with good industrial practice and safe operating procedures, for reducing emissions creating air pollution during periods of Alert, Warning, and Emergency of an air pollution episode.

Compliance Methods for the Above (Description and Citation):
III.3 Air Pollution Episode [COMAR 26.11.05.04]

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-4)

Permit Term (Describe requirements and cross-reference)
"The Permittee shall comply with the following conditions for occurrences of excess emissions and deviations from requirements of this permit, including those in Section VI – State-only Enforceable Conditions:

Report any deviation from permit requirements that could endanger human health or the environment, by orally notifying the Department immediately upon discovery of the deviation;"
"Promptly report all occurrences of excess emissions that are expected to last for one hour or longer by orally notifying the Department of the onset and termination of the occurrence;

"

"When requested by the Department the Permittee shall report all deviations from permit conditions, including those attributed to malfunctions as defined in COMAR 26.11.01.07A, within 5 days of the request by submitting a written description of the deviation to the Department. The written report shall include the cause, dates and times of the onset and termination of the deviation, and an account of all actions planned or taken to reduce, eliminate, and prevent recurrence of the deviation;

"

The Permittee shall submit to the Department semi-annual monitoring reports that confirm that all required monitoring was performed, and that provide accounts of all deviations from permit requirements that occurred during the reporting periods. Reporting periods shall be January 1 through June 30 and July 1 through December 31, and reports shall be submitted within 30 days of the end of each reporting period. Each account of deviation shall include a description of the deviation, the dates and times of onset and termination, identification of the person who observed or discovered the deviation, causes and corrective actions taken, and actions taken to prevent recurrence. If no deviations from permit conditions occurred during a reporting period, the Permittee shall submit a written report that so states.

When requested by the Department, the Permittee shall submit a written report to the Department within 10 days of receiving the request concerning an occurrence of excess emissions. The report shall contain the information required in COMAR 26.11.01.07D(2).

Compliance Methods for the Above (Description and Citation):

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General

Permit Term (Describe requirements and cross-reference)
III.4 Report of Excess Emissions and Deviations [COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)] a

III.4 Report of Excess Emissions and Deviations [COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)] b

III.4 Report of Excess Emissions and Deviations [COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)] c

III.4 Report of Excess Emissions and Deviations [COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)] d

III.4 Report of Excess Emissions and Deviations [COMAR 26.11.01.07] and [COMAR 26.11.03.06C(7)] e

Compliance Methods for the Above (Description and Citation):

Deviations and excess emissions reports/notifications are submitted as referenced.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-5)

Permit Term (Describe requirements and cross-reference)
Should the Permittee become subject to 40 CFR 68 during the term of this permit, the Permittee shall submit risk management plans by the date specified in 40 CFR 68.150 and shall certify compliance with the requirements of 40 CFR 68 as part of the annual compliance certification as required by 40 CFR 70.

The Permittee shall initiate a permit revision or reopening according to the procedures of 40 CFR 70.7 to incorporate appropriate permit conditions into the Permittee's Part 70 permit.

Compliance Methods for the Above (Description and Citation):
III.5 Accidental Release Provisions [COMAR 26.11.03.03B(23)] and [40 CFR 68]

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-6)

Permit Term (Describe requirements and cross-reference)
The Department may require the Permittee to conduct, or have conducted, testing to determine compliance with this Part 70 permit. The Department, at its option, may witness or conduct these tests. This testing shall be done at a reasonable time, and all information gathered during a testing operation shall be provided to the Department.

Compliance Methods for the Above (Description and Citation):
III.6 General Testing Requirements [COMAR 26.11.01.04]

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-7)

Permit Term (Describe requirements and cross-reference)
Compliance with the emissions standards and limitations in this Part 70 permit shall be determined by the test methods designated and described below or other test methods submitted to and approved by the Department.

Reference documents of the test methods approved by the Department include the following:

a. 40 CFR 60, appendix A

b. 40 CFR 51, appendix M

c. The Department's Technical Memorandum 91-01 "Test Methods and Equipment Specifications for Stationary Sources", (January 1991), as amended through Supplement 3, (October 1, 1997)

Compliance Methods for the Above (Description and Citation):
III.7 Emissions Test Methods [COMAR 26.11.01.04]

Testing is completed using the above referenced standards.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-8)

Permit Term (Describe requirements and cross-reference)
"The Permittee shall certify actual annual emissions of regulated pollutants from the facility on a calendar year basis.

The certification shall be on forms obtained from the Department and submitted to the Department not later than April 1 of the year following the year for which the certification is required;
"

"The individual making the certification shall certify that the information is accurate to the individual's best knowledge. The individual shall be:

(1) Familiar with each source for which the certifications forms are submitted, and

(2) Responsible for the accuracy of the emissions information
"

"The Permittee shall maintain records necessary to support the emissions certification including the following information if applicable:

(1) The total amount of actual emissions of each regulated pollutant and the total of all regulated pollutants;

(2) An explanation of the methods used to quantify the emissions and the operating schedules and production data that were used to determine emissions, including significant assumptions made;

(3) Amounts, types and analyses of all fuels used;

(4) Emissions data from continuous emissions monitors that are required by this permit, including monitor calibration and malfunction information;

(5) Identification, description, and use records of all air pollution control equipment and compliance monitoring equipment including:

(a) Significant maintenance performed,
(b) Malfunctions and downtime, and
(c) Episodes of reduced efficiency of all equipment;

(6) Limitations on source operation or any work practice standards that significantly affect emissions; and

(7) Other relevant information as required by the Department.
"

Compliance Methods for the Above (Description and Citation):

"III.8 Emissions Certification Report [COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D] a
"

III.8 Emissions Certification Report [COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D] b

III.8 Emissions Certification Report [COMAR 26.11.01.05-1] and [COMAR 26.11.02.19C] and [COMAR 26.11.02.19D] c

Emissions reports are completed with the information referenced.

Status
(Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-9)

Permit Term (Describe requirements and cross-reference)
"The Permittee shall submit to the Department and EPA Region III a report certifying compliance with each term of this Part 70 permit including each applicable standard, emissions limitation, and work practice for the previous calendar year by April 1 of each year.
The compliance certification shall include:

(1) The identification of each term or condition of this permit which is the basis of the certification;

(2) The compliance status;

(3) Whether the compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of each source, currently and over the reporting period; and

(5) Any other information required to be reported to the Department that is necessary to determine the compliance status of the Permittee with this permit.
"
The Permittee shall submit the compliance certification reports to the Department and EPA simultaneously.

Compliance Methods for the Above (Description and Citation):
III.9 Compliance Certification Report [COMAR 26.11.03.06G(6) and (7)] a
III.9 Compliance Certification Report [COMAR 26.11.03.06G(6) and (7)] b

A compliance report is submitted as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-10)

Permit Term (Describe requirements and cross-reference)
All application forms, reports, and compliance certifications submitted pursuant to this permit shall be certified by a

responsible official as to truth, accuracy, and completeness. The Permittee shall expeditiously notify the Department of an appointment of a new responsible official.

The certification shall be in the following form:

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Compliance Methods for the Above (Description and Citation):

III.10 Certification by Responsible Official [COMAR 26.11.02.02F]

Reports are certified by a Responsible Official using the above referenced statement.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-11)

Permit Term (Describe requirements and cross-reference)
The Permittee shall gather and retain the following information when sampling and testing for compliance demonstrations:

a. The location as specified in this permit, and the date and time that samples and measurements are taken;

b. All pertinent operating conditions existing at the time that samples and measurements are taken;

c. The date that each analysis of a sample or emissions test is performed and the name of the person taking the sample or performing the emissions test;

d. The identity of the Permittee, individual, or other entity that performed the analysis;

e. The analytical techniques and methods used; and

f. The results of each analysis.

Compliance Methods for the Above (Description and Citation):

III.11 Sampling and Emissions Testing Record Keeping [COMAR 26.11.03.06C(5)]

Records are maintained as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-12)

Permit Term (Describe requirements and cross-reference)
The Permittee shall retain records of all monitoring data and information that support the compliance certification for a

period of five (5) years from the date that the monitoring, sample measurement, application, report or emissions test was completed or submitted to the Department.

These records and support information shall include:

a. All calibration and maintenance records;

b. All original data collected from continuous monitoring instrumentation;

c. Records which support the annual emissions certification; and

d. Copies of all reports required by this permit.

Compliance Methods for the Above (Description and Citation):

III.12 General Record Keeping [COMAR 26.11.03.06C(6)]

Records are maintained as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-13)

Permit Term (Describe requirements and cross-reference)
The Permittee shall comply with the general conformity requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09.

Compliance Methods for the Above (Description and Citation):
III.13 General Conformity- Does Not Apply [COMAR 26.11.26.09]

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-14)

Permit Term (Describe requirements and cross-reference)
The Permittee shall comply with 40 CFR 61, Subpart M when conducting any renovation or demolition activities at the facility.

Compliance Methods for the Above (Description and Citation):

III.14 Asbestos Provisions [40 CFR 61, Subpart M]

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General (Section III-15)

Permit Term (Describe requirements and cross-reference)

The Permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR 82, Subpart F, except as provided for MVACs in subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the prohibitions and required practices pursuant to 40 CFR 82.154 and 82.156.

b. Equipment used during the maintenance, service, repair or disposal of appliances shall comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.

c. Persons performing maintenance, service, repairs or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

d. Persons performing maintenance, service, repairs or disposal of appliances shall certify with the Administrator pursuant to 40 CFR 82.162.

e. Persons disposing of small appliances, MVACS, and MVAC-like appliances as defined in 40 CFR 82.152, shall comply with record keeping requirements pursuant to 40 CFR 82.166.

f. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

g. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

Emission Unit ID(s): General (Section III-16)
Compliance Methods for the Above (Description and Citation):

III.15 Ozone Depleting Regulations- Does Not Apply [40 CFR 82, Subpart F]

Condition understood, no action required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s):EU 1a 1.1

Permit Term (Describe requirements and cross-reference)
"Control of VOC and HAP
COMAR 26.11.13.03A(1)(a) and (b) which require that:

(a) Each tank's gauging and sampling devices be gas tight except when in use.

(b) Each tank be equipped with one of the following properly installed, operating, and well maintained emission control systems:

(i) An internal floating roof equipped with a primary and secondary seal;

(ii) A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere; or
(iii) A vapor control system capable of collecting the vapors from the tank and disposing of the vapors to prevent their emission to the atmosphere.
"

"COMAR 26.11.13.03A(2) which requires the Permittee to meet the following seal requirements:

(a) There shall be no visible holes, tears, or other openings in the seal or seal fabric.

(b) Each seal shall be intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall.

(c) The accumulated area of the gaps between the secondary seal and the tank wall and between the seal and other obstructions inside the tank (that is, ladder, roof supports) that are greater than 1/8 inch in width may not exceed 1.0 square inch per foot of tank diameter.
"

"40 CFR 63, Subpart BBBBBB which requires the Permittee to meet emission limits and management practices for gasoline storage tanks at bulk gasoline terminals.

(a) For Tank No. 4 and Tank No. 12, the Permittee has elected to comply with 40 CFR 63, Subpart BBBBBB by equipping each tank with an internal floating roof meeting the following specifications:

(i) The internal floating roof shall be equipped with a liquid-mounted seal or a mechanical shoe seal.

(ii) The floating roof shall float on the stored liquid surface at all times, except when the floating roof is supported by its leg supports or other support devices (e.g., hangers from the fixed roof).

(iii) When the storage vessel is storing liquid, but the liquid depth is insufficient to float the floating roof, the process of filling to the point of refloating the floating roof shall be continuous and shall be performed as soon as practical.

(iv) Each cover over an opening in the floating roof, except for automatic bleeder vents (vacuum breaker vents) and rim space vents, shall be closed at all times, except when the cover must be open for access.

(v) Each automatic bleeder vent (vacuum breaker vent) and rim space vent shall be closed at all times, except when required to be open to relieve excess pressure or vacuum, in accordance with the manufacturer's design.

(vi) Each unslotted guide pole cap shall be closed at all times except when gauging the liquid level or taking liquid samples.
[Authority: 40 CFR §63.1063(a)(1)(i)(A) and (B), §63.1063(b), §63.11087(a) and (b) and Table 1, Option 2(d) of 40 CFR 63, Subpart BBBBBB]

(b) For Tank No. 11, Tank No. 13, and Tank No. 16, if storing gasoline, compliance with Subpart BBBBBB will be determined at the first degassing and cleaning activity for each tank or by January 10, 2018, whichever is first. [Authority: 40 CFR §63.11087(b)]
"

Compliance Methods for the Above (Description and Citation):

IV- Emission Unit 1a: 1.1 Applicable Standards/Limits (1)
IV- Emission Unit 1a: 1.1 Applicable Standards/Limits (2)
IV- Emission Unit 1a: 1.1 Applicable Standards/Limits (3)

Engineering/design controls have been implemented to comply with these standards.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU 1a 1.2

Permit Term (Describe requirements and cross-reference)
"Control of VOC and HAP

See Monitoring, Record Keeping

and Reporting Requirements.
"

The Permittee shall determine the total seal gap by summing the areas of the individual gaps. The lengths and widths of the gaps are measured by passing a 1/8 inch diameter probe between the seal and the tank wall and other obstructions in the tank. (The probe should move freely without forcing or binding against the seal.) [Authority: COMAR 26.11.13.03A(4)]

Compliance Methods for the Above (Description and Citation):

IV- Emission Unit 1a: 1.2 Testing Requirements (1)
IV- Emission Unit 1a: 1.2 Testing Requirements (2) and (3)

Testing is completed as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU 1a 1.3

Permit Term (Describe requirements and cross-reference)
"Control of VOC and HAP
The Permittee shall perform an annual visual inspection of each tank's gauging and sampling devices. If a visual inspection shows noncompliance with the gas tight requirement, the Permittee shall repair the device within 45 days or empty and remove the tank from service within 45 days.

If a repair cannot be made within 45 days and if the tank cannot be emptied within 45 days, a 30-day extension may be requested from the Department. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the Permittee will take that assure that the device will be repaired or the tank will be emptied as soon as possible. [Authority: COMAR 26.11.02.02H and COMAR 26.11.13.03A(1)(a)]
"

"The Permittee shall comply with the following inspection requirements:

(a) At least once per year, the Permittee shall visually inspect the floating roof deck, deck fittings, and rim seal through openings in the fixed roof as per 40 CFR §63.1063(d)(2). Any of the following conditions: stored liquid on the floating roof, holes or tears in the primary or secondary seal, floating roof deck, deck fittings, or rim seals that are not functioning as designed, or failure to comply with the operational requirements of 40 CFR §63.1063(b) constitutes inspection failure. Identification of holes or tears in the rim seal is required only for the seal that is visible from the top of the storage vessel.

(b) The Permittee shall visually inspect the floating roof deck, deck fittings, and rim seals as per 40 CFR §63.1063(d)(1). The floating roof inspection shall be conducted by visually inspecting the floating roof deck, deck fittings and rim seals from within the storage vessel each time the storage vessel is completely emptied and degassed or within 10 years from the last internal inspection, whichever occurs first. Any of the following conditions: stored liquid on the floating roof, holes or tears in the primary or secondary seal, floating roof deck, deck fittings, or rim seals that are not functioning as designed, or failure to comply with the operational requirements of 40 CFR §63.1063(b) constitutes inspection failure.

(c) Conditions causing inspection failures shall be repaired as follows:

(i) If the inspection is performed while the storage vessel is not storing liquid, repairs shall be completed before the refilling of the storage vessel with liquid.

(ii) If the inspection is performed while the storage vessel is storing liquid, repairs shall be completed or the vessel removed from service within 45 days. If a repair cannot be completed and the vessel cannot be emptied within 45 days, the Permittee may use up to 2 extensions of up to 30 additional days each. Documentation of a decision to use an extension shall include a description of the failure, shall document that alternate storage capacity is unavailable, and shall specify a schedule of actions that will ensure that the control equipment will be repaired or the vessel will be completely emptied as soon as practical.
[Authority: COMAR 26.11.13.03A(3)(a), (b), and (c), 40 CFR §63.1063(c)(i), (d), and (e),

§63.11087(c), and §63.11092(e)(1)]
"

Compliance Methods for the Above (Description and Citation):
IV- Emission Unit 1a: 1.3 Monitoring Requirements (1)
IV- Emission Unit 1a: 1.3 Monitoring Requirements (2) and (3)

Inspections and checksheets are completed to comply with these requirements.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU 1a 1.4

Permit Term (Describe requirements and cross-reference)

The Permittee shall record the results of all visual inspections of each tank's gauging and sampling devices. The Permittee shall also record all repairs or replacements including the date and the action taken. [Authority: COMAR 26.11.03.06C]
"The Permittee shall keep the following records:

(a) The Permittee shall keep records of the dimensions of the storage vessel, an analysis of the capacity of the storage vessel, and an identification of the liquid stored for as long as liquid is stored in the storage vessel.

(b) The Permittee shall keep the following records in hard copy or computer-readable form for at least five years in such a manner that they can be readily accessed within 24 hours:

(i) If the floating roof passes inspection, a record shall be kept that includes the identification of the storage vessel that was inspected and the date of the inspection.

(ii) If the floating roof fails inspection, a record shall be kept that includes the identification of the storage vessel that was inspected, the date of the inspection, a description of all inspection failures, a description of all repairs and the dates they were made, and the date the storage vessel was removed from service, if applicable.

(iii) A record of the date when a floating roof is set on its legs or other support devices. The Permittee shall also keep a record of the date when the roof was refloated, and the record shall indicate whether the process of refloating was continuous.

(iv) Documentation required by 40 CFR §63.1063(e)(2) if the Permittee elects to use an extension in accordance with 40 CFR §63.1063(e)(2).

(c) The Permittee shall record the average monthly storage temperature and throughput for each storage tank.
[Authority: COMAR 26.11.13.03C(1), (2), and (3), 40 CFR §63.1065(a), (b)(1), (c), and (d), §63.11087(e), and §63.11094(a)]
"

Compliance Methods for the Above (Description and Citation):

IV- Emission Unit 1a: 1.4 Record Keeping Requirements (1)
IV- Emission Unit 1a: 1.4 Record Keeping Requirements (2) and (3)

Records are maintained as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU 1a 1.5

Permit Term (Describe requirements and cross-reference)
Records of gauging and sampling device inspections shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]
"(a) To provide the Department the opportunity to have an observer present, the Permittee shall notify the Department at least 30 days before an internal inspection as required by 40 CFR §63.1063(d)(1). If an inspection is unplanned and the Permittee could not have known about the inspection 30 days in advance, then the Permittee shall notify the Department at least 7 days before the inspection. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, the notification including the written documentation may be made in writing and sent so that it is received by the Department at least 7 days before the inspection.

(b) The Permittee shall submit a semiannual compliance report to the Department as specified in 40 CFR §63.11095(a). The report shall include the following information:

(i) A copy of the inspection record required in 40 CFR §63.1065 when inspection failures occur.

(ii) Documentation required by 40 CFR §63.1063(e)(2) if the Permittee elects to use an extension in accordance with 40 CFR §63.1063(e)(2).

(iii) For Tank No. 11, Tank No. 13, and Tank No. 16, the Notification of Compliance Status information for each tank that achieves compliance with 40 CFR 63, Subpart BBBBBB during the reporting period.
[Authority: COMAR 26.11.13.03A(3)(d), 40 CFR §63.1066(b)(1), (2), and (4), §63.11087(e), and §63.11095(a)(1) and (4)]
"

Compliance Methods for the Above (Description and Citation):
IV- Emission Unit 1a: 1.5 Reporting Requirements (1)
IV- Emission Unit 1a: 1.5 Reporting Requirements (2)

Reporting is completed as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s):EU 1b 2.1

Permit Term (Describe requirements and cross-reference)
"COMAR 26.11.13.03A(1)(a) and (b) which require that:

(a) Each tank's gauging and sampling devices be gas tight except when in use.

(b) Each tank be equipped with one of the following properly installed, operating, and well maintained emission control systems:

(i) An internal floating roof equipped with a primary and secondary seal;

(ii) A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere; or

(iii) A vapor control system capable of collecting the vapors from the tank and disposing of the vapors to prevent their emission to the atmosphere.
"
"COMAR 26.11.13.03A(2) which requires the Permittee to meet the following seal requirements:

(a) There shall be no visible holes, tears, or other openings in the seal or seal fabric.

(b) Each seal shall be intact and uniformly in place around the circumference of the floating roof between the floating roof and the tank wall.

(c) The accumulated area of the gaps between the secondary seal and the tank wall and between the seal and other obstructions inside the tank (that is, ladder, roof supports) that are greater than 1/8 inch in width may not exceed 1.0 square inch per foot of tank diameter.
"

"40 CFR 60, Subpart Kb which requires the Permittee to equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications:

(a) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.

(b) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:

(i) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam- or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.

(ii) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.

(iii) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.

(c) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.

(d) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.

(e) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.

(f) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.

(g) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.

(h) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

(i) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
[Authority: 40 CFR §60.112b(a)(1)(i) through (ix)]
"

"Control of HAP
Gasoline storage tanks subject to and in compliance with the control requirements of 40 CFR 60, Subpart Kb are deemed in compliance with the gasoline storage tank requirements under 40 CFR 63,

Subpart BBBBBB. [Authority: 40 CFR §63.11087(f)]
"

Compliance Methods for the Above (Description and Citation):
IV- Emissions Unit 1b: 2.1 Applicable Standards/Limits A1
IV- Emissions Unit 1b: 2.1 Applicable Standards/Limits A2
IV- Emissions Unit 1b: 2.1 Applicable Standards/Limits A3
IV- Emissions Unit 1b: 2.1 Applicable Standards/Limits B

Engineering/design controls have been implemented to comply with these requirements.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU 1b 2.2

Permit Term (Describe requirements and cross-reference)
" Control of VOC
See Monitoring, Record Keeping and Reporting Requirements.
"
The Permittee shall determine the total seal gap by summing the areas of the individual gaps. The lengths and widths of the gaps are measured by passing a 1/8 inch diameter probe between the seal and the tank wall and other obstructions in the tank. (The probe should move freely without forcing or binding against the seal.) [Authority: COMAR 26.11.13.03A(4)]
"Control of HAP
See Monitoring, Record Keeping and Reporting Requirements.
"

Compliance Methods for the Above (Description and Citation):
IV- Emissions Unit 1b: 2.2 Testing Requirements A1
IV- Emissions Unit 1b: 2.2 Testing Requirements A2 and 3
IV- Emissions Unit 1b: 2.2 Testing Requirements B

Testing is completed as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU 1b 2.3

Permit Term (Describe requirements and cross-reference)
"Control of VOC
The Permittee shall perform an annual visual inspection of each tank's gauging and sampling devices. If a visual inspection shows noncompliance with the gas tight requirement, the Permittee shall repair the device within 45 days or empty and remove the tank from service within 45 days.

If a repair cannot be made within 45 days and if the tank cannot be emptied within 45 days, a 30-day extension may be requested from the Department. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the Permittee will take that assure that the device will be repaired or the tank will be emptied as soon as possible. [Authority: COMAR 26.11.02.02H and COMAR 26.11.13.03A(1)(a)]
"
"The Permittee shall comply with the following inspection requirements for each tank:

(a) The Permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling or refilling the storage vessel with volatile organic liquid. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the Permittee shall repair the items before filling or refilling the storage vessel. [Authority: 40 CFR §60.113b(a)(1)]

(b) The Permittee shall visually inspect the internal floating roof and the primary seal and the secondary seal through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the volatile organic liquid inside the tank or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the Permittee shall repair the items or empty and remove the tank from service within 45 days.

If a failure that is detected during the required inspection cannot be repaired with 45 days and if the tank cannot be emptied within 45 days, a 30-day extension may be requested from the Department. Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the Permittee will take that will assure that the control equipment will be repaired or the tank will be emptied as soon as possible. [Authority: COMAR 26.11.13.03A(3)(a) and (b), and 40 CFR §60.113b(a)(2) and (a)(3)(ii)]

(c) The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the Permittee shall repair the items as necessary so that none of the conditions exist before refilling the storage vessel with volatile organic liquid. The storage vessel shall be inspected within 10 years from the date of the last internal inspection. [Authority: COMAR 26.11.13.03A(3)(c) and 40 CFR §60.113b(a)(4)]
"
"Control of HAP
See Monitoring Requirements for Table IV-2, 2.3A(2) and (3) above.
"

Compliance Methods for the Above (Description and Citation):
IV- Emissions Unit 1b: 2.3 Monitoring Requirements A1
IV- Emissions Unit 1b: 2.3 Monitoring Requirements A2 and 3
IV- Emissions Unit 1b: 2.3 Monitoring Requirements B

The facility is monitored via inspections and checksheets to ensure compliance with these requirements.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU 1b 2.4

Permit Term (Describe requirements and cross-reference)
"Control of VOC
The Permittee shall record the results of all visual inspections of each tank's gauging and sampling devices. The Permittee shall also record all repairs or replacements including the date and the action taken. [Authority: COMAR 26.11.03.06C]

"
"(a) The Permittee shall keep a record of each inspection performed as required by 40 CFR §60.113b(a)(1), (a)(2), (a)(3), and (a)(4) and COMAR 26.11.13.03A(3) for each storage tank. Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings). [Authority: COMAR 26.11.13.03C(1) and 40 CFR §60.115b(a)(2)]

(b) The Permittee shall record all repairs or replacement of the seals, or internal floating roof including a detailed description of work performed and the date and the action taken for each storage tank. [Authority: COMAR 26.11.13.03C(2)]

(c) The Permittee shall record the average monthly storage temperature and throughput for each

storage tank. [Authority: COMAR 26.11.13.03C(3)]

(d) The Permittee shall maintain readily accessible records showing the dimension of each storage vessel and an analysis showing the capacity of each storage vessel. The records shall be maintained on-site for the life of the storage vessels. [Authority: 40 CFR §60.116b(a) and (b)]

(e) The Permittee shall maintain records of the volatile organic liquid stored, the period of storage, and the maximum true vapor pressure of the volatile organic liquid during the respective storage period for each storage tank. The maximum true vapor pressure shall be determined using the procedures listed in 40 CFR §60.116b(e). [Authority: 40 CFR §60.116b(c) and (e)]
"

"Control of HAP
See Record Keeping Requirements for Table IV-2, 2.4A(2) and (3) above.
"

Compliance Methods for the Above (Description and Citation):

IV- Emissions Unit 1b: 2.4 Record Keeping Requirements A1
IV- Emissions Unit 1b: 2.4 Record Keeping Requirements A2 and 3
IV- Emissions Unit 1b: 2.4 Record Keeping Requirements B

Records are maintained as required.

Status
(Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU 1b 2.5

Permit Term (Describe requirements and cross-reference)
"Control of VOC
Records of gauging and sampling device inspections shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]
"

"(2) and (3)
(a) The Permittee shall notify the Department in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by 40 CFR §60.113b(a)(1) and (a)(4) to afford the Department the opportunity to have an observer present. If the inspection required by 40 CFR §60.113b(a)(4) is not planned and the Permittee could not have known about the inspection 30 days in advance of refilling the tank, the Permittee shall notify the Department at least seven (7) days prior to the refilling of the storage vessel.

Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Department at least seven (7) days prior to the refilling. [Authority: 40 CFR §60.113b(a)(5) and COMAR 26.11.13.03A(3)(d)]

(b) If any of the conditions described in 40 CFR §60.113b(a)(2) are detected during the annual visual inspection required by 40 CFR §60.113b(a)(2), the Permittee shall furnish a report to the Department within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied, or the nature of and date the repair was made. [Authority: 40 CFR §60.115b(a)(3)]

(c) After each inspection required by 40 CFR §60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 40 CFR §60.113b(a)(3)(ii), the Permittee shall furnish a report to the Department within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 40 CFR §60.112b(a)(1) or §60.113b(a)(3) and list each repair made. [Authority: 40 CFR §60.115b(a)(4)]

"
"Control of HAP
See Reporting Requirements for Table IV-2, 2.5A(2) and (3) above.
"

Compliance Methods for the Above (Description and Citation):
IV- Emissions Unit 1b: 2.5 Reporting Requirements A1
IV- Emissions Unit 1b: 2.5 Reporting Requirements A2 and 3
IV- Emissions Unit 1b: 2.5 Reporting Requirements B

Reporting is completed as required.

Status (
Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU4 3.1

Permit Term (Describe requirements and cross-reference)
"Visible Emissions Limitation
COMAR 26.11.06.02C(2), which prohibits visible emissions other than water in an uncombined form. This limitation applies to the VCU only.

Exceptions. COMAR 26.11.06.02A(2) establishes that COMAR 26.11.06.02C does not apply to emissions during start-up, and process modifications or adjustments, or occasional cleaning of control equipment, if: (a) the visible emissions are not greater than 40 percent opacity; and (b) the visible emissions do not occur for more than 6 consecutive minutes in any 60 minute period.
"
"Control of VOC and HAP (Vapor Collection and Control Requirements)
COMAR 26.11.13.04A(1)(a) and 40 CFR 63, Subpart BBBBBB which require vapor collection and control as follows:

(1) The loading rack shall be equipped with a vapor collection and control system designed to collect the total organic compound vapors displaced from cargo tanks during product loading.

(2) The vapor collection and control system shall control at least 90 percent of all vapors and emissions may not exceed 10 milligrams of VOC per liter of gasoline or VOC loaded into gasoline cargo tanks at the loading rack.
[Authority: COMAR 26.11.13.04A(1)(a), 40 CFR §63.11088(a), §63.11092(d), Table 2, Items 1(a) and 1(b) of 40 CFR 63, Subpart BBBBBB, and Premises Wide ARMA Permit to Construct issued September 15, 2009]

"
"Control of VOC and HAP (Vapor Tight Cargo Tank Requirements)
COMAR 26.11.13.05 and 40 CFR 63, Subpart BBBBBB which require the Permittee to load gasoline only into vapor tight gasoline cargo tanks that have been certified as capable of sustaining a pressure change of not more than 3 inches of water in 5 minutes when pressurized to a gauge pressure of 18 inches of water, or evacuated to a gauge pressure of 6 inches of water, during a test. [Authority: COMAR 26.11.13.05A, 40 CFR §60.502(e), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]
"
"Control of VOC and HAP (Back Pressure and Leak Requirements)
COMAR 26.11.13.04A(1)(b) and 40 CFR 63, Subpart BBBBBB which require the Permittee design and operate the vapor collection and control system and the loading equipment so that during loading:

(1) The gauge pressure in the delivery tank does not exceed 4,500 pascals.

(2) No pressure-vacuum vent in the vapor collection and control system begins to open at a system pressure less than 4,500 pascals.

(3) The gasoline or VOC cargo tank pressure does not exceed 18 inches of water, and vacuum does not exceed 6 inches of water.

(4) There are no gasoline or VOC leaks in the system during loading or unloading operations.
[Authority: COMAR 26.11.13.04A(1)(b), 40 CFR §60.502(h), (i), and (j), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]

"

"Control of VOC and HAP (Design and Operational Requirements)
COMAR 26.11.13.04A(1)(c) and 40 CFR 63, Subpart BBBBBB which specify the following design and operational requirements:

(1) The Permittee shall design and operate the vapor collection system to prevent any total organic compound vapors collected at one loading lane from passing through another loading lane to the atmosphere.

(2) The Permittee shall assure that loadings of gasoline or VOC cargo tanks are made only into tanks equipped with vapor collection equipment that is compatible with the facility's vapor collection system.

(3) The Permittee shall assure that the facility's and the cargo tank's vapor collection systems are connected during each loading of a gasoline or VOC cargo tank.

(4) The Permittee shall equip the facility's loading rack with a top submerged or bottom loading system.

(5) The exhaust gases from the loading rack shall vent through the VRU or the VCU prior to discharging to the atmosphere.
[Authority: COMAR 26.11.13.04A(1)(c), 40 CFR §60.502(f) and (g), 40 CFR §63.11088(a), Table 2, Items 1(c) and 1(d) of 40 CFR 63, Subpart BBBBBB, and Premises Wide ARMA Permit to Construct issued September 15, 2009]
"

Compliance Methods for the Above (Description and Citation):

IV- Emissions Unit 4: 3.1 Applicable Standards/Limits A
IV- Emissions Unit 4: 3.1 Applicable Standards/Limits B
IV- Emissions Unit 4: 3.1 Applicable Standards/Limits C
IV- Emissions Unit 4: 3.1 Applicable Standards/Limits D
IV- Emissions Unit 4: 3.1 Applicable Standards/Limits E

Engineering controls are in place to meet these standards.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU4 3.2

Permit Term (Describe requirements and cross-reference)
"Visible Emissions Limitations
See Monitoring, Record Keeping, and Reporting Requirements.
"

"Control of VOC and HAP (Vapor Collection and Control Requirements)
(1) The Permittee shall conduct performance tests on the VRU to determine total organic emissions per liter of gasoline loaded at the facility and to determine an overall VRU control efficiency for VOC emissions caused by the facility's loading operations at least once every five years, during the period between May and September 15. Each five year performance test for the VRU must be conducted no more than 60 months after the previous performance test for the VRU.

(2) The Permittee shall conduct performance tests on the VCU to determine total organic emissions per liter of gasoline loaded at the facility and to determine an overall control efficiency for VOC emissions caused by the facility's loading operations at least once every five years, during the period between May and September 15. Each five year performance test for the VCU must be conducted no more than 60 months after the previous performance test for the VCU.

(3) For the performance tests, the Permittee shall use Method 1009 of the Department's Technical Memorandum 91-01, ""Test Methods and Equipment Specifications for Stationary Sources"", which is incorporated by reference in COMAR 26.11.01.04C; the test methods and procedures in 40 CFR §60.503, except a reading of 500 parts per million shall be used to determine the level of leaks to be repaired under 40 CFR §60.503(b); or other methods approved by the Department.
[Authority: COMAR 26.11.13.04A(2)(a)(i) and (3)(b), and 40 CFR §63.11092(a)]
"

"Control of VOC and HAP (Vapor Tight Cargo Tank Requirements)
The annual certification test for gasoline cargo tanks shall consist of the following test methods: EPA Method 27, Appendix A-8, 40 CFR, Part 60 and Method 1007 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources," which is incorporated by reference in COMAR 26.11.01.04C.

The test shall be conducted using a time period (t) for the pressure and vacuum tests of 5 minutes. The initial pressure (Pi) for the pressure test shall be 18 inches of water, gauge. The initial vacuum (Vi) for the vacuum test shall be 6 inches of water, gauge. The maximum allowable pressure and vacuum changes (Δ p, Δ v) for all affected gasoline cargo tanks is 3 inches of water, or less, in 5 minutes. Any needed repairs shall be completed and the cargo tank shall be retested within 15 days of the original test date.
[Authority: COMAR 26.11.13.05B, 40 CFR §63.11088(d), and §63.11092(f)(1)]
"

"Control of VOC and HAP (Back Pressure and Leak Requirements)
(1) Testing for leak-tight conditions, as required in §A(1)(b)(ii) of this regulation, shall be conducted as prescribed in Method 1008 of the Department's Technical Memorandum 91-01, ""Test Methods and Equipment Specifications for Stationary Sources"" which is incorporated by reference in COMAR 26.11.01.04C. [Authority: COMAR 26.11.13.04A(3)(a)]

(2) A pressure measurement device (liquid manometer, magnehelic gauge, or equivalent instrument), capable of measuring up to 500 mm of water gauge pressure with ±2.5 mm of water precision, shall be calibrated and installed on the facility's vapor collection system at a pressure tap located as close as possible to the connection with the gasoline cargo tank. [Authority: 40 CFR §60.502(h), §60.503(d), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]

"

"Control of VOC and HAP (Design and Operational Requirements)
The loading rack and vapor collection and control systems are designed to operate as required.
[Authority: COMAR 26.11.03.06C]
"

Compliance Methods for the Above (Description and Citation):
IV- Emissions Unit 4: 3.2 Testing Requirements A
IV- Emissions Unit 4: 3.2 Testing Requirements B
IV- Emissions Unit 4: 3.2 Testing Requirements C
IV- Emissions Unit 4: 3.2 Testing Requirements D
IV- Emissions Unit 4: 3.2 Testing Requirements E

Testing is completed are required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU4 3.3

Permit Term (Describe requirements and cross-reference)
"Visible Emissions Limitations
The Permittee shall observe the stack of the VCU for visible emissions as specified under Indicator 2 of the CAM Plan for the VCU. [Authority: COMAR 26.11.03.06C and Indicator No. 2 of the CAM Plan for the VCU in Table IV-CAM of this permit.]
"
"Control of VOC and HAP (Vapor Collection and Control Requirements)
(1) When the VRU is used to control emissions from the loading rack, the Permittee shall comply with the following monitoring requirements unless the Department approves alternative monitoring requirements under 40 CFR §63.8(b), §63.8(f), and 40 CFR 63, Subpart BBBBBB:

(a) The Permittee shall perform semi-annual preventive maintenance of the VRU according to the recommendations of the manufacturer of the system or other procedures approved by the Department. [Authority: COMAR 26.11.03.06C]

(b) The Permittee shall monitor the operation of the VRU using a continuous emissions monitoring system (CEMS), installed in the VRU exhaust air stream, capable of measuring organic compound concentration. The CEMS shall meet applicable performance specifications in 40 CFR 60, Appendix B.

(c) The Permittee shall maintain and operate the CEMS in a matter consistent with good air pollution control practices and as follows:

(i) The Permittee must maintain and operate the CEMS as specified in 40 CFR §63.6(e)(1).

(ii) The Permittee must keep the necessary parts for routine repairs of the affected CEMS equipment readily available.

(iii) The Permittee must maintain a written startup, shutdown, and malfunction plan for CEMS as specified in 40 CFR §63.6(e)(3).

(d) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, the CEMS shall be in continuous operation and shall meet minimum frequency of operation requirements as follows: the CEMS shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(e) The Permittee must check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under 40 CFR §63.8(e)(3)(i) and (ii). The zero (low-level) and high-level calibration drifts must be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s). The system shall allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified whenever specified.

(f) The CEMS is out of control if the zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification; or the CEMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit.

(g) When the CEMS is out of control, the Permittee shall take necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The Permittee shall take corrective action and conduct retesting until the performance requirements are below the applicable limits.

The beginning of the out-of-control period is the hour the Permittee conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements. The end of the out-of-control period is the hour following the completion of corrective action and successful

demonstration that the system is within the allowable limits.

During the period the CEMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement.

(h) The Permittee shall maintain a CEMS quality control program that includes, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CEMS;

(ii) Determination and adjustment of the calibration drift of the CEMS;

(iii) Preventive maintenance of the CEMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CEMS.

(i) The Permittee must reduce the CEMS monitoring data as follows:

(i) Data from CEMS shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in 40 CFR §63.2.

(ii) The data may be recorded in reduced or nonreduced form.

(iii) All emission data shall be converted into milligrams per liter for reporting purposes.

(iv) Monitoring data recorded during periods of unavoidable CEMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments must not be included in any data average computed unless the Permittee complies with the requirements of 40 CFR §63.10(b)(2)(vii)(A) or (B).
[Authority: 40 CFR §63.8(a), (b), (c), (d), and (g), and §63.11092(b)(1)(i)(A)]
"
"When the VCU is used to control emissions from the loading rack, the Permittee shall comply with the CAM Plan for the VCU in Table IV-CAM of this permit and the following requirements:

(a) The Permittee shall monitor the VCU for the presence of a pilot flame as specified under Indicator No. 1 of the CAM Plan for the VCU.

(b) The Permittee shall maintain a VCU monitoring and inspection plan that describes the Permittee's approach for meeting the following requirements:

(i) The VCU shall be equipped to automatically prevent gasoline loading operations from beginning at any time that the pilot flame is absent as specified under Indicator No. 1 of the CAM Plan for the VCU.

(ii) The Permittee shall verify, during each day of operation of the loading rack, the proper operation of the assist-air blower and the vapor line valve. Verification shall be through visual observation, or through an automated alarm or shutdown system that monitors system operation. A manual or electronic record of the start and end of a shutdown event may be used.

(iii) The Permittee shall perform semi-annual preventive maintenance inspections of the VCU, including the automated alarm or shutdown system, according to the recommendations of the manufacturer of the system and as specified under Indicator No. 1 of the CAM Plan for the VCU.

(iv) The monitoring and inspection plan shall specify conditions that would be considered malfunctions of the VCU during the inspections or automated monitoring, describe specific corrective actions that will be taken to correct any malfunction, and define what the Permittee owner or operator would consider to be a timely repair for each potential malfunction.

(c) Malfunctions that are discovered shall not constitute a violation of the emission standard in 40 CFR §63.11088(a) if corrective actions as described in the monitoring and inspection plan are followed. The Permittee must:

(i) Initiate corrective action to determine the cause of the problem within 1 hour;

(ii) Initiate corrective action to fix the problem within 24 hours;
(iii) Complete all corrective actions needed to fix the problem as soon as practicable consistent with good air pollution control practices for minimizing emissions;

(iv) Minimize periods of start-up, shutdown, or malfunction; and

(v) Take any necessary corrective actions to restore normal operation and prevent the recurrence of the cause of the problem.
[Authority: 40 CFR §63.11092(b)(1)(iii)(B)(1) and (2)(i) through (iv), §63.11092(d)(4) and the CAM Plan for the VCU in Table IV-CAM of this permit.]

"

" Control of VOC and HAP (Vapor Tight Cargo Tank Requirements)
The Permittee shall assure that loadings of gasoline or VOC into cargo tanks are limited to vapor-tight cargo tanks using the following procedures:

(1) The Permittee shall obtain the vapor tightness documentation specified in 40 CFR §60.505(b) and COMAR 26.11.13.05D(2) for each gasoline or VOC cargo tank which is to be loaded at the facility.

(2) The Permittee shall require the tank identification number to be recorded as each gasoline or VOC cargo tank is loaded at the facility.

(3) The Permittee shall cross-check each tank identification number with the file of tank vapor tightness documentation within 2 weeks after the corresponding tank is loaded.

(4) The Permittee shall take steps to assure that any nonvapor-tight cargo tank will not be reloaded at the facility until vapor tightness documentation for that tank is obtained.

(5) Alternative procedures may be approved by the Department as specified in 40 CFR §60.502(e)(6).
[Authority: COMAR 26.11.13.05D(2), 40 CFR §60.502(e)(1), (2), (3), (5) and (6), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]
"

"Control of VOC and HAP (Back Pressure and Leak Requirements)
(1) Each calendar month, the vapor collection system, the vapor processing system, and the loading rack handling gasoline shall be inspected during the loading of gasoline cargo tanks for total organic compounds liquid or vapor leaks. Each detection of a leak shall be recorded and the source of the leak repaired within 15 calendar days after it is detected. [Authority: COMAR 26.11.13.04A(3)(a), 40 CFR §60.502(j), 40 CFR §63.11088(a), Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB, and Indicator No. 4 of the CAM Plan for the VCU in Table IV-CAM of this permit.]

(2) Each calendar month, the Permittee shall check the back pressure in the vapor collection system during loading of cargo tanks. [Authority: COMAR 26.11.03.06C and Indicator No. 3 of the CAM Plan for the VCU in Table IV-CAM of this permit.]
"

"Control of VOC and HAP (Design and Operational Requirements)
The loading rack and vapor collection and control systems are designed to operate as required.
[Authority: COMAR 26.11.03.06C]
"

Control of VOC and HAP (Design and Operational Requirements)
The loading rack and vapor collection and control systems are designed to operate as required. [Authority: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

IV- Emissions Unit 4: 3.3 Monitoring Requirements A
IV- Emissions Unit 4: 3.3 Monitoring Requirements B1
IV- Emissions Unit 4: 3.3 Monitoring Requirements B2
IV- Emissions Unit 4: 3.3 Monitoring Requirements C
IV- Emissions Unit 4: 3.3 Monitoring Requirements D
IV- Emissions Unit 4: 3.3 Monitoring Requirements E

Monitoring is completed through facility walkarounds and checksheets.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU4 3.4

Permit Term (Describe requirements and cross-reference)
"Visible Emissions Limitations
The Permittee shall maintain records of visible emissions observations as specified under Indicator 2 of the CAM Plan for the VCU. [Authority: COMAR 26.11.03.06C and Indicator No. 2 of the CAM Plan for the VCU in Table IV-CAM of this permit.]
"
"Control of VOC and HAP (Vapor Collection and Control Requirements)
(1) The Permittee shall keep the following records for the VRU:

(a) Copies of all VRU performance test results.

(b) Records of all maintenance and repairs performed on the VRU.

(c) A copy of the performance evaluation results for the CEMS.

(d) The CEMS quality control program written procedures on record for the life of the VRU.

(e) An up-to-date, readily accessible record of the CEMS data. This record shall indicate the time intervals during which loadings of gasoline cargo tanks have occurred, or alternatively, shall record the CEMS data only during such loadings. The date and time of day shall also be indicated at reasonable intervals on this record.
[Authority: COMAR 26.11.13.04A(2)(a)(iii) and (b), 40 CFR §63.8(d)(3) and (e)(5), §63.11092(b)(1)(i)(A), and §63.11094(f)(1)]

(2) The Permittee shall keep the following records for the VCU:

(a) Copies of all VCU performance test results.

(b) Records of all maintenance and repairs performed on the VCU.

(c) An up-to-date, readily accessible copy of the VCU monitoring and inspection plan required under §63.11092(b)(1)(iii)(B)(2).

(d) Records, as specified in the VCU monitoring and inspection plan required under 40 CFR §63.11092(b)(1)(iii)(B)(2)(v), of any system malfunction and any activation of the automated alarm or shutdown system with a written entry into a log book or other permanent form of record. Such record shall also include a description of the corrective action taken and whether such corrective actions were taken in a timely manner, as defined in the VCU monitoring and inspection plan, as well as an estimate of the amount of gasoline loaded during the period of the malfunction.

[COMAR 26.11.13.04A(2)(a)(iii) and (b) and 40 CFR §63.11092(b)(1)(iii)(B)(2)(v) and the CAM Plan for the VCU in Table IV-CAM of this permit.]
"

"Control of VOC and HAP (Vapor Tight Cargo Tank Requirements)
(1) The Permittee shall maintain records of each cargo tank's vapor tightness documentation on file at the facility in a permanent form available for inspection.
The documentation file for each cargo tank shall be updated at least once per year to reflect current test results as determined by EPA Reference Method 27 or Method 1007 of the Department's Technical Memorandum 91-01, "Test Methods and Equipment Specifications for Stationary Sources," which is incorporated by reference in COMAR 26.11.01.04C.

This documentation shall include, at a minimum, the following information:

(a) Test title: Gasoline Delivery Tank Pressure Test – EPA Reference Method 27 or Method 1007 of the Department's Technical Memorandum 91-01
(b) Tank owner and address.
(c) Tank identification number.
(d) Testing location.
(e) Date of test.
(f) Date and type of repair, if applicable.
(g) Date of retest, if applicable.
(h) Tester name and signature.
(i) Witnessing inspector, if any: Name, signature, and affiliation.
(j) Vapor tightness repair: nature of repair work and when performed in relation to vapor tightness testing.
(k) Test results: Actual pressure change in 5 minutes, millimeters of water (average for two (2) runs).
(l) Pressure testing: the initial and final test pressure, the time of each reading, and the actual pressure change.
(m) Vacuum testing: the initial and final test vacuum, the time of each reading, and the actual vacuum change.
(n) Number of leaks found with an instrument and leak definition.
[Authority: COMAR 26.11.13.05D(1)(a), COMAR 26.11.13.05D(2), 40 CFR §60.505(b), 40 CFR §63.11088(f), and §63.11094(b)]

(2) As an alternative to keeping records at the facility of each gasoline cargo tank test result as required in 40 CFR §63.11094(b), the Permittee may comply with one of the following requirements:

(a) An electronic copy of each record is instantly available at the facility and the copy of each record is an exact duplicate image of the original paper record with certifying signatures; or

(b) For facilities that use a facility automation system to prevent gasoline cargo tanks that do not have valid cargo tank vapor tightness documentation from loading (e.g., via a card lock-out system), a copy of the documentation is made available (e.g., via facsimile) for inspection by the Department during the course of a site visit, or within a mutually agreeable time frame, and the copy of each record is an exact duplicate image of the original paper record with certifying signatures.
[Authority: 40 CFR 40 CFR §63.11088(f) and §63.11094(c)]

"

"Control of VOC and HAP (Back Pressure and Leak Requirements)
The Permittee shall maintain the following records:
(1) Monthly leak inspection records including, as a minimum, the following information:
(a) Date of inspection.
(b) Findings (may indicate no leaks discovered; or location, nature, and severity of each leak.
(c) Leak determination method.
(d) Corrective action (date each leak repaired; reasons for any repair interval in excess of 15 days).
(e) Inspector name and signature.
[Authority: COMAR 26.11.13.04A(3)(a), 40 CFR §60.502(j), 40 CFR §63.11088(a), Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB, and Indicator No. 4 of the CAM Plan for the VCU in Table IV-CAM of this permit.]
(2) Monthly records of the back pressure reading in the vapor collection system. [Authority: COMAR

26.11.03.06C and Indicator No. 3 of the CAM Plan for the VCU in Table IV-CAM of this permit.]

"

"Control of VOC and HAP (Design and Operational Requirements)
The loading rack and vapor collection and control systems are designed to operate as required.
[Authority: COMAR 26.11.03.06C]
"

Compliance Methods for the Above (Description and Citation):

IV- Emissions Unit 4: 3.4 Record Keeping Requirements A
IV- Emissions Unit 4: 3.4 Record Keeping Requirements B
IV- Emissions Unit 4: 3.4 Record Keeping Requirements C
IV- Emissions Unit 4: 3.4 Record Keeping Requirements D
IV- Emissions Unit 4: 3.4 Record Keeping Requirements E

Records are maintained as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU4 3.5

Visible Emissions Limitations
The Permittee shall submit reports of visible emissions observations as specified under Indicator 2 of the CAM Plan for the VCU (Authority: COMAR 26.11.03.06C and Indicator No. 2 of the CAM Plan for the VCU in Table IV-CAM)

Control of VOC and HAP (Vapor Collection and Control Requirements)
The Permittee shall submit the following for the VRU:

Written notification to conduct a performance test on the VRU at least 60 calendar days before the performance test is scheduled. The notification shall include site specific test plan required under COMAR 26.11.13.04A(2)(a)(ii) and 40 CFR 63.7(c)
Results of each VCU performance test not more than 60 days after each test date. (Authority COMAR 26.11.13.04A(a)(ii) and (iii), 40 CFR 63.9€, and 63.11093(c))

For the VCU the Permittee shall submit to the Department the following information
Written notification to conduct a performance test on the VRU at least 60 calendar days before the performance test is scheduled. The notification shall include site specific test plan required under COMAR 26.11.13.04A(2)(a)(ii) and 40 CFR 63.7(c)
Results of each VCU performance test not more than 60 days after each test date. (Authority COMAR 26.11.13.04A(a)(ii) and (iii), 40 CFR 63.9€, and 63.11093(c))

The Permittee shall submit an excess emissions report to the Department at the time the semi-annual compliance report is submitted as specified in 40 CFR 63.11095(b). The report shall include the following information:

Each exceedance or failure to maintain, as appropriate, a monitored operating parameter value determined under 40 CFR 63.11092(b). The report shall include the monitoring data for the day son which exceedances of failures to maintain have occurred and a description and timing of the steps taken to repair or perform maintenance on the vapor collection and processing systems of the continuous monitoring system (CMS).

The Permittee shall submit all information concerning out of control periods for the CEMS including start and end dates and hours and descriptions of corrective actions taken.

Each instance in which malfunctions discovered during the monitoring and inspections required under 40 CFR 63.11092(b)(1)(iii)(B)(2) for the VCU were not resolved according to the necessary corrective actions described in the VCU monitoring and inspection plan. The report shall include a description of

the malfunction and the timing of the steps taken to correct the malfunction. (Authority: 40 CFR 63.8(c)(8), 63.11095(b)(3) and (4) and the CAM Plan for the VCU in Table IV-CAM of this permit)

Permit Term (Describe requirements and cross-reference)
"Control of VOC and HAP (Vapor Tight Cargo Tank Requirements)
(1) The Permittee shall notify the owner or operator of each non-vapor-tight gasoline or VOC cargo tank loaded at the facility within one (1) week of the documentation cross-check required by 40 CFR §60.502(e)(3), or within three (3) weeks after the loading has occurred. [Authority: 40 CFR §60.502(e)(4), 40 CFR §63.11088(a), and Table 2, Item 1(d) of 40 CFR 63, Subpart BBBBBB]

(2) The Permittee shall submit a semiannual compliance report to the Department as specified in 40 CFR §63.11095(a). The report shall include the following information for the loading rack: each loading of a gasoline cargo tank for which vapor tightness documentation had not been previously obtained by the facility. [Authority: 40 CFR §63.11088(f) and §63.11095(a)(3)]

(3) The Permittee shall submit an excess emissions report to the Department at the time the semiannual compliance report is submitted as specified in 40 CFR §63.11095(b). The report shall include the following information for gasoline cargo tanks:

(a) Each instance of a non-vapor-tight gasoline cargo tank loading at the facility in which the owner or operator failed to take steps to assure that such cargo tank would not be reloaded at the facility before vapor tightness documentation for that cargo tank was obtained.

(b) Each reloading of a non-vapor-tight gasoline cargo tank at the facility before vapor tightness documentation for that cargo tank is obtained by the facility in accordance with 40 CFR §63.11094(b). [Authority: 40 CFR §63.11095(b)(1) and (2)]

"

"Control of VOC and HAP (Back Pressure and Leak Requirements)
The Permittee shall include leak inspection and back pressure records in the semiannual compliance report and excess emissions report as specified in 40 CFR §63.11095(a) and (b). [Authority: 40 CFR §63.11088(f), §63.11095(a) and (b), and Indicator Nos. 3 and 4 of the CAM Plan for the VCU in Table IV-CAM of this permit.]
"

"Control of VOC and HAP (Design and Operational Requirements)
The loading rack and vapor collection and control systems are designed to operate as required. [Authority: COMAR 26.11.03.06C]
"

Compliance Methods for the Above (Description and Citation):
IV- Emissions Unit 4: 3.5 Reporting Requirements C
IV- Emissions Unit 4: 3.5 Reporting Requirements D
IV- Emissions Unit 4: 3.5 Reporting Requirements E

Reporting is completed as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s):EU6 4.1

Permit Term (Describe requirements and cross-reference)
"Visible Emissions Limitations
COMAR 26.11.09.05A(2), which prohibits visible emissions from fuel burning equipment other than water in an uncombined form.

Exceptions. COMAR 26.11.09.05A(3) establishes that "Section A(2) does not apply to emissions during load changing, soot blowing, start-up, or adjustments or occasional cleaning of control equipment if (a) the visible emissions are not greater than 40 percent opacity; and (b) the visible

emissions do not occur for more than 6 consecutive minutes in any 60 minute period."
"

"Control of Sulfur Oxides
COMAR 26.11.09.07A(2)(b) which states that "a person may not burn, sell, or make available for sale any distillate fuel oils with a sulfur content by weight in excess of 0.3 percent.
"

"Control of HAP
40 CFR 63, Subpart JJJJJJ, which requires work practice standards, emission reduction measures, and management practices for control of HAP emissions for existing oil-fired boilers with a heat input capacity of equal to or less than 5 million Btu per hour.
"

"Operational Limitation
The Permittee shall only burn distillate fuel oil (No. 2 fuel oil) in the boiler unless the Permittee applies for and receives an approval or permit from the Department to burn alternate fuels. [Authority: COMAR 26.11.02.09A]
"

Compliance Methods for the Above (Description and Citation):

IV- Emissions Unit 6: 4.1 Applicable Standards/Limits A
IV- Emissions Unit 6: 4.1 Applicable Standards/Limits B
IV- Emissions Unit 6: 4.1 Applicable Standards/Limits C
IV- Emissions Unit 6: 4.1 Applicable Standards/Limits D

Fuel for the boiler is certified by the vendor—this ensures it does not exceed the sulfur content. Designs standards are also in place which prevents the boiler from burning anything other than No. 2 fuel oil. Visible emissions are monitored onsite.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU6 4.2

Permit Term (Describe requirements and cross-reference)
"Visible Emissions Limitations
See Monitoring, Record Keeping, and Reporting Requirements.
"

"Control of Sulfur Oxides
See Monitoring, Record Keeping, and Reporting Requirements.
"

"Control of HAP
The Permittee must demonstrate initial compliance and continuous compliance by conducting performance tune-ups of the boiler.

(1) The Permittee must conduct the tune-up while burning distillate oil (No. 2 fuel oil).

(2) The Permittee must conduct a tune-up of the boiler every five years. The initial tune-up must be conducted by March 21, 2014. Each 5-year tune-up must be conducted no more than 61 months after the previous tune-up.

(3) Each tune-up shall be conducted as follows:

(a) As applicable, inspect the burner, and clean or replace any components of the burner as necessary (the Permittee may delay the burner inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).

(b) Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.

(c) Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly

calibrated and functioning properly (the Permittee may delay the inspection until the next scheduled unit shutdown, not to exceed 72 months from the previous inspection).

(d) Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any nitrogen oxide requirement to which the unit is subject.

(e) Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.

(f) Maintain on-site and submit, if requested by the Department, a report containing the following information:

(i) The concentrations of CO in the effluent stream in parts per million, by volume, and oxygen in volume percent, measured at high fire or typical operating load, before and after the tune-up of the boiler.

(ii) A description of any corrective actions taken as a part of the tune-up of the boiler.

(g) If the unit is not operating on the required date for a tune-up, the tune-up must be conducted within 30 days of startup.
[Authority: 40 CFR §63.11196(a)(1), §63.11201(b) and (d), §63.11210(c) and (j), §63.11223(a), (b), and (e), and Table 2, Item 12, of 40 CFR 63, Subpart JJJJJJ]
"
"Operational Limitation
See Record Keeping and Reporting Requirements.
"

Compliance Methods for the Above (Description and Citation):

IV- Emissions Unit 6: 4.2 Testing Requirements A
IV- Emissions Unit 6: 4.2 Testing Requirements B
IV- Emissions Unit 6: 4.2 Testing Requirements C
IV- Emissions Unit 6: 4.2 Testing Requirements D

Testing is completed as required.
Status
(Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU6 4.3

Permit Term (Describe requirements and cross-reference)
"Visible Emissions Limitations
The Permittee shall properly operate and maintain the boiler in a manner to prevent visible emissions.
[Authority: COMAR 26.11.03.06C]
"
"Control of Sulfur Oxides
The Permittee shall obtain fuel supplier certifications for each shipment of fuel to be burned in the boiler. The certifications shall include the name of the supplier and the sulfur content or maximum sulfur content of the oil. [Authority: COMAR 26.11.03.06C]
"
". Control of HAP
At all times the Permittee must operate and maintain the boiler, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require the Permittee to make any further efforts to reduce emissions if levels required by 40 CFR 63, Subpart JJJJJJ have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department that may include,

but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source. [Authority: 40 CFR §63.11205(a)]
"
"Operational Limitation
See Record Keeping and Reporting Requirements.
"

Compliance Methods for the Above (Description and Citation):

IV- Emissions Unit 6: 4.3 Monitoring Requirements A
IV- Emissions Unit 6: 4.3 Monitoring Requirements B
IV- Emissions Unit 6: 4.3 Monitoring Requirements C
IV- Emissions Unit 6: 4.3 Monitoring Requirements D

Monitoring is completed as required.
Status (
Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU6 4.4

Permit Term (Describe requirements and cross-reference)
"Visible Emissions Limitations
The Permittee shall maintain an operations manual and preventive maintenance plan for the boiler. The Permittee shall maintain a log of maintenance performed that relates to combustion performance. [Authority: COMAR 26.11.03.06C]
"
"Control of Sulfur Oxides
The Permittee shall maintain records of fuel supplier certifications. [Authority: COMAR 26.11.03.06C]

"
"Control of HAP
The Permittee must maintain the following records:
(1) As required in 40 CFR §63.10(b)(2)(xiv), the Permittee must keep a copy of each notification and report that the Permittee submitted to comply with 40 CFR 63, Subpart JJJJJJ and all documentation supporting any Initial Notification or Notification of Compliance Status that the Permittee submitted.

(2) The Permittee must keep records to document conformance with the work practices, emission reduction measures, and management practices required by 40 CFR §63.11214 and §63.11223 as follows:

(a) Records must identify each boiler, the date of tune-up, the procedures followed for tune-up, and the manufacturer's specifications to which the boiler was tuned.

(b) Records of the occurrence and duration of each malfunction of the boiler, or of the associated air pollution control and monitoring equipment.

(c) Records of actions taken during periods of malfunction to minimize emissions in accordance with the general duty to minimize emissions in 40 CFR §63.11205(a), including corrective actions to restore the malfunctioning boiler, air pollution control, or monitoring equipment to its normal or usual manner of operation.

(d) Records must be in a form suitable and readily available for expeditious review. The Permittee must keep each record for five (5) years following the date of each recorded action. The Permittee must keep each record on-site or be accessible from a central location by computer or other means that instantly provide access at the site for at least two (2) years after the date of each recorded action. The Permittee may keep the records off site for the remaining three (3) years.
[Authority: 40 CFR §63.11225(c) and (d)]
"
"Operational Limitation

The Permittee shall keep annual fuel records for the boiler including the type of fuel and the amount burned. [Authority: COMAR 26.11.02.19C and D]
"

Compliance Methods for the Above (Description and Citation):

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU6 4.5

Permit Term (Describe requirements and cross-reference)
"Visible Emissions Limitation
The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, "Report of Excess Emissions and Deviations." [Authority: COMAR 26.11.03.06C]
"
". Control of Sulfur Oxides
The Permittee shall make records of fuel supplier certifications available to the Department upon request. [Authority: COMAR 26.11.03.06C]
"
"Control of HAP
The Permittee shall submit the following notifications and reports:

(1) The Permittee must submit all of the notifications in 40 CFR §§63.7(b); 63.8(e) and (f); and 63.9(b) through (e), (g), and (h) that apply to the Permittee.

(2) An Initial Notification must be submitted no later than January 20, 2014.

(3) The Permittee must submit the Notification of Compliance Status no later than July 19, 2014. The Notification of Compliance Status shall signed by a responsible official and shall be submitted and shall include the information and certification of compliance as follows:

(a) The Permittee must submit the information required in 40 CFR §63.9(h)(2), except the information listed in 40 CFR §63.9(h)(2)(i)(B), (D), (E), and (F).

(b) "This facility complies with the requirements in 40 CFR §63.11214 to conduct an initial tune-up of the boiler."

(c) The notification must be submitted electronically using the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (www.epa.gov/cdx). However, if the reporting form specific to 40 CFR 63, Subpart JJJJJJ is not available in CEDRI at the time that the report is due, the written Notification of Compliance Status must be submitted to the Department.

(4) The Permittee must prepare a 5-year compliance report containing the following information:

(a) Company name and address.

(b) Statement by a responsible official, with the official's name, title, phone number, email address, and signature, certifying the truth, accuracy and completeness of the notification and a statement of whether the source has complied with all the relevant standards and other requirements of 40 CFR 63, Subpart JJJJJJ. The notification must include the following certification of compliance, as applicable, and signed by a responsible official:

(i) "This facility complies with the requirements in 40 CFR §63.11223 to conduct a 5-year tune-up of the boiler."

(ii) "This facility complies with the requirement in 40 CFR §§63.11214(d) and 63.11223(g) to minimize the boiler's time spent during startup and shutdown and to conduct startups and shutdowns according to the manufacturer's recommended procedures or procedures specified for a boiler of similar design if manufacturer's recommended procedures are not available."

(5) If the Permittee has switched fuels or made a physical change to the boiler and the fuel switch or change resulted in the applicability of a different subcategory within 40 CFR 63, Subpart JJJJJJ, or in the boiler switching out of 40 CFR 63, Subpart JJJJJJ due to a change to 100 percent natural gas, the Permittee must provide notice of the date upon which the Permittee made the change, within 30 days of the change. The notification must identify:

(a) The name of the owner or operator of the affected source, the location of the source, the boiler that was changed and the date of the notice.

(b) The date upon which the change occurred and a description of the change.
[Authority: 40 CFR §63.11225(a), (b), and (g)]
"

"Operational Limitation
Annual fuel usage records including the type of fuel used shall be submitted with the required annual emission certification. [Authority: COMAR 26.11.02.19C and D]
"

Compliance Methods for the Above (Description and Citation):

IV- Emissions Unit 6: 4.5 Reporting Requirements A
IV- Emissions Unit 6: 4.5 Reporting Requirements B
IV- Emissions Unit 6: 4.5 Reporting Requirements C
IV- Emissions Unit 6: 4.5 Reporting Requirements D

Reports are submitted as required.

Status
(Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU-X 5.3

Permit Term (Describe requirements and cross-reference) *Control of VOC*
The Permittee shall visually inspect all equipment and components associated with the pentane blending operation for leaks at least once per calendar month. If leaks are detected, the Permittee shall:

1. Tag any leak immediately so that the tag is clearly visible. The tag shall be made of a material that will withstand any weather or corrosive conditions to which it may be normally exposed. The tag shall bear an identification number, the date that the leak was discovered, and the indemnity of the person who discovered the leak. The tag shall remain in place until the leak has been repaired.
2. Initiate immediate action to repair all observed VOC leaks that can repaired within 48 hours.
3. Repair all other leaking components within fifteen (15) days of discovery. If a replacement part is needed, the part shall be ordered within three (3) days of discovery of the leak and the leak shall be repaired within 48 hours of receipt of the part.
4. Maintain a supply of components and component parts, such as seals, gaskets, packing and pipe fittings, that are known to wear or corrode, or that otherwise need to be routinely replaced.
5. Leaking components that cannot be repaired as required because they are inaccessible, or that cannot be repaired during operation of an installation, shall be identified in a log and included in the facility's maintenance schedule for repair during the next outage of installation. (Authority: ARA Permit to Construct issued July 2, 2015)

Compliance Methods for the Above (Description and Citation): Monitoring is performed as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU-X 5.2

Permit Term (Describe requirements and cross-reference)
Control of VOC
See monitoring, recordkeeping and reporting requirements

Compliance Methods for the Above (Description and Citation): Tests are performed as required

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU-X 5.1

Permit Term (Describe requirements and cross-reference)
Control of VOC
COMAR 26.11.13.03A(1)(a) and (b) which require that:

Each tank's gauging and sampling devices be gas tight except when in use.

Each tank be equipped with one of the following properly installed, operating and well maintained emission control systems:

An internal floating roof equipped with a primary and secondary seal;

A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere or

A vapor control system capable of collecting the vapors from the tank and disposing of the vapors to prevent the emission to the atmosphere.

2-COMAR 26.11.13.04D(1) and (2) which prohibits the loading of the VOC with a total TVP of 1.5 psia or greater into a tank truck, rain care or other equipped with fittings that have no leaks and that automatically and immediately close up disconnection to prevent release of the VOC from the fittings and the fittings are maintained and operated in a manner to prevent avoidable liquid leaks during loading or unloading operations. The Permittee shall obtain an approval from the Department prior to utilizing any alternative compliance procedures provided in COMAR 26.11.13.04E in lieu of the procedures provided in COMAR 26.11.13.04D(1).

Compliance Methods for the Above (Description and Citation):

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU-X 5.4

Permit Term (Describe requirements and cross-reference)
Control of VOC
The Permittee shall keep records of the average monthly storage temperature and throughput for the 80,000 gallon pentane storage tank in accordance with COMAR 26.11.13.03C(3)

A log of the hours and days of operation for the pentane blending system and total amount of pentane blended into gasoline each operating day and

VOC leak detection and repair logs for the pentane blending operation that include identification of the person who conducted the leak detection inspections, the dates on which the inspections were conducted, the findings during the inspections, a listing by tag identification number and a description of all leaks discovered and the date and nature of all leak repairs effected. (Authority: ARA Permit to Construct issued July 2, 2015).

Compliance Methods for the Above (Description and Citation): All records are maintained as

described.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): EU-X 5.5

Permit Term (Describe requirements and cross-reference)
Control of VOC
The permittee shall make all records available to the Department upon request (Authority: ARA Permit to Construct issued July 2, 2015).

Compliance Methods for the Above (Description and Citation): Records are available on-site and electronically

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General 6.1

Permit Term (Describe requirements and cross-reference)
". Control of HAP
40 CFR 63, Subpart BBBBBB, which requires general emission minimization procedures and premises wide leak inspections for control of HAP emissions from bulk gasoline terminals.
"
". Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements
(1) Premises wide HAP emissions shall be less than the following limits in any rolling 12-month period:

(a) 10 tons for any individual HAP; and

(b) 25 tons for the total combination of HAP.

(2) Premises wide throughputs of gasoline and distillate shall be less than the following limits in any rolling 12-month period unless the Permittee can demonstrate compliance with premises wide HAP limits at higher throughputs:

(a) 425,000,000 gallons of gasoline; and

(b) 1,386,000,000 gallons of distillate.

(3) The Permittee shall not load materials containing VOC into barges or other marine vessels unless the Permittee applies for and obtains a permit to construct to reactivate marine vessel loading operations at the premises. The Permittee may offload materials containing VOC from marine vessel storage tanks at the premises.
[Authority: Premises Wide ARMA Permit to Construct issued September 15, 2009]

"

Compliance Methods for the Above (Description and Citation):
IV- Emissions Unit General: 5.1 Applicable Standards/Limits A
IV- Emissions Unit General: 5.1 Applicable Standards/Limits B

Throughputs and emissions are monitored as required. Marine loading does not occur at this facility.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General 6.2

Permit Term (Describe requirements and cross-reference)
"Control of HAP
See Monitoring, Record Keeping and Reporting Requirements
"
" Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements
See Record Keeping and Reporting Requirements
"

Compliance Methods for the Above (Description and Citation):
IV- Emissions Unit General: 5.2 Testing Requirements A
IV- Emissions Unit General: 5.2 Testing Requirements B

Testing is completed as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General 6.3

Permit Term (Describe requirements and cross-reference)
"Control of HAP
The Permittee shall comply with the following monitoring requirements:

(1) The Permittee must, at all times, operate and maintain the bulk gasoline terminal, including any associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Department, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the premises. [Authority: 40 CFR §63.11085(a)]

(2) The Permittee shall perform a monthly leak inspection of all equipment in gasoline service, as defined in 40 CFR §63.11100, in accordance with the following requirements:

(a) For this inspection, detection methods incorporating sight, sound and smell are acceptable.

(b) A log book shall be used and shall be signed by the Permittee at the completion of each inspection. A section of the log book shall contain a list, summary description, or diagram(s) showing the location of all equipment in gasoline service at the premises.

(c) Each detection of a liquid or vapor leak shall be recorded in the log book. When a leak is detected, an initial attempt at repair shall be made as soon as practicable, but no later than 5 calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed with 15 calendar days after detection of each leak, except as provided in 40 CFR §63.11089(d).

(d) Delay of repair of leaking equipment will be allowed if the repair is not feasible within 15 days. The Permittee shall provide in the semiannual report specified in 40 CFR §63.11095(b), the reason(s) why the repair was not feasible and the date each repair was completed.
[Authority: 40 CFR §63.11089(a) through (d)]

"
"Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements
See Record Keeping and Reporting Requirements.
"

Compliance Methods for the Above (Description and Citation):
IV- Emissions Unit General: 5.3 Monitoring Requirements A
IV- Emissions Unit General: 5.3 Monitoring Requirements B

Monitoring is accomplished through inspections.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General 6.4

Permit Term (Describe requirements and cross-reference)
"Control of HAP
(1) The Permittee shall maintain the following operation and maintenance records:

(a) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.

(b) Records of actions taken during periods of malfunction to minimize emissions in accordance with 40 CFR §63.11085(a), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
[Authority: 40 CFR §63.11094(g)(1) and (2)]

(2) The Permittee shall maintain the following leak inspection records:

(a) The Permittee shall prepare and maintain a record describing the types, identification numbers, and locations of all equipment in gasoline service. If the Permittee implements an instrument program under 40 CFR §63.11089, the record shall contain a full description of the program.

(b) The Permittee shall maintain a log book for leak inspections and record the following information for each leak that is detected:

(i) The equipment type and identification number.

(ii) The nature of the leak (i.e., vapor or liquid) and the method of detection (i.e., sight, sound, or smell).

(iii) The date the leak was detected and the date of each attempt to repair the leak.

(iv) Repair methods applied in each attempt to repair the leak.

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

(vi) The expected date of successful repair of the leak if the leak is not repaired within 15 days.

(vii)The date of successful repair of the leak.
[Authority: 40 CFR §63.11089(g), 40 CFR §63.11094(d) and (e)]
"

"Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements
The Permittee shall maintain the following records:

(1) Premises wide emissions of each individual HAP in tons per month and total tons per rolling 12-month period.

(2) Premises wide emissions of total HAP in tons per month and total tons per rolling 12-month period.

(3) Total premises wide gasoline throughput in tons per month and total tons per rolling 12-month

period.

(4) Total premises wide distillate throughput in tons per month and total tons per rolling 12-month period.
[Authority: COMAR 26.11.03.06C and Premises Wide ARMA Permit to Construct issued September 15, 2009]
"

Compliance Methods for the Above (Description and Citation):

IV- Emissions Unit General: 5.4 Record Keeping Requirements A
IV- Emissions Unit General: 5.4 Record Keeping Requirements B

Records are maintained as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): General 6.5

Permit Term (Describe requirements and cross-reference)

Control of HAP
The Permittee shall submit a semiannual compliance report to the Department as specified in 40 CFR 63.11095(a). The report shall include the following information:

The number, duration and a brief description of each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by the Permittee during a malfunction of an affected source to minimize emissions in accordance with 40 CFR 63.11085(a), including actions taken to correct a malfunction. Authority 40 CFR 63.11095(D)

For equipment leak inspection, the following information:
The number of equipment leaks not repaired within 15 days after detection (Authority 40 CFR 63.11095(a)(3)

An excess emissions report to the Department at the time the semiannual compliance report is submitted that includes the following information for each occurrence of an equipment leak for which no repair attempt was made within 5 days or for which repair was not completed within 15 days after detection:
The date on which the leak was detected
The date each attempt to repair the leak;
The reasons for the delay of repair; and
The date of successful repair.
Authority: 40 CFR 63.11095(b)(5))

Operational and Emissions Limitations to Preclude Applicability of Major Source HAPS Requirements
The Permittee shall submit records of premises wide HAP emissions and gasoline and distillate throughput as part of the required annual emissions certification. Authority COMAR 26.11.02.19C and D.

Compliance Methods for the Above (Description and Citation) Reports are submitted as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s): Insignificant Activities

Permit Term (Describe requirements and cross-reference)
This section provides a list of insignificant emissions units that were reported in the Title V permit application. The

applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

This section provides a list of insignificant emissions units that were reported in the Title V permit application. The applicable Clean Air Act requirements, if any, are listed below the insignificant activity.

(1) No. 1 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

This fuel burning unit is currently out of service. The Permittee shall notify the Department prior to operating the equipment to determine any applicable requirements for the unit.

(2) Containers, reservoirs, or tanks used exclusively for:

(a) No. 4 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;

(b) No. 2 Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less (This includes two (2) 1000-gallon underground gasoline storage tanks identified as EU-3 in the permit application);

(c) No. 50 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less; and

(3) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act:

No. 1 Tank No. 14 – currently out of service (identified as EU-2 in the permit application)

No. 1 Tank No. 15 – currently out of service (identified as EU-2 in the permit application).

Compliance Methods for the Above (Description and Citation):

V- Insignificant Activities
There have been no changes to insignificant sources. No action is required at this time.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

Emission Unit ID(s):

Permit Term (Describe requirements and cross-reference)

The Permittee is subject to the following State-only enforceable requirements:

1. Applicable Regulations:

(A) COMAR 26.11.06.08 and 26.11.06.09, which generally prohibit the discharge of emissions beyond the property line in such a manner that a nuisance or air pollution is created.

(B) COMAR 26.11.15.05, which requires that the Permittee implement "Best Available Control Technology for Toxics" (T – BACT) to control emissions of toxic air pollutants.

(C) COMAR 26.11.15.06, which prohibits the discharge of toxic air pollutants to the extent that such emissions will unreasonably

2. Record Keeping and Reporting:

The Permittee shall submit to the Department, by April 1 of each year during the term of this permit, a written certification of the results of an analysis of emissions of toxic air pollutants from the Permittee's facility during the previous calendar year.

The analysis shall include either:

(a) a statement that previously submitted compliance demonstrations for emissions of toxic air pollutants remain valid; or

(b) a revised compliance demonstration, developed in accordance with requirements included under COMAR 26.11.15 & 16, that accounts for changes in operations, analytical methods, emissions determinations, or other factors that have invalidated previous demonstrations.

Compliance Methods for the Above (Description and Citation):
VI- State-Only Enforceable Conditions

Permit condition understood. Part 1 (Applicable Regulations is accomplished through design standards. Part 2 (Recordkeeping and Reporting) is accomplished through submitting reports as required.

Status (Check one): ___ Intermittent Compliance _X__ Continuous Compliance

C. DEVIATIONS FROM PERMIT TERMS AND CONDITIONS

Report all deviations from permit terms (whether reported previously or not) that occurred during the permit term. Cross-reference deviations already reported in the six-month report. Indicate whether each deviation is a Apossible exception@ to compliance.@ Start and end period of each deviation should be in mo/day/yr, hr:min format (24-hour clock). Also specify the date when the written deviation report was submitted (If written report required, but not submitted, leave the date field blank).

Permit Term for Which There was a Deviation: None Emission Units (unit IDs): Deviation Start ____/___/________ ____:____ End: Date Written Report Submitted ____/____/______
Permit Term for Which There was a Deviation: Emission Units (unit IDs): Deviation Start _____/_____/_________ ____:____ End:_____/_____/_________ _____:____ Date Written Report Submitted ____/____/________
Permit Term for Which There was a Deviation: Emission Units (unit IDs): Deviation Start _____/_____/_________ ____:____ End:_____/_____/_________ _____:____ Date Written Report Submitted ____/____/________
Permit Term for Which There was a Deviation: Emission Units (unit IDs): Deviation Start _____/_____/_________ ____:____ End:_____/_____/_________ _____:____ Date Written Report Submitted ____/____/________

C. DEVIATIONS FROM PERMIT TERMS AND CONDITIONS

Report all deviations from permit terms (whether reported previously or not) that occurred during the permit term. Cross-reference deviations already reported in the six-month report. Indicate whether each deviation is a "possible exception to compliance." Start and end period of each deviation should be in mo/day/yr, hr:min format (24-hour clock). Also, specify the date when the written deviation report was submitted (If written report required, but not submitted, leave the date field blank).

Permit Term for Which There was a Deviation: None Emission Units (unit IDs): Deviation Start ____/____/________ ____:____ End:____/____/________ ____:____ Date Written Report Submitted ____/____/________
Permit Term for Which There was a Deviation: Emission Units (unit IDs): Deviation Start ____/____/________ ____:____ End:____/____/________ ____:____ Date Written Report Submitted ____/____/________
Permit Term for Which There was a Deviation: Emission Units (unit IDs): Deviation Start ____/____/________ ____:____ End:____/____/________ ____:____ Date Written Report Submitted ____/____/________
Permit Term for Which There was a Deviation: Emission Units (unit IDs): Deviation Start ____/____/________ ____:____ End:____/____/________ ____:____ Date Written Report Submitted ____/____/________

EPA United States Environmental Protection Agency

OMB No. 2060-0336, Approval Expires 6/30/2015

Federal Operating Permit Program (40 CFR Part 71)

CERTIFICATION OF TRUTH, ACCURACY, AND COMPLETENESS (CTAC)

This form must be completed, signed by the "Responsible Official" designated for the facility or emission unit, and sent with each submission of documents (i.e., application forms, updates to applications, reports, or any information required by a part 71 permit).

A. Responsible Official

Name: (Last) Gonzalves (First) Louis (MI)

Title Director Terminal Operations

Street or P.O. Box 4041 Market Street

City Aston State PA ZIP 19014
Telephone (610) 859-5403 Ext. _____ Facsimile (____) _____ -

B. Certification of Truth, Accuracy and Completeness (to be signed by the responsible official)

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

Name (signed) _____

Name (typed) Louis Gonzalves Date: 1/30/23

INSTRUCTIONS FOR CTAC
CERTIFICATION OF TRUTH, ACURACY, and COMPLETENESS

Information Collection Burden Estimates

The public reporting and recordkeeping burden for this collection of information is estimated to average 209 hours per respondent per year. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates, and any suggested methods for minimizing respondent burden, including through the use of automated collection techniques to the Director, Collection Strategies Division, U.S. Environmental Protection Agency (2822T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

DETAILED INSTRUCTIONS

This form is for the responsible official to certify that submitted documents (i.e., permit applications, updates to application, reports, and any other information required to be submitted as a condition of a permit) are true, accurate, and complete.

This form should be completed and submitted with each set of documents sent to the permitting authority. It may be used at time of initial application, at each step of a phased application submittal, for application updates, as well as to accompany routine submittals required as a term or condition of a permit.

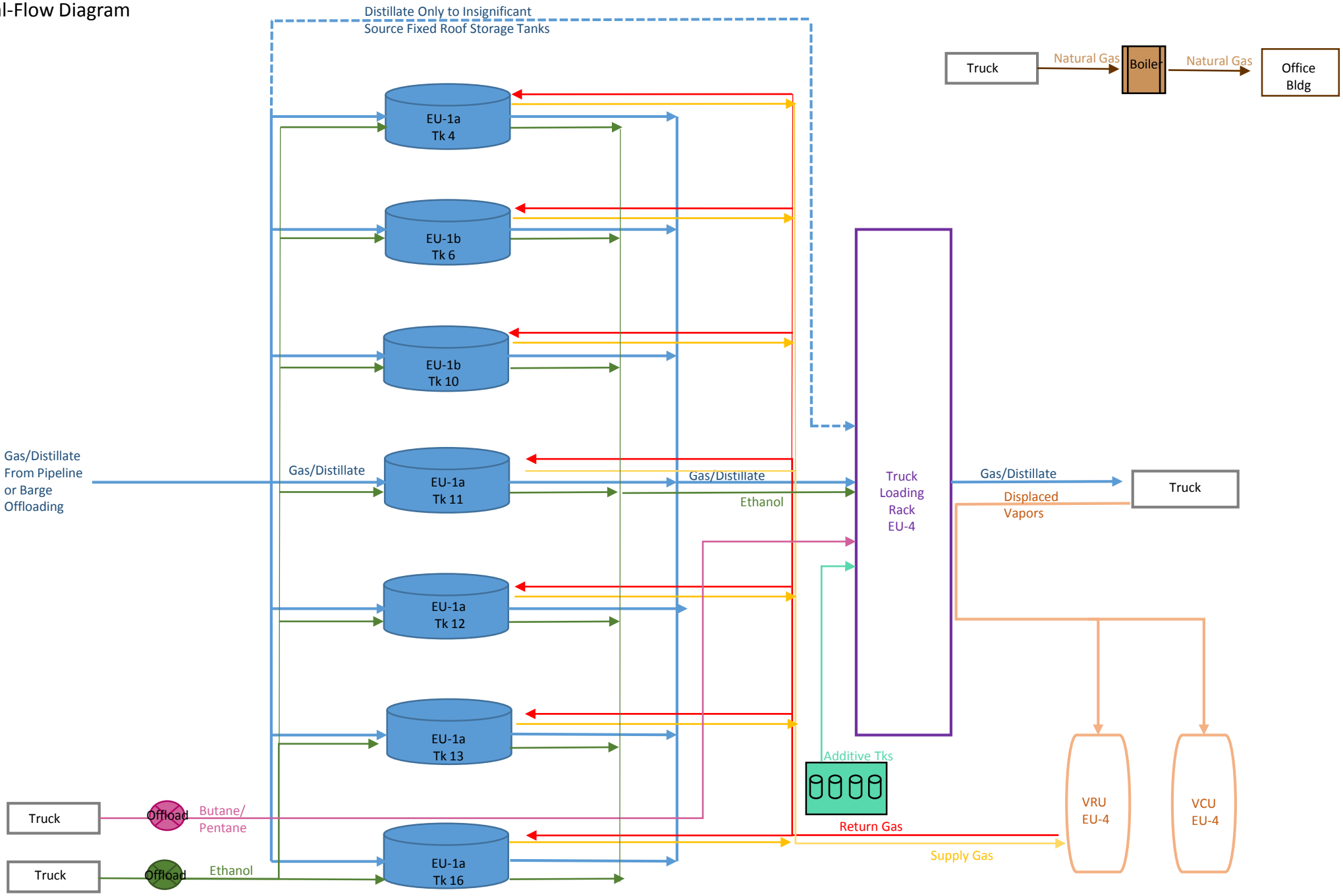
Section A - Title V permit applications must be signed by a responsible official. The definition of responsible official can be found at ' 70.2.

Section B - The responsible official must sign and date the certification of truth, accuracy and completeness. This should be done after all application forms are complete and the responsible official has reviewed the information. Normally this would be the last form completed before the package of forms is mailed to the permitting authority.

Attachment 4: Flow Diagram

Baltimore Terminal-Flow Diagram

*Based on Potential Flow

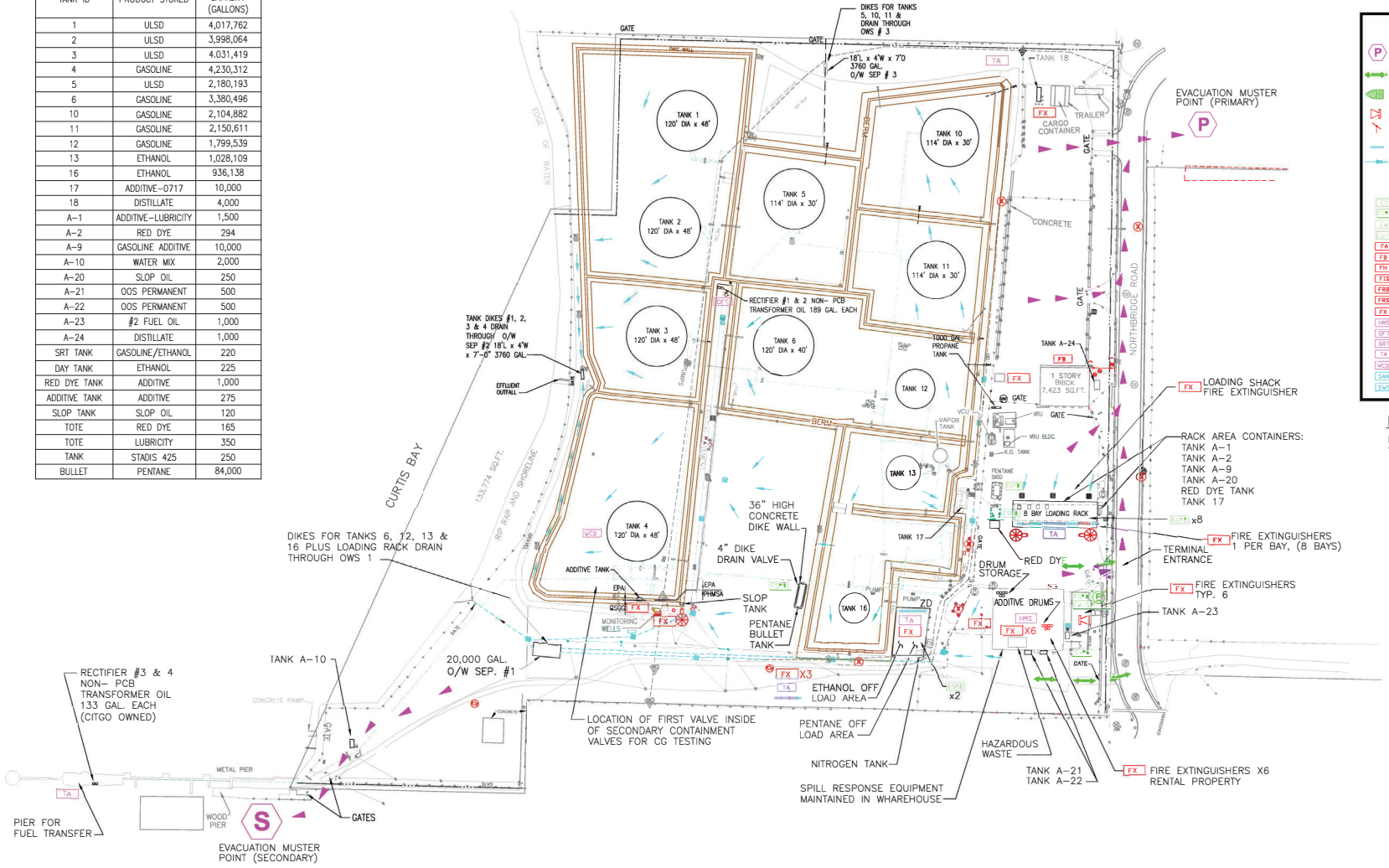


Attachment 5: Plot Plan

TANK ID	PRODUCT STORED	SHELL CAPACITY (GALLONS)
1	ULSD	4,017,762
2	ULSD	3,998,064
3	ULSD	4,031,419
4	GASOLINE	4,230,312
5	ULSD	2,180,193
6	GASOLINE	3,380,496
10	GASOLINE	2,104,882
11	GASOLINE	2,150,611
12	GASOLINE	1,799,539
13	ETHANOL	1,028,109
16	ETHANOL	936,138
17	ADDITIVE–0717	10,000
18	DISTILLATE	4,000
A–1	ADDITIVE–LUBRICITY	1,500
A–2	RED DYE	294
A–9	GASOLINE ADDITIVE	10,000
A–10	WATER MIX	2,000
A–20	SLOP OIL	250
A–21	OOS PERMANENT	500
A–22	OOS PERMANENT	500
A–23	#2 FUEL OIL	1,000
A–24	DISTILLATE	1,000
SRT TANK	GASOLINE/ETHANOL	220
DAY TANK	ETHANOL	225
RED DYE TANK	ADDITIVE	1,000
ADDITIVE TANK	ADDITIVE	275
SLOP TANK	SLOP OIL	120
TOTE	RED DYE	165
TOTE	LUBRICITY	350
TANK	STADIS 425	250
BULLET	PENTANE	84,000

1. THIS DRAWING IS CURRENT FOR FRP INFORMATION ONLY. ALL BACKROUND INFORMATION IS FOR REFERENCE ONLY AND MAY NOT BE ACCURATE.

2. THERE ARE NO SURFACE IMPOUNDMENTS AT THE FACILITY.



LEGEND

- EVACUATION MUSTER POINT (PRIMARY)
- EVACUATION MUSTER POINT (SECONDARY)
- EMERGENCY EQUIPMENT INGRESS AND EGRESS
- EVACUATION ROUTE
- RESCUE BOAT
- EMERGENCY LIGHT
- SIREN
- WHEELED FIRE EXTINGUISHER
- FIRE MONITOR
- FIRE HYDRANT
- ZIPPER DRAIN
- MANHOLE
- DRAINAGE FLOW
- CATCH BASIN
- AGENCY REGULATION INTERFACE (I.E. USCG, PHMSA, EPA)

- ES — EMERGENCY SHOWER
- EPB — EMERGENCY SHUTDOWN PUSHBUTTON
- EW — EMERGENCY EYEWASH
- E/S — EMERGENCY EYEWASH/SHOWER
- FA — FIRE ALARM
- FB — FIRE BLANKET
- FH — FIRE HOSE
- FIS — FOAM INITIATION SWITCH
- FRB — FIRE RETARDENT INITATION BUTTON
- FRS — FIRE RETARDENT SYSTEM
- FX — FIRE EXTINGUISHER
- HMS — HAZARDOUS MATERIAL STORAGE
- OFT — OIL FILLED TRANSFORMER
- SRT — SPILL RESPONSE TRAILER
- TA — TRANSFER AREA
- WCD — WORST CASE DISCHARGE
- SAN — SANITARY SEWER
- SWS — STORM WATER SEWER

REFERENCE DWGS.

BALT_PP_0003 – DRAINAGE DRAWING
T_BALT_C100000 – OVERALL SITE PLAN

PROPERTY ADDRESS:
2155 NORTHBRIDGE AVE.
BLOCK: 7335G BALTIMORE, MD
21226 LOT: 4

NEAREST INTERSECTING STREET:
NORTHWEST CORNER OF PROPERTY EXTENDS TO INTERSECTION OF NORTHBRIDGE AVE. & FAIRFIELD AVE.

SCALE : 1" = 60'

REV	DESCRIPTION	BY	DATE	CHK'D	APP'D
14	REVISED AS INDICATED	TAP	7–22–20	JC	JA
13	REVISED AS INDICATED	TAP	5–14–20	SK	
12	REVISED TO ADD DIKE TO PENTANE TANK	DSG	8–15–19	SK	

FACILITY CODE OR ACCOUNT NO.: BALT
CONSTRUCTION YEAR:

	BY	DATE
DRAWN	DSG	03/13/06
CHECK		
APPROVED		

SCALE: 1"=60'

REFERENCE DRAWINGS

ENERGY TRANSFER

BALTIMORE
FACILITY RESPONSE PLAN

WBS NO.
OLD DRAWING NO.
DRAWING NO. T_BALT_FRP0100
REV. NO. 14

FILENAME: C:\Users\V12sob\Desktop\TO BE SENT OUT\T_BALT_FRP0100.dwg PLOTTED: 8/4/2022 3:55:58 PM PLOTTED BY: ----

Attachment 6: RY-2021 Emissions Statement

SUNOCO PARTNERS
MARKETING & TERMINALS
An ENERGY TRANSFER Partnership

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

March 2, 2022

Maryland Department of the Environment
Air and Radiation Management Administration
Attn: Enobong Umoh
1800 Washington Boulevard, Suite 715
Baltimore, MD 21230-1720

Re: Sunoco Partners Marketing & Terminals, L.P. – Baltimore Terminal
Annual Emission Statement: RY 2021
Title V Permit #24-510-00703

To whom it may concern:

Enclosed, please find the revised Annual Emission Statement completed for the 2021 reporting year. Included with the report forms is a copy of the calculations. If you have any questions, please contact me at (610) 368-0307.

Sincerely,

Marguerite Porrini
Environmental Specialist

Enc.

Cc:

Associate Director
Office of Enforcement and Permit Review (3AP10)
U.S. EPA Region III
1650 Arch Street
Philadelphia, PA 19103-2029

S. Russell-Baltimore Terminal-Air-1

MARYLAND DEPARTMENT OF THE ENVIRONMENT
1800 Washington Boulevard, Suite 715 • Baltimore Maryland 21230-1720
410-537-3000 • 1-800-633-6101 • http://www.mde.state.md.us
Air and Radiation Management Administration
Air Quality Compliance Program
410-537-3220

FORM 1:

GENERAL FACILITY INFORMATION
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2021

A. FACILITY IDENTIFICATION Facility Name: SUNOCO PARTNERS MKT & TERM LP-BALTIMORE TERMINAL	**Do Not Write in This Space** Date Received Regional
Address: 2155 NORTHBRIDGE AVE	Date Received State
City: BALTIMORE County: BALTIMORE Zip Code: 21226	AIRS Code
B. Briefly describe the major function of the facility	FINDS Code
SIC 4226-SPECIAL WAREHOUSING & STORAGE	SIC Code
	Facility Number:
	TEMPO ID:
C. SEASONAL PRODUCTION (%, if applicable)	Reviewed by:

Winter *(Dec.-Feb.)*	Spring *(Mar – May)*	Summer *(Jun – Aug)*	Fall *(Sept – Nov)*	Name Date

D. Explain any increases or decreases in emissions from the previous calendar year for each registration at this facility.

E. CONTROL DEVICE INFORMATION (for NOx and VOC sources only)

Control Device	Capture Efficiency	Removal Efficiency
VRU	98.86%	1.26 mg/L
VCU	99.66%	2.13 mg/L

I am familiar with the facility and the installations and sources for which this report is submitted. I have personally examined the information in this report, which consists of ____ pages (including attachments), and certify that the information is correct to the best of my knowledge.

SCOTT RUSSELL — Name (Print/Type)
SUPERVISOR TERMINAL OPERATIONS — Title
3/4/2022 — Date
Signature
410-925-2276 — Telephone

1/09/08

FORM 2:

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT Calendar Year: 2021__

Facility Name: SPMT-BALTIMORE TERMINAL_____ Facility ID: 24-510-00703____ Pollutant: _CO_____

Equipment Description/ Registration No.	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Emissions Methods
				Tons/yr	Lbs/day	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
VAPOR CONTROL (VRU &VCU)		N/A	S	0.07	0.38	24	7	52	365	0.01	24			C1
510-00703-9-0999			F											
STORAGE TANKS		N/A	S											
510-00703-9-0999			F											
FUGITIVES		N/A	S											
4-0317-90			F											
TANK #6		N/A	S											
510-00703-9-099			F											
TANK #10		N/A	S											
510-00703-9-099			F											
BOILER (1.3 MMBTU/HR)		#2	S	0.01	0.13	24	7	52	365	0	24			C3
			F											
INSIGNIFICANT SOURCES		N/A	S											
			F											
			S											
			F											
			S											
			F											
			S											
			F											
Total				0.08	0.51					0.01				

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

TOSD: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

FORM 2:

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT Calendar Year: 2021___

Facility Name: SPMT-BALTIMORE TERMINAL_____ Facility ID: 24-510-00703____ Pollutant: NOX_____

Equipment Description/ Registration No.	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Emissions Methods
				Tons/yr	Lbs/day	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
VAPOR CONTROL (VRU &VCU)		N/A	S	0.03	0.16	24	7	52	365	0.0	24			C1
510-00703-9-0999			F											
STORAGE TANKS		N/A	S											
510-00703-9-0999			F											
FUGITIVES		N/A	S											
4-0317-90			F											
TANK #6		N/A	S											
510-00703-9-099			F											
TANK #10		N/A	S											
510-00703-9-099			F											
BOILER (1.3 MMBTU/HR)		#2	S	0.05	0.52				182	0.0	24			C3
			F											
INSIGNIFICANT SOURCES		N/A	S											
			F											
			S											
			F											
			S											
			F											
			S											
			F											
Total				0.08	0.59					0.0				

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

TOSD: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

FORM 2:

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT Calendar Year: 2021___

Facility Name: SPMT-BALTIMORE TERMINAL_____ Facility ID: 24-510-00703____ Pollutant: SOX_____

Equipment Description/ Registration No.	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Emissions Methods
				Tons/yr	Lbs/day	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
VAPOR CONTROL (VRU &VCU)		N/A	S	0.00	0.0	24	7	52	365	0.0	24			C1
510-00703-9-0999			F											
STORAGE TANKS		N/A	S											
510-00703-9-0999			F											
FUGITIVES		N/A	S											
4-0317-90			F											
TANK #6		N/A	S											
510-00703-9-099			F											
TANK #10		N/A	S											
510-00703-9-099			F											
BOILER (1.3 MMBTU/HR)		#2	S	0.01	0.05				182	0.0	24			C3
			F											
INSIGNIFICANT SOURCES		N/A	S											
			F											
			S											
			F											
			S											
			F											
			S											
			F											
Total				0.01	0.05					0				

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

TOSD: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

1/09/08

FORM 2:

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT Calendar Year: 2021___

Facility Name: SPMT-BALTIMORE TERMINAL_____ Facility ID: 24-510-00703____ Pollutant: _VOC_____

Equipment Description/ Registration No.	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Emissions Methods
				Tons/yr	Lbs/day	Hrs/dy	Dys/wk	Wk/yr	Days/yr	Lbs/dy	Hrs/dy	Start	End	
VAPOR CONTROL (VRU &VCU)		N/A	S	0.76	4.16	24	7	52	365	0.38	24			C1
510-00703-9-0999			F	6.13	33.58					30.6				
STORAGE TANKS		N/A	S	11.15	61.09	24	7	52	365	75.12	24			AI
510-00703-9-0999			F											
FUGITIVES		N/A	S	1.49	8.16	24	7	52	365	16.28	24			AI
4-0317-90			F											
TANK #6		N/A	S	9.38	51.39	24	7	52	365	9.93	24			AI
510-00703-9-099			F											
TANK #10		N/A	S	0	0	24	7	52	365	0	24			AI
510-00703-9-099			F											
BOILER (1.3 MMBTU/HR)		#2	S	0.0	0.0				182	0.0				C3
			F											
INSIGNIFICANT SOURCES		N/A	S	1.48	8.11	24	7	52	365	11.80	24			AI
			F											
			S											
			F											
			S											
			F											
			S											
			F											
Total				30.39	166.49					144.11				

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

TOSD: Typical Ozone Season Day means a typical day of that period of the year during which conditions for photochemical conditions are most favorable, which is generally during sustained periods of direct sunlight and warm temperatures (April-September). This section needs to be completed only for VOC and NOx sources.

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

FORM 3: PM **EMISSIONS CERTIFICATION REPORT**

Particulate Matter

Calendar Year: 2019

Facility Name: SPMT-BALTIMORE TERMINAL Facility ID: 24-510-00703

Pollutant: PM

Equipment Description/ Registration No.	SCC Number	Fuel		PM – Filterable		PM 10 –Filterable		PM 2.5 – Filterable		PM Condensable		Operation	Emissions Methods
				Tons/yr	Lbs/day	Tons/yr	Lbs/day	Tons/yr	Lbs/day	Tons/yr	Lbs/day	Days/yr	
VAPOR CONTROL (VRU/VCU)		N/A	S	0.0	0.0					0.01	0.05	365	C3
510-00703-9-0944			F										
BOILER		#2	S			0.0	0.0					182	C3
(1.13 MMBTU/HR)			F										
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
			S										
			F										
Total				0.0	0.0	0.0	0.0			0.01	0.05		

S - Stack Emissions F - Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

Fuel: Include emissions for each fuel used. If more than one fuel is used, calculate and list emissions separately for each fuel.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by best guess/engineering Judgment

C5-User calculated based on a State or local agency emission factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standard

FORM 4:

TOXIC AIR POLLUTANTS

Calendar Year: 2021

EMISSIONS CERTIFICATION REPORT

Facility Name: SPMT-BALTIMORE TERMINAL **Facility ID**: 24-510-00703 **Pollutant**: BENZENE*

Equipment Description/ Registration Number[1]	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	Lbs/day	Lbs/hr		
VAPOR CONTROL (VRU & VCU) 510-00703-099	0.04	0.21	0.00	VRU VCU	99.86 99.66
STORAGE TANKS 510-80703-9-0999	0.02	0.12	0.01		
FUGITIVES 9-0817-96	0.004	0.02	0.0		
TANK #6 510-00703-9-1000	0.02	0.11	0.00		
TANK #10 510-00703-9-1151	0.0	0.0	0.00		
TOTALS	0.08	0.46	0.01		

* Please attach all calculations.

* See Attachment 1 for the minimum reporting values.

**Control Device
S = Scrubber
B = Baghouse
ESP = Electrostatic Precipitator
A = Afterburner
C = Condenser
AD = Adsorbtion
O = Other

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 5:

BILLABLE TOXIC AIR POLLUTANTS

Calendar Year: 2021

Emissions Certification Report

Facility Name: SPMT -BALTIMORE TERMINAL Facility ID#: 24-510-0073

Chemical Name	CAS Number		Actual Emissions				Estimation Method
			Tons/year	Lbs/day	Lbs/hr		
carbon disulfide	75-15-0	S					
		F					
carbonyl sulfide	463-58-1	S					
		F					
chlorine	7782-50-5	S					
		F					
cyanide compounds	57-12-5	S					
		F					
hydrochloric acid	7647-01-0	S					
		F					
hydrogen fluoride	7664-39-3	S					
		F					
methyl chloroform	71-55-6	S					
		F					
methylene chloride	75-09-2	S					
		F					
perchloroethylene	127-18-4	S					
		F					
phosphine	7803-51-2	S					
		F					
titanium tetrachloride	7550-45-0	S					
		F					
TOTALS			N/A	N/A	N/A		

S-Stack Emissions F-Fugitive Emissions Daily emissions (lbs/day) are lbs/operating day of the source

PLEASE NOTE: Be sure to attach all data and calculations necessary to support the emissions figures shown above.

Emission Estimation Method

A1-U.S. EPA Reference Method
A2-Other Particulate Sampling Train
A3-Liquid Absorption Technique
A4-Solid Absorption Technique
A5-Freezing Out Technique
A9-Other, Specify

C1-User calculated based on source test or other measurement
C2-User calculated based on material balance using engineering knowledge of the process
C3-User calculated based on AP-42
C4-User calculated by engineering judgment
C5-User calculated based on a State or local agency factor
C6-New construction, not operational
C7-Source closed, operation ceased
C8-Computer calculated based on standards

This form is to include only the chemicals identified.

FORM 6: Greenhouse Gases

GREENHOUSE GAS AIR POLLUTANTS

Calendar Year: 2021

EMISSIONS CERTIFICATION REPORT

Facility Name: SPMT-BALTIMORE TERMINAL **Facility ID**: 24-510-00703 **Pollutant**: CH4*

Equipment Description/ Registration Number[1]	Actual Emissions		
	Tons/yr	Lbs/day	Lbs/hr
VAPOR CONTROL (VRU &VCU) 510-00703-9-0999	0.0	0.0	0.00
BOILER (1.3 MMBTU/HR)	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0

This form must be used to report Greenhouse gas emissions:

- carbon dioxide (CO2)
- methane (CH4)
- nitrous oxide (N2O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride (SF6)

* Use a separate form for each pollutant.

* Please attach all calculations.

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 6: Greenhouse Gases

GREENHOUSE GAS AIR POLLUTANTS

Calendar Year: 2021

EMISSIONS CERTIFICATION REPORT

Facility Name: SPMT-BALTIMORE TERMINAL **Facility ID**: 24-510-00703 **Pollutant**: CO2*

Equipment Description/ Registration Number[1]	Actual Emissions		
	Tons/yr	Lbs/day	Lbs/hr
VAPOR CONTROL (VRU &VCU) 510-00703-9-0999	39.59	216.93	9.03
BOILER (1.3 MMBTU/HR)	54	295	12.29
TOTALS	93.59	511.93	21.32

This form must be used to report Greenhouse gas emissions:

- carbon dioxide (CO2)
- methane (CH4)
- nitrous oxide (N2O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride (SF6)

* Use a separate form for each pollutant.

* Please attach all calculations.

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 6: Greenhouse Gases

GREENHOUSE GAS AIR POLLUTANTS

Calendar Year: 2021

EMISSIONS CERTIFICATION REPORT

Facility Name: SPMT-BALTIMORE TERMINAL **Facility ID**: 24-510-00703 **Pollutant**: N2O*

Equipment Description/ Registration Number[1]	Actual Emissions		
	Tons/yr	Lbs/day	Lbs/hr
VAPOR CONTROL (VRU &VCU) 510-00703-9-0999	0.0	0.0	0.00
BOILER (1.3 MMBTU/HR)	0.0	0.0	0.0
TOTALS	0.0	0.0	0.0

This form must be used to report Greenhouse gas emissions:

- carbon dioxide (CO2)
- methane (CH4)
- nitrous oxide (N2O)
- hydrofluorocarbons (HFCs)
- perfluorocarbons (PFCs)
- sulfur hexafluoride (SF6)

* Use a separate form for each pollutant.

* Please attach all calculations.

[1]Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

Table 1
Facility Throughput

Enter current year data in boxes marked in BLUE. Enter prior year data in boxes marked in RED.

Sunoco Partners Marketing & Terminals L.P.

Terminal Name:	**Baltimore**
Current Year:	**2021**

Table 1: Loading Rack Throughput **CONFIDENTIAL - ALL THROUGHPUT MATERIAL SHALL BE HANDLED AS CONFIDENTIAL**

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Total Gasoline	209,519	8,799,815	
	February	Total Gasoline	195,809	8,223,995	
	March	Total Gasoline	250,823	10,534,555	21.35%
	April	Total Gasoline	282,468	11,863,642	
	May	Total Gasoline	200,968	8,440,656	
	June	Total Gasoline	260,463	10,939,450	24.21%
	July	Total Gasoline	309,223	12,987,356	
	August	Total Gasoline	299,463	12,577,464	
	September	Total Gasoline	197,871	8,310,569	26.25%
	October	Total Gasoline	238,978	10,037,075	
	November	Total Gasoline	272,304	11,436,754	
	December	Total Gasoline	355,151	14,916,339	28.19%
	Total	Total Gasoline	3,073,040	129,067,670	
		Ozone Season Throughput (gals/day)		396,785.5	
		Ozone Season Throughput (gal total)		36,504,270	

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Total Distillate	47,414	1,991,397	
	February	Total Distillate	92,318	3,877,342	
	March	Total Distillate	91,839	3,857,228	27.13%
	April	Total Distillate	53,367	2,241,401	
	May	Total Distillate	76,465	3,211,524	
	June	Total Distillate	57,376	2,409,777	21.93%
	July	Total Distillate	49,968	2,098,669	
	August	Total Distillate	51,174	2,149,316	
	September	Total Distillate	40,360	1,695,102	16.58%
	October	Total Distillate	103,795	4,359,390	
	November	Total Distillate	80,257	3,370,809	
	December	Total Distillate	109,237	4,587,969	34.36%
	Total	Total Distillate	853,570	35,849,924	
	PERMIT LIMIT			0	
		Ozone Season Throughput (gals/day)		72,367.0	
		Ozone Season Throughput (gal total)		6,657,762	

Baltimore - Confidential Throughput
2021
***Rolling 12 Month Throughput (Gas and Ethanol)**
(note: each row represents 12 rolling months)

Month	Gasoline + Ethanol (gal/12 mo)	Distillate (gal/12 mo)
January	139,815,353	31,453,617
February	131,558,742	33,307,718
March	130,235,548	34,462,003
April	136,326,698	34,398,998
May	136,418,316	35,646,218
June	137,263,886	35,655,517
July	140,043,092	35,504,385
August	142,755,932	35,387,626
September	139,826,761	34,090,946
October	137,963,823	34,845,166
November	138,198,587	35,830,593
December	143,389,093	35,849,924
Permit Limit	**425,000,000**	**1,386,000,000**

*Note: Each value above represents the Rolling 12 month Throughput, which takes into account the present month plus the 11 preceding months.

2020

Previous Years Throughput

Month	Gasoline + Ethanol (gal/mo)	Distillate (gal/mo)
January	**14,480,449**	**2,344,732**
February	**17,391,599**	**2,023,241**
March	**13,023,177**	**2,702,943**
April	**7,085,115**	**2,304,406**
May	**9,281,830**	**1,964,304**
June	**11,301,555**	**2,400,478**
July	**11,646,787**	**2,249,801**
August	**11,253,018**	**2,266,075**
September	**12,158,638**	**2,991,782**
October	**13,011,308**	**3,605,170**
November	**12,507,218**	**2,385,382**
December	**11,380,477**	**4,568,638**

Enter Throughputs Below

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Low Grade Gas	176,016	**7,392,682**	
	February	Low Grade Gas	165,219	**6,939,179**	
	March	Low Grade Gas	213,569	**8,969,913**	21.08%
	April	Low Grade Gas	235,446	**9,888,751**	
	May	Low Grade Gas	169,570	**7,121,929**	
	June	Low Grade Gas	222,738	**9,355,005**	23.86%
	July	Low Grade Gas	265,974	**11,170,913**	
	August	Low Grade Gas	256,104	**10,756,380**	
	September	Low Grade Gas	170,871	**7,176,584**	26.33%
	October	Low Grade Gas	209,386	**8,794,229**	
	November	Low Grade Gas	236,920	**9,950,649**	
	December	Low Grade Gas	309,719	**13,008,210**	28.73%
	Total	Low Grade Gas	2,631,534	110,524,424	

Ozone Season Throughput (gals/day)	340024.9783
Ozone Season Throughput (gal total)	31,282,298

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	High Grade Gas	33,460	**1,405,308**	
	February	High Grade Gas	30,544	**1,282,841**	
	March	High Grade Gas	37,198	**1,562,324**	22.95%
	April	High Grade Gas	46,970	**1,972,732**	
	May	High Grade Gas	31,354	**1,316,882**	
	June	High Grade Gas	37,676	**1,582,404**	26.31%
	July	High Grade Gas	43,194	**1,814,151**	
	August	High Grade Gas	43,306	**1,818,838**	
	September	High Grade Gas	26,966	**1,132,572**	25.73%
	October	High Grade Gas	29,547	**1,240,962**	
	November	High Grade Gas	35,335	**1,484,077**	
	December	High Grade Gas	45,367	**1,905,404**	25.00%
	Total	High Grade Gas	440,917	18,518,495	

Ozone Season Throughput (gals/day)	56689.05435
Ozone Season Throughput (gal total)	5,215,393

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Diesel (LSD, ULSD, biodiesel)	20,769	**872,299**	
	February	Diesel (LSD, ULSD, biodiesel)	62,899	**2,641,776**	
	March	Diesel (LSD, ULSD, biodiesel)	66,413	**2,789,361**	22.86%
	April	Diesel (LSD, ULSD, biodiesel)	48,727	**2,046,540**	
	May	Diesel (LSD, ULSD, biodiesel)	66,531	**2,794,288**	
	June	Diesel (LSD, ULSD, biodiesel)	50,303	**2,112,707**	25.22%
	July	Diesel (LSD, ULSD, biodiesel)	43,287	**1,818,039**	
	August	Diesel (LSD, ULSD, biodiesel)	46,338	**1,946,185**	
	September	Diesel (LSD, ULSD, biodiesel)	33,379	**1,401,935**	18.73%
	October	Diesel (LSD, ULSD, biodiesel)	86,078	**3,615,287**	
	November	Diesel (LSD, ULSD, biodiesel)	55,877	**2,346,837**	
	December	Diesel (LSD, ULSD, biodiesel)	75,991	**3,191,629**	33.19%
	Total	LSD	656,592	27,576,883	

Ozone Season Throughput (gals/day)	63879.68478
Ozone Season Throughput (gal total)	5,876,931

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Fuel Oil #2	26,645	**1,119,098**	
	February	Fuel Oil #2	29,418	**1,235,566**	
	March	Fuel Oil #2	25,425	**1,067,867**	41.37%
	April	Fuel Oil #2	4,640	**194,861**	
	May	Fuel Oil #2	9,934	**417,236**	
	June	Fuel Oil #2	7,073	**297,070**	10.99%
	July	Fuel Oil #2	6,682	**280,630**	
	August	Fuel Oil #2	4,836	**203,131**	
	September	Fuel Oil #2	6,980	**293,167**	9.39%
	October	Fuel Oil #2	17,717	**744,103**	
	November	Fuel Oil #2	24,380	**1,023,972**	
	December	Fuel Oil #2	33,246	**1,396,340**	38.25%
	Total	Fuel Oil #2	196,977	8,273,041	

Ozone Season Throughput (gals/day)	8487.293478
Ozone Season Throughput (gal total)	780,831

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Kerosene & Jet-A	0		
	February	Kerosene & Jet-A	0		
	March	Kerosene & Jet-A	0		#DIV/0!
	April	Kerosene & Jet-A	0		
	May	Kerosene & Jet-A	0		
	June	Kerosene & Jet-A	0		#DIV/0!
	July	Kerosene & Jet-A	0		
	August	Kerosene & Jet-A	0		
	September	Kerosene & Jet-A	0		#DIV/0!
	October	Kerosene & Jet-A	0		
	November	Kerosene & Jet-A	0		
	December	Kerosene & Jet-A	0		#DIV/0!
	Total	Kerosene & Jet-A	0	0	

Ozone Season Throughput (gals/day)	0
Ozone Season Throughput (gal total)	0

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Gas Additive	43	1,825	
	February	Gas Additive	47	1,975	
	March	Gas Additive	55	2,318	24.72%
	April	Gas Additive	51	2,159	
	May	Gas Additive	44	1,845	
	June	Gas Additive	49	2,041	24.42%
	July	Gas Additive	55	2,292	
	August	Gas Additive	53	2,246	
	September	Gas Additive	34	1,413	24.04%
	October	Gas Additive	45	1,884	
	November	Gas Additive	48	2,028	
	December	Gas Additive	65	2,725	26.82%
	Total	Gas Additive	589	24,751	

Ozone Season Throughput (gals/day)	71.51086957
Ozone Season Throughput (gal total)	6,579

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Transmix/Slop	0		
	February	Transmix/Slop	0		
	March	Transmix/Slop	0		#DIV/0!
	April	Transmix/Slop	0		
	May	Transmix/Slop	0		
	June	Transmix/Slop	0		#DIV/0!
	July	Transmix/Slop	0		
	August	Transmix/Slop	0		
	September	Transmix/Slop	0		#DIV/0!
	October	Transmix/Slop	0		
	November	Transmix/Slop	0		
	December	Transmix/Slop	0		#DIV/0!
	Total	Transmix/Slop	0	0	

Ozone Season Throughput (gals/day)	0
Ozone Season Throughput (gal total)	0

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Ethanol	23,210	**974,816**	
	February	Ethanol	21,690	**910,993**	
	March	Ethanol	27,748	**1,165,428**	#DIV/0!
	April	Ethanol	31,253	**1,312,623**	
	May	Ethanol	22,209	**932,792**	
	June	Ethanol	28,754	**1,207,675**	#DIV/0!
	July	Ethanol	34,253	**1,438,637**	
	August	Ethanol	33,057	**1,388,394**	
	September	Ethanol	21,879	**918,898**	#DIV/0!
	October	Ethanol	26,459	**1,111,295**	
	November	Ethanol	31,077	**1,305,228**	
	December	Ethanol	39,396	**1,654,644**	#DIV/0!
	Total	Ethanol	340,986		

Ozone Season Throughput (gals/day)	43855.5
Ozone Season Throughput (gal total)	4,034,706

Year: 2021

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Toluene	0		
	February	Toluene	0		
	March	Toluene	0		#DIV/0!
	April	Toluene	0		
	May	Toluene	0		
	June	Toluene	0		#DIV/0!
	July	Toluene	0		
	August	Toluene	0		
	September	Toluene	0		#DIV/0!
	October	Toluene	0		
	November	Toluene	0		
	December	Toluene	0		#DIV/0!
	Total	Toluene	0	0	

Ozone Season Throughput (gals/day)	0
Ozone Season Throughput (gal total)	0

Table 3
VRU / VCU Throughput Allocation

Lower Grade Gasoline

	Total Hours for Month	Average Gallons per Hour[1]	# Hours VRU Run	Gallons Through VRU[2]	# Hours VCU Run[3]	Gallons Through VCU[4]	VRU Fraction
January	744	9,936	**744**	7,392,682	0	0	1.000
February	696	9,970	**672**	6,699,897	24	239,282	0.966
March	744	12,056	**661**	7,969,237	83	1,000,676	0.888
April	720	13,734	**714**	9,806,345	6	82,406	0.992
May	744	9,572	**738**	7,064,494	6	57,435	0.992
June	720	12,993	**720**	9,355,005	0	0	1.000
July	744	15,015	**744**	11,170,913	0	0	1.000
August	744	14,458	**744**	10,756,380	0	0	1.000
September	720	9,967	**718**	7,156,649	2	19,935	0.997
October	744	11,820	**742**	8,770,589	2	23,640	0.997
November	720	13,820	**720**	9,950,649	0	0	1.000
December	744	17,484	**744**	13,008,210	0	0	1.000

Higher Grade Gasoline

	Total Hours for Month	Average Gallons per Hour[1]	# Hours VRU Run	Gallons Through VRU[2]	# Hours VCU Run[3]	Gallons Through VCU[4]
January	744	1,889	744	1,405,308	0	0
February	696	1,843	672	1,238,605	24	44,236
March	744	2,100	661	1,388,032	83	174,292
April	720	2,740	714	1,956,293	6	16,439
May	744	1,770	738	1,306,262	6	10,620
June	720	2,198	720	1,582,404	0	0
July	744	2,438	744	1,814,151	0	0
August	744	2,445	744	1,818,838	0	0
September	720	1,573	718	1,129,426	2	3,146
October	744	1,668	742	1,237,626	2	3,336
November	720	2,061	720	1,484,077	0	0
December	744	2,561	744	1,905,404	0	0

Ethanol

	Total Hours for Month	Average Gallons per Hour[1]	# Hours VRU Run	Gallons Through VRU[2]	# Hours VCU Run[3]	Gallons Through VCU[4]
January	744	1,310	744	974,816	0	0
February	696	1,309	672	879,579	24	31,414
March	744	1,566	661	1,035,414	83	130,014
April	720	1,823	714	1,301,684	6	10,939
May	744	1,254	738	925,269	6	7,523
June	720	1,677	720	1,207,675	0	0
July	744	1,934	744	1,438,637	0	0
August	744	1,866	744	1,388,394	0	0
September	720	1,276	718	916,346	2	2,552
October	744	1,494	742	1,108,308	2	2,987
November	720	1,813	720	1,305,228	0	0
December	744	2,224	744	1,654,644	0	0

[1]: Average gallons per hour calculated based on Table 1 monthly throughput divided by hours per month.
[2]: Gallons Through VRU = Average Gallons per Hour x # Hours VRU Run.
[3]: # Hours VCU Run = Total Hours for Month - # Hours VRU Run.
[4]: Gallons Through VCU = Average Gallons per Hour x # Hours VCU Run.

Table 5
Loading Emissions (tons)

Loading Rack Emission Calculations:

Year: 2021

Facility	Month	Product [1]	Total Gas Throughput (gal/mo)	VRU Throughput (gal/mo)	VCU Throughput (gal/mo)	Gas Load VOC - stack (tons)	Gas Load VOC - Fug (tons)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	Total HAPs	1,2,4 Trimethylbenzene [6]	cyclohexane [6]
Baltimore	January	Gasoline	8,797,990	8,797,990	0	0.1608	0.3297	0.0005	0.0000	0.0000	0.0016	0.0010	0.0001	0.0020	0.0059	0.0112	0.0001	0.0015
	February	Gasoline	8,222,020	7,938,502	283,518	0.1553	0.3081	0.0005	0.0000	0.0000	0.0015	0.0010	0.0001	0.0019	0.0056	0.0105	0.0001	0.0014
	March	Gasoline	10,532,237	9,357,270	1,174,967	0.2133	0.3947	0.0006	0.0000	0.0000	0.0022	0.0012	0.0002	0.0024	0.0072	0.0138	0.0002	0.0017
	April	Gasoline	11,861,483	11,762,637	98,846	0.2186	0.4445	0.0013	0.0000	0.0000	0.0021	0.0014	0.0002	0.0041	0.0080	0.0171	0.0002	0.0002
	May	Gasoline	8,438,811	8,370,756	68,055	0.1554	0.3162	0.0010	0.0000	0.0000	0.0015	0.0010	0.0001	0.0028	0.0057	0.0121	0.0001	0.0002
	June	Gasoline	10,937,409	10,937,409	0	0.1999	0.4098	0.0012	0.0000	0.0000	0.0018	0.0013	0.0002	0.0036	0.0075	0.0156	0.0002	0.0002
	July	Gasoline	12,985,064	12,985,064	0	0.2373	0.4866	0.0013	0.0000	0.0000	0.0038	0.0024	0.0003	0.0019	0.0099	0.0196	0.0002	0.0077
	August	Gasoline	12,575,218	12,575,218	0	0.2298	0.4712	0.0013	0.0000	0.0000	0.0037	0.0023	0.0003	0.0019	0.0096	0.0190	0.0002	0.0074
	September	Gasoline	8,309,156	8,286,075	23,081	0.1523	0.3114	0.0008	0.0000	0.0000	0.0024	0.0015	0.0002	0.0012	0.0064	0.0126	0.0001	0.0049
	October	Gasoline	10,035,191	10,008,215	26,976	0.1839	0.3760	0.0008	0.0000	0.0000	0.0019	0.0012	0.0002	0.0029	0.0066	0.0135	0.0001	0.0029
	November	Gasoline	11,434,726	11,434,726	0	0.2090	0.4285	0.0009	0.0000	0.0000	0.0021	0.0014	0.0002	0.0033	0.0074	0.0154	0.0002	0.0033
	December	Gasoline	14,913,614	14,913,614	0	0.2726	0.5588	0.0012	0.0000	0.0000	0.0028	0.0018	0.0002	0.0043	0.0097	0.0201	0.0002	0.0043
	Total	Total Gasoline	129,042,919	127,367,476	1,675,443	2.3883	4.8354	0.0115	0.0001	0.0000	0.0274	0.0175	0.0023	0.0323	0.0895	0.1807	0.0020	0.0357

[1]: "Gasoline" throughput and emissions equal to sum of "Low Grade Gas" and "High Grade Gas" values provided in tables below.

Year: 2021

Facility	Month	Product	Total Throughput (gal/mo)[2]	VRU Throughput (gal/mo)[2]	VCU Throughput (gal/mo)[2]	Gas Load VOC - stack (tons)[3]	Gas Load VOC - Fug (tons)[4]	Benzene (71-43-2) [5]	Cumene (98-82-8) [5]	Naphthalene (91-20-3) [5]	Toluene (108-88-3) [5]	Xylene (1330-20-7) [5]	Ethyl-benzene (100-41-4)[5]	Isooctane (540841) [5]	n-Hexane (110-54-3) [5]	Total HAPs	1,2,4 Trimethylbenzene [5] [6]	cyclohexane [5] [6]
Baltimore	January	Low Grade Gas	7,392,682	7,392,682	0	0.135	0.277	0.000435	0.000	0.000	0.001	0.001	0.000	0.000	0.006	0.009	0.000	0.001
	February	Low Grade Gas	6,939,179	6,699,897	239,282	0.131	0.260	0.000	0.000	0.000	0.001	0.001	0.000	0.000	0.005	0.008	0.000	0.001
	March	Low Grade Gas	8,969,913	7,969,237	1,000,676	0.182	0.336	0.001	0.000	0.000	0.002	0.001	0.000	0.001	0.007	0.011	0.000	0.002
	April	Low Grade Gas	9,888,751	9,806,345	82,406	0.182	0.371	0.001	0.000	0.000	0.001	0.001	0.000	0.002	0.008	0.013	0.000	0.000
	May	Low Grade Gas	7,121,929	7,064,494	57,435	0.131	0.267	0.001	0.000	0.000	0.001	0.001	0.000	0.001	0.005	0.010	0.000	0.000
	June	Low Grade Gas	9,355,005	9,355,005	0	0.171	0.351	0.001	0.000	0.000	0.001	0.001	0.000	0.002	0.007	0.013	0.000	0.000
	July	Low Grade Gas	11,170,913	11,170,913	0	0.204	0.419	0.001	0.000	0.000	0.003	0.002	0.000	0.001	0.010	0.017	0.000	0.007
	August	Low Grade Gas	10,756,380	10,756,380	0	0.197	0.403	0.001	0.000	0.000	0.003	0.002	0.000	0.001	0.009	0.016	0.000	0.007
	September	Low Grade Gas	7,176,584	7,156,649	19,935	0.132	0.269	0.001	0.000	0.000	0.002	0.001	0.000	0.001	0.006	0.011	0.000	0.005
	October	Low Grade Gas	8,794,229	8,770,589	23,640	0.161	0.330	0.001	0.000	0.000	0.002	0.001	0.000	0.002	0.006	0.011	0.000	0.003
	November	Low Grade Gas	9,950,649	9,950,649	0	0.182	0.373	0.001	0.000	0.000	0.002	0.001	0.000	0.002	0.007	0.013	0.000	0.003
	December	Low Grade Gas	13,008,210	13,008,210	0	0.238	0.487	0.001	0.000	0.000	0.002	0.001	0.000	0.002	0.009	0.017	0.000	0.004
	Total	Low Grade Gas	110,524,424	109,101,050	1,423,374	2.045	4.142	0.010	0.000	0.000	0.022	0.014	0.002	0.015	0.086	0.150	0.0016	0.0347

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Facility	Month	Product	Total Throughput (gal/mo)[7]	VRU Throughput (gal/mo)[7]	VCU Throughput (gal/mo)[7]	Gas Load VOC - stack (tons)[3]	Gas Load VOC - Fug (tons)[4]	Benzene (71-43-2) [5]	Cumene (98-82-8) [5]	Naphthalene (91-20-3) [5]	Toluene (108-88-3) [5]	Xylene (1330-20-7) [5]	Ethyl-benzene (100-41-4)[5]	Isooctane (540841) [5]	n-Hexane (110-54-3) [5]	Total HAPs	1,2,4 Trimethylbenzene [5] [6]	cyclohexane [5] [6]
Baltimore	January	High Grade Gas	1,405,308	1,405,308	0	0.026	0.053	0.000056	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.002	0.000	0.000
	February	High Grade Gas	1,282,841	1,238,605	44,236	0.024	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.000	0.000
	March	High Grade Gas	1,562,324	1,388,032	174,292	0.032	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.003	0.000	0.000
	April	High Grade Gas	1,972,732	1,956,293	16,439	0.036	0.074	0.000	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.004	0.000	0.000
	May	High Grade Gas	1,316,882	1,306,262	10,620	0.024	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.000	0.000
	June	High Grade Gas	1,582,404	1,582,404	0	0.029	0.059	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.003	0.000	0.000
	July	High Grade Gas	1,814,151	1,814,151	0	0.033	0.068	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.003	0.000	0.000
	August	High Grade Gas	1,818,838	1,818,838	0	0.033	0.068	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.000	0.003	0.000	0.000
	September	High Grade Gas	1,132,572	1,129,426	3,146	0.021	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.000	0.000
	October	High Grade Gas	1,240,962	1,237,626	3,336	0.023	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.000	0.002	0.000	0.000
	November	High Grade Gas	1,484,077	1,484,077	0	0.027	0.056	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	0.003	0.000	0.000
	December	High Grade Gas	1,905,404	1,905,404	0	0.035	0.071	0.000	0.000	0.000	0.001	0.000	0.000	0.002	0.000	0.003	0.000	0.000
	Total	High Grade Gas	18,518,495	18,266,426	252,069	0.34294	0.69392	0.0012	0.0000	0.0000	0.0055	0.0033	0.0004	0.0172	0.0035	0.031	0.0004	0.0010

[2]: Low grade gas throughput values equal the sum of low grade gas throughput values per Table 1 and Table 3 plus the Table 5 transmix VRU throughput and VCU throughput values provided below..
[3]: Gas Load VOC - stack = ([VRU throughput (gal/mo) x VRU Emission Factor (lb/gal)] + [VCU throughput (gal/mo) x VCU Emission Factor (lb/gal)]) x (1 ton/2,000 lb). VOC emission factors for VRU and VCU provided in Table 2.
[4] Gas Load VOC - Fug = Total Throughput (gal/mo) x Truck Vapor Tightness Emission Factor (lb/gal) x (1 ton/2,000 lb). VOC Truck Vapor Tightness emission factor provided in Table 2.
[5]: Compound Emiss (tons) = { ([VRU throughput (gal/mo) x VRU compound Emiss Factor (lb/gal)] + [VCU throughput (gal/mo) x VCU compound Emiss Factor (lb/gal)]) x (1 ton/2,000 lb) } + (Gas Load VOC - Fug (tons) x Compound Vapor Wt. Fraction (lb/lb)). Compound specific emission factors and vapor wt. fractions provided in Table 4.
[6] Non HAPs but calculated for SARA 313 reports.
[7]: High grade gas throughput values per Table 1 and Table 3.

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Facility	Month	Product	Total Throughput (gal/mo)[7]	VRU Throughput (gal/mo)[8]	VCU Throughput (gal/mo)[8]	Load VOC - stack (tons)[9]	Load VOC - Fug (tons)[10]
Baltimore	January	Ethanol	974,816	974,816	0	0.018	0.037
	February	Ethanol	910,993	879,579	31,414	0.017	0.034
	March	Ethanol	1,165,428	1,035,414	130,014	0.024	0.044
	April	Ethanol	1,312,623	1,301,684	10,939	0.024	0.049
	May	Ethanol	932,792	925,269	7,523	0.017	0.035
	June	Ethanol	1,207,675	1,207,675	0	0.022	0.045
	July	Ethanol	1,438,637	1,438,637	0	0.026	0.054
	August	Ethanol	1,388,394	1,388,394	0	0.025	0.052
	September	Ethanol	918,898	916,346	2,552	0.017	0.034
	October	Ethanol	1,111,295	1,108,308	2,987	0.020	0.042
	November	Ethanol	1,305,228	1,305,228	0	0.024	0.049
	December	Ethanol	1,654,644	1,654,644	0	0.030	0.062
	Total	Ethanol	14,321,423	14,135,994	185,429	0.265	0.537

[8]: Throughput values per Table 1.
[9]: Load VOC - stack = ([VRU throughput (gal/mo) x VRU Emission Factor (lb/gal)] + [VCU throughput (gal/mo) x VCU Emission Factor (lb/gal)]). VOC emission factors for VRU and VCU provided in Table 2.
[10] Load VOC - Fug = Total Throughput (gal/mo) x Truck Vapor Tightness Emission Factor (lb/gal) x (1 ton/2,000 lb). VOC Truck Vapor Tightness emission factor provided in Table 2.

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Facility	Month	Product	Total Throughput (gal/mo)[11]			Load VOC - stack (tons)	Load VOC - Fug (tons)[12]	Benzene (71-43-2)[12]	Cumene (98-82-8)[13]	Naphthalene (91-20-3)[13]	Toluene (108-88-3)[13]	Xylene (1330-20-7)[13]	Ethyl-benzene (100-41-4)[13]	Isooctane (540841)[12]	n-Hexane (110-54-3)[13]	Total HAPs
Baltimore	January	Diesel	872,299				0.0061	0.0007	0.0000	----------	0.0004	0.0003	0.0001	----------	0.0002	0.0016
	February	Diesel	2,641,776				0.0185	0.0020	0.0000	----------	0.0011	0.0009	0.0002	----------	0.0007	0.0049
	March	Diesel	2,789,361				0.0195	0.0022	0.0000	----------	0.0011	0.0010	0.0002	----------	0.0007	0.0052
	April	Diesel	2,046,540				0.0143	0.0016	0.0000	----------	0.0008	0.0007	0.0001	----------	0.0005	0.0038
	May	Diesel	2,794,288				0.0196	0.0022	0.0000	----------	0.0012	0.0010	0.0002	----------	0.0007	0.0052
	June	Diesel	2,112,707				0.0148	0.0016	0.0000	----------	0.0009	0.0007	0.0002	----------	0.0005	0.0039
	July	Diesel	1,818,039				0.0127	0.0014	0.0000	----------	0.0007	0.0006	0.0001	----------	0.0005	0.0034
	August	Diesel	1,946,185				0.0136	0.0015	0.0000	----------	0.0008	0.0007	0.0001	----------	0.0005	0.0036
	September	Diesel	1,401,935				0.0098	0.0011	0.0000	----------	0.0006	0.0005	0.0001	----------	0.0004	0.0026
	October	Diesel	3,615,287				0.0253	0.0028	0.0001	----------	0.0015	0.0012	0.0003	----------	0.0009	0.0068
	November	Diesel	2,346,837				0.0164	0.0018	0.0000	----------	0.0010	0.0008	0.0002	----------	0.0006	0.0044
	December	Diesel	3,191,629				0.0223	0.0025	0.0001	----------	0.0013	0.0011	0.0002	----------	0.0008	0.0060
	Total	Diesel	27,576,883				0.1930	0.0213	0.0005	----------	0.0114	0.0095	0.0020	----------	0.0069	0.0515

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Facility	Month	Product	Total Throughput (gal/mo)[11]			Load VOC - stack (tons)	Load VOC - Fug (tons)[12]	Benzene (71-43-2)[12]	Cumene (98-82-8)[13]	Naphthalene (91-20-3)[13]	Toluene (108-88-3)[13]	Xylene (1330-20-7)[13]	Ethyl-benzene (100-41-4)[13]	Isooctane (540841)[12]	n-Hexane (110-54-3)[13]	Total HAPs
Baltimore	January	Fuel Oil #2	1,119,098				0.0078	0.0009	0.0000	----------	0.0009	0.0000	0.0000	----------	0.0003	0.0020
	February	Fuel Oil #2	1,235,566				0.0086	0.0010	0.0000	----------	0.0010	0.0000	0.0000	----------	0.0003	0.0022
	March	Fuel Oil #2	1,067,867				0.0075	0.0008	0.0000	----------	0.0008	0.0000	0.0000	----------	0.0003	0.0019
	April	Fuel Oil #2	194,861				0.0014	0.0002	0.0000	----------	0.0002	0.0000	0.0000	----------	0.0000	0.0004
	May	Fuel Oil #2	417,236				0.0029	0.0003	0.0000	----------	0.0003	0.0000	0.0000	----------	0.0001	0.0007
	June	Fuel Oil #2	297,070				0.0021	0.0002	0.0000	----------	0.0002	0.0000	0.0000	----------	0.0001	0.0005
	July	Fuel Oil #2	280,630				0.0020	0.0002	0.0000	----------	0.0002	0.0000	0.0000	----------	0.0001	0.0005
	August	Fuel Oil #2	203,131				0.0014	0.0002	0.0000	----------	0.0002	0.0000	0.0000	----------	0.0001	0.0004
	September	Fuel Oil #2	293,167				0.0021	0.0002	0.0000	----------	0.0002	0.0000	0.0000	----------	0.0001	0.0005
	October	Fuel Oil #2	744,103				0.0052	0.0006	0.0000	----------	0.0006	0.0000	0.0000	----------	0.0002	0.0013
	November	Fuel Oil #2	1,023,972				0.0072	0.0008	0.0000	----------	0.0008	0.0000	0.0000	----------	0.0003	0.0018
	December	Fuel Oil #2	1,396,340				0.0098	0.0011	0.0000	----------	0.0011	0.0000	0.0000	----------	0.0003	0.0025
	Total	Fuel Oil #2	8,273,041				0.0579	0.0064	0.0000	----------	0.0064	0.0000	0.0000	----------	0.0021	0.0149

[11]: Throughput values per Table 1.
[12]: Load VOC - Fug (tons) = Distillate Oil No. 2 Emission Factor (0.014 lb/1,000 gal) x (Total Throughput (gal) / 1000) x (1 ton/2,000 lb). Emission factor per Table 5-2-5 of AP-42 (June, 2008).
[13]: Compound Emiss (tons) = Load VOC - Fug (tons) x Compound Vapor Wt. Fraction (lb/lb). Compound specific emission factors and vapor wt. fractions provided in Table 4.

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Facility	Month	Product	Total Throughput (gal/mo)[14]			Load VOC - stack (tons)	Load VOC - Fug (tons)[15]	Benzene (71-43-2)[15]	Cumene (98-82-8)[16]	Naphthalene (91-20-3)[16]	Toluene (108-88-3)[16]	Xylene (1330-20-7)[16]	Ethyl-benzene (100-41-4)[16]	Isooctane (540841)[15]	n-Hexane (110-54-3)[16]	Total HAPs
Baltimore	January	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	February	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	March	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	April	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	May	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	June	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	July	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	August	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	September	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	October	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	November	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	December	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	Total	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000

[14]: Throughput values per Table 1.
[15]: Load VOC - Fug (tons) = Jet Kerosene Emission Factor (0.016 lb/1,000 gal) x (Total Throughput (gal) / 1000) x (1 ton/2,000 lb). Emission factor per Table 5-2-5 of AP-42 (June, 2008).
[16]: Compound Emiss (tons) = Load VOC - Fug (tons) x Compound Vapor Wt. Fraction (lb/lb). Compound specific emission factors and vapor wt. fractions provided in Table 4.

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Facility	Month	Product	Total Throughput (gal/mo)[17]	Controlled Loading? (YES or NO)	VRU Throughput (gal/mo)[18]	VCU Throughput (gal/mo)[18]	Load VOC - Fug (tons)[19]	Benzene (71-43-2)[18]	Cumene (98-82-8)[20]	Naphthalene (91-20-3)[20]	Toluene (108-88-3)[20]	Xylene (1330-20-7)[20]	Ethyl-benzene (100-41-4)[20]	Isooctane (540841)[20]	n-Hexane (110-54-3)[20]	Total HAPs	1,2,4 Trimethylbenzene [21]	cyclohexane [21]
Baltimore	January	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	February	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	March	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	April	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	May	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	June	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	July	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	August	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	September	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	October	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	November	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	December	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Total	transmix	0				0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

[17]: Throughput values per Table 1.
[18]: Throughput for controlled loading obtained by multiplying the total throughput value for transmix by the ratio of VRU or VCU hours of operation in Table 3 divided by the total hours in month provided in Table 3.
[19]: Load VOC - Fug (tons) = Gasoline Emission Factor (5 lb/1,000 gal) x (Total Throughput (gal) / 1000) x (1 ton/2,000 lb). Emission factor per Table 5-2-5 of AP-42 (June, 2008). Use of Gasoline emission factor considered to be conservative for purposes of estimating transmix emissions. Transmix loading emissions are accounted for in low grade gas emissions calculations whenever transmix loading is conducted in a controlled manner as discussed in more detail in footnote 2.
[20]: Compound Emiss (tons) = Load VOC - Fug (tons) x Compound Vapor Wt. Fraction (lb/lb). Compound specific emission factors and vapor wt. fractions provided in Table 4.
[21] Non HAPs but calculated for SARA 313 reports.

Year: 2021

Facility	Month	Product	Total Throughput (gal/mo)[22]				Emission Factor (lb/10^3 gal)[23]	VOC Emissions (tons)[24]
Baltimore	January	toluene	0				0.3968	0.0000
	February	toluene	0				0.3968	0.0000
	March	toluene	0				0.3968	0.0000
	April	toluene	0				0.3968	0.0000
	May	toluene	0				0.3968	0.0000
	June	toluene	0				0.3968	0.0000
	July	toluene	0				0.3968	0.0000
	August	toluene	0				0.3968	0.0000
	September	toluene	0				0.3968	0.0000
	October	toluene	0				0.3968	0.0000
	November	toluene	0				0.3968	0.0000
	December	toluene	0				0.3968	0.0000
	Total	toluene	0					0.0000

[22]: Throughput values per Table 1.
[23]: Emission Factor (lb/10^3 gal) = 12.46 S x P x M / T, per AP-42 Section 5.2, Equation 1 where S = 0.6, P = 0.3 psia, MW = 92 and T = 520 R.
[24]: VOC Emissions (tons) = Emission Factor (lb/103 gal) x (Throughput (gal) / 1,000) x (1 ton/2,000 lb)

Table 6
VCU Combustion Emissions

Vapor Combustion Unit (VCU) - NOx, SOx, CO, PM, CO2, N2O and CH4

Facility	Month	Product	Throughput (gal/mo)[1]	Displaced Volume (scf) [2]	MW of CO	MW of NOx
Baltimore	January	Gasoline + Ethanol	0	0	28	30
	February	Gasoline + Ethanol	314,931	41,886	28	30
	March	Gasoline + Ethanol	1,304,981	173,563	28	30
	April	Gasoline + Ethanol	109,784	14,601	28	30
	May	Gasoline + Ethanol	75,577	10,052	28	30
	June	Gasoline + Ethanol	0	0	28	30
	July	Gasoline + Ethanol	0	0	28	30
	August	Gasoline + Ethanol	0	0	28	30
	September	Gasoline + Ethanol	25,633	3,409	28	30
	October	Gasoline + Ethanol	29,964	3,985	28	30
	November	Gasoline + Ethanol	0	0	28	30
	December	Gasoline + Ethanol	0	0	28	30
	Total	Gasoline + Ethanol	1,860,872	247,496	28	30

[1]: Sum of Gasoline plus Ethanol throughputs as provided on Table 1.
[2]: 1 gal = 0.133 scf.

Year to Date Vapor Combustion Unit Monthly Emissions

Month	CO Emissions (tons)[3]	NOx Emissions (tons)[3]	PM (T) Emissions (tons)[4]	PM (Cond) Emissions (tons)[4]	PM (Filt) Emissions (tons)[4]	SOx Emissions (tons)[5]	CO2 Emissions (tons)[6]	N2O Emissions (tons)[4]	CH4 Emissions (tons)[4]	
January	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.0219
February	0.0131	0.0052	0.0002	0.0001	0.0000	0.0001	6.70	0.0000	0.0000	0.0000
March	0.0543	0.0217	0.0007	0.0005	0.0002	0.0002	27.77	0.0002	0.0002	0.0000
April	0.0046	0.0018	0.0001	0.0000	0.0000	0.0000	2.34	0.0000	0.0000	0.0021
May	0.0031	0.0013	0.0000	0.0000	0.0000	0.0000	1.61	0.0000	0.0000	0.0011
June	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	0.0119
July	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	**0.0370**
August	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	
September	0.0011	0.0004	0.0000	0.0000	0.0000	0.0000	0.55	0.0000	0.0000	
October	0.0012	0.0005	0.0000	0.0000	0.0000	0.0000	0.64	0.0000	0.0000	
November	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	
December	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	
Total	**0.0775**	**0.0310**	**0.0009**	**0.0007**	**0.0002**	**0.0003**	**39.60**	**0.0003**	**0.0003**	

[3]: Emissions (tons) = Throughput (gal) x Emissions Factor (lb/gal) x (1 ton/2,000 lb). NOx and CO emission factors as provided on Table 2.
[4]: Emissions (tons) = Emission Factor (lb/10^6 scf) x (Displaced Volume (scf) / 1,000,000) x [Heating Value of TVP 5.9 Gasoline Vapors (1,522 Btu/scf) / Heating Value of Natural Gas (1,020 Btu/scf)] x (1 ton/2,000 lb). Emission factors in units of lb/10^6 scf as provided in Table 1.4-2 of AP-42 (July, 1998) are as follows; PM (Total) = 7.6, PM (Condensable) = 5.7, PM (Filterable) = 1.9, N2O = 2.2, CH4 = 2.3. Emissions adjusted accorded to heating value per footnote (a) to Table 1.4-2.
[5]:Emissions (tons) = (Throughput (gal) / 1,000,000) x (0.34 lb SOx / 1,000,000 gal) x (1 ton / 2,000 lb). Emissions factor of 0.34 lb Sox / 1,000,000 gal per Hill Environmental Resource Organization (HERO) memorandum entitled "HERO VCU SULFUR EMISSIONS CALCULATION".
[6]: Emissions (tons) = Throughput (gal) x (42600 lb CO2 / 1,000,000 gal) x (1 ton / 2,000 lb). CO2 emission factor based on August 2014 Sunoco Baltimore VCU test data of 5,100 mg CO2/l x (1 g / 1,000 mg) x (3.785 l / gal) x (1 lb/453.6 g) =0.04256 lbs/gal

Table 7
Tank Throughput Summary

Use only the following product descriptions:

Low Grade Gas, High Grade Gas, 2FO, LSD, ULSD, Transmix, Additive, Ethanol Toluene

Product Storage Data:

Tank #	Volume (gallons)	January	February	March	April	May	June	July	August	September	October	November	December
1	3,885,000	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD
2	3,885,000	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD
3	3,885,000	2FO	2FO	2FO	2FO	2FO	2FO	2FO	2FO	2FO	2FO	2FO	2FO
4	3,885,000	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas
5	821,236	2FO	2FO	2FO	2FO	2FO	2FO	2FO	2FO	2FO	2FO	2FO	2FO
6	2,381,945	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas	Low Grade Gas
10	2,171,988	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS	OOS
11	2,074,800	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas
12	1,629,600	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	High Grade Gas	OOS
13	991,326	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol
16	936,138	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol	Ethanol
17	10,000	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive
18	4,000	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD	ULSD
A-1	2,000	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive
A-2	10,000	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive
A-9	10,000	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive	Additive
A-10	2,000	Process Water	Process Water	Process Water	Process Water	Process Water	Process Water	Process Water	Process Water	Process Water	Process Water	Process Water	Process Water
A-20	250	Slop	Slop	Slop	Slop	Slop	Slop	Slop	Slop	Slop	Slop	Slop	Slop

Number of Tank Turns per Month:

Tank #	January	February	March	April	May	June	July	August	September	October	November	December	Total Annual Turnovers
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3	0.24	0.26	0.23	0.04	0.09	0.06	0.06	0.04	0.06	0.16	0.22	0.30	1.76
4	1.18	1.11	1.43	1.58	1.14	1.49	1.78	1.72	1.15	1.40	1.59	2.08	17.64
5	0.24	0.26	0.23	0.04	0.09	0.06	0.06	0.04	0.06	0.16	0.22	0.30	1.76
6	1.18	1.11	1.43	1.58	1.14	1.49	1.78	1.72	1.15	1.40	1.59	2.08	17.64
10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11	0.38	0.35	0.42	0.53	0.36	0.43	0.49	0.49	0.31	0.33	0.40	0.92	5.40
12	0.38	0.35	0.42	0.53	0.36	0.43	0.49	0.49	0.31	0.33	0.40	0.00	4.48
13	0.51	0.47	0.60	0.68	0.48	0.63	0.75	0.72	0.48	0.58	0.68	0.86	7.43
16	0.51	0.47	0.60	0.68	0.48	0.63	0.75	0.72	0.48	0.58	0.68	0.86	7.43
17	0.06	0.06	0.07	0.07	0.06	0.06	0.07	0.07	0.04	0.06	0.06	0.09	0.77
19	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-1	0.06	0.06	0.07	0.07	0.06	0.06	0.07	0.07	0.04	0.06	0.06	0.09	0.77
A-2	0.06	0.06	0.07	0.07	0.06	0.06	0.07	0.07	0.04	0.06	0.06	0.09	0.77
A-9	0.06	0.06	0.07	0.07	0.06	0.06	0.07	0.07	0.04	0.06	0.06	0.09	0.77
A-10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
A-20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

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Baltimore **Monthly Throughputs (units = gallons)**

Tank #	January	February	March	April	May	June	July	August	September	October	November	December	Annual Throughput (gal/yr)	Ozone Season Throughput (gal total)	Ozone Season Throughput (gal/day)
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
3	923,816	1,019,960	881,525	160,858	344,429	245,231	231,660	167,685	242,009	614,257	845,289	1,152,679	6,829,399	644,576	7,006
4	4,582,866	4,301,731	5,560,622	6,130,227	4,415,021	5,799,348	6,925,064	6,668,087	4,448,903	5,451,712	6,168,599	8,064,040	68,516,221	19,392,499	210,788
5	195,282	215,606	186,342	34,003	72,807	51,839	48,970	35,446	51,158	129,846	178,683	243,661	1,443,642	136,255	1,481
6	2,809,816	2,637,448	3,409,291	3,758,524	2,706,908	3,555,657	4,245,849	4,088,293	2,727,681	3,342,517	3,782,050	4,944,170	42,008,203	11,889,799	129,237
10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
11	787,100	718,507	875,043	1,104,909	737,573	886,290	1,016,089	1,018,714	634,343	695,051	831,218	1,905,404	11,210,242	2,921,093	31,751
12	618,208	564,334	687,281	867,823	579,309	696,114	798,062	800,124	498,229	545,911	652,859	0	7,308,253	2,294,300	24,938
13	501,364	468,538	599,399	675,103	479,750	621,127	739,914	714,074	472,604	571,557	671,300	851,010	7,365,740	2,075,115	22,556
16	473,452	442,455	566,029	637,520	453,042	586,548	698,723	674,320	446,294	539,738	633,928	803,634	6,955,683	1,959,591	21,300
17	570	617	724	675	577	638	716	702	442	589	634	852	7,735	2,056	22
19	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-1	114	123	145	135	115	128	143	140	88	118	127	170	1,547	411	4
A-2	570	617	724	675	577	638	716	702	442	589	634	852	7,735	2,056	22
A-9	570	617	724	675	577	638	716	702	442	589	634	852	7,735	2,056	22
A-10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
A-20	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Table 8
Tank Emissions [1]

Total Emissions From All Major Source Tanks. - This Table is Automatically Calculated From Data Below. Emissions on this first table are in Tons/Month.

Tank #	Month	Total VOC	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene (tons/mo) [2]	cyclohexane (tons/mo) [2]
All Tanks Combined	January	1.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
	February	1.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.00	0.00
	March	1.39	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.00
	April	5.98	0.01	0.00	0.00	0.03	0.01	0.00	0.05	0.07	0.00	0.01
	May	1.36	0.00	0.00	0.00	0.01	0.00	0.00	0.02	0.02	0.00	0.00
	June	1.67	0.00	0.00	0.00	0.01	0.00	0.00	0.03	0.02	0.00	0.00
	July	1.92	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.04	0.00	0.01
	August	1.84	0.01	0.00	0.00	0.02	0.00	0.00	0.01	0.04	0.00	0.01
	September	1.46	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.03	0.00	0.01
	October	1.89	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.00
	November	1.41	0.00	0.00	0.00	0.01	0.00	0.00	0.01	0.02	0.00	0.00
	December	1.29	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.01	0.00	0.00
	Tank Cleaning (lb/yr) [3]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Roof Landings (lb/yr) [4]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (lb/yr)	22.43	0.04	0.01	0.00	0.13	0.04	0.01	0.16	0.30	0.01	0.05

[1]: Monthly Tank Emissions per TANKS 4.09B.
[2]: Not HAPS, but needed for SARA 313 reports
[3]: Tank Cleaning emissions per Table 10.
[4]: Roof Landing emissions per Table 9.

All Data Should be Entered as Pounds/Month on the Tables Below.

All Units in lbs

Tank #	Month	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene (tons/mo) [2]	cyclohexane (tons/mo) [2]
Tank # 4	January	296.99	0.38	0.24	0.01	1.13	0.75	0.15	0.53	3.47	0.20	0.56
	February	251.20	0.36	0.22	0.01	1.07	0.71	0.14	0.50	3.27	0.18	0.53
	March	342.94	0.52	0.30	0.01	1.55	0.98	0.19	0.73	4.75	0.24	0.77
	April	437.07	0.72	0.36	0.01	2.10	1.23	0.24	1.00	6.53	0.28	1.07
	May	335.50	0.69	0.27	0.01	1.95	0.97	0.18	3.78	5.81	0.18	1.19
	June	410.60	0.90	0.36	0.01	2.62	1.32	0.24	5.01	7.52	0.25	1.55
	July	473.42	1.56	0.51	0.02	4.37	0.97	0.40	2.49	12.63	0.36	2.23
	August	452.74	1.47	0.49	0.02	4.12	0.91	0.38	2.35	11.97	0.34	2.11
	September	359.96	1.10	0.33	0.01	2.98	0.63	0.26	1.74	9.09	0.23	1.58
	October	463.93	0.91	0.33	0.01	2.16	1.05	0.20	1.38	7.97	0.25	1.14
	November	350.17	0.65	0.32	0.01	1.66	0.94	0.17	1.02	5.67	0.26	0.82
	December	312.21	0.43	0.05	0.00	0.81	0.23	0.05	0.60	4.05	0.02	0.55
	Tank Cleaning (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Roof Landings (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (lb/yr)	4,486.74	9.68	3.78	0.15	26.52	10.68	2.59	21.12	82.74	2.78	14.10

All Units in lbs

Tank #	Month	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene (tons/mo) [2]	cyclohexane (tons/mo) [2]
Tank # 6	January	1,150.35	1.33	0.29	0.01	3.08	1.21	0.25	1.68	12.79	0.18	1.99
	February	970.62	1.26	0.27	0.01	2.93	1.15	0.24	1.59	12.04	0.17	1.88
	March	1,326.85	1.87	0.41	0.01	4.45	1.75	0.36	2.38	17.67	0.24	2.78
	April	6,821.61	11.23	1.98	0.01	27.06	9.62	2.03	18.44	103.38	0.86	16.80
	May	1,303.72	2.59	0.54	0.01	6.59	2.46	0.47	13.66	22.31	0.26	4.48
	June	1,593.34	3.40	0.77	0.01	8.92	3.43	0.65	18.11	28.85	0.37	5.84
	July	1,835.80	5.86	1.10	0.01	14.88	2.54	1.09	8.99	48.47	0.55	8.41
	August	1,755.37	5.54	1.03	0.01	13.98	2.37	1.02	8.48	45.89	0.51	7.95
	September	1,400.34	4.17	0.71	0.01	10.25	1.68	0.72	6.32	34.98	0.35	6.01
	October	1,806.37	3.36	0.57	0.01	6.91	2.33	0.46	4.81	30.25	0.30	4.24
	November	1,352.12	2.30	0.42	0.01	4.68	1.65	0.32	3.29	20.99	0.25	2.92
	December	1,235.32	1.71	0.18	0.00	3.17	0.87	0.18	2.36	16.01	0.07	2.18
	Tank Cleaning (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Roof Landings (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (lb/yr)	22,551.82	44.60	8.26	0.11	106.90	31.07	7.78	90.10	393.64	4.12	65.47

All Units in lbs

Tank #	Month	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene (tons/mo) [2]	cyclohexane (tons/mo) [2]
Tank # 11	January	804.58	0.53	0.15	0.01	2.10	0.75	0.15	5.34	2.32	0.08	0.41
	February	678.65	0.50	0.15	0.00	2.00	0.72	0.14	5.05	2.18	0.07	0.39
	March	927.75	0.74	0.22	0.01	3.05	1.11	0.22	7.59	3.20	0.11	0.57
	April	3,294.10	4.07	1.16	0.01	16.09	6.20	1.29	59.79	25.05	0.51	4.57
	May	912.13	1.16	0.36	0.00	4.65	1.86	0.38	17.11	7.08	0.17	1.30
	June	1,114.42	1.52	0.51	0.00	6.29	2.59	0.54	22.67	9.15	0.24	1.69
	July	1,283.81	3.87	0.89	0.01	18.38	5.17	1.18	12.96	11.81	0.39	4.07
	August	1,227.62	3.66	0.83	0.00	17.27	4.84	1.10	12.22	11.18	0.37	3.85
	September	979.64	2.75	0.58	0.00	12.67	3.43	0.78	9.12	8.53	0.25	2.91
	October	1,263.65	1.50	0.44	0.01	11.38	2.20	0.52	7.26	8.47	0.19	1.09
	November	944.90	1.02	0.29	0.01	7.55	1.45	0.34	4.90	5.85	0.14	0.74
	December	866.06	0.77	0.16	0.00	5.38	0.91	0.22	3.62	4.51	0.06	0.56
	Tank Cleaning (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Roof Landings (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (lb/yr)	14,297.31	22.08	5.73	0.05	106.82	31.22	6.87	167.63	99.34	2.58	22.15

All Units in lbs

Tank #	Month	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene (tons/mo) [2]	cyclohexane (tons/mo) [2]
Tank # 12	January	154.39	0.11	0.06	0.00	0.47	0.23	0.04	1.11	0.45	0.04	0.08
	February	130.31	0.10	0.06	0.00	0.44	0.21	0.04	1.05	0.43	0.04	0.08
	March	177.98	0.15	0.08	0.00	0.65	0.31	0.06	1.55	0.62	0.05	0.11
	April	1,410.08	1.38	0.57	0.01	6.05	2.57	0.51	15.44	6.10	0.33	1.12
	May	174.79	0.22	0.09	0.00	0.94	0.42	0.09	3.37	1.36	0.06	0.25
	June	213.54	0.29	0.13	0.00	1.26	0.58	0.12	4.45	1.76	0.07	0.33
	July	245.99	0.75	0.22	0.00	3.67	1.15	0.26	2.54	2.27	0.12	0.79
	August	235.29	0.71	0.21	0.00	3.46	1.08	0.24	2.40	2.15	0.11	0.74
	September	187.49	0.53	0.14	0.00	2.52	0.75	0.17	1.78	1.64	0.07	0.56
	October	241.66	0.29	0.12	0.00	2.31	0.51	0.12	1.43	1.63	0.07	0.21
	November	181.18	0.20	0.10	0.00	1.61	0.39	0.09	0.99	1.14	0.06	0.15
	December	164.90	0.15	0.03	0.00	1.02	0.17	0.04	0.69	0.86	0.01	0.11
	Tank Cleaning (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Roof Landings (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (lb/yr)	3,517.59	4.87	1.79	0.05	24.40	8.38	1.78	36.79	20.41	1.05	4.52

All Units in lbs

Tank #	Month	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene (tons/mo) [2]	cyclohexane (tons/mo) [2]
Tank # 10	January	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
OOS	February	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	March	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	April	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	August	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	September	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	October	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	November	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	December	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tank Cleaning (lb/yr)	0.00										
	Roof Landings (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

All Units in lbs

Tank #	Month	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene (tons/mo) [2]	cyclohexane (tons/mo) [2]
	January											
	February											
	March											
	April											
	May											
	June											
	July											
	August											
	September											
	October											
	November											
	December											
	Tank Cleaning (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Roof Landings (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

All Units in lbs

Tank #	Month	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene (tons/mo) [2]	cyclohexane (tons/mo) [2]
	January	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	February	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	March	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	April	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	August	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	September	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	October	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	November	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	December	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tank Cleaning (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Roof Landings (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

All Units in lbs

Tank #	Month	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene (tons/mo) [2]	cyclohexane (tons/mo) [2]
	January	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	February	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	March	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	April	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	May	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	June	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	July	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	August	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	September	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	October	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	November	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	December	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Tank Cleaning (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Roof Landings (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total (lb/yr)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 11
Fugitive Emissions

Fugitive Emissions

Method: U.S. EPA factors EPA-453/R-95-017
1995 Protocol for Equipment Leak Emission Estimates
(also listed in API publication 1673, May 1998 - Table 3-7)

Baltimore

Source Category	Service	Emission Factor (lbs/hr-source)	Total Number of Sources[1]	Fugitive VOC Emissions (tons/yr)[2]
Valves	Gas	0.0000286	41	*0.0051*
	Light Liquid	0.0000946	660	*0.2735*
	Pentane	0.000043	65	*0.0270*
Fittings	Gas	0.0000924	2068	*0.8369*
	Light Liquid	0.0000176	21	*0.0016*
	Pentane	0.000008	40	*0.0031*
Pumps	Light Liquid	0.001188		*0.0000*
	Gas			
	Pentane	0.000054	1	*0.0050*
				0.0000
Other	Pentane			*0.3345*
Total			**2896**	**1.4868**
Pct Emissions From Gas Components				**57.0%**
Pct Emissions Light From Liquid Components				**18.5%**

[1]: # of fugitive components have been taken from 2003 Air Emission Statement
[2]: VOC (tpy) = Total # of Sources x Emission Factor (lbs/hr-source) x (8.760 hr/yr) x (1 ton/2,000 lb)

Speciated Fugitive Emissions:

Facility	Month [3]	Fugitive VOC's (tons/yr)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene [4]	cyclohexane [4]
	January	0.12	0.0002	0.0000	0.0001	0.0018	0.0017	0.0003	0.0020	0.0013	0.0005	0.0001
	February	0.12	0.0002	0.0000	0.0001	0.0018	0.0017	0.0003	0.0020	0.0013	0.0005	0.0001
	March	0.12	0.0002	0.0000	0.0001	0.0018	0.0017	0.0003	0.0020	0.0013	0.0005	0.0001
	April	0.12	0.0004	0.0001	0.0000	0.0021	0.0021	0.0003	0.0022	0.0014	0.0006	0.0000
	May	0.12	0.0004	0.0001	0.0000	0.0021	0.0021	0.0003	0.0022	0.0014	0.0006	0.0000
	June	0.12	0.0004	0.0001	0.0000	0.0021	0.0021	0.0003	0.0022	0.0014	0.0006	0.0000
	July	0.12	0.0004	0.0001	0.0001	0.0029	0.0029	0.0005	0.0012	0.0015	0.0007	0.0004
	August	0.12	0.0004	0.0001	0.0001	0.0029	0.0029	0.0005	0.0012	0.0015	0.0007	0.0004
	September	0.12	0.0004	0.0001	0.0001	0.0029	0.0029	0.0005	0.0012	0.0015	0.0007	0.0004
	October	0.12	0.0003	0.0001	0.0000	0.0022	0.0020	0.0003	0.0021	0.0013	0.0005	0.0002
	November	0.12	0.0003	0.0001	0.0000	0.0022	0.0020	0.0003	0.0021	0.0013	0.0005	0.0002
	December	0.12	0.0003	0.0001	0.0000	0.0022	0.0020	0.0003	0.0021	0.0013	0.0005	0.0002
	Total	1.49	0.0037	0.0008	0.0006	0.0272	0.0262	0.0044	0.0226	0.0165	0.0066	0.0022

[3]: Monthly VOC's are taken by dividing the annual VOC's by 12.
[4] Non HAPs but calculated for SARA 313 reports.

Calculation of Speciated Monthly Emissions

$$E_i = [(VOC_m \times (PCT_G/100) \times (VWF_{i\text{-}lgg} + VWF_{i\text{-}hgg})/2] + [VOC_m \times (PCT_{LL}/100) \times (LW\%_{i\text{-}lgg} + LW\%_{i\text{-}hgg})/(2 \times 100)]$$

where;

E_i = Monthly emissions of compound i (tons)
VOC_m = Monthly VOC emissions (tons)
PCT_G = Pct. of monthly emissions from gas components
$VWF_{i\text{-}lgg}$ = Low grade gasoline vapor weight fraction for compound I from Table 4.
$VWF_{i\text{-}hgg}$ = High grade gasoline vapor weight fraction for compound I from Table 4.
PCT_{LL} = Pct. of monthly emissions from light liquid components
$LW\%_{i\text{-}lgg}$ = Low grade gasoline liquid weight % for compound I from Table 2.
$LW\%_{i\text{-}hgg}$ = High grade gasoline liquid weight % for compound I from Table 2.

Table 12
Miscellaneous Emissions Sources

Total Emissions From Insignificant Source's

Facility	Month		VOC Emiss (tons/yr)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene*	cyclohexane*
Baltimore	January		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	February		0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	March		0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	April		0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	May		0.16	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	June		0.21	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	July		0.23	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	August		0.21	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	September		0.16	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	October		0.11	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	November		0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	December		0.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total		1.48										

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	LSD	17.83	0.15	0.00	0.00	0.16	0.13	0.02	0.00	0.00	0.01	0.00
Tank 1	February	LSD	22.29	0.18	0.00	0.00	0.20	0.17	0.02	0.00	0.00	0.02	0.00
	March	LSD	35.52	0.28	0.00	0.00	0.31	0.27	0.04	0.00	0.00	0.03	0.00
	April	LSD	52.32	0.39	0.00	0.01	0.45	0.41	0.06	0.00	0.00	0.05	0.00
	May	LSD	70.09	0.50	0.01	0.01	0.59	0.56	0.08	0.00	0.00	0.07	0.00
	June	LSD	91.10	0.62	0.01	0.01	0.75	0.75	0.11	0.00	0.00	0.09	0.00
	July	LSD	99.39	0.66	0.01	0.01	0.82	0.82	0.12	0.00	0.00	0.10	0.00
	August	LSD	93.40	0.62	0.01	0.01	0.77	0.77	0.11	0.00	0.00	0.10	0.00
	September	LSD	68.46	0.48	0.01	0.01	0.57	0.56	0.08	0.00	0.00	0.07	0.00
	October	LSD	49.18	0.37	0.00	0.00	0.42	0.39	0.06	0.00	0.00	0.04	0.00
	November	LSD	30.94	0.24	0.00	0.00	0.27	0.24	0.03	0.00	0.00	0.03	0.00
	December	LSD	16.65	0.14	0.00	0.00	0.15	0.12	0.02	0.00	0.00	0.01	0.00
	Total (lbs/yr)		647.17	4.62	0.06	0.07	5.47	5.19	0.74	0.00	0.00	0.61	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	LSD	17.83	0.15	0.00	0.00	0.16	0.13	0.02	0.00	0.00	0.01	0.00
Tank 2	February	LSD	22.29	0.18	0.00	0.00	0.20	0.17	0.02	0.00	0.00	0.02	0.00
	March	LSD	35.52	0.28	0.00	0.00	0.31	0.27	0.04	0.00	0.00	0.03	0.00
	April	LSD	52.32	0.39	0.00	0.01	0.45	0.41	0.06	0.00	0.00	0.05	0.00
	May	LSD	70.09	0.50	0.01	0.01	0.59	0.56	0.08	0.00	0.00	0.07	0.00
	June	LSD	91.10	0.62	0.01	0.01	0.75	0.75	0.11	0.00	0.00	0.09	0.00
	July	LSD	99.39	0.66	0.01	0.01	0.82	0.82	0.12	0.00	0.00	0.10	0.00
	August	LSD	93.40	0.62	0.01	0.01	0.77	0.77	0.11	0.00	0.00	0.10	0.00
	September	LSD	68.46	0.48	0.01	0.01	0.57	0.56	0.08	0.00	0.00	0.07	0.00
	October	LSD	49.18	0.37	0.00	0.00	0.42	0.39	0.06	0.00	0.00	0.04	0.00
	November	LSD	30.94	0.24	0.00	0.00	0.27	0.24	0.03	0.00	0.00	0.03	0.00
	December	LSD	16.65	0.14	0.00	0.00	0.15	0.12	0.02	0.00	0.00	0.01	0.00
	Total (lbs/yr)		647.17	4.62	0.06	0.07	5.47	5.19	0.74	0.00	0.00	0.61	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	2FO	19.50	0.16	0.00	0.00	0.17	0.14	0.02	0.00	0.00	0.01	0.00
Tank 3	February	2FO	24.79	0.21	0.00	0.00	0.22	0.19	0.03	0.00	0.00	0.02	0.00
	March	2FO	38.97	0.31	0.00	0.00	0.34	0.30	0.04	0.00	0.00	0.03	0.00
	April	2FO	55.08	0.41	0.00	0.01	0.47	0.43	0.06	0.00	0.00	0.05	0.00
	May	2FO	71.58	0.51	0.01	0.01	0.61	0.58	0.08	0.00	0.00	0.07	0.00
	June	2FO	94.56	0.64	0.01	0.01	0.78	0.77	0.11	0.00	0.00	0.09	0.00
	July	2FO	101.90	0.67	0.01	0.01	0.84	0.84	0.12	0.00	0.00	0.10	0.00
	August	2FO	98.05	0.65	0.01	0.01	0.81	0.81	0.11	0.00	0.00	0.10	0.00
	September	2FO	72.55	0.50	0.01	0.01	0.61	0.59	0.08	0.00	0.00	0.07	0.00
	October	2FO	52.89	0.39	0.00	0.01	0.45	0.42	0.06	0.00	0.00	0.05	0.00
	November	2FO	34.10	0.27	0.00	0.00	0.30	0.26	0.04	0.00	0.00	0.03	0.00
	December	2FO	16.71	0.14	0.00	0.00	0.15	0.13	0.02	0.00	0.00	0.01	0.00
	Total (lbs/yr)		1087.38	2.08			23.21	56.84	3.06		0.43	0.64	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	ULSD	9.93	0.08	0.00	0.00	0.09	0.07	0.01	0.00	0.00	0.01	0.00
Tank 5	February	ULSD	12.26	0.10	0.00	0.00	0.11	0.09	0.01	0.00	0.00	0.01	0.00
	March	ULSD	19.74	0.16	0.00	0.00	0.17	0.15	0.02	0.00	0.00	0.02	0.00
	April	ULSD	29.98	0.22	0.00	0.00	0.26	0.24	0.03	0.00	0.00	0.03	0.00
	May	ULSD	41.01	0.29	0.00	0.00	0.35	0.33	0.05	0.00	0.00	0.04	0.00
	June	ULSD	52.81	0.36	0.01	0.01	0.44	0.43	0.06	0.00	0.00	0.05	0.00
	July	ULSD	58.14	0.38	0.01	0.01	0.48	0.48	0.07	0.00	0.00	0.06	0.00
	August	ULSD	53.76	0.36	0.01	0.01	0.44	0.44	0.06	0.00	0.00	0.05	0.00
	September	ULSD	39.10	0.27	0.00	0.00	0.33	0.32	0.05	0.00	0.00	0.04	0.00
	October	ULSD	27.76	0.21	0.00	0.00	0.24	0.22	0.03	0.00	0.00	0.02	0.00
	November	ULSD	17.14	0.13	0.00	0.00	0.15	0.13	0.02	0.00	0.00	0.01	0.00
	December	ULSD	9.83	0.08	0.00	0.00	0.09	0.07	0.01	0.00	0.00	0.01	0.00
	Total (lbs/yr)		867.2395	104.9881	4.4543		125.8137	34.0009	27.2507		247.0873	0.35	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	Additive	0.25	0.00	0.00	0.00	0.00	1.93	0.45	0.00	0.00	0.00	0.00
Tank #s: 17, A-1, A-2, A-9	February	Additive	0.30	0.00	0.00	0.00	0.00	2.34	0.54	0.00	0.00	0.00	0.00
	March	Additive	0.49	0.00	0.00	0.00	0.00	3.89	0.90	0.00	0.00	0.00	0.00
	April	Additive	0.77	0.00	0.00	0.00	0.00	6.30	1.45	0.00	0.00	0.00	0.00
	May	Additive	1.08	0.00	0.00	0.00	0.00	9.02	2.07	0.00	0.00	0.00	0.00
	June	Additive	1.37	0.00	0.00	0.00	0.00	11.60	2.65	0.00	0.00	0.00	0.00
	July	Additive	1.52	0.00	0.00	0.01	0.00	12.99	2.97	0.00	0.00	0.00	0.00
	August	Additive	1.38	0.00	0.00	0.00	0.00	11.71	2.67	0.00	0.00	0.00	0.00
	September	Additive	1.00	0.00	0.00	0.00	0.00	8.39	1.92	0.00	0.00	0.00	0.00
	October	Additive	0.70	0.00	0.00	0.00	0.00	5.75	1.32	0.00	0.00	0.00	0.00
	November	Additive	0.42	0.00	0.00	0.00	0.00	3.37	0.78	0.00	0.00	0.00	0.00
	December	Additive	0.26	0.00	0.00	0.00	0.00	2.04	0.47	0.00	0.00	0.00	0.00
	Total (lbs/yr)		130.8606						4.81			0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	LSD	0.45	0.00			0.00	0.00	0.00		0.00	0.00	
Tank 19	February	LSD	0.31	0.00			0.00	0.00	0.00		0.00	0.00	
	March	LSD	0.65	0.00			0.00	0.01	0.00		0.00	0.00	
	April	LSD	0.66	0.00			0.00	0.01	0.00		0.00	0.00	
	May	LSD	0.53	0.00			0.00	0.01	0.00		0.00	0.00	
	June	LSD	0.47	0.00			0.00	0.01	0.00		0.00	0.01	
	July	LSD	0.51	0.00			0.00	0.01	0.00		0.00	0.01	
	August	LSD	0.47	0.00			0.00	0.01	0.00		0.00	0.01	
	September	LSD	0.45	0.00			0.00	0.01	0.00		0.00	0.00	
	October	LSD	0.44	0.00			0.00	0.00	0.00		0.00	0.00	
	November	LSD	0.37	0.00			0.00	0.00	0.00		0.00	0.00	
	December	LSD	0.33	0.00			0.00	0.00	0.00		0.00	0.00	
	Total (lbs/yr)		5.64	0.00	0.00	0.00	0.02	0.06	0.00	0.00	0.00	0.05	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	Ethanol	13.00	0.05	0.00	0.00	0.02	0.01	0.00	0.00	0.10	0.00	0.00
Tank 13	February	Ethanol	13.62	0.05	0.00	0.00	0.03	0.01	0.00	0.00	0.10	0.00	0.00
	March	Ethanol	17.96	0.07	0.00	0.00	0.03	0.01	0.00	0.00	0.14	0.00	0.00
	April	Ethanol	23.97	0.09	0.00	0.00	0.04	0.01	0.00	0.00	0.17	0.00	0.00
	May	Ethanol	34.06	0.12	0.00	0.00	0.05	0.01	0.01	0.00	0.23	0.00	0.00
	June	Ethanol	45.52	0.15	0.00	0.00	0.07	0.02	0.01	0.00	0.29	0.00	0.00
	July	Ethanol	54.13	0.17	0.00	0.00	0.08	0.02	0.01	0.00	0.33	0.00	0.00
	August	Ethanol	51.02	0.16	0.00	0.00	0.08	0.02	0.01	0.00	0.32	0.00	0.00
	September	Ethanol	38.55	0.13	0.00	0.00	0.06	0.01	0.01	0.00	0.25	0.00	0.00
	October	Ethanol	26.74	0.09	0.00	0.00	0.04	0.01	0.01	0.00	0.19	0.00	0.00
	November	Ethanol	18.56	0.07	0.00	0.00	0.03	0.01	0.00	0.00	0.14	0.00	0.00
	December	Ethanol	11.82	0.05	0.00	0.00	0.02	0.00	0.00	0.00	0.10	0.00	0.00
	Total (lbs/yr)		348.95	1.18	0.00	0.00	0.56	0.14	0.07	0.00	2.36	0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	Ethanol	10.15	0.04	0.00	0.00	0.02	0.01	0.00	0.00	0.08	0.00	0.00
Tank 16	February	Ethanol	10.76	0.04	0.00	0.00	0.02	0.01	0.00	0.00	0.08	0.00	0.00
	March	Ethanol	13.58	0.05	0.00	0.00	0.03	0.01	0.00	0.00	0.10	0.00	0.00
	April	Ethanol	17.49	0.06	0.00	0.00	0.03	0.01	0.00	0.00	0.13	0.00	0.00
	May	Ethanol	24.81	0.08	0.00	0.00	0.04	0.01	0.01	0.00	0.17	0.00	0.00
	June	Ethanol	33.08	0.10	0.00	0.00	0.05	0.01	0.01	0.00	0.21	0.00	0.00
	July	Ethanol	39.24	0.12	0.00	0.00	0.06	0.01	0.01	0.00	0.24	0.00	0.00
	August	Ethanol	36.99	0.12	0.00	0.00	0.06	0.01	0.01	0.00	0.23	0.00	0.00
	September	Ethanol	28.18	0.09	0.00	0.00	0.04	0.01	0.01	0.00	0.18	0.00	0.00
	October	Ethanol	19.83	0.07	0.00	0.00	0.03	0.01	0.01	0.00	0.14	0.00	0.00
	November	Ethanol	13.98	0.05	0.00	0.00	0.03	0.01	0.00	0.00	0.10	0.00	0.00
	December	Ethanol	8.42	0.04	0.00	0.00	0.01	0.00	0.00	0.00	0.07	0.00	0.00
	Total (lbs/yr)		256.53	0.86	0.00	0.00	0.42	0.11	0.06	0.00	1.70	0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January												
	February												
	March												
	April												
	May												
	June												
	July												
	August												
	September												
	October												
	November												
	December												
	Total (lbs/yr)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January												
	February												
	March												
	April												
	May												
	June												
	July												
	August												
	September												
	October												
	November												
	December												
	Total (lbs/yr)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

Table 13
Emissions Summary

Baltimore **EMISSION SUMMARY TABLE**

Year: 2021

(All emissions in tons/yr)

Facility Name	Source Description	Worksheet	VOC (tons/yr)	Benzene (71-43-2)	Cumene (98828)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	Total HAP	1,2,4 TMB	Cyclohexane	CO (tons/yr)	NOx (tons/yr)	TSP (tons/yr)	SOx (tons/yr)	CO2 (tons/yr)	N2O (tons/yr)	CH4 (tons/yr)
Baltimore	Gasoline Loading	T5-Loading	8.03	0.012	0.000	0.000	0.027	0.018	0.002	0.032	0.090	0.181	0.002	0.036							
	Distillate Loading	T5-Loading	0.25	0.028	0.000	0.000	0.018	0.009	0.002	0.000	0.009	0.07									
	Toluene Loading	T5-Loading	0.00				0.000					0.00									
	VCU Combustion Emiss	T6-VCU													0.0775	0.0310	0.0009	0.0003	39.5958	0.0003	0.0003
	Tank # 4	T8-Tank-Emiss	2.24	0.005	0.002	0.000	0.013	0.005	0.001	0.011	0.041	0.08	0.001	0.007							
	Tank # 6	T8-Tank-Emiss	11.28	0.022	0.004	0.000	0.053	0.016	0.004	0.045	0.197	0.34	0.002	0.033							
	Tank # 11	T8-Tank-Emiss	7.15	0.011	0.003	0.000	0.053	0.016	0.003	0.084	0.050	0.22	0.001	0.011							
	Tank # 12	T8-Tank-Emiss	1.76	0.002	0.001	0.000	0.012	0.004	0.001	0.018	0.010	0.05	0.001	0.002							
	Tank # 10	T8-Tank-Emiss	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.000	0.000							
	0	T8-Tank-Emiss	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.00	0.000	0.000							
	0	T8-Tank-Emiss	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000							
	0	T8-Tank-Emiss	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000							
	0	T8-Tank-Emiss	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000							
	Fugitives	T11-FUG	1.49	0.004	0.001	0.001	0.027	0.026	0.004	0.023	0.017	0.10	0.007	0.002							
	Miscellaneous Emissions	T12-Misc	1.48	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
		TOTAL	33.67	0.08	0.01	0.00	0.20	0.09	0.02	0.21	0.41	1.04	0.01	0.09	0.077	0.031	0.001	0.000	39.596	0.000	0.000

Baltimore **ROLLING 12 MONTH EMISSION SUMMARY TABLE**

Year: 2021

(all emissions in tons)

Month	VOC	Benzene (71-43-2)	Cumene (98828)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	Total HAP	1,2,4 TMB	Cyclohexane	CO (tons/yr)	NOx (tons/yr)	TSP (tons/yr)	SOx (tons/yr)	CO2 (tons/yr)	N2O (tons/yr)	CH4 (tons/yr)
January	32.20	0.09	0.01	0.00	0.20	0.14	0.03	0.21	0.40	1.09			0.1262	0.0505	0.0015	0.0005	64.5215	0.0004	0.0005
February	31.72	0.09	0.01	0.00	0.20	0.14	0.03	0.21	0.40	1.08			0.1394	0.0557	0.0017	0.0006	71.2226	0.0005	0.0005
March	30.31	0.09	0.01	0.00	0.20	0.14	0.03	0.20	0.38	1.05			0.1901	0.0760	0.0023	0.0008	97.1281	0.0007	0.0007
April	33.61	0.09	0.01	0.00	0.21	0.15	0.03	0.23	0.42	1.14			0.1696	0.0679	0.0021	0.0007	86.6939	0.0006	0.0006
May	33.33	0.09	0.01	0.00	0.20	0.15	0.03	0.24	0.40	1.12			0.1728	0.0691	0.0021	0.0007	88.3020	0.0006	0.0006
June	33.38	0.09	0.01	0.00	0.20	0.15	0.03	0.25	0.40	1.12			0.1715	0.0686	0.0021	0.0007	87.6341	0.0006	0.0006
July	33.54	0.09	0.01	0.00	0.20	0.14	0.03	0.24	0.40	1.12			0.1715	0.0686	0.0021	0.0007	87.6341	0.0006	0.0006
August	33.69	0.09	0.01	0.00	0.20	0.14	0.03	0.24	0.41	1.12			0.1708	0.0683	0.0021	0.0007	87.3123	0.0006	0.0006
September	33.47	0.09	0.01	0.00	0.20	0.14	0.03	0.23	0.40	1.11			0.0784	0.0314	0.0010	0.0003	40.0744	0.0003	0.0003
October	33.37	0.09	0.01	0.00	0.21	0.14	0.03	0.22	0.41	1.11			0.0775	0.0310	0.0009	0.0003	39.5958	0.0003	0.0003
November	33.39	0.09	0.01	0.00	0.21	0.14	0.03	0.22	0.41	1.12			0.0775	0.0310	0.0009	0.0003	39.5958	0.0003	0.0003
December	33.67	0.09	0.01	0.00	0.22	0.14	0.03	0.21	0.42	1.12			0.0775	0.0310	0.0009	0.0003	39.5958	0.0003	0.0003

*Note: Each value above represents the Rolling 12 month emissions which takes into account the present month plus the preceding 11 months

Year: 2021 **Monthly Summary (tons)**

Month	VOC	Benzene (71-43-2)	Cumene (98828)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	Total HAP	1,2,4 TMB	Cyclohexane	CO (tons/yr)	NOx (tons/yr)	TSP (tons/yr)	SOx (tons/yr)	CO2 (tons/yr)	N2O (tons/yr)	CH4 (tons/yr)
January	**1.93**	0.00	0.00	0.00	0.01	0.01	0.00	0.01	0.02	0.05			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
February	1.73	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.02	0.05			0.0131	0.0052	0.0002	0.0001	6.7011	0.0000	0.0000
March	2.30	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.02	0.06			0.0543	0.0217	0.0007	0.0002	27.7675	0.0002	0.0002
April	6.97	0.01	0.00	0.00	0.03	0.02	0.00	0.05	0.08	0.20			0.0046	0.0018	0.0001	0.0000	2.3360	0.0000	0.0000
May	2.19	0.01	0.00	0.00	0.01	0.01	0.00	0.02	0.03	0.09			0.0031	0.0013	0.0000	0.0000	1.6081	0.0000	0.0000
June	2.69	0.01	0.00	0.00	0.02	0.02	0.00	0.03	0.03	0.11			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
July	3.09	0.01	0.00	0.00	0.03	0.02	0.00	0.02	0.05	0.13			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
August	2.97	0.01	0.00	0.00	0.03	0.02	0.00	0.02	0.05	0.13			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
September	2.27	0.01	0.00	0.00	0.02	0.01	0.00	0.01	0.04	0.09			0.0011	0.0004	0.0000	0.0000	0.5454	0.0000	0.0000
October	2.78	0.01	0.00	0.00	0.02	0.01	0.00	0.01	0.03	0.09			0.0012	0.0005	0.0000	0.0000	0.6376	0.0000	0.0000
November	2.35	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.03	0.07			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
December	2.41	0.01	0.00	0.00	0.01	0.01	0.00	0.01	0.02	0.06			0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

Year: 2020 **Monthly Summary (tons)**

Month	VOC	Benzene (71-43-2)	Cumene (98828)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	Total HAP	1,2,4 TMB	Cyclohexane	CO (tons/yr)	NOx (tons/yr)	TSP (tons/yr)	SOx (tons/yr)	CO2 (tons/yr)	N2O (tons/yr)	CH4 (tons/yr)
January	**2.1995**	**0.0048**	**0.0005**	**0.0001**	**0.0098**	**0.0068**	**0.0012**	**0.0093**	**0.0213**	**0.0537**			**0.0016**	**0.0006**	**0.0000**	**0.0000**	**0.8281**	**0.0000**	**0.0000**
February	**2.2189**	**0.0047**	**0.0005**	**0.0001**	**0.0104**	**0.0073**	**0.0013**	**0.0103**	**0.0226**	**0.0572**			**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**
March	**3.7013**	**0.0083**	**0.0006**	**0.0001**	**0.0154**	**0.0092**	**0.0017**	**0.0138**	**0.0420**	**0.0910**			**0.0036**	**0.0015**	**0.0000**	**0.0000**	**1.8620**	**0.0000**	**0.0000**
April	**3.6734**	**0.0095**	**0.0010**	**0.0001**	**0.0222**	**0.0124**	**0.0024**	**0.0247**	**0.0406**	**0.1128**			**0.0250**	**0.0100**	**0.0003**	**0.0001**	**12.7702**	**0.0001**	**0.0001**
May	**2.4703**	**0.0084**	**0.0008**	**0.0001**	**0.0182**	**0.0134**	**0.0026**	**0.0173**	**0.0388**	**0.0997**			**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**
June	**2.6415**	**0.0094**	**0.0010**	**0.0001**	**0.0211**	**0.0161**	**0.0032**	**0.0203**	**0.0401**	**0.1112**			**0.0013**	**0.0005**	**0.0000**	**0.0000**	**0.6679**	**0.0000**	**0.0000**
July	**2.9333**	**0.0093**	**0.0014**	**0.0001**	**0.0264**	**0.0198**	**0.0040**	**0.0228**	**0.0458**	**0.1298**			**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**
August	**2.8149**	**0.0090**	**0.0014**	**0.0001**	**0.0252**	**0.0186**	**0.0037**	**0.0217**	**0.0436**	**0.1233**			**0.0006**	**0.0003**	**0.0000**	**0.0000**	**0.3218**	**0.0000**	**0.0000**
September	**2.4868**	**0.0082**	**0.0011**	**0.0001**	**0.0219**	**0.0155**	**0.0030**	**0.0171**	**0.0366**	**0.1037**			**0.0935**	**0.0374**	**0.0011**	**0.0004**	**47.7834**	**0.0003**	**0.0003**
October	**2.8781**	**0.0067**	**0.0007**	**0.0001**	**0.0138**	**0.0107**	**0.0021**	**0.0227**	**0.0305**	**0.0871**			**0.0022**	**0.0009**	**0.0000**	**0.0000**	**1.1162**	**0.0000**	**0.0000**
November	**2.3251**	**0.0048**	**0.0005**	**0.0001**	**0.0107**	**0.0079**	**0.0015**	**0.0171**	**0.0235**	**0.0662**			**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**
December	**2.1288**	**0.0059**	**0.0005**	**0.0001**	**0.0104**	**0.0069**	**0.0013**	**0.0140**	**0.0202**	**0.0592**			**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**	**0.0000**

Garage Building Boiler
heat input capacity = 1,300,000 btu/hr

	SO2	SO3	NOx	CO	PM 10	VOC
Emission Factors (lbs/10^3 gal)*	142S	2S	20.00	5.00	1.00	0.20
Sulfur Content (%)	0.20	0.20	--	--	--	--
Throughput (gal/yr)	4,794					
Emissions (tons/yr)	0.068075	0.000959	0.047940	0.011985	0.002397	0.000479
Emissions (lbs/day)	0.748075	0.010536	0.526813	0.131703	0.026341	0.005268

*Emission Factors from Table 1.3-1 of AP-42 (9/98), Table 1.3-3, and Table 1.3-6

Note: The boiler had a total throughput of 4794.00 gallons in 2021

Fuel Oil For Boiler

	Total Fuel Oil (gallons)	
January	2,771	
February		
March		
April		
May		
June		
July		
August		
September		
October	2,023	
November		
December		
Total	4,794	

0.07

Emission Unit:	Name:	MMBTU/ hr	Fuel	Emission Factors			kg/yr CO2e (CO2)	kg/yr CO2e (CH4)	kg/yr CO2e (N2O)	Total kg/yr CO2e
				kg CO2 / MMBTU	g CH4 / MMBTU	g N2O / MMBTU				
	Boiler 1	1.3	#2	73.96	3.0	0.6	842,256	717	2,118	845,092

845,092 kg/yr CO2e

930 tons/yr CO2e

Air Emissions from Fuel Oil #1, #2, #5, and #6 p-sbap5-21 • 10/28/15

Choose fuel type	**No. 1 Fuel Oil**		Facility name:
Enter size of unit in BTU/hr	**1,300,000**		Facility AQ ID:
Heat value of the fuel	**139000**	BTU/gal	
Sulfur content as a percent (S)	**0.02**	Let S = .5% as MN law sets this upper limit.	

Actual gallons of fuel oil burned annually **4,794** gallons/year

Emissions Source: EPA AP-42 Chapter 1.3

Pollutant	b **Hourly fuel oil usage** (gal/hr) (BTU/hr) / (heat valu	c **Hours in a Year** (hr/yr) 24 hrs/day * 365 days/yr	d **Emission Factor** (lbs/gal)	e **Actual fuel oil burned** (gal/yr)	**Potential Emissions** (ton/yr) (b * c * d) / 2000	**Insignificant Activity[2]** (ton/yr)	**Actual Emissions** (tons/yr) (d * e) / 2000
PM	9.35	8760	0.0033	4,794	**0.14**	**1.00**	**0.01**
PM10	9.35	8760	0.0011	4,794	**0.04**	**1.00**	**0.00**
VOC	9.35	8760	0.00034	4,794	**0.01**	**1.00**	**0.00**
SOx	9.35	8760	0.0028	4,794	**0.12**	**1.00**	**0.01**
NOx	9.35	8760	0.0200	4,794	**0.82**	**1.00**	**0.05**
CO	9.35	8760	0.0050	4,794	**0.20**	**2.00**	**0.01**
Lead	9.35	8760	0.00000126	4,794	**0.00**	**n/a**	**0.00**
GHG Total (CO_2	*see calculations below*				**923**	**1,000**	**54**

Green House Gas (GHG) Emissions (CO_2e)[5] Sources: EPA AP-42 Chapter 1.4; 74 FR 209 (30 Oct 2009), pages

Pollutant	a **Global Warming Potential[3]**	b **Hourly fuel oil usage** (gal/hr) (BTU/hr) / (heat valu	c **Hours in a Year** (hr/yr) 24 hrs/day * 365 days/yr	d **Emission Factor** (lbs/gal)	e **Fuel oil burned** (gal/yr)	**Potential Emissions** (ton/yr) (a * b * c * d) / 2000	**Insignificant Activity** (ton/yr)	**Actual Emissions** (tons/yr) (a * d * e) / 2000
CO_2	1	9.35	8760	22.4500	4794	**920**	**n/a**	**54**
CH_4	25	9.35	8760	0.000919	4794	**1**	**n/a**	**0**
N_2O	298	9.35	8760	0.000183	4794	**2**	**n/a**	**0**
					Green House Gas Total (CO_2e)	**923**	**1,000**	**54**

[1] BTU = British Thermal Units
[2] Insignificant Activity from MN Rule 7007.1300, subp. 3, I. If potential emissions are below the insignificant activity threshold, they do not need to be included in the total.
[3] Global Warming Potential from 40 CFR Part 98, as revised in the Federal Register, Vol. 78, No. 230, p. 71909, November 29, 2013.
[4] Source: EPA AP-42 Chapter 1.5
[5] CO_2e = carbon dioxide equivalents

Emission Factors (EF) lb/gal Source: AP-42, Chapter 1.3 (5/10)

	Heat Value	*sion factor for SO_2*	**SO_2**	**NO_X**	**VOC**	**CO**	**PM[6]**	**PM10[6]**	**Pb**	*Source for GHG EF: 74 FR 209 (30 Oct 2009), pp. 56409-56410* **CO_2**	**N_2O**	**CH_4**
		*SO_2 = AP-42 emission factor * sulfur content*										
No. 1 Fuel Oil	139,000	*0.142*S*	0.00284	0.02	0.00034	0.005	0.0033	0.0011	0.00000126	22.4500	0.000183	0.000919
No. 2 Fuel Oil	140,000	*0.142*S*	0.00284	0.02	0.00034	0.005	0.0033	0.0011	0.00000126	22.8270	0.000185	0.000925
No. 5 Fuel Oil	140,000	*0.157*S*	0.00314	0.055	0.00113	0.005	0.0115	0.0062	0.00000151	22.5100	0.000185	0.000925
No. 6 Fuel Oil	150,000	*0.157*S*	0.00314	0.055	0.00113	0.005	0.0047	0.0019	0.00000151	24.8355	0.000198	0.000992

[6]PM Emission Factor Calculations

	Filterable PM	**Condensable PM**	**Total PM**	**Total PM**
AP-42	1.3-1 (5/10)	1.3-2 (5/10)	lb/10^3 gal	lb/gal
Distillate Oil	2	1.3	3.3	0.0033
No. 5	10	1.5	11.5	0.0115
No. 6	3.2	1.5	4.7	0.0047

***PM10 Emission Factor Calculations**

	Cumulative PM10 (lb/10^3 gal)	**Total PM10**
AP-42	1.3-7 (5/10)	lb/gal
Distillate O	1.08	0.0011
No. 5	6.204	0.0062
No. 6**	1.9	0.0019

**formula for No. 6 = 5.17A; A=1.12(S)+0.37

Attachment 7: PTE Calculations

Table 13
Emissions Summary

Baltimore **EMISSION SUMMARY TABLE**

Year: **PTEs**

(All emissions in tons/yr)

Facility Name	Source Description	Worksheet	VOC (tons/yr)	Benzene (71-43-2)	Cumene (98828)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	Total HAP	1,2,4 TMB	Cyclohexane	CO (tons/yr)	NOx (tons/yr)	TSP (tons/yr)	SOx (tons/yr)	CO2 (tons/yr)	N2O (tons/yr)	CH4 (tons/yr)
Baltimore	Gasoline Loading	T5-Loading	17.69	0.038	0.001	0.000	0.089	0.055	0.007	0.258	0.201	0.649	0.006	0.076							
	Distillate Loading	T5-Loading	9.70	1.072	0.012	0.000	0.821	0.238	0.050	0.000	0.347	2.54									
	Toluene Loading	T5-Loading	0.00				0.000					0.00									
	VCU Combustion Emiss	T6-VCU													1.1196	0.4478	0.0136	0.0046	572.1727	0.0039	0.0041
	Tank # 4	T8-Tank-Emiss	5.16	0.008	0.000	0.000	0.026	0.013	0.002	0.040	0.055	0.14	0.001	0.006							
	Tank # 6	T8-Tank-Emiss	8.66	0.014	0.000	0.000	0.024	0.010	0.002	0.056	0.115	0.22	0.001	0.012							
	Tank # 11	T8-Tank-Emiss	7.91	0.008	0.001	0.000	0.051	0.015	0.003	0.078	0.040	0.20	0.001	0.004							
	Tank # 12	T8-Tank-Emiss	2.13	0.001	0.000	0.000	0.958	0.003	0.000	0.010	0.004	0.98	0.000	0.000							
	Tank # 10	T8-Tank-Emiss	9.76	0.014	0.000	0.000	0.025	0.010	0.002	0.038	0.141	0.23	0.001	0.015							
	Tank # 13	T8-Tank-Emiss	2.13	0.001	0.000	0.000	0.958	0.003	0.000	0.010	0.004	0.98	0.000	0.000							
	Tank # 16	T8-Tank-Emiss	2.13	0.00	0.00	0.00	0.96	0.00	0.00	0.01	0.00	0.98	0.000	0.000							
	0	T8-Tank-Emiss	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000							
	0	T8-Tank-Emiss	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000							
	Fugitives	T11-FUG	1.12	0.004	0.001	0.001	0.022	0.023	0.004	0.026	0.016	0.10	0.006	0.002							
	Miscellaneous Emissions	T12-Misc	1.77	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00							
		TOTAL	68.16	1.16	0.01	0.00	3.94	0.37	0.07	0.53	0.93	7.01	0.02	0.12	1.120	0.448	0.014	0.005	572.173	0.004	0.004

Table 1
Facility Throughput

Enter current year data in boxes marked in BLUE. Enter prior year data in boxes marked in RED.

Sunoco Partners Marketing & Terminals L.P.

Terminal Name:	**Baltimore**
Current Year:	**PTEs**

Table 1: Loading Rack Throughput **CONFIDENTIAL - ALL THROUGHPUT MATERIAL SHALL BE HANDLED AS CONFIDENTIAL**

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Total Gasoline	843,254	35,416,667	
	February	Total Gasoline	843,254	35,416,667	
	March	Total Gasoline	843,254	35,416,667	25.00%
	April	Total Gasoline	843,254	35,416,667	
	May	Total Gasoline	843,254	35,416,667	
	June	Total Gasoline	843,254	35,416,667	25.00%
	July	Total Gasoline	843,254	35,416,667	
	August	Total Gasoline	843,254	35,416,667	
	September	Total Gasoline	843,254	35,416,667	25.00%
	October	Total Gasoline	843,254	35,416,667	
	November	Total Gasoline	843,254	35,416,667	
	December	Total Gasoline	843,254	35,416,667	25.00%
	Total	Total Gasoline	10,119,048	425,000,000	
		Ozone Season Throughput (gals/day)		1,154,891.3	
		Ozone Season Throughput (gal total)		106,250,000	

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Total Distillate	2,750,000	115,500,000	
	February	Total Distillate	2,750,000	115,500,000	
	March	Total Distillate	2,750,000	115,500,000	25.00%
	April	Total Distillate	2,750,000	115,500,000	
	May	Total Distillate	2,750,000	115,500,000	
	June	Total Distillate	2,750,000	115,500,000	25.00%
	July	Total Distillate	2,750,000	115,500,000	
	August	Total Distillate	2,750,000	115,500,000	
	September	Total Distillate	2,750,000	115,500,000	25.00%
	October	Total Distillate	2,750,000	115,500,000	
	November	Total Distillate	2,750,000	115,500,000	
	December	Total Distillate	2,750,000	115,500,000	25.00%
	Total	Total Distillate	33,000,000	1,386,000,000	
	PERMIT LIMIT			0	
		Ozone Season Throughput (gals/day)		3,766,304.3	
		Ozone Season Throughput (gal total)		346,500,000	

Baltimore - Confidential Throughput
PTEs **-1**
***Rolling 12 Month Throughput (Gas and Ethanol)**
(note: each row represents 12 rolling months)

Month	Gasoline + Ethanol (gal/12 mo)	Distillate (gal/12 mo)
January	250,432,932	140,406,479
February	265,688,213	252,043,199
March	280,637,341	364,625,400
April	296,985,811	478,174,769
May	314,002,334	591,939,081
June	332,138,351	704,739,230
July	348,841,451	818,652,470
August	366,867,951	932,189,232
September	379,905,457	1,045,940,025
October	395,452,168	1,159,215,217
November	409,554,477	1,272,333,176
December	425,000,000	1,386,000,000
Permit Limit	**425,000,000**	**1,386,000,000**

*Note: Each value above represents the Rolling 12 month Throughput, which takes into account the present month plus the 11 preceding months.

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Previous Years Throughput

Month	Gasoline + Ethanol (gal/mo)	Distillate (gal/mo)
January	**19,176,105**	**3,115,878**
February	**20,161,386**	**3,863,280**
March	**20,467,539**	**2,917,799**
April	**19,068,197**	**1,950,631**
May	**18,400,143**	**1,735,689**
June	**17,280,649**	**2,699,851**
July	**18,713,567**	**1,586,760**
August	**17,390,166**	**1,963,238**
September	**22,379,161**	**1,749,207**
October	**19,869,956**	**2,224,808**
November	**21,314,358**	**2,382,041**
December	**19,971,143**	**1,833,176**

Enter Throughputs Below

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Low Grade Gas	421,627	**17,708,333**	
	February	Low Grade Gas	421,627	**17,708,333**	
	March	Low Grade Gas	421,627	**17,708,333**	25.00%
	April	Low Grade Gas	421,627	**17,708,333**	
	May	Low Grade Gas	421,627	**17,708,333**	
	June	Low Grade Gas	421,627	**17,708,333**	25.00%
	July	Low Grade Gas	421,627	**17,708,333**	
	August	Low Grade Gas	421,627	**17,708,333**	
	September	Low Grade Gas	421,627	**17,708,333**	25.00%
	October	Low Grade Gas	421,627	**17,708,333**	
	November	Low Grade Gas	421,627	**17,708,333**	
	December	Low Grade Gas	421,627	**17,708,333**	25.00%
	Total	Low Grade Gas	5,059,524	212,500,000	

Ozone Season Throughput (gals/day)	577445.6522
Ozone Season Throughput (gal total)	53,125,000

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	High Grade Gas	421,627	**17,708,333**	
	February	High Grade Gas	421,627	**17,708,333**	
	March	High Grade Gas	421,627	**17,708,333**	25.00%
	April	High Grade Gas	421,627	**17,708,333**	
	May	High Grade Gas	421,627	**17,708,333**	
	June	High Grade Gas	421,627	**17,708,333**	25.00%
	July	High Grade Gas	421,627	**17,708,333**	
	August	High Grade Gas	421,627	**17,708,333**	
	September	High Grade Gas	421,627	**17,708,333**	25.00%
	October	High Grade Gas	421,627	**17,708,333**	
	November	High Grade Gas	421,627	**17,708,333**	
	December	High Grade Gas	421,627	**17,708,333**	25.00%
	Total	High Grade Gas	5,059,524	212,500,000	

Ozone Season Throughput (gals/day)	577445.6522
Ozone Season Throughput (gal total)	53,125,000

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	
	February	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	
	March	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	25.00%
	April	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	
	May	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	
	June	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	25.00%
	July	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	
	August	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	
	September	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	25.00%
	October	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	
	November	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	
	December	Diesel (LSD, ULSD, biodiesel)	1,375,000	**57,750,000**	25.00%
	Total	LSD	16,500,000	693,000,000	

Ozone Season Throughput (gals/day)	1883152.174
Ozone Season Throughput (gal total)	173,250,000

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Fuel Oil #2	1,375,000	**57,750,000**	
	February	Fuel Oil #2	1,375,000	**57,750,000**	
	March	Fuel Oil #2	1,375,000	**57,750,000**	25.00%
	April	Fuel Oil #2	1,375,000	**57,750,000**	
	May	Fuel Oil #2	1,375,000	**57,750,000**	
	June	Fuel Oil #2	1,375,000	**57,750,000**	25.00%
	July	Fuel Oil #2	1,375,000	**57,750,000**	
	August	Fuel Oil #2	1,375,000	**57,750,000**	
	September	Fuel Oil #2	1,375,000	**57,750,000**	25.00%
	October	Fuel Oil #2	1,375,000	**57,750,000**	
	November	Fuel Oil #2	1,375,000	**57,750,000**	
	December	Fuel Oil #2	1,375,000	**57,750,000**	25.00%
	Total	Fuel Oil #2	16,500,000	693,000,000	

Ozone Season Throughput (gals/day)	1883152.174
Ozone Season Throughput (gal total)	173,250,000

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Kerosene & Jet-A	0		
	February	Kerosene & Jet-A	0		
	March	Kerosene & Jet-A	0		#DIV/0!
	April	Kerosene & Jet-A	0		
	May	Kerosene & Jet-A	0		
	June	Kerosene & Jet-A	0		#DIV/0!
	July	Kerosene & Jet-A	0		
	August	Kerosene & Jet-A	0		
	September	Kerosene & Jet-A	0		#DIV/0!
	October	Kerosene & Jet-A	0		
	November	Kerosene & Jet-A	0		
	December	Kerosene & Jet-A	0		#DIV/0!
	Total	Kerosene & Jet-A	0	0	

Ozone Season Throughput (gals/day)	0
Ozone Season Throughput (gal total)	0

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Gas Additive	0		
	February	Gas Additive	0		
	March	Gas Additive	0		#DIV/0!
	April	Gas Additive	0		
	May	Gas Additive	0		
	June	Gas Additive	0		#DIV/0!
	July	Gas Additive	0		
	August	Gas Additive	0		
	September	Gas Additive	0		#DIV/0!
	October	Gas Additive	0		
	November	Gas Additive	0		
	December	Gas Additive	0		#DIV/0!
	Total	Gas Additive	0	0	

Ozone Season Throughput (gals/day) 0
Ozone Season Throughput (gal total) 0

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Transmix/Slop	0		
	February	Transmix/Slop	0		
	March	Transmix/Slop	0		#DIV/0!
	April	Transmix/Slop	0		
	May	Transmix/Slop	0		
	June	Transmix/Slop	0		#DIV/0!
	July	Transmix/Slop	0		
	August	Transmix/Slop	0		
	September	Transmix/Slop	0		#DIV/0!
	October	Transmix/Slop	0		
	November	Transmix/Slop	0		
	December	Transmix/Slop	0		#DIV/0!
	Total	Transmix/Slop	0	0	

Ozone Season Throughput (gals/day) 0
Ozone Season Throughput (gal total) 0

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Ethanol	0		
	February	Ethanol	0		
	March	Ethanol	0		#DIV/0!
	April	Ethanol	0		
	May	Ethanol	0		
	June	Ethanol	0		#DIV/0!
	July	Ethanol	0		
	August	Ethanol	0		
	September	Ethanol	0		#DIV/0!
	October	Ethanol	0		
	November	Ethanol	0		
	December	Ethanol	0		#DIV/0!
	Total	Ethanol	0		

Ozone Season Throughput (gals/day) 0
Ozone Season Throughput (gal total) 0

Year: PTEs

Facility	Month	Product	Throughput (bbls/mo)	Throughput (gal/mo)	Quarterly % of annual thruput
Baltimore	January	Toluene	0		
	February	Toluene	0		
	March	Toluene	0		#DIV/0!
	April	Toluene	0		
	May	Toluene	0		
	June	Toluene	0		#DIV/0!
	July	Toluene	0		
	August	Toluene	0		
	September	Toluene	0		#DIV/0!
	October	Toluene	0		
	November	Toluene	0		
	December	Toluene	0		#DIV/0!
	Total	Toluene	0	0	

Ozone Season Throughput (gals/day) 0
Ozone Season Throughput (gal total) 0

Table 2
Emissions Specification and Speciation Data

Emissions Specifications

VRU (I.e. Carbon)	VOC mg/l[1]	VOC lbs/gal
VRU Emission Rate (mg/l)	10	0.0000833

VCU (I.e. Burn)	VOC mg/l[2]	VOC lbs/gal	NOx mg/l[3]	NOx lbs/gal	CO mg/l[4]	CO lbs/gal
VCU Emission Rate (mg/l)	10	0.0000833	4	0.0000333	10	0.0000833

truck vapor tightness	VOC mg/l[5]	VOC lbs/gal
truck vapor tightness factor (mg/l)	9	0.0000749

1 mg/l = 8.33 x 10^{-6} lb/gal

[1]: VRU 80 mg/l regulatory VOC limit per Permit 999, Condition 9.
[2]: VCU 80 mg/l regulatory VOC limit per Permit 999, Condition 10.
[3]: VCU 4 mg/l NOx per CombustCo performance specification.
[4]: VCU 10 mg/l CO per CombustCo performance specification.
[5]: Truck vapor tightness 9 mg/l VOC factor per April 13, 1995 "Tank Truck Loading Fugitive Factor 8 mg/l vs. 13 mg/l" letter from L. Markovich, Radian Corporation to K. Ritter, API.

Speciation

Lower grade gasoline (liquid volume percents)

	1 qt[6]	2 qt[7]	3 qt[8]	4 qt[9]	Average
Benzene	0.86	0.68	1.17	0.68	0.71
Cumene	0.06	0.15	0.1	0.07	0.3025
Naphthalene	0.14	0.16	0.1	0.2	0.15
Toluene	3.94	3.71	5.5	5.56	4.9325
Xylenes	4.96	4.7	6	5.97	4.9325
Ethyl Benzene	0.84	0.82	1.1	1.08	0.8825
Isooctane	2.95	14.95	2.1	0.93	3.74
N-Hexane	4.91	0.96	4.17	3.24	2.0925
1,2,4 trimethylbenzene [10]	1.49	1.52	1.6	1.56	1.4725
cyclohexane [10]	1.48	0.11	0.04	1.09	0.495

Specific Gravity
0.87
0.86
1.14
0.865
0.87
0.867
0.692
0.659
0.876
0.78

Lower grade gasoline (liquid weight percents) [20]

	1 qt	2 qt	3 qt	4 qt	Average
Benzene	1.0	0.8	1.4	0.8	1.0
Cumene	0.1	0.2	0.1	0.1	0.1
Naphthalene	0.2	0.2	0.2	0.3	0.2
Toluene	4.6	4.3	6.4	6.5	5.5
Xylenes	5.8	5.5	7.1	7.0	6.4
Ethyl Benzene	1.0	1.0	1.3	1.3	1.1
Isooctane	2.8	14.0	2.0	0.9	4.9
N-Hexane	4.4	0.9	3.7	2.9	3.0
1,2,4 trimethylbenzene [21]	1.8	1.8	1.9	1.8	1.8
cyclohexane [21]	1.6	0.1	0.0	1.1	0.7

[6]: First quarter speciation data per AmSpec Analysis Report January 2, 2017
[7]: Second quarter speciation data per AmSpec Analysis Report April 3, 2017
[8]: Third quarter speciation data per per AmSpec Analysis Report August 1, 2017
[9]: Fourth quarter speciation data per AmSpec Analysis Report November 3, 2017
[10] Non HAPs but calculated for SARA 313 reports

[20]: Liquid wt% = Liquid vol% x Specific Gravity / 0.74, where 0.74 = specific gravity of gasoline
[21] Non HAPs but calculated for SARA 313 reports

Higher Grade Gasoline (liquid volume percents)

	1 qt[11]	2 qt[12]	3 qt[13]	4 qt[14]	Average
Benzene	0.44	0.7	0.53	0.42	0.6075
Cumene	0.55	0.15	0.3	0.12	0.885
Naphthalene	0.11	0.16	0.1	0.12	0.125
Toluene	8.32	3.82	8.3	5.67	9.965
Xylenes	9.46	4.84	9.6	5.42	8.555
Ethyl Benzene	1.63	0.82	1.8	1	1.4325
Isooctane	7.27	1.56	8.73	12.15	8.0525
N-Hexane	2.02	4.68	0.71	0.65	0.9025
1,2,4 trimethylbenzene [15]	2.28	1.55	2.2	1.34	2.13
cyclohexane [15]	0.28	0.07	0.04	0.05	0.1125

Specific Gravity
0.87
0.86
1.14
0.865
0.87
0.867
0.692
0.659
0.876
0.78

Higher Grade Gasoline (liquid weight percents) [20]

	1 qt	2 qt	3 qt	4 qt	Average
Benzene	0.5	0.8	0.6	0.5	0.6
Cumene	0.6	0.2	0.3	0.1	0.3
Naphthalene	0.2	0.2	0.2	0.2	0.2
Toluene	9.7	4.5	9.7	6.6	7.6
Xylenes	11.1	5.7	11.3	6.4	8.6
Ethyl Benzene	1.9	1.0	2.1	1.2	1.5
Isooctane	6.8	1.5	8.2	11.4	6.9
N-Hexane	1.8	4.2	0.6	0.6	1.8
1,2,4 trimethylbenzene [15]	2.7	1.8	2.6	1.6	2.2
cyclohexane [15]	0.3	0.1	0.0	0.1	0.1

[11]: First quarter speciation data per AmSpec Analysis Report January 2, 2017
[12]: Second quarter speciation data per AmSpec Analysis Report April 3, 2017
[13]: Third quarter speciation data per per AmSpec Analysis Report August 1, 2017
[14]: Fourth quarter speciation data per AmSpec Analysis Report November 3, 2017
[15] non HAPs but calculated for SARA 313 reports

[20]: Liquid wt% = Liquid vol% x Specific Gravity / 0.74, where 0.74 = specific gravity of gasoline
[21] non HAPs but calculated for SARA 313 reports

Diesel & Fuel Oil #2 (liquid weight percents)

	1 qt[16]	2 qt[16]	3 qt[16]	4 qt[16]	Average
Benzene	0.2	0.2	0.2	0.2	0.2
Cumene	0.1	0.1	0.1	0.1	0.1
Toluene	0.4	0.4	0.4	0.4	0.4
Xylenes	0.8	0.8	0.8	0.8	0.8
Ethyl Benzene	0.2	0.2	0.2	0.2	0.2
N-Hexane	0.04	0.04	0.04	0.04	0.04

[16] Source: Table 3-1 API Publication 1673, First Edition, May 1998

Kerosene (liquid weight percents)

	1 qt[17]	2 qt[17]	3 qt[17]	4 qt[17]	Average
Benzene	0.07	0.07	0.07	0.07	0.07
Cumene	0.07	0.07	0.07	0.07	0.07
Toluene	0.3	0.3	0.3	0.3	0.3
Xylenes	0.9	0.9	0.9	0.9	0.9
Ethyl Benzene	0.2	0.2	0.2	0.2	0.2
N-Hexane	0.1	0.1	0.1	0.1	0.1

[17] Source: Table 3-1 API Publication 1673., First Edition, May 1998

Transmix (liquid weight percents)

	Average[18]
Benzene	0.6
Cumene	1.0
Naphthalene	0.2
Toluene	7.0
Xylenes	7.0
Ethyl Benzene	1.0
Isooctane	5.3
N-Hexane	2.0
1,2,4 trimethylbenzene [19]	1.8
cyclohexane [19]	0.5

[18] Estimated Transmix speciation as provided in 10/16/2009 email from Jeff McGill (Sunoco Logistics) to Tim Prince (Prince Environmental).
[19] Non HAPs but calculated for SARA 313 reports

Table 5
Loading Emissions (tons)

Loading Rack Emission Calculations:

Year: PTEs

Facility	Month	Product [1]	Total Gas Throughput (gal/mo)	VRU Throughput (gal/mo)	VCU Throughput (gal/mo)	Gas Load VOC - stack (tons)	Gas Load VOC - Fug (tons)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	Total HAPs	1,2,4 Trimethylbenzene [6]	cyclohexane [6]
Baltimore	January	Gasoline	35,416,667	35,131,048	285,618	1.4746	1.3271	0.0029	0.0001	0.0000	0.0077	0.0052	0.0007	0.0176	0.0211	0.0553	0.0006	0.0142
	February	Gasoline	35,416,667	35,009,579	407,088	1.4746	1.3271	0.0029	0.0001	0.0000	0.0078	0.0052	0.0007	0.0176	0.0211	0.0554	0.0006	0.0142
	March	Gasoline	35,416,667	35,273,858	142,809	1.4746	1.3271	0.0029	0.0001	0.0000	0.0077	0.0052	0.0007	0.0176	0.0210	0.0553	0.0006	0.0143
	April	Gasoline	35,416,667	16,626,157	18,790,509	1.4746	1.3271	0.0034	0.0000	0.0000	0.0074	0.0034	0.0004	0.0245	0.0236	0.0628	0.0003	0.0010
	May	Gasoline	35,416,667	35,369,064	47,603	1.4746	1.3271	0.0031	0.0000	0.0000	0.0047	0.0035	0.0005	0.0284	0.0171	0.0573	0.0005	0.0015
	June	Gasoline	35,416,667	35,219,907	196,759	1.4746	1.3271	0.0031	0.0000	0.0000	0.0047	0.0035	0.0005	0.0284	0.0172	0.0574	0.0005	0.0015
	July	Gasoline	35,416,667	35,273,858	142,809	1.4746	1.3271	0.0038	0.0000	0.0000	0.0087	0.0057	0.0008	0.0186	0.0148	0.0525	0.0006	0.0006
	August	Gasoline	35,416,667	35,321,461	95,206	1.4746	1.3271	0.0038	0.0000	0.0000	0.0086	0.0057	0.0008	0.0186	0.0148	0.0525	0.0006	0.0006
	September	Gasoline	35,416,667	30,448,495	4,968,171	1.4746	1.3271	0.0039	0.0001	0.0000	0.0102	0.0057	0.0008	0.0186	0.0149	0.0541	0.0005	0.0006
	October	Gasoline	35,416,667	35,226,254	190,412	1.4746	1.3271	0.0025	0.0000	0.0000	0.0071	0.0041	0.0006	0.0225	0.0118	0.0486	0.0004	0.0092
	November	Gasoline	35,416,667	33,793,403	1,623,264	1.4746	1.3271	0.0025	0.0000	0.0000	0.0074	0.0041	0.0006	0.0226	0.0118	0.0490	0.0004	0.0090
	December	Gasoline	35,416,667	35,416,667	0	1.4746	1.3271	0.0025	0.0000	0.0000	0.0070	0.0041	0.0006	0.0225	0.0118	0.0486	0.0004	0.0093
	Total	Total Gasoline	425,000,000	398,109,750	26,890,250	17.6949		0.0375	0.0006	0.0000	0.0891	0.0555	0.0075	0.2575	0.2011	0.6487	0.0060	0.0759

[1]: "Gasoline" throughput and emissions equal to sum of "Low Grade Gas" and "High Grade Gas" values provided in tables below.

Year: PTEs

Facility	Month	Product	Total Throughput (gal/mo)[2]	VRU Throughput (gal/mo)[2]	VCU Throughput (gal/mo)[2]	Gas Load VOC - stack (tons)[3]	Gas Load VOC - Fug (tons)[4]	Benzene (71-43-2) [5]	Cumene (98-82-8) [5]	Naphthalene (91-20-3) [5]	Toluene (108-88-3) [5]	Xylene (1330-20-7) [5]	Ethyl-benzene (100-41-4)[5]	Isooctane (540841) [5]	n-Hexane (110-54-3) [5]	Total HAPs	1,2,4 Trimethylbenzene [5] [6]	cyclohexane [5] [6]
Baltimore	January	Low Grade Gas	17,708,333	17,565,524	142,809	0.737	0.664	0.001947	0.000	0.000	0.003	0.002	0.000	0.005	0.015	0.026	0.000	0.012
	February	Low Grade Gas	17,708,333	17,504,789	203,544	0.737	0.664	0.002	0.000	0.000	0.003	0.002	0.000	0.005	0.015	0.027	0.000	0.012
	March	Low Grade Gas	17,708,333	17,636,929	71,405	0.737	0.664	0.002	0.000	0.000	0.002	0.002	0.000	0.005	0.015	0.026	0.000	0.012
	April	Low Grade Gas	17,708,333	8,313,079	9,395,255	0.737	0.664	0.002	0.000	0.000	0.004	0.002	0.000	0.022	0.007	0.036	0.000	0.001
	May	Low Grade Gas	17,708,333	17,684,532	23,802	0.737	0.664	0.002	0.000	0.000	0.002	0.002	0.000	0.026	0.003	0.034	0.000	0.001
	June	Low Grade Gas	17,708,333	17,609,954	98,380	0.737	0.664	0.002	0.000	0.000	0.002	0.002	0.000	0.026	0.003	0.034	0.000	0.001
	July	Low Grade Gas	17,708,333	17,636,929	71,405	0.737	0.664	0.003	0.000	0.000	0.003	0.002	0.000	0.004	0.013	0.025	0.000	0.000
	August	Low Grade Gas	17,708,333	17,660,730	47,603	0.737	0.664	0.003	0.000	0.000	0.003	0.002	0.000	0.004	0.013	0.025	0.000	0.000
	September	Low Grade Gas	17,708,333	15,224,248	2,484,086	0.737	0.664	0.003	0.000	0.000	0.004	0.002	0.000	0.004	0.013	0.026	0.000	0.000
	October	Low Grade Gas	17,708,333	17,613,127	95,206	0.737	0.664	0.002	0.000	0.000	0.003	0.002	0.000	0.002	0.010	0.019	0.000	0.009
	November	Low Grade Gas	17,708,333	16,896,701	811,632	0.737	0.664	0.002	0.000	0.000	0.004	0.002	0.000	0.002	0.010	0.019	0.000	0.009
	December	Low Grade Gas	17,708,333	17,708,333	0	0.737	0.664	0.002	0.000	0.000	0.003	0.002	0.000	0.002	0.010	0.019	0.000	0.009
	Total	Low Grade Gas	212,500,000	199,054,875	13,445,125	8.847	7.963	0.023	0.000	0.000	0.038	0.024	0.003	0.105	0.125	0.317	0.0027	0.0654

Year: PTEs

Facility	Month	Product	Total Throughput (gal/mo)[7]	VRU Throughput (gal/mo)[7]	VCU Throughput (gal/mo)[7]	Gas Load VOC - stack (tons)[3]	Gas Load VOC - Fug (tons)[4]	Benzene (71-43-2) [5]	Cumene (98-82-8) [5]	Naphthalene (91-20-3) [5]	Toluene (108-88-3) [5]	Xylene (1330-20-7) [5]	Ethyl-benzene (100-41-4)[5]	Isooctane (540841) [5]	n-Hexane (110-54-3) [5]	Total HAPs	1,2,4 Trimethylbenzene [5] [6]	cyclohexane [5] [6]
Baltimore	January	High Grade Gas	17,708,333	17,565,524	142,809	0.737	0.664	0.000997	0.000	0.000	0.005	0.003	0.000	0.012	0.006	0.029	0.000	0.002
	February	High Grade Gas	17,708,333	17,504,789	203,544	0.737	0.664	0.001	0.000	0.000	0.005	0.003	0.000	0.012	0.006	0.029	0.000	0.002
	March	High Grade Gas	17,708,333	17,636,929	71,405	0.737	0.664	0.001	0.000	0.000	0.005	0.003	0.000	0.013	0.006	0.029	0.000	0.002
	April	High Grade Gas	17,708,333	8,313,079	9,395,255	0.737	0.664	0.002	0.000	0.000	0.004	0.002	0.000	0.003	0.017	0.027	0.000	0.000
	May	High Grade Gas	17,708,333	17,684,532	23,802	0.737	0.664	0.002	0.000	0.000	0.002	0.002	0.000	0.003	0.014	0.023	0.000	0.001
	June	High Grade Gas	17,708,333	17,609,954	98,380	0.737	0.664	0.002	0.000	0.000	0.002	0.002	0.000	0.003	0.014	0.023	0.000	0.001
	July	High Grade Gas	17,708,333	17,636,929	71,405	0.737	0.664	0.001	0.000	0.000	0.005	0.003	0.001	0.015	0.002	0.028	0.000	0.000
	August	High Grade Gas	17,708,333	17,660,730	47,603	0.737	0.664	0.001	0.000	0.000	0.005	0.003	0.001	0.015	0.002	0.028	0.000	0.000
	September	High Grade Gas	17,708,333	15,224,248	2,484,086	0.737	0.664	0.001	0.000	0.000	0.006	0.003	0.000	0.015	0.002	0.028	0.000	0.000
	October	High Grade Gas	17,708,333	17,613,127	95,206	0.737	0.664	0.001	0.000	0.000	0.004	0.002	0.000	0.021	0.002	0.030	0.000	0.000
	November	High Grade Gas	17,708,333	16,896,701	811,632	0.737	0.664	0.001	0.000	0.000	0.004	0.002	0.000	0.021	0.002	0.030	0.000	0.000
	December	High Grade Gas	17,708,333	17,708,333	0	0.737	0.664	0.001	0.000	0.000	0.004	0.002	0.000	0.021	0.002	0.030	0.000	0.000
	Total	High Grade Gas	212,500,000	199,054,875	13,445,125	8.84744	7.96269	0.0143	0.0004	0.0000	0.0515	0.0319	0.0043	0.1528	0.0765	0.332	0.0033	0.0105

[2]: Low grade gas throughput values equal the sum of low grade gas throughput values per Table 1 and Table 3 plus the Table 5 transmix VRU throughput and VCU throughput values provided below..
[3]: Gas Load VOC - stack = ([VRU throughput (gal/mo) x VRU Emission Factor (lb/gal)] + [VCU throughput (gal/mo) x VCU Emission Factor (lb/gal)]) x (1 ton/2,000 lb). VOC emission factors for VRU and VCU provided in Table 2.
[4] Gas Load VOC - Fug = Total Throughput (gal/mo) x Truck Vapor Tightness Emission Factor (lb/gal) x (1 ton/2,000 lb). VOC Truck Vapor Tightness emission factor provided in Table 2.
[5]: Compound Emiss (tons) = { ([VRU throughput (gal/mo) x VRU compound Emiss Factor (lb/gal)] + [VCU throughput (gal/mo) x VCU compound Emiss Factor (lb/gal)]) x (1 ton/2,000 lb) } + (Gas Load VOC - Fug (tons) x Compound Vapor Wt. Fraction (lb/lb)). Compound specific emission factors and vapor wt. fractions provided in Table 4.
[6] Non HAPs but calculated for SARA 313 reports.
[7]: High grade gas throughput values per Table 1 and Table 3.

Year: PTEs

Facility	Month	Product	Total Throughput (gal/mo)[7]	VRU Throughput (gal/mo)[8]	VCU Throughput (gal/mo)[8]	Load VOC - stack (tons)[9]	Load VOC - Fug (tons)[10]
Baltimore	January	Ethanol	0	0	0	0.000	0.000
	February	Ethanol	0	0	0	0.000	0.000
	March	Ethanol	0	0	0	0.000	0.000
	April	Ethanol	0	0	0	0.000	0.000
	May	Ethanol	0	0	0	0.000	0.000
	June	Ethanol	0	0	0	0.000	0.000
	July	Ethanol	0	0	0	0.000	0.000
	August	Ethanol	0	0	0	0.000	0.000
	September	Ethanol	0	0	0	0.000	0.000
	October	Ethanol	0	0	0	0.000	0.000
	November	Ethanol	0	0	0	0.000	0.000
	December	Ethanol	0	0	0	0.000	0.000
	Total	Ethanol	0	0	0	0.000	0.000

[8]: Throughput values per Table 1.
[9]: Load VOC - stack = ([VRU throughput (gal/mo) x VRU Emission Factor (lb/gal)] + [VCU throughput (gal/mo) x VCU Emission Factor (lb/gal)]). VOC emission factors for VRU and VCU provided in Table 2.
[10] Load VOC - Fug = Total Throughput (gal/mo) x Truck Vapor Tightness Emission Factor (lb/gal) x (1 ton/2,000 lb). VOC Truck Vapor Tightness emission factor provided in Table 2.

Year: PTEs

Facility	Month	Product	Total Throughput (gal/mo)[11]			Load VOC - stack (tons)	Load VOC - Fug (tons)[12]	Benzene (71-43-2)[12]	Cumene (98-82-8)[13]	Naphthalene (91-20-3)[13]	Toluene (108-88-3)[13]	Xylene (1330-20-7)[13]	Ethyl-benzene (100-41-4)[13]	Isooctane (540841)[12]	n-Hexane (110-54-3)[13]	Total HAPs
Baltimore	January	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	February	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	March	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	April	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	May	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	June	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	July	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	August	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	September	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	October	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	November	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	December	Diesel	57,750,000				0.4043	0.0447	0.0010	----------	0.0238	0.0199	0.0042	----------	0.0144	0.1079
	Total	Diesel	693,000,000				4.8510	0.5359	0.0118	----------	0.2855	0.2384	0.0499	----------	0.1733	1.2948

Year: PTEs

Facility	Month	Product	Total Throughput (gal/mo)[11]			Load VOC - stack (tons)	Load VOC - Fug (tons)[12]	Benzene (71-43-2)[12]	Cumene (98-82-8)[13]	Naphthalene (91-20-3)[13]	Toluene (108-88-3)[13]	Xylene (1330-20-7)[13]	Ethyl-benzene (100-41-4)[13]	Isooctane (540841)[12]	n-Hexane (110-54-3)[13]	Total HAPs
Baltimore	January	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	February	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	March	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	April	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	May	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	June	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	July	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	August	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	September	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	October	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	November	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	December	Fuel Oil #2	57,750,000				0.4043	0.0447	0.0000	----------	0.0447	0.0000	0.0000	----------	0.0144	0.1038
	Total	Fuel Oil #2	693,000,000				4.8510	0.5359	0.0000	----------	0.5359	0.0000	0.0000	----------	0.1733	1.2452

[11]: Throughput values per Table 1.
[12]: Load VOC - Fug (tons) = Distillate Oil No. 2 Emission Factor (0.014 lb/1,000 gal) x (Total Throughput (gal) / 1000) x (1 ton/2,000 lb). Emission factor per Table 5-2-5 of AP-42 (June, 2008).
[13]: Compound Emiss (tons) = Load VOC - Fug (tons) x Compound Vapor Wt. Fraction (lb/lb). Compound specific emission factors and vapor wt. fractions provided in Table 4.

Year: PTEs

Facility	Month	Product	Total Throughput (gal/mo)[14]			Load VOC - stack (tons)	Load VOC - Fug (tons)[15]	Benzene (71-43-2)[15]	Cumene (98-82-8)[16]	Naphthalene (91-20-3)[16]	Toluene (108-88-3)[16]	Xylene (1330-20-7)[16]	Ethyl-benzene (100-41-4)[16]	Isooctane (540841)[15]	n-Hexane (110-54-3)[16]	Total HAPs
Baltimore	January	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	February	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	March	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	April	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	May	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	June	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	July	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	August	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	September	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	October	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	November	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	December	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000
	Total	Kerosene	0				0.0000	0.0000	0.0000	----------	0.0000	0.0000	0.0000	----------	0.0000	0.0000

[14]: Throughput values per Table 1.
[15]: Load VOC - Fug (tons) = Jet Kerosene Emission Factor (0.016 lb/1,000 gal) x (Total Throughput (gal) / 1000) x (1 ton/2,000 lb). Emission factor per Table 5-2-5 of AP-42 (June, 2008).
[16]: Compound Emiss (tons) = Load VOC - Fug (tons) x Compound Vapor Wt. Fraction (lb/lb). Compound specific emission factors and vapor wt. fractions provided in Table 4.

Year: PTEs

Facility	Month	Product	Total Throughput (gal/mo)[17]	Controlled Loading? (YES or NO)	VRU Throughput (gal/mo)[18]	VCU Throughput (gal/mo)[18]	Load VOC - Fug (tons)[19]	Benzene (71-43-2)[18]	Cumene (98-82-8)[20]	Naphthalene (91-20-3)[20]	Toluene (108-88-3)[20]	Xylene (1330-20-7)[20]	Ethyl-benzene (100-41-4)[20]	Isooctane (540841)[20]	n-Hexane (110-54-3)[20]	Total HAPs	1,2,4 Trimethylbenzene [21]	cyclohexane [21]
Baltimore	January	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	February	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	March	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	April	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	May	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	June	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	July	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	August	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	September	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	October	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	November	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	December	transmix	0		0	0	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
	Total	transmix	0				0.00	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000

[17]: Throughput values per Table 1.
[18]: Throughput for controlled loading obtained by multiplying the total throughput value for transmix by the ratio of VRU or VCU hours of operation in Table 3 divided by the total hours in month provided in Table 3.
[19]: Load VOC - Fug (tons) = Gasoline Emission Factor (5 lb/1,000 gal) x (Total Throughput (gal) / 1000) x (1 ton/2,000 lb). Emission factor per Table 5-2-5 of AP-42 (June, 2008). Use of Gasoline emission factor considered to be conservative for purposes of estimating transmix emissions. Transmix loading emissions are accounted for in low grade gas emissions calculations whenever transmix loading is conducted in a controlled manner as discussed in more detail in footnote 2.
[20]: Compound Emiss (tons) = Load VOC - Fug (tons) x Compound Vapor Wt. Fraction (lb/lb). Compound specific emission factors and vapor wt. fractions provided in Table 4.
[21] Non HAPs but calculated for SARA 313 reports.

Year: PTEs

Facility	Month	Product	Total Throughput (gal/mo)[22]				Emission Factor (lb/10^3 gal)[23]	VOC Emissions (tons)[24]
Baltimore	January	toluene	0				0.3968	0.0000
	February	toluene	0				0.3968	0.0000
	March	toluene	0				0.3968	0.0000
	April	toluene	0				0.3968	0.0000
	May	toluene	0				0.3968	0.0000
	June	toluene	0				0.3968	0.0000
	July	toluene	0				0.3968	0.0000
	August	toluene	0				0.3968	0.0000
	September	toluene	0				0.3968	0.0000
	October	toluene	0				0.3968	0.0000
	November	toluene	0				0.3968	0.0000
	December	toluene	0				0.3968	0.0000
	Total	toluene	0					0.0000

[22]: Throughput values per Table 1.
[23]: Emission Factor (lb/10^3 gal) = 12.46 S x P x M / T, per AP-42 Section 5.2, Equation 1 where S = 0.6, P = 0.3 psia, MW = 92 and T = 520 R.
[24]: VOC Emissions (tons) = Emission Factor (lb/103 gal) x (Throughput (gal) / 1,000) x (1 ton/2,000 lb)

Table 6
VCU Combustion Emissions

Vapor Combustion Unit (VCU) - NOx, SOx, CO, PM, CO2, N2O and CH4

Facility	Month	Product	Throughput (gal/mo)[1]	Displaced Volume (scf) [2]	MW of CO	MW of NOx
Baltimore	January	Gasoline + Ethanol	285,618	37,987	28	30
	February	Gasoline + Ethanol	407,088	54,143	28	30
	March	Gasoline + Ethanol	142,809	18,994	28	30
	April	Gasoline + Ethanol	18,790,509	2,499,138	28	30
	May	Gasoline + Ethanol	47,603	6,331	28	30
	June	Gasoline + Ethanol	196,759	26,169	28	30
	July	Gasoline + Ethanol	142,809	18,994	28	30
	August	Gasoline + Ethanol	95,206	12,662	28	30
	September	Gasoline + Ethanol	4,968,171	660,767	28	30
	October	Gasoline + Ethanol	190,412	25,325	28	30
	November	Gasoline + Ethanol	1,623,264	215,894	28	30
	December	Gasoline + Ethanol	0	0	28	30
	Total	Gasoline + Ethanol	26,890,250	3,576,403	28	30

[1]: Sum of Gasoline plus Ethanol throughputs as provided on Table 1.
[2]: 1 gal = 0.133 scf.

Year to Date Vapor Combustion Unit Monthly Emissions

Month	CO Emissions (tons)[3]	NOx Emissions (tons)[3]	PM (T) Emissions (tons)[4]	PM (Cond) Emissions (tons)[4]	PM (Filt) Emissions (tons)[4]	SOx Emissions (tons)[5]	CO2 Emissions (tons)[6]	N2O Emissions (tons)[4]	CH4 Emissions (tons)[4]	
January	0.0119	0.0048	0.0001	0.0001	0.0000	0.0000	6.08	0.0000	0.0000	0.0219
February	0.0169	0.0068	0.0002	0.0002	0.0001	0.0001	8.66	0.0001	0.0001	0.0000
March	0.0059	0.0024	0.0001	0.0001	0.0000	0.0000	3.04	0.0000	0.0000	0.0000
April	0.7823	0.3129	0.0095	0.0071	0.0024	0.0032	399.83	0.0027	0.0029	0.0021
May	0.0020	0.0008	0.0000	0.0000	0.0000	0.0000	1.01	0.0000	0.0000	0.0011
June	0.0082	0.0033	0.0001	0.0001	0.0000	0.0000	4.19	0.0000	0.0000	0.0119
July	0.0059	0.0024	0.0001	0.0001	0.0000	0.0000	3.04	0.0000	0.0000	**0.0370**
August	0.0040	0.0016	0.0000	0.0000	0.0000	0.0000	2.03	0.0000	0.0000	
September	0.2068	0.0827	0.0025	0.0019	0.0006	0.0008	105.71	0.0007	0.0008	
October	0.0079	0.0032	0.0001	0.0001	0.0000	0.0000	4.05	0.0000	0.0000	
November	0.0676	0.0270	0.0008	0.0006	0.0002	0.0003	34.54	0.0002	0.0002	
December	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.00	0.0000	0.0000	
Total	**1.1196**	**0.4478**	**0.0136**	**0.0102**	**0.0034**	**0.0046**	**572.17**	**0.0039**	**0.0041**	

[3]: Emissions (tons) = Throughput (gal) x Emissions Factor (lb/gal) x (1 ton/2,000 lb). NOx and CO emission factors as provided on Table 2.
[4]: Emissions (tons) = Emission Factor (lb/10^6 scf) x (Displaced Volume (scf) / 1,000,000) x [Heating Value of TVP 5.9 Gasoline Vapors (1,522 Btu/scf) / Heating Value of Natural Gas (1,020 Btu/scf)] x (1 ton/2,000 lb). Emission factors in units of lb/10^6 scf as provided in Table 1.4-2 of AP-42 (July, 1998) are as follows; PM (Total) = 7.6, PM (Condensable) = 5.7, PM (Filterable) = 1.9, N2O = 2.2, CH4 = 2.3. Emissions adjusted accorded to heating value per footnote (a) to Table 1.4-2.
[5]:Emissions (tons) = (Throughput (gal) / 1,000,000) x (0.34 lb SOx / 1,000,000 gal) x (1 ton / 2,000 lb). Emissions factor of 0.34 lb Sox / 1,000,000 gal per Hill Environmental Resource Organization (HERO) memorandum entitled "HERO VCU SULFUR EMISSIONS CALCULATION".
[6]: Emissions (tons) = Throughput (gal) x (319971 lb CO2 / 1,000,000 gal) x (1 ton / 2,000 lb). CO2 emission factor based on August 2014 Sunoco Baltimore VCU test data of 5,100 mg CO2/l x (1 g / 1,000 mg) x (3.785 l / gal) x (1 lb/453.6 g) x (1 gal/ 0.133 scf) = 0.319971556 lb/scf = 319971 lb CO2 / 1,000,000 scf.

Table 9
Roof Landing Emissions

Floating Roof Landing Emissions: 2015 Actuals

Calculations below are based on the formulas presented in: Evaporative Loss From Storage Tank Floating Roof Landings, Final Report November 15, 2004 prepared by Robert L. Ferry, prepared for American Petroleum Institute (API)

(note: the date on row 13 is a critical data field. If there was no event, than leave the date blank.)

Tank ID	Tank 4	Tank 6	Tank 11	Tank 12	Tank 10	Tank 11	Tank 4	Tank 12	Tank 6	Total
Date	4/3/2016	4/7/2016		4/5/2016	4/15/2016	4/8/2016				
Tank Type	IFR	IFR	IFR	IFR	IFR	IFR	IFR	IFR	IFR	
Total Loss (lb)	**1,160.05**	**1,160.05**	**0.00**	**452.13**	**290.01**	**1,046.94**	**0.00**	**0.00**	**0.00**	**4,109.17**
Total Loss (ton)	**0.58**	**0.58**	**0.00**	**0.23**	**0.15**	**0.52**	**0.00**	**0.00**	**0.00**	**2.05**

Note: Valid Tank Types consist of IFR (internal floating roof), EFR (external floating roof) and DR-DRY (drain dry)

Internal Floating Roof Tank

Idle Standing Loss = LS for IFR Tank with a liquid heel (lbs)		442.16	442.16	399.05	162.53	110.54	399.05	442.16	162.53	442.16
Filling Loss per Episode = LF for IFR Tank with a liquid heel (lbs)		717.89	717.89	647.89	289.60	179.47	647.89	717.89	289.60	717.89
Total Landing Loss for IFR with a liquid heel (lbs)		**1,160.05**	**1,160.05**	**1,046.94**	**452.13**	**290.01**	**1,046.94**	**1,160.05**	**452.13**	**1,160.05**
Total Landing Loss for EFR with a liquid heel (tons)		**0.58**	**0.58**	**0.52**	**0.23**	**0.15**	**0.52**	**0.58**	**0.23**	**0.58**

External Floating Roof Tank

Idle Standing Loss = LS for EFR Tank with a liquid heel (lbs)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Filling Loss Per Episode = LF for EFR Tank with a liquid heel (lbs)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Landing Loss for EFR with a liquid heel (lbs)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Landing Loss for EFR with a liquid heel (tons)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Drain Dry Tank

Idle Standing Loss = LS for EFR Tank with a liquid heel (lbs)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Filling Loss Per Episode = LF for EFR Tank with a liquid heel (lbs)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Landing Loss for EFR with a liquid heel (lbs)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**
Total Landing Loss for EFR with a liquid heel (tons)		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

Intermediate Calculations

Equation 5: Ls = Nd*Ke*(P *Vv/RT)*Mv*Ksf		442.16	442.16	399.05	162.53	110.54	399.05	442.16	162.53	442.16
Equation 14: Ls wind = 0.57*Nd*D*P'*Mv		2,043.78	2,043.78	1,941.59	1,236.05	1,021.89	1,941.59	2,043.78	1,236.05	2,043.78
Equation 20: Lf = (P*Vv/RT)*Mv*Ksf		717.89	717.89	647.89	289.60	179.47	647.89	717.89	289.60	717.89
Vv = (pi/4)D^2*Hv	Vv	11,304.00	11,304.00	10,201.86	4,775.94	2,826.00	10,201.86	11,304.00	4,775.94	11,304.00
Hle = He/12 (assuming flat bottom and liquid level is drawn down to the elevation of the fill/empty line)	Hle	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
delta Tv = 0.72*delta Ta + 0.028*alpha*I	delta Tv	18.74	18.74	18.74	18.74	18.74	18.74	18.74	18.74	18.74
Ta = ((Tan+Tax)/2)+460	Ta	514.25	514.25	514.25	514.25	514.25	514.25	514.25	514.25	514.25
deltaTa = Tax - Tan	delta Ta	18.30	18.30	18.30	18.30	18.30	18.30	18.30	18.30	18.30
P* = P/Pa/(1+[1-(P/Pa0]exp0.5)exp2	P*	0.23	0.23	0.23	0.21	0.23	0.23	0.23	0.21	0.23
B = 8742 - 1042*s^0.5-(1049-179.5*s^0.5)*ln(RVP)	B	5,065.33	5,065.33	5,065.33	5,096.98	5,065.33	5,065.33	5,065.33	5,096.98	5,065.33
Ke = (delta TV/TIa)*(1 + (0.50*B*P)/(Ta)(Pa - P)	Ke	0.31	0.31	0.31	0.28	0.31	0.31	0.31	0.28	0.31
Hv = Hd-Hle	Hv	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Ksb = 1/(1+0.053(P*Hv)	Ksb	0.68	0.68	0.68	0.69	0.68	0.68	0.68	0.69	0.68
Csf = 1 - ([equation 14 - equation5]/[equation 5 + equation 20])	Csf	-0.380647936	-0.380647936	-0.4733745	-1.3743756	-2.142452637	-0.4733745	-0.380647936	-1.3743756	-0.380647936
R = ideal gas constant	R	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73	10.73
I = solar isolation factor	I	1,169.00	1,169.00	1,169.00	1,169.00	1,169.00	1,169.00	1,169.00	1,169.00	1,169.00
s = distillation slope (3 for gasoline)	s	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
S = slope of a cone bottom, inches per foot (zero for a flat bottom tank)	S	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Pa = atmospheric pressure	Pa	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70	14.70
WI = stock density (lb/gal) [5.6 for gasoline, 7.0 for Kerosene, 7.1 for distillate]	WI	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60	5.60
Ls-max (lbs) = upper limit for Ls = 5.9*D^2*Hle*WI	Ls-max	475,776.00	475,776.00	429,387.84	201,015.36	118,944.00	429,387.84	475,776.00	201,015.36	475,776.00
Hd = height of the deck above the tank bottom at the tank shell , feet	Hd	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
D = diameter of the tank, feet	D	120.00	120.00	114.00	78.00	60.00	114.00	120.00	78.00	120.00
He = elevation of the termination of the empty line above the tank bottom, inches.	He	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00	12.00
Mv = average molecular weight of the stock vapor, pounds per pound mole	Mv	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00	66.00
alpha = solar absorbance factor (0.68 for medium gray, 0.17 for white)	alpha	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17	0.17
Tan = daily minimum ambient temperature	Tan	45.10	45.10	45.10	45.10	45.10	45.10	45.10	45.10	45.10
Tax = daily maximum ambient temperature	Tax	63.40	63.40	63.40	63.40	63.40	63.40	63.40	63.40	63.40
RVP = reid vapor pressure of product	RVP	12.63	12.63	12.63	12.10	12.63	12.63	12.63	12.10	12.63
P = true vapor pressure, psia	P	8.85	8.85	8.85	8.45	8.85	8.85	8.85	8.45	8.85
Ksf = refilling saturation factor (0.6 for flat bottom tanks)	Ksf	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60	0.60
Nd = number of days tank is idle	Nd	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
	lbs/day	580.02	580.02	0.00	226.06	145.01	523.47	0.00	0.00	0.00

Table 10
Tank Cleaning Emissions[1] [2] [3]

2009 Actuals

			Tank # and Date				
			Tank 4	Tank 6	Tank 11	Tank 12	Tank 10
Parameter	**Symbol**	**units**	**8/17/2018**	**8/17/2018**	**8/17/2018**	**8/17/2018**	**6/15/2017** (note: Date is a required field,
true vapor pressure	P	psia	3.01	5.05	3.52	3.46	4.81
height under the floating roof	hv	ft	6	6	6	6	6
diameter of the tank	D	ft	150	125	114	125	125
volume under the floating roof[4]	Vv	ft^3	105975	73593.75	61211.16	73593.75	73593.75
temperature in Fahrenheit	Tf	deg F	47.4	80.15	80.15	54.85	72.75
ideal gas constant	R	psia-ft^3/(lb-mole R)	10.731	10.731	10.731	10.731	10.731
temperature in Radian[5]	Tr	deg R	507.4	540.15	540.15	514.85	532.75
Molecular Weight of vapors	Mv	lb/lb-mole	50	66	50	50	50
saturation factor	S	dimensionless	0.6	0.6	0.6	0.6	0.6
Uncontrolled Purge Emissions[6]	Lp	lbs	1757.521	2539.06	1115.167	1382.666	1857.563
Control Unit Efficiency	ce	%	0	95	95	95	95
Controlled Purge Emissions [7]	CLp	lbs	1757.521	126.953	55.75836	69.13331	92.87816
Controlled Purge Emissions	CLp	tons	0.87876	0.063476	0.027879	0.034567	0.046439
LEL reading of sludge	%LEL	pct of LEL	5	5	5	5	5
LEL of Product	LEL	vol%	1.1	1.1	1.1	1.1	1.1
vapor concentration	Cv	atmospheres	0.00055	0.00055	0.00055	0.00055	0.00055
average ventilation rate	Qv	(ft^3/min)	8831.25	6132.813	6132.813	6132.813	6132.813
days of sludge removal	nsr	days	3	3	3	3	3
atmospheric pressure	Pa	psia	14.7	14.7	14.7	14.7	14.7
sludge removal emissions[8]	Lsr	lbs	2832.47	2439.006	1847.732	1938.53	1873.397
sludge removal emissions	Lsr	tons	1.416235	1.219503	0.923866	0.969265	0.936698
Total Cleaning Emissions	CLp + Lsr	lbs	4,589.99	2,565.96	1,903.49	2,007.66	1,966.28
Total Cleaning Emissions	CLp + Lsr	tons	**2.29**	**1.28**	**0.95**	**1.00**	**0.98**
Total Cleaning Emissions	CLp + Lsr	lb/day	944.16	813.00	615.91	646.18	624.47

Total
6.52

[1]: Emissions calculations per "Evaporative Loss from the Cleaning of Storage Tanks", API, October 5, 2005, The TGP Partnership
[2]: Standing Idle and Refilling emissions addressed in Table 9, Roof Landing Emissions.
[3]: Methodology may conservatively over-estimate emissions for drain-dry tanks and cases where calculated emissions exceed amount of available VOC in liquid heel. See page ES-2 "Sludge Removal Emissions" of 10/5/2005 API document for additional details.
[4]: Vv = (hv)(pi x D^2 / 4)
[5]: Tr = Tf +460
[6]: Lp = [(P x Vv)/(R x Tr)] x Mv x S
[7] CLp = Lp x [(100 - ce)/100]
[8]: Lsr = 1440 x Qv x nsr x Cv x (Pa x Mv)/(R x Tr)

Fugitive Emissions

Method: U.S. EPA factors EPA-453/R-95-017
1995 Protocol for Equipment Leak Emission Estimates
(also listed in API publication 1673, May 1998 - Table 3-7)

Baltimore

Source Category	Service	Emission Factor (lbs/hr-source)	Total Number of Sources[1]	Fugitive VOC Emissions (tons/yr)[2]
Valves	Gas	0.0000286	**41**	*0.0051*
	Light Liquid	0.0000946	**660**	*0.2735*
Fittings	Gas	0.0000924	**2068**	*0.8369*
	Light Liquid	0.0000176	**21**	*0.0016*
Pumps	Light Liquid	0.001188		*0.0000*
Other	Gas	0.000264	**0**	*0.0000*
	Light Liquid	0.000286	**0**	*0.0000*
Total			**2790**	**1.1171689**
Pct Emissions From Gas Components				**75.4%**
Pct Emissions Light From Liquid Components				**24.6%**

[1]: # of fugitive components have been taken from 2003 Air Emission Statement
[2]: VOC (tpy) = Total # of Sources x Emission Factor (lbs/hr-source) x (8.760 hr/yr) x (1 ton/2,000 lb)

Speciated Fugitive Emissions:

Facility	Month [3]	Fugitive VOC's (tons/yr)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)
	January	0.09	0.0003	0.0001	0.0000	0.0020	0.0021	0.0004	0.0018	0.0017
	February	0.09	0.0003	0.0001	0.0000	0.0020	0.0021	0.0004	0.0018	0.0017
	March	0.09	0.0003	0.0001	0.0000	0.0020	0.0021	0.0004	0.0018	0.0017
	April	0.09	0.0003	0.0000	0.0001	0.0012	0.0014	0.0002	0.0028	0.0014
	May	0.09	0.0003	0.0000	0.0001	0.0012	0.0014	0.0002	0.0028	0.0014
	June	0.09	0.0003	0.0000	0.0001	0.0012	0.0014	0.0002	0.0028	0.0014
	July	0.09	0.0004	0.0001	0.0000	0.0023	0.0023	0.0004	0.0019	0.0012
	August	0.09	0.0004	0.0001	0.0000	0.0023	0.0023	0.0004	0.0019	0.0012
	September	0.09	0.0004	0.0001	0.0000	0.0023	0.0023	0.0004	0.0019	0.0012
	October	0.09	0.0003	0.0000	0.0001	0.0018	0.0017	0.0003	0.0022	0.0009
	November	0.09	0.0003	0.0000	0.0001	0.0018	0.0017	0.0003	0.0022	0.0009
	December	0.09	0.0003	0.0000	0.0001	0.0018	0.0017	0.0003	0.0022	0.0009
	Total	1.12	0.0041	0.0006	0.0006	0.0221	0.0226	0.0040	0.0261	0.0156

[3]: Monthly VOC's are taken by dividing the annual VOC's by 12.
[4] Non HAPs but calculated for SARA 313 reports.

Table 12
Miscellaneous Emissions Sources

Total Emissions From Insignificant Source's

Facility	Month		VOC Emiss (tons/yr)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene*	cyclohexane*
Baltimore	January		0.10	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	February		0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	March		0.13	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	April		0.15	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	May		0.19	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	June		0.19	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	July		0.21	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	August		0.19	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	September		0.17	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	October		0.15	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	November		0.11	0.00	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.00	0.00
	December		0.09	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	Total		1.77										

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	LSD	55.00	0.13			1.36	3.18	0.17		0.03		
Tank 1	February	LSD	39.64	0.09			0.98	2.30	0.12		0.02		
	March	LSD	38.85	0.08			0.91	2.18	0.12		0.02		
	April	LSD	53.94	0.10			1.16	2.83	0.15		0.02		
	May	LSD	123.04	0.23			2.57	6.40	0.34		0.05		
	June	LSD	119.09	0.23			2.60	6.59	0.35		0.05		
	July	LSD	133.13	0.26			2.97	7.58	0.41		0.05		
	August	LSD	120.88	0.23			2.67	6.78	0.36		0.05		
	September	LSD	106.98	0.20			2.27	5.70	0.31		0.04		
	October	LSD	87.80	0.17			1.87	4.58	0.25		0.03		
	November	LSD	58.86	0.12			1.36	3.27	0.18		0.03		
	December	LSD	42.03	0.10			1.04	2.44	0.13		0.02		
	Total (lbs/yr)		979.24	1.93	0.00	0.00	21.74	53.83	2.90	0.00	0.40	0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	LSD	55.00	0.13			1.36	3.18	0.17		0.03		
Tank 2	February	LSD	39.64	0.09			0.98	2.30	0.12		0.02		
	March	LSD	102.38	0.22			2.39	5.75	0.31		0.05		
	April	LSD	131.11	0.25			2.81	6.88	0.37		0.05		
	May	LSD	123.04	0.23			2.57	6.40	0.34		0.05		
	June	LSD	119.09	0.23			2.60	6.59	0.35		0.05		
	July	LSD	133.13	0.26			2.97	7.58	0.41		0.05		
	August	LSD	120.88	0.23			2.67	6.78	0.36		0.05		
	September	LSD	106.98	0.20			2.27	5.70	0.31		0.04		
	October	LSD	87.80	0.17			1.87	4.58	0.25		0.03		
	November	LSD	58.86	0.12			1.36	3.27	0.18		0.03		
	December	LSD	42.03	0.10			1.04	2.44	0.13		0.02		
	Total (lbs/yr)		1119.95	2.21	0.00	0.00	24.88	61.44	3.31	0.00	0.45	0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	2FO	55.15	0.13			1.36	3.19	0.17		0.03	2.31	
Tank 3	February	2FO	64.29	0.15			1.58	3.73	0.20		0.03	2.73	
	March	2FO	77.71	0.17			1.82	4.36	0.24		0.03	3.26	
	April	2FO	59.63	0.11			1.28	3.13	0.17		0.02	2.40	
	May	2FO	74.26	0.14			1.55	3.86	0.21		0.03	3.03	
	June	2FO	74.82	0.14			1.63	4.14	0.22		0.03	3.31	
	July	2FO	81.02	0.16			1.81	4.61	0.25		0.03	3.72	
	August	2FO	75.85	0.14			1.67	4.26	0.23		0.03	3.42	
	September	2FO	72.77	0.14			1.55	3.88	0.21		0.03	3.07	
	October	2FO	74.41	0.14			1.58	3.88	0.21		0.03	2.98	
	November	2FO	61.34	0.13			1.42	3.41	0.18		0.03	2.56	
	December	2FO	62.37	0.14			1.54	3.62	0.20		0.03	2.65	
	Total (lbs/yr)		1087.38	2.08			23.21	56.84	3.06		0.43	35.44	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	ULSD	19.94	0.05			0.49	1.15	0.06		0.01		
Tank 5	February	ULSD	22.61	0.05			0.56	1.31	0.07		0.01		
	March	ULSD	30.83	0.07			0.72	1.73	0.09		0.01		
	April	ULSD	32.62	0.06			0.70	1.71	0.09		0.01		
	May	ULSD	40.88	0.08			0.85	2.13	0.11		0.02		
	June	ULSD	42.73	0.08			0.93	2.36	0.13		0.02		
	July	ULSD	44.55	0.09			0.99	2.54	0.14		0.02		
	August	ULSD	41.13	0.08			0.91	2.31	0.12		0.02		
	September	ULSD	37.07	0.07			0.79	1.98	0.11		0.01		
	October	ULSD	34.29	0.07			0.73	1.79	0.10		0.01		
	November	ULSD	25.03	0.05			0.58	1.39	0.08		0.01		
	December	ULSD	21.79	0.05			0.54	1.27	0.07		0.01		
	Total (lbs/yr)		867.2395	104.9881	4.4543		125.8137	34.0009	27.2507		247.0873	0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	Additive	8.44						0.21				
Tank #s: 17, A-1, A-2, A-9	February	Additive	8.35						0.22				
	March	Additive	9.92						0.31				
	April	Additive	10.96						0.40				
	May	Additive	12.42						0.53				
	June	Additive	11.76						0.58				
	July	Additive	12.19						0.64				
	August	Additive	11.54						0.59				
	September	Additive	10.31						0.47				
	October	Additive	10.82						0.40				
	November	Additive	9.43						0.30				
	December	Additive	8.36						0.22				
	Total (lbs/yr)		130.8606						4.81			0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	LSD	0.45	0.00			0.00	0.00	0.00		0.00	0.00	
Tank 19	February	LSD	0.31	0.00			0.00	0.00	0.00		0.00	0.00	
	March	LSD	0.65	0.00			0.00	0.01	0.00		0.00	0.00	
	April	LSD	0.66	0.00			0.00	0.01	0.00		0.00	0.00	
	May	LSD	0.53	0.00			0.00	0.01	0.00		0.00	0.00	
	June	LSD	0.47	0.00			0.00	0.01	0.00		0.00	0.01	
	July	LSD	0.51	0.00			0.00	0.01	0.00		0.00	0.01	
	August	LSD	0.47	0.00			0.00	0.01	0.00		0.00	0.01	
	September	LSD	0.45	0.00			0.00	0.01	0.00		0.00	0.00	
	October	LSD	0.44	0.00			0.00	0.00	0.00		0.00	0.00	
	November	LSD	0.37	0.00			0.00	0.00	0.00		0.00	0.00	
	December	LSD	0.33	0.00			0.00	0.00	0.00		0.00	0.00	
	Total (lbs/yr)		5.64	0.00	0.00	0.00	0.02	0.06	0.00	0.00	0.00	0.05	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	Ethanol	2.73										
Tank 13	February	Ethanol	2.71										
	March	Ethanol	2.48										
	April	Ethanol	2.83										
	May	Ethanol	3.81										
	June	Ethanol	3.40										
	July	Ethanol	4.09										
	August	Ethanol	4.01										
	September	Ethanol	3.13										
	October	Ethanol	3.70										
	November	Ethanol	3.70										
	December	Ethanol	3.29										
	Total (lbs/yr)		39.89	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January	Ethanol	2.93										
Tank 16	February	Ethanol	2.91										
	March	Ethanol	2.66										
	April	Ethanol	3.04										
	May	Ethanol	4.09										
	June	Ethanol	3.65										
	July	Ethanol	4.38										
	August	Ethanol	4.30										
	September	Ethanol	3.36										
	October	Ethanol	3.97										
	November	Ethanol	3.96										
	December	Ethanol	3.52										
	Total (lbs/yr)		42.78	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January												
	February												
	March												
	April												
	May												
	June												
	July												
	August												
	September												
	October												
	November												
	December												
	Total (lbs/yr)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

*Not HAPS, but needed for SARA 313 reports

All Units in lbs

Source #	Month	Product	Total VOC (lbs/mo)	Benzene (71-43-2)	Cumene (98-82-8)	Naphthalene (91-20-3)	Toluene (108-88-3)	Xylene (1330-20-7)	Ethyl-benzene (100-41-4)	Isooctane (540841)	n-Hexane (110-54-3)	1,2,4 Trimethylbenzene* (lbs/mo)	cyclohexane* (lbs/mo)
Source #	January												
	February												
	March												
	April												
	May												
	June												
	July												
	August												
	September												
	October												
	November												
	December												
	Total (lbs/yr)		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Balt 11
City:	Baltimore
State:	Maryland
Company:	Sunoco Partners M&T, L.P.
Type of Tank:	Internal Floating Roof Tank
Description:	Tk 11 PTE

Tank Dimensions

Diameter (ft):	114.00
Volume (gallons):	2,074,800.00
Turnovers:	100.00
Self Supp. Roof? (y/n):	N
No. of Columns:	7.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Vapor-mounted
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical	
Deck Type:	Bolted	
Construction:	Sheet	
Deck Seam:	Sheet: 5 Ft Wide	
Deck Seam Len. (ft):		2,041.41

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Ungask.	7
Ladder Well (36-in. Diam.)/Sliding Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	39
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Stub Drain (1-in. Diameter)/Slit Fabric Seal 10% Open	104
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Baltimore, Maryland (Avg Atmospheric Pressure = 14.67 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Balt 11 - Internal Floating Roof Tank
Baltimore, Maryland

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 15)	Jan	45.74	41.93	49.54	55.11	6.2649	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0113	N/A	N/A	120.1900	0.0170	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.7756	N/A	N/A	78.1100	0.0043	0.0008	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8123	N/A	N/A	84.1600	0.0016	0.0003	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0649	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3035	N/A	N/A	86.1700	0.0135	0.0043	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3128	N/A	N/A	114.2200	0.0837	0.0064	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0294	N/A	N/A	120.2000	0.0050	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0001	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2085	N/A	N/A	92.1300	0.0890	0.0045	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.4766	N/A	N/A	59.5898	0.6998	0.9824	88.07	
Xylene (Mixed Isomers)						0.0538	N/A	N/A	106.1700	0.0740	0.0010	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 15)	Feb	47.39	43.11	51.68	55.11	6.4627	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0121	N/A	N/A	120.1900	0.0170	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.8145	N/A	N/A	78.1100	0.0043	0.0008	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8521	N/A	N/A	84.1600	0.0016	0.0003	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0690	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3648	N/A	N/A	86.1700	0.0135	0.0044	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3416	N/A	N/A	114.2200	0.0837	0.0068	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0314	N/A	N/A	120.2000	0.0050	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0001	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2203	N/A	N/A	92.1300	0.0890	0.0047	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.7410	N/A	N/A	59.5740	0.6998	0.9818	88.07	
Xylene (Mixed Isomers)						0.0572	N/A	N/A	106.1700	0.0740	0.0010	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5)	Mar	51.90	46.85	56.94	55.11	6.2429	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0147	N/A	N/A	120.1900	0.0170	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.9287	N/A	N/A	78.1100	0.0043	0.0009	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9686	N/A	N/A	84.1600	0.0016	0.0004	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0814	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.5435	N/A	N/A	86.1700	0.0135	0.0050	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.4236	N/A	N/A	114.2200	0.0837	0.0084	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0375	N/A	N/A	120.2000	0.0050	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0001	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2553	N/A	N/A	92.1300	0.0890	0.0054	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.4228	N/A	N/A	61.5007	0.6998	0.9784	88.07	
Xylene (Mixed Isomers)						0.0676	N/A	N/A	106.1700	0.0740	0.0012	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Apr	56.44	50.67	62.22	55.11	3.9433	N/A	N/A	68.0000			92.00	Option 1: VP50 = 3.444 VP60 = 4.2188
1,2,4-Trimethylbenzene						0.0177	N/A	N/A	120.1900	0.0190	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
2,2,4-Trimethylpentane						0.5372	N/A	N/A	114.2300	0.0874	0.0161	114.23	Option 2: A=6.8118, B=1257.84, C=220.74
Benzene						1.0573	N/A	N/A	78.1100	0.0037	0.0013	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.0993	N/A	N/A	84.1600	0.0009	0.0003	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0958	N/A	N/A	106.1700	0.0130	0.0004	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.7430	N/A	N/A	86.1700	0.0092	0.0055	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isopropyl benzene						0.0447	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78

napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2953	N/A	N/A	92.1300	0.0810	0.0082	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.2269	N/A	N/A	67.2298	0.7038	0.9658	87.86	
Xylene (Mixed Isomers)						0.0797	N/A	N/A	106.1700	0.0800	0.0022	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	May	61.15	55.14	67.15	55.11	4.3231	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0214	N/A	N/A	120.1900	0.0190	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
2,2,4-Trimethylpentane						0.6156	N/A	N/A	114.2300	0.0874	0.0168	114.23	Option 2: A=6.8118, B=1257.84, C=220.74
Benzene						1.2055	N/A	N/A	78.1100	0.0037	0.0014	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.2495	N/A	N/A	84.1600	0.0009	0.0004	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1129	N/A	N/A	106.1700	0.0130	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.9712	N/A	N/A	86.1700	0.0092	0.0057	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isopropyl benzene						0.0534	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3421	N/A	N/A	92.1300	0.0810	0.0087	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.7237	N/A	N/A	67.1911	0.7038	0.9641	87.86	
Xylene (Mixed Isomers)						0.0941	N/A	N/A	106.1700	0.0800	0.0024	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Jun	65.39	59.21	71.57	55.11	4.7089	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0253	N/A	N/A	120.1900	0.0190	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
2,2,4-Trimethylpentane						0.6944	N/A	N/A	114.2300	0.0874	0.0174	114.23	Option 2: A=6.8118, B=1257.84, C=220.74
Benzene						1.3536	N/A	N/A	78.1100	0.0037	0.0014	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.3992	N/A	N/A	84.1600	0.0009	0.0004	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1306	N/A	N/A	106.1700	0.0130	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.1976	N/A	N/A	86.1700	0.0092	0.0058	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isopropyl benzene						0.0624	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3896	N/A	N/A	92.1300	0.0810	0.0091	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						6.2287	N/A	N/A	67.1590	0.7038	0.9627	87.86	
Xylene (Mixed Isomers)						0.1090	N/A	N/A	106.1700	0.0800	0.0025	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Jul	67.30	61.36	73.25	55.11	4.8832	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0272	N/A	N/A	120.1900	0.0260	0.0002	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.4252	N/A	N/A	78.1100	0.0042	0.0017	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4716	N/A	N/A	84.1600	0.0006	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1393	N/A	N/A	106.1700	0.0190	0.0007	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.3066	N/A	N/A	86.1700	0.0116	0.0074	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7495	N/A	N/A	114.2200	0.0557	0.0116	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0669	N/A	N/A	120.2000	0.0140	0.0003	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.4129	N/A	N/A	92.1300	0.1220	0.0140	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.0994	N/A	N/A	67.1647	0.6319	0.9603	86.93	
Xylene (Mixed Isomers)						0.1163	N/A	N/A	106.1700	0.1140	0.0037	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Aug	66.37	60.81	71.92	55.11	4.7981	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0263	N/A	N/A	120.1900	0.0260	0.0002	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.3899	N/A	N/A	78.1100	0.0042	0.0016	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4359	N/A	N/A	84.1600	0.0006	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1350	N/A	N/A	106.1700	0.0190	0.0007	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.2528	N/A	N/A	86.1700	0.0116	0.0074	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7278	N/A	N/A	114.2200	0.0557	0.0114	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0647	N/A	N/A	120.2000	0.0140	0.0003	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.4014	N/A	N/A	92.1300	0.1220	0.0138	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						6.9778	N/A	N/A	67.1741	0.6319	0.9607	86.93	
Xylene (Mixed Isomers)						0.1127	N/A	N/A	106.1700	0.1140	0.0036	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Sep	62.84	57.57	68.11	55.11	4.4775	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0229	N/A	N/A	120.1900	0.0260	0.0002	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.2630	N/A	N/A	78.1100	0.0042	0.0016	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.3078	N/A	N/A	84.1600	0.0006	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1197	N/A	N/A	106.1700	0.0190	0.0007	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.0594	N/A	N/A	86.1700	0.0116	0.0072	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.6460	N/A	N/A	114.2200	0.0557	0.0109	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0568	N/A	N/A	120.2000	0.0140	0.0002	120.20	Option 2: A=6.963, B=1460.793, C=207.78

napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3605	N/A	N/A	92.1300	0.1220	0.0133	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						6.5183	N/A	N/A	67.2093	0.6319	0.9622	86.93	
Xylene (Mixed Isomers)						0.0998	N/A	N/A	106.1700	0.1140	0.0034	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5) 4th Qrt	Oct	57.17	52.07	62.27	55.11	6.9033	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0182	N/A	N/A	120.1900	0.0130	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.0792	N/A	N/A	78.1100	0.0028	0.0006	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.1215	N/A	N/A	84.1600	0.0011	0.0003	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0983	N/A	N/A	106.1700	0.0120	0.0003	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.7768	N/A	N/A	86.1700	0.0089	0.0034	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.5254	N/A	N/A	114.2200	0.1070	0.0121	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0459	N/A	N/A	120.2000	0.0030	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.3021	N/A	N/A	92.1300	0.0850	0.0055	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						9.4651	N/A	N/A	61.4183	0.6822	0.9763	87.32	
Xylene (Mixed Isomers)						0.0818	N/A	N/A	106.1700	0.0840	0.0015	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5) 4th Qrt	Nov	52.40	48.07	56.74	55.11	6.3063	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0150	N/A	N/A	120.1900	0.0130	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.9424	N/A	N/A	78.1100	0.0028	0.0006	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9825	N/A	N/A	84.1600	0.0011	0.0003	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0829	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.5647	N/A	N/A	86.1700	0.0089	0.0033	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.4334	N/A	N/A	114.2200	0.1070	0.0109	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0382	N/A	N/A	120.2000	0.0030	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2595	N/A	N/A	92.1300	0.0850	0.0052	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.6559	N/A	N/A	61.4659	0.6822	0.9781	87.32	
Xylene (Mixed Isomers)						0.0689	N/A	N/A	106.1700	0.0840	0.0014	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 15) 4th Qrt	Dec	47.76	44.03	51.49	55.11	6.5070	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0123	N/A	N/A	120.1900	0.0130	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.8235	N/A	N/A	78.1100	0.0028	0.0005	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8612	N/A	N/A	84.1600	0.0011	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0700	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3789	N/A	N/A	86.1700	0.0089	0.0029	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3481	N/A	N/A	114.2200	0.1070	0.0088	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0319	N/A	N/A	120.2000	0.0030	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2230	N/A	N/A	92.1300	0.0850	0.0045	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.9542	N/A	N/A	59.5506	0.6822	0.9817	87.32	
Xylene (Mixed Isomers)						0.0580	N/A	N/A	106.1700	0.0840	0.0011	106.17	Option 2: A=7.009, B=1462.266, C=215.11

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

Balt 11 - Internal Floating Roof Tank
Baltimore, Maryland

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15)	354.17	60.72	1,279.54	513.86	2,208.29
1,2,4-Trimethylbenzene	0.02	1.03	0.06	0.02	1.14
Benzene	0.29	0.26	1.05	0.42	2.03
Cyclohexane	0.11	0.10	0.41	0.16	0.79
Ethylbenzene	0.07	0.73	0.25	0.10	1.14
Hexane (-n)	1.54	0.82	5.55	2.23	10.14
Isooctane	2.34	5.08	8.44	3.39	19.26
Isopropyl benzene	0.01	0.30	0.05	0.02	0.38
napthalene	0.00	0.01	0.00	0.00	0.01
Toluene	1.63	5.40	5.88	2.36	15.28
Unidentified Components	347.81	42.49	1,256.58	504.64	2,151.52
Xylene (Mixed Isomers)	0.35	4.49	1.27	0.51	6.62
Gasoline (RVP 13.5)	178.38	30.36	644.44	258.81	1,111.98
1,2,4-Trimethylbenzene	0.01	0.52	0.04	0.02	0.58
Benzene	0.17	0.13	0.61	0.25	1.16
Cyclohexane	0.07	0.05	0.24	0.10	0.45
Ethylbenzene	0.04	0.36	0.15	0.06	0.62
Hexane (-n)	0.88	0.41	3.19	1.28	5.77
Isooctane	1.50	2.54	5.43	2.18	11.66
Isopropyl benzene	0.01	0.15	0.03	0.01	0.20
napthalene	0.00	0.00	0.00	0.00	0.00
Toluene	0.96	2.70	3.48	1.40	8.54
Unidentified Components	174.52	21.25	630.51	253.21	1,079.48
Xylene (Mixed Isomers)	0.21	2.25	0.77	0.31	3.53
Gasoline (RVP 08.3)	371.73	91.08	1,342.99	539.34	2,345.14
1,2,4-Trimethylbenzene	0.05	1.73	0.17	0.07	2.02
2,2,4-Trimethylpentane	6.26	7.96	22.62	9.08	45.92

Benzene	0.52	0.34	1.87	0.75	3.48
Cyclohexane	0.13	0.08	0.47	0.19	0.88
Ethylbenzene	0.17	1.18	0.62	0.25	2.22
Hexane (-n)	2.11	0.84	7.62	3.06	13.62
Isopropyl benzene	0.01	0.09	0.02	0.01	0.13
napthalene	0.00	0.09	0.00	0.00	0.09
Toluene	3.23	7.38	11.66	4.68	26.94
Unidentified Components	358.38	64.10	1,294.77	519.98	2,237.23
Xylene (Mixed Isomers)	0.88	7.29	3.17	1.27	12.61
Gasoline (RVP 08.3) 3rd Qrt	412.50	91.08	1,490.28	598.49	2,592.35
1,2,4-Trimethylbenzene	0.08	2.37	0.28	0.11	2.84
Benzene	0.68	0.38	2.44	0.98	4.48
Cyclohexane	0.10	0.05	0.36	0.14	0.66
Ethylbenzene	0.30	1.73	1.07	0.43	3.52
Hexane (-n)	3.03	1.06	10.93	4.39	19.41
Isooctane	4.66	5.07	16.84	6.76	33.34
Isopropyl benzene	0.10	1.28	0.38	0.15	1.91
napthalene	0.00	0.09	0.00	0.00	0.09
Toluene	5.65	11.11	20.41	8.20	45.37
Unidentified Components	396.43	57.55	1,432.22	575.18	2,461.39
Xylene (Mixed Isomers)	1.48	10.38	5.34	2.14	19.34
Gasoline (RVP 13.5) 4th Qrt	385.00	60.72	1,390.95	558.60	2,395.27
1,2,4-Trimethylbenzene	0.02	0.79	0.07	0.03	0.90
Benzene	0.24	0.17	0.88	0.36	1.65
Cyclohexane	0.10	0.07	0.36	0.15	0.67
Ethylbenzene	0.09	0.73	0.34	0.14	1.30
Hexane (-n)	1.29	0.54	4.65	1.87	8.34
Isooctane	4.44	6.50	16.04	6.44	33.42
Isopropyl benzene	0.01	0.18	0.04	0.02	0.25
napthalene	0.00	0.06	0.00	0.00	0.06
Toluene	2.07	5.16	7.46	3.00	17.69
Unidentified Components	376.19	41.42	1,359.12	545.82	2,322.56
Xylene (Mixed Isomers)	0.55	5.10	1.98	0.79	8.42
Gasoline (RVP 15) 4th Qrt	182.40	30.36	658.99	264.65	1,136.40
1,2,4-Trimethylbenzene	0.01	0.39	0.02	0.01	0.44
Benzene	0.10	0.09	0.36	0.14	0.69
Cyclohexane	0.04	0.03	0.15	0.06	0.28
Ethylbenzene	0.04	0.36	0.13	0.05	0.58

Hexane (-n)	0.53	0.27	1.91	0.77	3.47
Isooctane	1.60	3.25	5.78	2.32	12.96
Isopropyl benzene	0.00	0.09	0.01	0.01	0.12
napthalene	0.00	0.03	0.00	0.00	0.03
Toluene	0.81	2.58	2.94	1.18	7.52
Unidentified Components	179.06	20.71	646.92	259.80	1,106.50
Xylene (Mixed Isomers)	0.21	2.55	0.76	0.30	3.82

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Balt 12
City:	Baltimore
State:	Maryland
Company:	Sunoco Partners M&T, L.P.
Type of Tank:	Domed External Floating Roof Tank
Description:	Tk 12 PTE

Tank Dimensions

Diameter (ft):	78.00
Volume (gallons):	1,629,600.00
Turnovers:	100.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good

Roof Characteristics

Type:	Pontoon
Fitting Category	Typical

Tank Construction and Rim-Seal System

Construction:	Welded
Primary Seal:	Mechanical Shoe
Secondary Seal	Rim-mounted

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Unslotted Guide-Pole Well/Ungasketed Sliding Cover	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Ungasketed	15
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Ungasketed	10
Rim Vent (6-in. Diameter)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Baltimore, Maryland (Avg Atmospheric Pressure = 14.67 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Balt 12 - Domed External Floating Roof Tank
Baltimore, Maryland

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 15)	Jan	45.74	41.93	49.54	55.11	6.2649	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0113	N/A	N/A	120.1900	0.0170	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.7756	N/A	N/A	78.1100	0.0043	0.0008	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8123	N/A	N/A	84.1600	0.0016	0.0003	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0649	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3035	N/A	N/A	86.1700	0.0135	0.0043	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3128	N/A	N/A	114.2200	0.0837	0.0064	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0294	N/A	N/A	120.2000	0.0050	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0001	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2085	N/A	N/A	92.1300	0.0890	0.0045	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.4766	N/A	N/A	59.5898	0.6998	0.9824	88.07	
Xylene (Mixed Isomers)						0.0538	N/A	N/A	106.1700	0.0740	0.0010	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 15)	Feb	47.39	43.11	51.68	55.11	6.4627	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0121	N/A	N/A	120.1900	0.0170	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.8145	N/A	N/A	78.1100	0.0043	0.0008	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8521	N/A	N/A	84.1600	0.0016	0.0003	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0690	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3648	N/A	N/A	86.1700	0.0135	0.0044	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3416	N/A	N/A	114.2200	0.0837	0.0068	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0314	N/A	N/A	120.2000	0.0050	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0001	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2203	N/A	N/A	92.1300	0.0890	0.0047	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.7410	N/A	N/A	59.5740	0.6998	0.9818	88.07	
Xylene (Mixed Isomers)						0.0572	N/A	N/A	106.1700	0.0740	0.0010	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5)	Mar	51.90	46.85	56.94	55.11	6.2429	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0147	N/A	N/A	120.1900	0.0170	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.9287	N/A	N/A	78.1100	0.0043	0.0009	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9686	N/A	N/A	84.1600	0.0016	0.0004	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0814	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.5435	N/A	N/A	86.1700	0.0135	0.0050	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.4236	N/A	N/A	114.2200	0.0837	0.0084	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0375	N/A	N/A	120.2000	0.0050	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0001	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2553	N/A	N/A	92.1300	0.0890	0.0054	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.4228	N/A	N/A	61.5007	0.6998	0.9784	88.07	
Xylene (Mixed Isomers)						0.0676	N/A	N/A	106.1700	0.0740	0.0012	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Apr	56.44	50.67	62.22	55.11	3.9433	N/A	N/A	68.0000			92.00	Option 1: VP50 = 3.444 VP60 = 4.2188
1,2,4-Trimethylbenzene						0.0177	N/A	N/A	120.1900	0.0190	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
2,2,4-Trimethylpentane						0.5372	N/A	N/A	114.2300	0.0874	0.0161	114.23	Option 2: A=6.8118, B=1257.84, C=220.74
Benzene						1.0573	N/A	N/A	78.1100	0.0037	0.0013	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.0993	N/A	N/A	84.1600	0.0009	0.0003	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0958	N/A	N/A	106.1700	0.0130	0.0004	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.7430	N/A	N/A	86.1700	0.0092	0.0055	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isopropyl benzene						0.0447	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78

napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2953	N/A	N/A	92.1300	0.0810	0.0082	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.2269	N/A	N/A	67.2298	0.7038	0.9658	87.86	
Xylene (Mixed Isomers)						0.0797	N/A	N/A	106.1700	0.0800	0.0022	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	May	61.15	55.14	67.15	55.11	4.3231	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0214	N/A	N/A	120.1900	0.0190	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
2,2,4-Trimethylpentane						0.6156	N/A	N/A	114.2300	0.0874	0.0168	114.23	Option 2: A=6.8118, B=1257.84, C=220.74
Benzene						1.2055	N/A	N/A	78.1100	0.0037	0.0014	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.2495	N/A	N/A	84.1600	0.0009	0.0004	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1129	N/A	N/A	106.1700	0.0130	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.9712	N/A	N/A	86.1700	0.0092	0.0057	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isopropyl benzene						0.0534	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3421	N/A	N/A	92.1300	0.0810	0.0087	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.7237	N/A	N/A	67.1911	0.7038	0.9641	87.86	
Xylene (Mixed Isomers)						0.0941	N/A	N/A	106.1700	0.0800	0.0024	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Jun	65.39	59.21	71.57	55.11	4.7089	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0253	N/A	N/A	120.1900	0.0190	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
2,2,4-Trimethylpentane						0.6944	N/A	N/A	114.2300	0.0874	0.0174	114.23	Option 2: A=6.8118, B=1257.84, C=220.74
Benzene						1.3536	N/A	N/A	78.1100	0.0037	0.0014	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.3992	N/A	N/A	84.1600	0.0009	0.0004	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1306	N/A	N/A	106.1700	0.0130	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.1976	N/A	N/A	86.1700	0.0092	0.0058	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isopropyl benzene						0.0624	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3896	N/A	N/A	92.1300	0.0810	0.0091	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						6.2287	N/A	N/A	67.1590	0.7038	0.9627	87.86	
Xylene (Mixed Isomers)						0.1090	N/A	N/A	106.1700	0.0800	0.0025	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Jul	67.30	61.36	73.25	55.11	4.8832	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0272	N/A	N/A	120.1900	0.0260	0.0002	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.4252	N/A	N/A	78.1100	0.0042	0.0017	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4716	N/A	N/A	84.1600	0.0006	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1393	N/A	N/A	106.1700	0.0190	0.0007	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.3066	N/A	N/A	86.1700	0.0116	0.0074	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7495	N/A	N/A	114.2200	0.0557	0.0116	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0669	N/A	N/A	120.2000	0.0140	0.0003	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.4129	N/A	N/A	92.1300	0.1220	0.0140	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.0994	N/A	N/A	67.1647	0.6319	0.9603	86.93	
Xylene (Mixed Isomers)						0.1163	N/A	N/A	106.1700	0.1140	0.0037	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Aug	66.37	60.81	71.92	55.11	4.7981	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0263	N/A	N/A	120.1900	0.0260	0.0002	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.3899	N/A	N/A	78.1100	0.0042	0.0016	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4359	N/A	N/A	84.1600	0.0006	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1350	N/A	N/A	106.1700	0.0190	0.0007	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.2528	N/A	N/A	86.1700	0.0116	0.0074	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7278	N/A	N/A	114.2200	0.0557	0.0114	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0647	N/A	N/A	120.2000	0.0140	0.0003	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.4014	N/A	N/A	92.1300	0.1220	0.0138	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						6.9778	N/A	N/A	67.1741	0.6319	0.9607	86.93	
Xylene (Mixed Isomers)						0.1127	N/A	N/A	106.1700	0.1140	0.0036	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Sep	62.84	57.57	68.11	55.11	4.4775	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0229	N/A	N/A	120.1900	0.0260	0.0002	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.2630	N/A	N/A	78.1100	0.0042	0.0016	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.3078	N/A	N/A	84.1600	0.0006	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1197	N/A	N/A	106.1700	0.0190	0.0007	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.0594	N/A	N/A	86.1700	0.0116	0.0072	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.6460	N/A	N/A	114.2200	0.0557	0.0109	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0568	N/A	N/A	120.2000	0.0140	0.0002	120.20	Option 2: A=6.963, B=1460.793, C=207.78

napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3605	N/A	N/A	92.1300	0.1220	0.0133	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						6.5183	N/A	N/A	67.2093	0.6319	0.9622	86.93	
Xylene (Mixed Isomers)						0.0998	N/A	N/A	106.1700	0.1140	0.0034	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5) 4th Qrt	Oct	57.17	52.07	62.27	55.11	6.9033	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0182	N/A	N/A	120.1900	0.0130	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.0792	N/A	N/A	78.1100	0.0028	0.0006	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.1215	N/A	N/A	84.1600	0.0011	0.0003	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0983	N/A	N/A	106.1700	0.0120	0.0003	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.7768	N/A	N/A	86.1700	0.0089	0.0034	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.5254	N/A	N/A	114.2200	0.1070	0.0121	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0459	N/A	N/A	120.2000	0.0030	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.3021	N/A	N/A	92.1300	0.0850	0.0055	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						9.4651	N/A	N/A	61.4183	0.6822	0.9763	87.32	
Xylene (Mixed Isomers)						0.0818	N/A	N/A	106.1700	0.0840	0.0015	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5) 4th Qrt	Nov	52.40	48.07	56.74	55.11	6.3063	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0150	N/A	N/A	120.1900	0.0130	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.9424	N/A	N/A	78.1100	0.0028	0.0006	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9825	N/A	N/A	84.1600	0.0011	0.0003	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0829	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.5647	N/A	N/A	86.1700	0.0089	0.0033	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.4334	N/A	N/A	114.2200	0.1070	0.0109	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0382	N/A	N/A	120.2000	0.0030	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2595	N/A	N/A	92.1300	0.0850	0.0052	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.6559	N/A	N/A	61.4659	0.6822	0.9781	87.32	
Xylene (Mixed Isomers)						0.0689	N/A	N/A	106.1700	0.0840	0.0014	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 15) 4th Qrt	Dec	47.76	44.03	51.49	55.11	6.5070	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0123	N/A	N/A	120.1900	0.0130	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.8235	N/A	N/A	78.1100	0.0028	0.0005	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8612	N/A	N/A	84.1600	0.0011	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0700	N/A	N/A	106.1700	0.0120	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3789	N/A	N/A	86.1700	0.0089	0.0029	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3481	N/A	N/A	114.2200	0.1070	0.0088	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0319	N/A	N/A	120.2000	0.0030	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2230	N/A	N/A	92.1300	0.0850	0.0045	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.9542	N/A	N/A	59.5506	0.6822	0.9817	87.32	
Xylene (Mixed Isomers)						0.0580	N/A	N/A	106.1700	0.0840	0.0011	106.17	Option 2: A=7.009, B=1462.266, C=215.11

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

Balt 12 - Domed External Floating Roof Tank
Baltimore, Maryland

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15)	66.09	65.67	130.17	0.00	261.93
1,2,4-Trimethylbenzene	0.00	1.12	0.01	0.00	1.13
Benzene	0.05	0.28	0.11	0.00	0.44
Cyclohexane	0.02	0.11	0.04	0.00	0.17
Ethylbenzene	0.01	0.79	0.03	0.00	0.83
Hexane (-n)	0.29	0.89	0.56	0.00	1.74
Isooctane	0.44	5.50	0.86	0.00	6.79
Isopropyl benzene	0.00	0.33	0.00	0.00	0.34
napthalene	0.00	0.01	0.00	0.00	0.01
Toluene	0.30	5.84	0.60	0.00	6.75
Unidentified Components	64.90	45.96	127.83	0.00	238.69
Xylene (Mixed Isomers)	0.07	4.86	0.13	0.00	5.05
Gasoline (RVP 13.5)	33.29	32.84	65.56	0.00	131.68
1,2,4-Trimethylbenzene	0.00	0.56	0.00	0.00	0.56
Benzene	0.03	0.14	0.06	0.00	0.24
Cyclohexane	0.01	0.05	0.02	0.00	0.09
Ethylbenzene	0.01	0.39	0.02	0.00	0.42
Hexane (-n)	0.16	0.44	0.32	0.00	0.93
Isooctane	0.28	2.75	0.55	0.00	3.58
Isopropyl benzene	0.00	0.16	0.00	0.00	0.17
napthalene	0.00	0.00	0.00	0.00	0.00
Toluene	0.18	2.92	0.35	0.00	3.46
Unidentified Components	32.57	22.98	64.14	0.00	119.69
Xylene (Mixed Isomers)	0.04	2.43	0.08	0.00	2.55
Gasoline (RVP 08.3)	69.37	98.51	136.63	0.00	304.50
1,2,4-Trimethylbenzene	0.01	1.87	0.02	0.00	1.90
2,2,4-Trimethylpentane	1.17	8.61	2.30	0.00	12.08

Benzene	0.10	0.36	0.19	0.00	0.65
Cyclohexane	0.02	0.09	0.05	0.00	0.16
Ethylbenzene	0.03	1.28	0.06	0.00	1.38
Hexane (-n)	0.39	0.91	0.78	0.00	2.07
Isopropyl benzene	0.00	0.10	0.00	0.00	0.10
napthalene	0.00	0.10	0.00	0.00	0.10
Toluene	0.60	7.98	1.19	0.00	9.77
Unidentified Components	66.87	69.33	131.72	0.00	267.92
Xylene (Mixed Isomers)	0.16	7.88	0.32	0.00	8.37
Gasoline (RVP 08.3) 3rd Qrt	76.97	98.51	151.61	0.00	327.09
1,2,4-Trimethylbenzene	0.01	2.56	0.03	0.00	2.60
Benzene	0.13	0.41	0.25	0.00	0.79
Cyclohexane	0.02	0.06	0.04	0.00	0.11
Ethylbenzene	0.06	1.87	0.11	0.00	2.04
Hexane (-n)	0.56	1.14	1.11	0.00	2.82
Isooctane	0.87	5.49	1.71	0.00	8.07
Isopropyl benzene	0.02	1.38	0.04	0.00	1.44
napthalene	0.00	0.10	0.00	0.00	0.10
Toluene	1.05	12.02	2.08	0.00	15.15
Unidentified Components	73.97	62.25	145.70	0.00	281.93
Xylene (Mixed Isomers)	0.28	11.23	0.54	0.00	12.05
Gasoline (RVP 13.5) 4th Qrt	71.84	65.67	141.50	0.00	279.02
1,2,4-Trimethylbenzene	0.00	0.85	0.01	0.00	0.86
Benzene	0.05	0.18	0.09	0.00	0.32
Cyclohexane	0.02	0.07	0.04	0.00	0.13
Ethylbenzene	0.02	0.79	0.03	0.00	0.84
Hexane (-n)	0.24	0.58	0.47	0.00	1.30
Isooctane	0.83	7.03	1.63	0.00	9.49
Isopropyl benzene	0.00	0.20	0.00	0.00	0.20
napthalene	0.00	0.07	0.00	0.00	0.07
Toluene	0.39	5.58	0.76	0.00	6.73
Unidentified Components	70.20	44.80	138.27	0.00	253.27
Xylene (Mixed Isomers)	0.10	5.52	0.20	0.00	5.82
Gasoline (RVP 15) 4th Qrt	34.04	32.84	67.04	0.00	133.91
1,2,4-Trimethylbenzene	0.00	0.43	0.00	0.00	0.43
Benzene	0.02	0.09	0.04	0.00	0.15
Cyclohexane	0.01	0.04	0.01	0.00	0.06
Ethylbenzene	0.01	0.39	0.01	0.00	0.41

Hexane (-n)	0.10	0.29	0.19	0.00	0.58
Isooctane	0.30	3.51	0.59	0.00	4.40
Isopropyl benzene	0.00	0.10	0.00	0.00	0.10
napthalene	0.00	0.03	0.00	0.00	0.03
Toluene	0.15	2.79	0.30	0.00	3.24
Unidentified Components	33.41	22.40	65.81	0.00	121.63
Xylene (Mixed Isomers)	0.04	2.76	0.08	0.00	2.87

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Balt 4
City:	Baltimore
State:	Maryland
Company:	Sunoco Partners M&T, L.P.
Type of Tank:	Domed External Floating Roof Tank
Description:	Tk 4 PTE

Tank Dimensions

Diameter (ft):	120.00
Volume (gallons):	3,885,000.00
Turnovers:	100.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good

Roof Characteristics

Type:	Pontoon
Fitting Category	Typical

Tank Construction and Rim-Seal System

Construction:	Welded
Primary Seal:	Vapor-mounted
Secondary Seal	Rim-mounted

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Bolted Cover, Gasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Unslotted Guide-Pole Well/Ungasketed Sliding Cover	1
Gauge-Hatch/Sample Well (8-in. Diam.)/Weighted Mech. Actuation, Gask.	1
Roof Leg (3-in. Diameter)/Adjustable, Pontoon Area, Ungasketed	19
Roof Leg (3-in. Diameter)/Adjustable, Center Area, Ungasketed	24

Meterological Data used in Emissions Calculations: Baltimore, Maryland (Avg Atmospheric Pressure = 14.67 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Balt 4 - Domed External Floating Roof Tank
Baltimore, Maryland

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 15)	Jan	45.74	41.93	49.54	55.11	6.2649	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0113	N/A	N/A	120.1900	0.0150	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.7756	N/A	N/A	78.1100	0.0056	0.0011	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8123	N/A	N/A	84.1600	0.0085	0.0017	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0649	N/A	N/A	106.1700	0.0070	0.0001	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3035	N/A	N/A	86.1700	0.0428	0.0137	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3128	N/A	N/A	114.2200	0.0467	0.0036	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0294	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0020	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2085	N/A	N/A	92.1300	0.0330	0.0017	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.6274	N/A	N/A	59.5436	0.7934	0.9776	90.21	
Xylene (Mixed Isomers)						0.0538	N/A	N/A	106.1700	0.0450	0.0006	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 15)	Feb	47.39	43.11	51.68	55.11	6.4627	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0121	N/A	N/A	120.1900	0.0150	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.8145	N/A	N/A	78.1100	0.0056	0.0011	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8521	N/A	N/A	84.1600	0.0085	0.0017	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0690	N/A	N/A	106.1700	0.0070	0.0001	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3648	N/A	N/A	86.1700	0.0428	0.0139	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3416	N/A	N/A	114.2200	0.0467	0.0038	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0314	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0020	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2203	N/A	N/A	92.1300	0.0330	0.0017	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.8656	N/A	N/A	59.5313	0.7934	0.9771	90.21	
Xylene (Mixed Isomers)						0.0572	N/A	N/A	106.1700	0.0450	0.0006	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5)	Mar	51.90	46.85	56.94	55.11	6.2429	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0147	N/A	N/A	120.1900	0.0150	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.9287	N/A	N/A	78.1100	0.0056	0.0012	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9686	N/A	N/A	84.1600	0.0085	0.0020	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0814	N/A	N/A	106.1700	0.0070	0.0001	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.5435	N/A	N/A	86.1700	0.0428	0.0157	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.4236	N/A	N/A	114.2200	0.0467	0.0047	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0375	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0020	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2553	N/A	N/A	92.1300	0.0330	0.0020	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.5757	N/A	N/A	61.4717	0.7934	0.9735	90.21	
Xylene (Mixed Isomers)						0.0676	N/A	N/A	106.1700	0.0450	0.0007	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Apr	56.44	50.67	62.22	55.11	3.9433	N/A	N/A	68.0000			92.00	Option 1: VP50 = 3.444 VP60 = 4.2188
1,2,4-Trimethylbenzene						0.0177	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.0573	N/A	N/A	78.1100	0.0050	0.0018	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.0993	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0958	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.7430	N/A	N/A	86.1700	0.0264	0.0158	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.5114	N/A	N/A	114.2200	0.0382	0.0067	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0447	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78

napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2953	N/A	N/A	92.1300	0.0230	0.0023	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						4.4317	N/A	N/A	67.4929	0.8590	0.9721	90.68	
Xylene (Mixed Isomers)						0.0797	N/A	N/A	106.1700	0.0300	0.0008	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	May	61.15	55.14	67.15	55.11	4.3231	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0214	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.2055	N/A	N/A	78.1100	0.0050	0.0019	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.2495	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1129	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.9712	N/A	N/A	86.1700	0.0264	0.0163	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.6066	N/A	N/A	114.2200	0.0382	0.0073	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0534	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3421	N/A	N/A	92.1300	0.0230	0.0025	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						4.8538	N/A	N/A	67.4643	0.8590	0.9708	90.68	
Xylene (Mixed Isomers)						0.0941	N/A	N/A	106.1700	0.0300	0.0009	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Jun	65.39	59.21	71.57	55.11	4.7089	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0253	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.3536	N/A	N/A	78.1100	0.0050	0.0019	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.3992	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1306	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.1976	N/A	N/A	86.1700	0.0264	0.0167	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7050	N/A	N/A	114.2200	0.0382	0.0077	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0624	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3896	N/A	N/A	92.1300	0.0230	0.0026	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.2828	N/A	N/A	67.4401	0.8590	0.9697	90.68	
Xylene (Mixed Isomers)						0.1090	N/A	N/A	106.1700	0.0300	0.0009	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Jul	67.30	61.36	73.25	55.11	4.8832	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0272	N/A	N/A	120.1900	0.0200	0.0002	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.4252	N/A	N/A	78.1100	0.0067	0.0026	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4716	N/A	N/A	84.1600	0.0111	0.0045	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1393	N/A	N/A	106.1700	0.0120	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.3066	N/A	N/A	86.1700	0.0373	0.0238	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7495	N/A	N/A	114.2200	0.0215	0.0045	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0669	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0030	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.4129	N/A	N/A	92.1300	0.0490	0.0056	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.9963	N/A	N/A	67.2594	0.7714	0.9561	90.15	
Xylene (Mixed Isomers)						0.1163	N/A	N/A	106.1700	0.0670	0.0022	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Aug	66.37	60.81	71.92	55.11	4.7981	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0263	N/A	N/A	120.1900	0.0200	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.3899	N/A	N/A	78.1100	0.0067	0.0026	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4359	N/A	N/A	84.1600	0.0111	0.0045	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1350	N/A	N/A	106.1700	0.0120	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.2528	N/A	N/A	86.1700	0.0373	0.0237	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7278	N/A	N/A	114.2200	0.0215	0.0044	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0647	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0030	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.4014	N/A	N/A	92.1300	0.0490	0.0055	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.8934	N/A	N/A	67.2659	0.7714	0.9565	90.15	
Xylene (Mixed Isomers)						0.1127	N/A	N/A	106.1700	0.0670	0.0021	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Sep	62.84	57.57	68.11	55.11	4.4775	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0229	N/A	N/A	120.1900	0.0200	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.2630	N/A	N/A	78.1100	0.0067	0.0026	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.3078	N/A	N/A	84.1600	0.0111	0.0044	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1197	N/A	N/A	106.1700	0.0120	0.0004	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.0594	N/A	N/A	86.1700	0.0373	0.0232	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.6460	N/A	N/A	114.2200	0.0215	0.0042	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0568	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78

napthalene						0.0000	N/A	N/A	128.1700	0.0030	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3605	N/A	N/A	92.1300	0.0490	0.0053	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.5046	N/A	N/A	67.2894	0.7714	0.9577	90.15	
Xylene (Mixed Isomers)						0.0998	N/A	N/A	106.1700	0.0670	0.0020	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5) 4th Qrt	Oct	57.17	52.07	62.27	55.11	6.9033	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0182	N/A	N/A	120.1900	0.0120	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.0792	N/A	N/A	78.1100	0.0067	0.0016	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.1215	N/A	N/A	84.1600	0.0077	0.0019	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0983	N/A	N/A	106.1700	0.0100	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.7768	N/A	N/A	86.1700	0.0427	0.0163	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.5254	N/A	N/A	114.2200	0.0205	0.0023	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0459	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.3021	N/A	N/A	92.1300	0.0440	0.0029	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.2989	N/A	N/A	61.5047	0.8064	0.9740	90.84	
Xylene (Mixed Isomers)						0.0818	N/A	N/A	106.1700	0.0480	0.0008	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5) 4th Qrt	Nov	52.40	48.07	56.74	55.11	6.3063	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0150	N/A	N/A	120.1900	0.0120	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.9424	N/A	N/A	78.1100	0.0067	0.0015	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9825	N/A	N/A	84.1600	0.0077	0.0018	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0829	N/A	N/A	106.1700	0.0100	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.5647	N/A	N/A	86.1700	0.0427	0.0157	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.4334	N/A	N/A	114.2200	0.0205	0.0021	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0382	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2595	N/A	N/A	92.1300	0.0440	0.0027	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.5876	N/A	N/A	61.5300	0.8064	0.9752	90.84	
Xylene (Mixed Isomers)						0.0689	N/A	N/A	106.1700	0.0480	0.0008	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 15) 4th Qrt	Dec	47.76	44.03	51.49	55.11	6.5070	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0123	N/A	N/A	120.1900	0.0120	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.8235	N/A	N/A	78.1100	0.0067	0.0013	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8612	N/A	N/A	84.1600	0.0077	0.0016	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0700	N/A	N/A	106.1700	0.0100	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3789	N/A	N/A	86.1700	0.0427	0.0139	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3481	N/A	N/A	114.2200	0.0205	0.0017	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0319	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2230	N/A	N/A	92.1300	0.0440	0.0023	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.8505	N/A	N/A	59.5770	0.8064	0.9784	90.84	
Xylene (Mixed Isomers)						0.0580	N/A	N/A	106.1700	0.0480	0.0007	106.17	Option 2: A=7.009, B=1462.266, C=215.11

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

Balt 4 - Domed External Floating Roof Tank
Baltimore, Maryland

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15)	372.81	101.77	156.68	0.00	631.25
1,2,4-Trimethylbenzene	0.02	1.53	0.01	0.00	1.55
Benzene	0.40	0.57	0.17	0.00	1.14
Cyclohexane	0.64	0.87	0.27	0.00	1.77
Ethylbenzene	0.04	0.71	0.02	0.00	0.77
Hexane (-n)	5.13	4.36	2.16	0.00	11.64
Isooctane	1.37	4.75	0.58	0.00	6.70
Isopropyl benzene	0.00	0.10	0.00	0.00	0.11
napthalene	0.00	0.20	0.00	0.00	0.20
Toluene	0.64	3.36	0.27	0.00	4.26
Unidentified Components	364.35	80.74	153.12	0.00	598.21
Xylene (Mixed Isomers)	0.22	4.58	0.09	0.00	4.90
Gasoline (RVP 13.5)	187.76	50.88	78.91	0.00	317.56
1,2,4-Trimethylbenzene	0.01	0.76	0.00	0.00	0.78
Benzene	0.23	0.28	0.10	0.00	0.61
Cyclohexane	0.37	0.43	0.15	0.00	0.95
Ethylbenzene	0.03	0.36	0.01	0.00	0.39
Hexane (-n)	2.95	2.18	1.24	0.00	6.37
Isooctane	0.88	2.38	0.37	0.00	3.63
Isopropyl benzene	0.00	0.05	0.00	0.00	0.05
napthalene	0.00	0.10	0.00	0.00	0.10
Toluene	0.38	1.68	0.16	0.00	2.21
Unidentified Components	182.78	40.37	76.82	0.00	299.97
Xylene (Mixed Isomers)	0.14	2.29	0.06	0.00	2.48
Gasoline (RVP 08.3)	391.29	152.65	164.45	0.00	708.39
1,2,4-Trimethylbenzene	0.03	1.68	0.01	0.00	1.72
Benzene	0.74	0.76	0.31	0.00	1.81

Cyclohexane	0.06	0.06	0.03	0.00	0.15
Ethylbenzene	0.07	0.76	0.03	0.00	0.86
Hexane (-n)	6.37	4.03	2.68	0.00	13.08
Isooctane	2.84	5.83	1.20	0.00	9.87
Isopropyl benzene	0.01	0.15	0.00	0.00	0.16
napthalene	0.00	0.15	0.00	0.00	0.15
Toluene	0.96	3.51	0.41	0.00	4.88
Unidentified Components	379.86	131.12	159.64	0.00	670.63
Xylene (Mixed Isomers)	0.35	4.58	0.15	0.00	5.07
Gasoline (RVP 08.3) 3rd Qrt	434.21	152.65	182.48	0.00	769.34
1,2,4-Trimethylbenzene	0.06	3.05	0.03	0.00	3.14
Benzene	1.13	1.02	0.48	0.00	2.63
Cyclohexane	1.94	1.69	0.82	0.00	4.45
Ethylbenzene	0.20	1.83	0.08	0.00	2.11
Hexane (-n)	10.24	5.69	4.31	0.00	20.24
Isooctane	1.89	3.28	0.80	0.00	5.97
Isopropyl benzene	0.01	0.15	0.00	0.00	0.16
napthalene	0.00	0.46	0.00	0.00	0.46
Toluene	2.39	7.48	1.00	0.00	10.87
Unidentified Components	415.42	117.75	174.59	0.00	707.76
Xylene (Mixed Isomers)	0.91	10.23	0.38	0.00	11.53
Gasoline (RVP 13.5) 4th Qrt	405.26	101.77	170.32	0.00	677.35
1,2,4-Trimethylbenzene	0.02	1.22	0.01	0.00	1.25
Benzene	0.62	0.68	0.26	0.00	1.56
Cyclohexane	0.74	0.78	0.31	0.00	1.83
Ethylbenzene	0.08	1.02	0.03	0.00	1.13
Hexane (-n)	6.50	4.35	2.73	0.00	13.57
Isooctane	0.90	2.09	0.38	0.00	3.36
Isopropyl benzene	0.00	0.10	0.00	0.00	0.11
napthalene	0.00	0.10	0.00	0.00	0.10
Toluene	1.13	4.48	0.47	0.00	6.08
Unidentified Components	394.96	82.06	165.99	0.00	643.01
Xylene (Mixed Isomers)	0.33	4.88	0.14	0.00	5.35
Gasoline (RVP 15) 4th Qrt	192.00	50.88	80.69	0.00	323.58
1,2,4-Trimethylbenzene	0.01	0.61	0.00	0.00	0.62
Benzene	0.25	0.34	0.10	0.00	0.70
Cyclohexane	0.30	0.39	0.13	0.00	0.82
Ethylbenzene	0.03	0.51	0.01	0.00	0.55

Hexane (-n)	2.66	2.17	1.12	0.00	5.96
Isooctane	0.32	1.04	0.14	0.00	1.50
Isopropyl benzene	0.00	0.05	0.00	0.00	0.05
napthalene	0.00	0.05	0.00	0.00	0.05
Toluene	0.44	2.24	0.19	0.00	2.87
Unidentified Components	187.86	41.03	78.95	0.00	307.84
Xylene (Mixed Isomers)	0.13	2.44	0.05	0.00	2.62

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Balt 6
City:	Baltimore
State:	Maryland
Company:	Sunoco Partners M&T, L.P.
Type of Tank:	Internal Floating Roof Tank
Description:	Tk 6 PTE

Tank Dimensions

Diameter (ft):	120.00
Volume (gallons):	2,381,945.00
Turnovers:	100.00
Self Supp. Roof? (y/n):	N
No. of Columns:	7.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Vapor-mounted
Secondary Seal	Rim-mounted

Deck Characteristics

Deck Fitting Category:	Typical
Deck Type:	Bolted
Construction:	Sheet
Deck Seam:	Sheet: 5 Ft Wide
Deck Seam Len. (ft):	2,261.94

Deck Fitting/Status	Quantity
Access Hatch (24-in. Diam.)/Unbolted Cover, Ungasketed	1
Automatic Gauge Float Well/Unbolted Cover, Ungasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Ungask.	7
Ladder Well (36-in. Diam.)/Sliding Cover, Ungasketed	1
Roof Leg or Hanger Well/Adjustable	41
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Stub Drain (1-in. Diameter)/Slit Fabric Seal 10% Open	116
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	1

Meterological Data used in Emissions Calculations: Baltimore, Maryland (Avg Atmospheric Pressure = 14.67 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Balt 6 - Internal Floating Roof Tank
Baltimore, Maryland

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 15)	Jan	45.74	41.93	49.54	55.11	6.2649	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0113	N/A	N/A	120.1900	0.0150	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.7756	N/A	N/A	78.1100	0.0056	0.0011	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8123	N/A	N/A	84.1600	0.0085	0.0017	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0649	N/A	N/A	106.1700	0.0070	0.0001	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3035	N/A	N/A	86.1700	0.0428	0.0137	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3128	N/A	N/A	114.2200	0.0467	0.0036	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0294	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0020	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2085	N/A	N/A	92.1300	0.0330	0.0017	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.6274	N/A	N/A	59.5436	0.7934	0.9776	90.21	
Xylene (Mixed Isomers)						0.0538	N/A	N/A	106.1700	0.0450	0.0006	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 15)	Feb	47.39	43.11	51.68	55.11	6.4627	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0121	N/A	N/A	120.1900	0.0150	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.8145	N/A	N/A	78.1100	0.0056	0.0011	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8521	N/A	N/A	84.1600	0.0085	0.0017	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0690	N/A	N/A	106.1700	0.0070	0.0001	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3648	N/A	N/A	86.1700	0.0428	0.0139	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3416	N/A	N/A	114.2200	0.0467	0.0038	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0314	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0020	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2203	N/A	N/A	92.1300	0.0330	0.0017	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.8656	N/A	N/A	59.5313	0.7934	0.9771	90.21	
Xylene (Mixed Isomers)						0.0572	N/A	N/A	106.1700	0.0450	0.0006	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5)	Mar	51.90	46.85	56.94	55.11	6.2429	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0147	N/A	N/A	120.1900	0.0150	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.9287	N/A	N/A	78.1100	0.0056	0.0012	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9686	N/A	N/A	84.1600	0.0085	0.0020	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0814	N/A	N/A	106.1700	0.0070	0.0001	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.5435	N/A	N/A	86.1700	0.0428	0.0157	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.4236	N/A	N/A	114.2200	0.0467	0.0047	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0375	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0020	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2553	N/A	N/A	92.1300	0.0330	0.0020	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.5757	N/A	N/A	61.4717	0.7934	0.9735	90.21	
Xylene (Mixed Isomers)						0.0676	N/A	N/A	106.1700	0.0450	0.0007	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Apr	56.44	50.67	62.22	55.11	3.9433	N/A	N/A	68.0000			92.00	Option 1: VP50 = 3.444 VP60 = 4.2188
1,2,4-Trimethylbenzene						0.0177	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.0573	N/A	N/A	78.1100	0.0050	0.0018	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.0993	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0958	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.7430	N/A	N/A	86.1700	0.0264	0.0158	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.5114	N/A	N/A	114.2200	0.0382	0.0067	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0447	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78

napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2953	N/A	N/A	92.1300	0.0230	0.0023	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						4.4317	N/A	N/A	67.4929	0.8590	0.9721	90.68	
Xylene (Mixed Isomers)						0.0797	N/A	N/A	106.1700	0.0300	0.0008	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	May	61.15	55.14	67.15	55.11	4.3231	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0214	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.2055	N/A	N/A	78.1100	0.0050	0.0019	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.2495	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1129	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.9712	N/A	N/A	86.1700	0.0264	0.0163	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.6066	N/A	N/A	114.2200	0.0382	0.0073	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0534	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3421	N/A	N/A	92.1300	0.0230	0.0025	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						4.8538	N/A	N/A	67.4643	0.8590	0.9708	90.68	
Xylene (Mixed Isomers)						0.0941	N/A	N/A	106.1700	0.0300	0.0009	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Jun	65.39	59.21	71.57	55.11	4.7089	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0253	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.3536	N/A	N/A	78.1100	0.0050	0.0019	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.3992	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1306	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.1976	N/A	N/A	86.1700	0.0264	0.0167	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7050	N/A	N/A	114.2200	0.0382	0.0077	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0624	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3896	N/A	N/A	92.1300	0.0230	0.0026	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.2828	N/A	N/A	67.4401	0.8590	0.9697	90.68	
Xylene (Mixed Isomers)						0.1090	N/A	N/A	106.1700	0.0300	0.0009	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Jul	67.30	61.36	73.25	55.11	4.8832	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0272	N/A	N/A	120.1900	0.0200	0.0002	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.4252	N/A	N/A	78.1100	0.0067	0.0026	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4716	N/A	N/A	84.1600	0.0111	0.0045	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1393	N/A	N/A	106.1700	0.0120	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.3066	N/A	N/A	86.1700	0.0373	0.0238	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7495	N/A	N/A	114.2200	0.0215	0.0045	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0669	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0030	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.4129	N/A	N/A	92.1300	0.0490	0.0056	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.9963	N/A	N/A	67.2594	0.7714	0.9561	90.15	
Xylene (Mixed Isomers)						0.1163	N/A	N/A	106.1700	0.0670	0.0022	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Aug	66.37	60.81	71.92	55.11	4.7981	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0263	N/A	N/A	120.1900	0.0200	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.3899	N/A	N/A	78.1100	0.0067	0.0026	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4359	N/A	N/A	84.1600	0.0111	0.0045	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1350	N/A	N/A	106.1700	0.0120	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.2528	N/A	N/A	86.1700	0.0373	0.0237	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7278	N/A	N/A	114.2200	0.0215	0.0044	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0647	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0030	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.4014	N/A	N/A	92.1300	0.0490	0.0055	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.8934	N/A	N/A	67.2659	0.7714	0.9565	90.15	
Xylene (Mixed Isomers)						0.1127	N/A	N/A	106.1700	0.0670	0.0021	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Sep	62.84	57.57	68.11	55.11	4.4775	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0229	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.2630	N/A	N/A	78.1100	0.0050	0.0019	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.3078	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1197	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.0594	N/A	N/A	86.1700	0.0264	0.0164	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.6460	N/A	N/A	114.2200	0.0382	0.0075	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0568	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78

napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3605	N/A	N/A	92.1300	0.0230	0.0025	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.0256	N/A	N/A	67.4546	0.8590	0.9704	90.68	
Xylene (Mixed Isomers)						0.0998	N/A	N/A	106.1700	0.0300	0.0009	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5) 4th Qrt	Oct	57.17	52.07	62.27	55.11	6.9033	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0182	N/A	N/A	120.1900	0.0120	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.0792	N/A	N/A	78.1100	0.0067	0.0016	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.1215	N/A	N/A	84.1600	0.0077	0.0019	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0983	N/A	N/A	106.1700	0.0100	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.7768	N/A	N/A	86.1700	0.0427	0.0163	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.5254	N/A	N/A	114.2200	0.0205	0.0023	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0459	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.3021	N/A	N/A	92.1300	0.0440	0.0029	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.2989	N/A	N/A	61.5047	0.8064	0.9740	90.84	
Xylene (Mixed Isomers)						0.0818	N/A	N/A	106.1700	0.0480	0.0008	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5) 4th Qrt	Nov	52.40	48.07	56.74	55.11	6.3063	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0150	N/A	N/A	120.1900	0.0120	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.9424	N/A	N/A	78.1100	0.0067	0.0015	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9825	N/A	N/A	84.1600	0.0077	0.0018	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0829	N/A	N/A	106.1700	0.0100	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.5647	N/A	N/A	86.1700	0.0427	0.0157	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.4334	N/A	N/A	114.2200	0.0205	0.0021	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0382	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2595	N/A	N/A	92.1300	0.0440	0.0027	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.5876	N/A	N/A	61.5300	0.8064	0.9752	90.84	
Xylene (Mixed Isomers)						0.0689	N/A	N/A	106.1700	0.0480	0.0008	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 15) 4th Qrt	Dec	47.76	44.03	51.49	55.11	6.5070	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0123	N/A	N/A	120.1900	0.0120	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.8235	N/A	N/A	78.1100	0.0067	0.0013	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8612	N/A	N/A	84.1600	0.0077	0.0016	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0700	N/A	N/A	106.1700	0.0100	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3789	N/A	N/A	86.1700	0.0427	0.0139	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3481	N/A	N/A	114.2200	0.0205	0.0017	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0319	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2230	N/A	N/A	92.1300	0.0440	0.0023	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.8505	N/A	N/A	59.5770	0.8064	0.9784	90.84	
Xylene (Mixed Isomers)						0.0580	N/A	N/A	106.1700	0.0480	0.0007	106.17	Option 2: A=7.009, B=1462.266, C=215.11

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

Balt 6 - Internal Floating Roof Tank
Baltimore, Maryland

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15)	372.81	66.03	1,322.19	569.38	2,330.40
1,2,4-Trimethylbenzene	0.02	0.99	0.06	0.02	1.09
Benzene	0.40	0.37	1.42	0.61	2.80
Cyclohexane	0.64	0.56	2.25	0.97	4.42
Ethylbenzene	0.04	0.46	0.15	0.06	0.72
Hexane (-n)	5.13	2.83	18.19	7.83	33.98
Isooctane	1.37	3.08	4.87	2.10	11.42
Isopropyl benzene	0.00	0.07	0.01	0.00	0.08
napthalene	0.00	0.13	0.00	0.00	0.13
Toluene	0.64	2.18	2.25	0.97	6.04
Unidentified Components	364.35	52.39	1,292.19	556.46	2,265.39
Xylene (Mixed Isomers)	0.22	2.97	0.80	0.34	4.33
Gasoline (RVP 13.5)	187.76	33.02	665.92	286.77	1,173.47
1,2,4-Trimethylbenzene	0.01	0.50	0.03	0.01	0.55
Benzene	0.23	0.18	0.82	0.35	1.59
Cyclohexane	0.37	0.28	1.30	0.56	2.51
Ethylbenzene	0.03	0.23	0.09	0.04	0.39
Hexane (-n)	2.95	1.41	10.46	4.50	19.32
Isooctane	0.88	1.54	3.13	1.35	6.90
Isopropyl benzene	0.00	0.03	0.01	0.00	0.04
napthalene	0.00	0.07	0.00	0.00	0.07
Toluene	0.38	1.09	1.33	0.57	3.37
Unidentified Components	182.78	26.20	648.26	279.16	1,136.40
Xylene (Mixed Isomers)	0.14	1.49	0.48	0.21	2.31
Gasoline (RVP 08.3)	527.06	132.07	1,869.28	804.97	3,333.38
1,2,4-Trimethylbenzene	0.04	1.45	0.14	0.06	1.69
Benzene	1.00	0.66	3.54	1.52	6.72

Cyclohexane	0.08	0.05	0.29	0.13	0.55
Ethylbenzene	0.09	0.66	0.33	0.14	1.23
Hexane (-n)	8.60	3.49	30.50	13.13	55.72
Isooctane	3.86	5.04	13.68	5.89	28.46
Isopropyl benzene	0.01	0.13	0.03	0.01	0.19
napthalene	0.00	0.13	0.00	0.00	0.13
Toluene	1.30	3.04	4.63	1.99	10.96
Unidentified Components	511.61	113.45	1,814.48	781.37	3,220.91
Xylene (Mixed Isomers)	0.47	3.96	1.66	0.72	6.81
Gasoline (RVP 08.3) 3rd Qrt	298.43	66.03	1,058.42	455.79	1,878.68
1,2,4-Trimethylbenzene	0.04	1.32	0.16	0.07	1.59
Benzene	0.79	0.44	2.79	1.20	5.22
Cyclohexane	1.35	0.73	4.77	2.06	8.91
Ethylbenzene	0.14	0.79	0.49	0.21	1.63
Hexane (-n)	7.09	2.46	25.15	10.83	45.54
Isooctane	1.32	1.42	4.70	2.02	9.47
Isopropyl benzene	0.01	0.07	0.02	0.01	0.10
napthalene	0.00	0.20	0.00	0.00	0.20
Toluene	1.66	3.24	5.90	2.54	13.34
Unidentified Components	285.39	50.94	1,012.17	435.87	1,784.37
Xylene (Mixed Isomers)	0.64	4.42	2.27	0.98	8.31
Gasoline (RVP 13.5) 4th Qrt	405.26	66.03	1,437.31	618.95	2,527.55
1,2,4-Trimethylbenzene	0.02	0.79	0.06	0.03	0.90
Benzene	0.62	0.44	2.19	0.94	4.19
Cyclohexane	0.74	0.51	2.62	1.13	4.99
Ethylbenzene	0.08	0.66	0.29	0.13	1.16
Hexane (-n)	6.50	2.82	23.04	9.92	42.28
Isooctane	0.90	1.35	3.18	1.37	6.79
Isopropyl benzene	0.00	0.07	0.01	0.01	0.09
napthalene	0.00	0.07	0.00	0.00	0.07
Toluene	1.13	2.91	3.99	1.72	9.74
Unidentified Components	394.96	53.25	1,400.75	603.21	2,452.16
Xylene (Mixed Isomers)	0.33	3.17	1.17	0.50	5.17
Gasoline (RVP 15) 4th Qrt	192.00	33.02	680.95	293.24	1,199.21
1,2,4-Trimethylbenzene	0.01	0.40	0.02	0.01	0.44
Benzene	0.25	0.22	0.89	0.38	1.74
Cyclohexane	0.30	0.25	1.06	0.46	2.08
Ethylbenzene	0.03	0.33	0.11	0.05	0.52

Hexane (-n)	2.66	1.41	9.45	4.07	17.59
Isooctane	0.32	0.68	1.15	0.49	2.64
Isopropyl benzene	0.00	0.03	0.01	0.00	0.04
napthalene	0.00	0.03	0.00	0.00	0.03
Toluene	0.44	1.45	1.57	0.68	4.15
Unidentified Components	187.86	26.62	666.25	286.91	1,167.63
Xylene (Mixed Isomers)	0.13	1.58	0.45	0.19	2.35

TANKS 4.0.9d
Emissions Report - Summary Format
Tank Indentification and Physical Characteristics

Identification

User Identification:	Tank 10
City:	
State:	Maryland
Company:	Sunoco Partners M&T, L.P.
Type of Tank:	Internal Floating Roof Tank
Description:	Tank 10 PTE

Tank Dimensions

Diameter (ft):	114.00
Volume (gallons):	2,150,610.00
Turnovers:	100.00
Self Supp. Roof? (y/n):	N
No. of Columns:	25.00
Eff. Col. Diam. (ft):	1.00

Paint Characteristics

Internal Shell Condition:	Light Rust
Shell Color/Shade:	White/White
Shell Condition	Good
Roof Color/Shade:	White/White
Roof Condition:	Good

Rim-Seal System

Primary Seal:	Mechanical Shoe
Secondary Seal	None

Deck Characteristics

Deck Fitting Category:	Detail	
Deck Type:	Bolted	
Construction:	Panel	
Deck Seam:	Panel: 5 x 7.5 Ft	
Deck Seam Len. (ft):		3,368.32

Deck Fitting/Status	Quantity
Automatic Gauge Float Well/Bolted Cover, Gasketed	1
Column Well (24-in. Diam.)/Built-Up Col.-Sliding Cover, Gask.	25
Ladder Well (36-in. Diam.)/Sliding Cover, Gasketed	1
Sample Pipe or Well (24-in. Diam.)/Slit Fabric Seal 10% Open	1
Stub Drain (1-in. Diameter)/Slit Fabric Seal 10% Open	20
Vacuum Breaker (10-in. Diam.)/Weighted Mech. Actuation, Gask.	2

Meterological Data used in Emissions Calculations: Baltimore, Maryland (Avg Atmospheric Pressure = 14.67 psia)

TANKS 4.0.9d
Emissions Report - Summary Format
Liquid Contents of Storage Tank

Tank 10 - Internal Floating Roof Tank

Mixture/Component	Month	Daily Liquid Surf. Temperature (deg F) Avg.	Min.	Max.	Liquid Bulk Temp (deg F)	Vapor Pressure (psia) Avg.	Min.	Max.	Vapor Mol. Weight.	Liquid Mass Fract.	Vapor Mass Fract.	Mol. Weight	Basis for Vapor Pressure Calculations
Gasoline (RVP 15)	Jan	45.74	41.93	49.54	55.11	6.2649	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0113	N/A	N/A	120.1900	0.0150	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.7756	N/A	N/A	78.1100	0.0056	0.0011	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8123	N/A	N/A	84.1600	0.0085	0.0017	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0649	N/A	N/A	106.1700	0.0070	0.0001	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3035	N/A	N/A	86.1700	0.0428	0.0137	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3128	N/A	N/A	114.2200	0.0467	0.0036	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0294	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0020	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2085	N/A	N/A	92.1300	0.0330	0.0017	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.6274	N/A	N/A	59.5436	0.7934	0.9776	90.21	
Xylene (Mixed Isomers)						0.0538	N/A	N/A	106.1700	0.0450	0.0006	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 15)	Feb	47.39	43.11	51.68	55.11	6.4627	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0121	N/A	N/A	120.1900	0.0150	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.8145	N/A	N/A	78.1100	0.0056	0.0011	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8521	N/A	N/A	84.1600	0.0085	0.0017	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0690	N/A	N/A	106.1700	0.0070	0.0001	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3648	N/A	N/A	86.1700	0.0428	0.0139	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3416	N/A	N/A	114.2200	0.0467	0.0038	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0314	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0020	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2203	N/A	N/A	92.1300	0.0330	0.0017	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.8656	N/A	N/A	59.5313	0.7934	0.9771	90.21	
Xylene (Mixed Isomers)						0.0572	N/A	N/A	106.1700	0.0450	0.0006	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5)	Mar	51.90	46.85	56.94	55.11	6.2429	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0147	N/A	N/A	120.1900	0.0150	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.9287	N/A	N/A	78.1100	0.0056	0.0012	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9686	N/A	N/A	84.1600	0.0085	0.0020	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0814	N/A	N/A	106.1700	0.0070	0.0001	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.5435	N/A	N/A	86.1700	0.0428	0.0157	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.4236	N/A	N/A	114.2200	0.0467	0.0047	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0375	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0020	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2553	N/A	N/A	92.1300	0.0330	0.0020	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.5757	N/A	N/A	61.4717	0.7934	0.9735	90.21	
Xylene (Mixed Isomers)						0.0676	N/A	N/A	106.1700	0.0450	0.0007	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Apr	56.44	50.67	62.22	55.11	3.9433	N/A	N/A	68.0000			92.00	Option 1: VP50 = 3.444 VP60 = 4.2188
1,2,4-Trimethylbenzene						0.0177	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.0573	N/A	N/A	78.1100	0.0050	0.0018	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.0993	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0958	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.7430	N/A	N/A	86.1700	0.0264	0.0158	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.5114	N/A	N/A	114.2200	0.0382	0.0067	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0447	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001

Toluene						0.2953	N/A	N/A	92.1300	0.0230	0.0023	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						4.4317	N/A	N/A	67.4929	0.8590	0.9721	90.68	
Xylene (Mixed Isomers)						0.0797	N/A	N/A	106.1700	0.0300	0.0008	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	May	61.15	55.14	67.15	55.11	4.3231	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0214	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.2055	N/A	N/A	78.1100	0.0050	0.0019	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.2495	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1129	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.9712	N/A	N/A	86.1700	0.0264	0.0163	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.6066	N/A	N/A	114.2200	0.0382	0.0073	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0534	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3421	N/A	N/A	92.1300	0.0230	0.0025	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						4.8538	N/A	N/A	67.4643	0.8590	0.9708	90.68	
Xylene (Mixed Isomers)						0.0941	N/A	N/A	106.1700	0.0300	0.0009	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Jun	65.39	59.21	71.57	55.11	4.7089	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0253	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.3536	N/A	N/A	78.1100	0.0050	0.0019	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.3992	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1306	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.1976	N/A	N/A	86.1700	0.0264	0.0167	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7050	N/A	N/A	114.2200	0.0382	0.0077	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0624	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.3896	N/A	N/A	92.1300	0.0230	0.0026	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.2828	N/A	N/A	67.4401	0.8590	0.9697	90.68	
Xylene (Mixed Isomers)						0.1090	N/A	N/A	106.1700	0.0300	0.0009	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Jul	67.30	61.36	73.25	55.11	4.8832	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0272	N/A	N/A	120.1900	0.0200	0.0002	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.4252	N/A	N/A	78.1100	0.0067	0.0026	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4716	N/A	N/A	84.1600	0.0111	0.0045	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1393	N/A	N/A	106.1700	0.0120	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.3066	N/A	N/A	86.1700	0.0373	0.0238	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7495	N/A	N/A	114.2200	0.0215	0.0045	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0669	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0030	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.4129	N/A	N/A	92.1300	0.0490	0.0056	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.9963	N/A	N/A	67.2594	0.7714	0.9561	90.15	
Xylene (Mixed Isomers)						0.1163	N/A	N/A	106.1700	0.0670	0.0022	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3) 3rd Qrt	Aug	66.37	60.81	71.92	55.11	4.7981	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0263	N/A	N/A	120.1900	0.0200	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.3899	N/A	N/A	78.1100	0.0067	0.0026	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.4359	N/A	N/A	84.1600	0.0111	0.0045	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1350	N/A	N/A	106.1700	0.0120	0.0005	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.2528	N/A	N/A	86.1700	0.0373	0.0237	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.7278	N/A	N/A	114.2200	0.0215	0.0044	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0647	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0030	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001
Toluene						0.4014	N/A	N/A	92.1300	0.0490	0.0055	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.8934	N/A	N/A	67.2659	0.7714	0.9565	90.15	
Xylene (Mixed Isomers)						0.1127	N/A	N/A	106.1700	0.0670	0.0021	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 08.3)	Sep	62.84	57.57	68.11	55.11	4.4775	N/A	N/A	68.0000			92.00	Option 1: VP60 = 4.2188 VP70 = 5.1284
1,2,4-Trimethylbenzene						0.0229	N/A	N/A	120.1900	0.0110	0.0001	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.2630	N/A	N/A	78.1100	0.0050	0.0019	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.3078	N/A	N/A	84.1600	0.0004	0.0002	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.1197	N/A	N/A	106.1700	0.0050	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						2.0594	N/A	N/A	86.1700	0.0264	0.0164	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.6460	N/A	N/A	114.2200	0.0382	0.0075	114.22	Option 1: VP60 = .58 VP70 = .812
Isopropyl benzene						0.0568	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP60 = .00001 VP70 = .00001

Toluene						0.3605	N/A	N/A	92.1300	0.0230	0.0025	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						5.0256	N/A	N/A	67.4546	0.8590	0.9704	90.68	
Xylene (Mixed Isomers)						0.0998	N/A	N/A	106.1700	0.0300	0.0009	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5) 4th Qrt	Oct	57.17	52.07	62.27	55.11	6.9033	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0182	N/A	N/A	120.1900	0.0120	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						1.0792	N/A	N/A	78.1100	0.0067	0.0016	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						1.1215	N/A	N/A	84.1600	0.0077	0.0019	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0983	N/A	N/A	106.1700	0.0100	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.7768	N/A	N/A	86.1700	0.0427	0.0163	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.5254	N/A	N/A	114.2200	0.0205	0.0023	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0459	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.3021	N/A	N/A	92.1300	0.0440	0.0029	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						8.2989	N/A	N/A	61.5047	0.8064	0.9740	90.84	
Xylene (Mixed Isomers)						0.0818	N/A	N/A	106.1700	0.0480	0.0008	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 13.5) 4th Qrt	Nov	52.40	48.07	56.74	55.11	6.3063	N/A	N/A	62.0000			92.00	Option 1: VP50 = 6.0054 VP60 = 7.2573
1,2,4-Trimethylbenzene						0.0150	N/A	N/A	120.1900	0.0120	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.9424	N/A	N/A	78.1100	0.0067	0.0015	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.9825	N/A	N/A	84.1600	0.0077	0.0018	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0829	N/A	N/A	106.1700	0.0100	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.5647	N/A	N/A	86.1700	0.0427	0.0157	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.4334	N/A	N/A	114.2200	0.0205	0.0021	114.22	Option 1: VP50 = .387 VP60 = .58
Isopropyl benzene						0.0382	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP50 = .00001 VP60 = .00001
Toluene						0.2595	N/A	N/A	92.1300	0.0440	0.0027	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.5876	N/A	N/A	61.5300	0.8064	0.9752	90.84	
Xylene (Mixed Isomers)						0.0689	N/A	N/A	106.1700	0.0480	0.0008	106.17	Option 2: A=7.009, B=1462.266, C=215.11
Gasoline (RVP 15) 4th Qrt	Dec	47.76	44.03	51.49	55.11	6.5070	N/A	N/A	60.0000			92.00	Option 1: VP40 = 5.5802 VP50 = 6.774
1,2,4-Trimethylbenzene						0.0123	N/A	N/A	120.1900	0.0120	0.0000	120.19	Option 2: A=7.04383, B=1573.267, C=208.56
Benzene						0.8235	N/A	N/A	78.1100	0.0067	0.0013	78.11	Option 2: A=6.905, B=1211.033, C=220.79
Cyclohexane						0.8612	N/A	N/A	84.1600	0.0077	0.0016	84.16	Option 2: A=6.841, B=1201.53, C=222.65
Ethylbenzene						0.0700	N/A	N/A	106.1700	0.0100	0.0002	106.17	Option 2: A=6.975, B=1424.255, C=213.21
Hexane (-n)						1.3789	N/A	N/A	86.1700	0.0427	0.0139	86.17	Option 2: A=6.876, B=1171.17, C=224.41
Isooctane						0.3481	N/A	N/A	114.2200	0.0205	0.0017	114.22	Option 1: VP40 = .213 VP50 = .387
Isopropyl benzene						0.0319	N/A	N/A	120.2000	0.0010	0.0000	120.20	Option 2: A=6.963, B=1460.793, C=207.78
napthalene						0.0000	N/A	N/A	128.1700	0.0010	0.0000	128.17	Option 1: VP40 = .00001 VP50 = .00001
Toluene						0.2230	N/A	N/A	92.1300	0.0440	0.0023	92.13	Option 2: A=6.954, B=1344.8, C=219.48
Unidentified Components						7.8505	N/A	N/A	59.5770	0.8064	0.9784	90.84	
Xylene (Mixed Isomers)						0.0580	N/A	N/A	106.1700	0.0480	0.0007	106.17	Option 2: A=7.009, B=1462.266, C=215.11

TANKS 4.0.9d
Emissions Report - Summary Format
Individual Tank Emission Totals

Emissions Report for: Annual

Tank 10 - Internal Floating Roof Tank

	Losses(lbs)				
Components	Rim Seal Loss	Withdrawl Loss	Deck Fitting Loss	Deck Seam Loss	Total Emissions
Gasoline (RVP 15)	933.71	72.30	1,316.40	847.87	3,170.29
1,2,4-Trimethylbenzene	0.04	1.08	0.06	0.04	1.22
Benzene	1.00	0.40	1.41	0.91	3.73
Cyclohexane	1.59	0.61	2.24	1.45	5.89
Ethylbenzene	0.11	0.51	0.15	0.10	0.86
Hexane (-n)	12.85	3.09	18.11	11.67	45.72
Isooctane	3.44	3.38	4.85	3.12	14.78
Isopropyl benzene	0.01	0.07	0.01	0.01	0.09
napthalene	0.00	0.14	0.00	0.00	0.14
Toluene	1.59	2.39	2.24	1.45	7.67
Unidentified Components	912.53	57.37	1,286.53	828.64	3,085.06
Xylene (Mixed Isomers)	0.56	3.25	0.79	0.51	5.12
Gasoline (RVP 13.5)	470.26	36.15	663.00	427.03	1,596.45
1,2,4-Trimethylbenzene	0.02	0.54	0.03	0.02	0.62
Benzene	0.58	0.20	0.82	0.53	2.13
Cyclohexane	0.92	0.31	1.30	0.84	3.36
Ethylbenzene	0.06	0.25	0.09	0.06	0.46
Hexane (-n)	7.38	1.55	10.41	6.71	26.05
Isooctane	2.21	1.69	3.12	2.01	9.02
Isopropyl benzene	0.00	0.04	0.01	0.00	0.05
napthalene	0.00	0.07	0.00	0.00	0.07
Toluene	0.94	1.19	1.33	0.85	4.32
Unidentified Components	457.79	28.68	645.42	415.71	1,547.60
Xylene (Mixed Isomers)	0.34	1.63	0.48	0.31	2.75
Gasoline (RVP 08.3)	1,320.05	144.61	1,861.09	1,198.70	4,524.45
1,2,4-Trimethylbenzene	0.10	1.59	0.14	0.09	1.92
Benzene	2.50	0.72	3.52	2.27	9.01

Cyclohexane	0.21	0.06	0.29	0.19	0.74
Ethylbenzene	0.24	0.72	0.33	0.21	1.50
Hexane (-n)	21.54	3.82	30.37	19.56	75.28
Isooctane	9.66	5.52	13.62	8.77	37.57
Isopropyl benzene	0.02	0.14	0.03	0.02	0.22
napthalene	0.00	0.14	0.00	0.00	0.14
Toluene	3.27	3.33	4.61	2.97	14.17
Unidentified Components	1,281.36	124.22	1,806.53	1,163.56	4,375.67
Xylene (Mixed Isomers)	1.17	4.34	1.66	1.07	8.24
Gasoline (RVP 08.3) 3rd Qrt	747.44	72.30	1,053.79	678.73	2,552.26
1,2,4-Trimethylbenzene	0.11	1.45	0.16	0.10	1.82
Benzene	1.97	0.48	2.78	1.79	7.02
Cyclohexane	3.37	0.80	4.75	3.06	11.99
Ethylbenzene	0.34	0.87	0.48	0.31	2.01
Hexane (-n)	17.76	2.70	25.04	16.13	61.64
Isooctane	3.32	1.55	4.68	3.01	12.56
Isopropyl benzene	0.01	0.07	0.02	0.01	0.12
napthalene	0.00	0.22	0.00	0.00	0.22
Toluene	4.17	3.54	5.88	3.78	17.37
Unidentified Components	714.78	55.77	1,007.74	649.07	2,427.36
Xylene (Mixed Isomers)	1.60	4.84	2.26	1.46	10.16
Gasoline (RVP 13.5) 4th Qrt	1,015.00	72.30	1,431.01	921.69	3,440.01
1,2,4-Trimethylbenzene	0.05	0.87	0.06	0.04	1.02
Benzene	1.54	0.48	2.18	1.40	5.61
Cyclohexane	1.85	0.56	2.61	1.68	6.69
Ethylbenzene	0.21	0.72	0.29	0.19	1.41
Hexane (-n)	16.27	3.09	22.94	14.78	57.08
Isooctane	2.24	1.48	3.16	2.04	8.92
Isopropyl benzene	0.01	0.07	0.01	0.01	0.10
napthalene	0.00	0.07	0.00	0.00	0.07
Toluene	2.82	3.18	3.97	2.56	12.53
Unidentified Components	989.19	58.31	1,394.62	898.25	3,340.36
Xylene (Mixed Isomers)	0.82	3.47	1.16	0.75	6.21
Gasoline (RVP 15) 4th Qrt	480.88	36.15	677.97	436.67	1,631.67
1,2,4-Trimethylbenzene	0.02	0.43	0.02	0.02	0.49
Benzene	0.63	0.24	0.88	0.57	2.32
Cyclohexane	0.75	0.28	1.06	0.68	2.77
Ethylbenzene	0.08	0.36	0.11	0.07	0.62

Hexane (-n)	6.67	1.54	9.41	6.06	23.68
Isooctane	0.81	0.74	1.14	0.73	3.42
Isopropyl benzene	0.00	0.04	0.01	0.00	0.05
napthalene	0.00	0.04	0.00	0.00	0.04
Toluene	1.11	1.59	1.57	1.01	5.28
Unidentified Components	470.49	29.15	663.33	427.24	1,590.21
Xylene (Mixed Isomers)	0.32	1.74	0.44	0.29	2.78

TANKS 4.0.9d
Emissions Report - Summary Format
Total Emissions Summaries - All Tanks in Report

Emissions Report for: Annual

Tank Identification				Losses (lbs)
Balt 11	Sunoco Partners M&T, L.P.	Internal Floating Roof Tank	Baltimore, Maryland	11,789.44
Balt 12	Sunoco Partners M&T, L.P.	Domed External Floating Roof Tank	Baltimore, Maryland	1,438.13
Balt 4	Sunoco Partners M&T, L.P.	Domed External Floating Roof Tank	Baltimore, Maryland	3,427.45
Balt 6	Sunoco Partners M&T, L.P.	Internal Floating Roof Tank	Baltimore, Maryland	12,442.68
Tank 10	Sunoco Partners M&T, L.P.	Internal Floating Roof Tank	, Maryland	16,915.12
Total Emissions for all Tanks:				46,012.82

Attachment 8: Insignificant Activities

MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
RENEWAL TITLE V APPLICATION INSIGNIFICANT ACTIVITIES LIST

III. Check-off List of Emissions Units and Activities Exempt from the Part 70 Permit Application

Insignificant Activities

Place a check mark beside each type of emissions unit or activity that is located at the facility. Where noted, please indicate the number of that type of emissions unit or activity located at the facility.

(1) No. 1 Fuel burning equipment using gaseous fuels or no. 1 or no. 2 fuel oil, and having a heat input less than 1,000,000 Btu (1.06 gigajoules) per hour;

(2) No. ___ Fuel-burning equipment using solid fuel and having a heat input of less than 350,000 Btu (0.37 gigajoule) per hour;

(3) No. ___ Stationary internal combustion engines with less than 500 brake horsepower (373 kilowatts)of power output

(4) ___ Space heaters utilizing direct heat transfer and used solely for comfort heat;

(5) ___ Water cooling towers and water cooling ponds unless used for evaporative cooling of water from barometric jets or barometric condensers, or used in conjunction with an installation requiring a permit to operate;

(6) No. ___ Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less;

(7) ___ Commercial bakery ovens with a rated heat input capacity of less than 2,000,000 Btu per hour;

(8) ___ Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity, or any combination of these;

(9) ___ Confection cookers where the products are edible and intended for human consumption;

(10) ___ Die casting machines;

(11) ___ Photographic process equipment used to reproduce an image upon sensitized material through the use of radiant energy;

(12) ___ Equipment for drilling, carving, cutting, routing, turning, sawing, planing, spindle sanding, or disc sanding of wood or wood products;

(13) ___ Brazing, soldering, or welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals and not directly related to plant maintenance, upkeep and repair or maintenance shop activities;

(14) ___ Equipment for washing or drying products fabricated from metal or glass, provided that no VOC is used in the process and that no oil or solid fuel is burned;

(15) ___ Containers, reservoirs, or tanks used exclusively for electrolytic plating work, or electrolytic polishing, or electrolytic stripping of brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, and precious metals;

(16) Containers, reservoirs, or tanks used exclusively for:

(a) ___ Dipping operations for applying coatings of natural or synthetic resins that contain no VOC;

(b) ___ Dipping operations for coating objects with oils, waxes, or greases, and where no VOC is used;

(c) ___ Storage of butane, propane, or liquefied petroleum, or natural gas;

(d) No. ___ Storage of lubricating oils:

(e) No. ___ Unheated storage of VOC with an initial boiling point of 300 °F (

(f) No. 4 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel,

(g) No. ___ Storage of motor vehicle gasoline and having individual tank capacities of 2,000 gallons (7.6 cubic meters) or less;

(h) No. 50 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and having individual capacities of 2,000 gallons (7.6 cubic meters) or less;

(17) ___ Gaseous fuel-fired or electrically heated furnaces for heat treating glass or metals, the use of which does not involve molten materials;

(18) Crucible furnaces, pot furnaces, or induction furnaces, with individual capacities of 1,000 pounds (454 kilograms) or less each, in which no sweating or distilling is conducted, or any fluxing is conducted using chloride, fluoride,

or ammonium compounds, and from which only the following metals are poured or in which only the following metals are held in a molten state:

(a) ___ Aluminum or any alloy containing over 50 percent aluminum, if no gaseous chloride compounds, chlorine, aluminum chloride, or aluminum fluoride is used;

(b) ___ Magnesium or any alloy containing over 50 percent magnesium;

(c) ___ Lead or any alloy containing over 50 percent lead;

(d) ___ Tin or any alloy containing over 50 percent tin;

(e) ___ Zinc or any alloy containing over 50 percent zinc;

(f) ___ Copper;

(g) ____ Precious metals;

(19) ____ Charbroilers and pit barbecues as defined in COMAR 26.11.18.01 with a total cooking area of 5 square feet (0.46 square meter) or less;

(20) ___ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation used in support of a manufacturing or production process;

(21) ____ Certain recreational equipment and activities, such as fireplaces, barbecue pits and cookers, fireworks displays, and kerosene fuel use;

(22) ___ Potable water treatment equipment, not including air stripping equipment;

(23) ___ Firing and testing of military weapons and explosives;

(24) ___ Emissions resulting from the use of explosives for blasting at quarrying operations and from the required disposal of boxes used to ship the explosive;

(25) ____ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act;

(26) ____ Grain, metal, or mineral extrusion presses;

(27) ____ Breweries with an annual beer production less than 60,000 barrels;

(28) ___ Natural draft hoods or natural draft ventilators that exhaust air pollutants into the ambient air from manufacturing/industrial or commercial processes;

(29) ____ Laboratory fume hoods and vents;

(30) No. ___ Sheet-fed letter or lithographic printing press(es) with a cylinder width of less than 18 inches;

For the following, attach additional pages as necessary:

(31) any other emissions unit, not listed in this section, with a potential to emit less than the "de minimus" levels listed in COMAR 26.11.02.10X (list and describe units):

No. ___ _____

No. ___ _____

No. ___ _____

No. ___ _____

No. ___ _____

(32) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. ___ _____

No. ___ _____

No. ___ _____

Attachment 9: CAM Plan

Table 3b – Compliance Assurance Monitoring (CAM) Plan for the loading operations including the vapor collection system and vapor combustor. The Permittee shall comply with the CAM plan that was submitted to the Department as part of the renewal application for the Part 70 Permit. The following tables outline the significant elements of the CAM plan.

40 CFR Part 64 Requirement	CAM Plan
	Indicator No. 1- Vapor Combustor
I. Indicator Measurement Approach	Presence of flame within stack Pilot (flame) detector
II. Indicator Range Reporting Threshold	An excursion is defined as a failure for pilot detector to shutdown the VCU when there is no flame. All excursions shall be reported to the MDE in semi-annual monitoring reports
III. Performance Criteria	
A. Data Representativeness	The pilot detector controls the operation of the VCU. When no pilot flame is detected, the VCU cannot start-up and if no flame is detected during operation, the VCU automatically shuts down and loading ceases.
B. Verification of Operational Status	The pilot detector is connected to an interlock system that ensures the VCU and loading rack cannot operate if no flame is detected.
C. AQ/QC Practices and Criteria	VCU receives preventative maintenance two times per year. During each visit the following items are checked to ensure proper pilot operation: • Pull and clean pilot gas strainer • Pull and clean assist gas strainer • Check all indicator lights and sensors, replace if faulty • Inspect spark ignition system • Insure burner scanner is operating properly- blocking scanner and starting unit. Unit must shut down on flame failure. • Complete start-up procedure checked
D. Monitoring Frequency	Pilot detector operates continuously.
E. Data Collection	Results of inspection and preventative maintenance of the pilot operation are manually recorded and maintained on site.

F. Averaging Period	N/A

40 CFR Part 64 Requirement	**CAM Plan**
Note: This monitoring element will be implemented upon the start-up of the John Zink combustor and shutdown of the vapor recovery unit.	**Indicator No. 2- Vapor Combustor**
I. Indicator Measurement Approach	Visible emissions A visual observation is made of the exhaust gases at the outlet of the combustor stack during the loading of a gasoline tank truck.
II. Indicator Range Reporting Threshold	An excursion occurs if there are visible emissions observed. An excursion will trigger an investigation, corrective action, and a reporting requirement. All excursions will be reported to the MDE in semi-annual monitoring reports.
III. Performance Criteria	
A. Data Representativeness	The observer looks for visible emissions in the exhaust gases just above the point the gases exit the combustor stack.
B. Verification of Operational Status	N/A
C. AQ/QC Practices and Criteria	The observers are trained on procedures in making an observation and the record keeping requirements.
D. Monitoring Frequency	An observation will be made once per week when the flare is operating.
E. Data Collection	Results of observations will be manually recorded and maintained on site. Records will include date, time, and result of observation or reason.
F. Averaging Period	N/A

40 CFR Part 64 Requirement	**CAM Plan**
	Indicator No. 3- Vapor Collection System
I. Indicator	Vapor Collection Line Back Pressure

Measurement Approach	Pressure gauge reading when trucks are being loaded.
II. Indicator Range Reporting Threshold	An excursion is defined as when the pressure gauge reading shows back pressure to be greater than 18" of water column. An excursion will trigger an investigation, corrective action, and a reporting requirement. All pressure gauge readings greater than 18 inches will be reported to the MDE in the semi-annual monitoring reports.
III. Performance Criteria	
A. Data Representativeness	A pressure gauge that is attached to a spool piece is inserted between the vapor line connection of the tanker and the connection for the terminal's vapor collection line measures back pressure. The gauge measures pressure within ± 0.2 inch of water column.
B. Verification of Operational Status	Monthly check on each loading bay with manual log entry.
C. AQ/QC Practices and Criteria	Preventative maintenance is performed on back pressure gauge as recommended by the manufacturer and is calibrated or replaced at least once every five years.
D. Monitoring Frequency	Monthly
E. Data Collection	Monthly reading with manual entry.
F. Averaging Period	N/A

40 CFR Part 64 Requirement	**CAM Plan**
	Indicator No.4 Vapor Collection System
I. Indicator	Equipment Leaks
Monitoring Approach	Monthly leak check of vapor collection system. Each calendar month, the vapor collection system from the tanker truck to the John Zink Combustor will be inspected during the loading of gasoline tank trucks for total organic compounds liquid or vapor leaks. The detection method will be sight, sound, or smell.
II. Indicator Range	An excursion is defined as detection of a leak

	by sight, sound, or smell. An excursion will trigger an investigation, corrective action, and a reporting requirement. Leaks will be repaired within 15 days. All excursions and corrective actions taken will be reported to the MDE in a semi-annual monitoring reports.
III. Performance Criteria	
A. Data Representativeness	The terminal operations personnel will be trained on the procedures to detect leaks, record results, and initiate corrective actions.
B. Verification of Operational Status	N/A
C. AQ/QC Practices and Criteria	The operations' personnel responsible for performing the monthly inspections will be trained on the procedures to follow. The terminal will maintain a record of employees trained to perform the inspections.
D. Monitoring Frequency	Monthly
E. Data Collection	Results of inspections, leaks found and leaks repaired are recorded and kept on site.
F. Averaging Period	N/A

Attachment 10: Boiler Replacement Information

SERVICE REPORT TICKET

CUSTOMER: Poole + Kent
JEREMY RIFE
301-252-4164

JOB LOCATION: ENERGY TRANSFER
2155 Northbridge Ave
Baltimore MD 21226

PERSON CALLING & DATE
COMPANY
PERSON REC. CALL
SCHEDULED

ATTN. | PERSON AT SITE | COMPANY | PHONE

CUSTOMER ORDER NO. | C - W JOB NUMBER

EQUIP. MANUFACTURER: LochinVar
MODEL NUMBER(S): FTX600N
DATE(S) SERVICES START P DATE: 2/1/23
SERVICEMAN: MIKE D
SERIAL NUMBER(S): 21451268183 81

PROBLEM: S/U
CAUSE

WORK PERFORMED
UNIT IS RETROFIT INTO AN EXISTING SYSTEM WITH A TWO ZONE FEED PIPING IS PRIMARY/SECONDARY - GAS IS PROPANE - UNIT CONVERSION IS AN ADJUSTMENT TO THE GAS VALVE - CIRC PUMP IS GRUNDFOS VARIABLE SPEED - SET UP IN CONSTANT SPEED @ 40 GPM CONTROLLED BY THE BOILER VIA 0-10V SIGNAL - BUT NOT ENABLED VIA THE BOILER - SYSTEM SEEMS TO TRAP AIR IN THE PRIMARY BOILER LOOP CAUSING LACK OF FLOW AND HIGH ΔT TEMPS - CUSTOMER MAY INSTALL AIR BLEED IN THIS AREA - AIR/FLUE IS PVC DIRECT-HORIZ-SIDEWALL - CPVC TRANSITION PIECE MUST BE INSTALLED OA SENSOR IS INSTALLED AND RESET SCHEDULE WILL DETERMINE SET PTS. SENSOR MIGHT SEE DIRECT SUNLIGHT WHERE MOUNTED CAUSING FALSE TEMP READINGS - GAS STATIC @ 13-13.5" WC, DYNAMIC @ 11-11.5" WC @ FULL FIRE - BOILER FIRED TO 100% AND MODULATED TO CALCULATED SET PT. LEFT UNIT ONLINE.

PARTS - I - INVENTORY - T - TRUCK - P - PURCHASED - W - WARRANTEE QUESTION

RECOMMENDATIONS TO CUSTOMER

SERVICES RENDERED PER OUR STANDARD TERMS AND CONDITIONS AVAILABLE UPON REQUEST.

LABOR
DATE 2/1/23 START 0700 STOP 1600 LUNCH — HRS. REG. HRS. OVT HRS.
DATE START STOP LUNCH HRS. REG. HRS. OVT HRS.

JOB STATUS
☑ COMPLETE ☐ PARTIAL

FUTURE ACTION REQUIRED ☐ YES ☐ NO
☐ WAITING FOR PARTS ON ORDER ☐ ORDER PARTS
☐ MORE SERVICE TIME
☐ OTHER ☐ SALESMAN'S ASST.

CUSTOMER SIGNATURE

PAGE ____ OF ____ PAGES

ACCOUNTING COPY

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10088 Leadbetter Place • Ashland, VA. 23005-3270 • (804) 550-3311
www.cummins-wagner.com

ORIG. JOB NO.
DATE INVOICED
SPECIAL INST. TO SERVICEMAN

MATERIAL RETURNED TO WAREHOUSE
ARG. NO.
REC. RPT. NO.
DATE
☐ NEW ☐ DEFECTIVE
SERVICEMAN'S COMMENTS TO ☐ SERVICE MGR. ☐ SAL

20 MOW

Lochinvar®

EQUIPMENT READINESS CHECKLIST
And Start-Up Documentation

Job Name: ENERGY TRANSFER
Address: 2155 NORTHBRIDGE AVE.
City: BALTIMORE ST: MD Zip: 21226
Contact Name: Poole + Kent Contact Phone: 443-547-2349
Email:

# of Units at jobsite: Boiler(s) 1 Water Heater(s) — Retrofit ●
Tank(s) — Other — New Const. ○

Unit # of #	Model No:	Serial Number:
	FTX600N	2145126818381

Give brief description of jobsite, include model/serial numbers if equipment is not documented with this project:

Check all items in this section PRIOR to requesting Start-Up.

List any health or safety req'mts. for jobsite:

☑ Required service clearances are provided. (Refer to Installation & Operation Manual)		Outdoor Installation? Y○ N●	
☑ All power, controls, & sensors installed and operational		BMS Operational? Y○ N/A●	Supply VAC: 117
☑ Water piping installed & supply available	☑ System Flushed ☑ Filters Installed/Cleaned	Water Pressure (PSI):	Water Pipe Dia. (in): 2
☑ Gas connected & supply available	☑ Sufficient supply for total BTU req'd	Water Test Kit P/N: 100249265	☐ Water Sample Obtained & Submitted
☑ Regulator Installed	☒ Min. 10 ft. upstream from appliance		Gas Pipe Dia. (in): 1
☑ Ventilation is connected and operational	☑ Neutralizer installed for condensate	Date of Request:	

WARNING! *Unit Startup should be performed only by a qualified heating installer/service technician. Refer to the Installation and Operation Manual for your reference. Have this unit serviced/inspected by a qualified service technician, at least annually. Failure to comply could result in severe personal injury, death, or substantial property damage.*

NOTES UNIT HAS BEEN CONVERTED TO PROPANE. VIA GAS VALVE ADJUST.

START-UP REPORT

ALL GAS-FIRED UNITS			NON-CONDENSING ONLY
Total Amp Draw	5.2		Blower Air Pressure: Left / Right
WATER TEMPS Inlet:	142		High Limit:
WATER TEMPS Outlet:	172		Stg 1 Diff. / Stg 2 Diff. / Stg 3 Diff. / Stg 4 Diff.
WATER TEMPS Delta T:	30		
GAS (Inches of W.C.) Static Pressure:	13.5		Manifold Pressure:
GAS (Inches of W.C.) Dynamic Pressure:	11.5		Air Pres. Differential:
COMBUSTION	V1 Low	V1 High	DRAFT READINGS
O_2	6.7	5.9	Unit ON: / Unit OFF:
CO ppm	7	58	Barometric dampers properly adjusted ☐
CO_2	9.3	9.8	Venting Configuration – Select below and indicate direction
If Equipped	V2 Low	V2 High	● Direct Vent - 2 Pipe Termination
O_2			Vertical ☐ Horizontal ☒
CO ppm			○ Concentric - Single Pipe
CO_2			Vertical ☐ Horizontal ☐
VENTILATION	Air (In)	Flue (Out)	☐ Room Air - Single Vent Termination
Diameter:	4	4	Vertical ☐ Horizontal ☐
Material:	PVC	PVC	☐ Vertical Vent w/Sidewall Air
Total Eqv. Lgth:	14	15	

START-UP PERFORMED BY: S/U DATE: 2/1/23

Company: CUMMINS WAGNER CO. INC
Name: T. M. Doyle
Phone: 410-792-4230

— The information on this form verifies operation of the Lochinvar product only. —
This does not imply other system components or overall system operation is certified. Component and system verification should be performed by the designated commissioning agent or installing contractor.

Send completed form to:
Email: startup@Lochinvar.com
Mail: Service Dept/Lochinvar, 300 Maddox Simpson Pkwy, Lebanon, TN 37090

OR

SAVE & EMAIL

Internal Use:
Date Rec'd:
Tech:

Certification and Reporting (CG-500) for Controls and Safety Devices

Unit Manufacturer

Name LOCHINVAR

Address 300 MADDOX SIMPSON PARKWAY / LEBANON, TN Zip 37090

Telephone 615-889-8900 Fax 615-547-1000

Boiler Identification

Manufacturer's Model # FTX 600N Year Built 2021

ASME # 26,858 Nat. Bd. # 272871

AGA # 189136-2743461 Jurisdiction USA & Canada

Hot Water

Max. W.P. 160 psig Max. Temp. 200 °F

Min. Safety Relief Valve Cap. 697,000 Btu

Boiler Unit Description (Type) Low Pressure Boiler

Boiler Unit Capacity (Output) 585,000 Btu/hr

Burner

Manufacturer's Bekaert Model E0008085

UL or AGA # 189136-2743461 Serial # N/A

Fuels (as Shipped) Natural Gas

Gas Manifold Pressure — Indicate Units (Where not applicable, indicate "N/A") N/A

Installation Location (if Known)

Customer Name ENERGY TRANSFER

Address 2155 NORTHBRIDGE AVE.

City BALTIMORE State MD Zip 21226

Telephone Fax

Control/Device	Manufacturer	Model #	Operational Test Performed, Date
Operating Controls			
Low-Water Fuel Cutoff CW-120(a), CW-140	Potter/TACO	LTB024A-1	2/1/23
Water Temperature CW-410(b)	SIT Controls	BIC-938FT	2/1/23
Safety Controls			
Low-Water Fuel Cutoff CW-120(a), CW-120(b) CS-130, CW-140	Potter/TACO	LTB024A-1	2/1/23
High Water Temperature Limit CW-410(b)	Tasseron	TSD91A0	2/1/23
Fuel Safety Shutoff Valve, Main CF-180(b)(2), CF-180(b)(3)	Honeywell	VR8730C1007	2/1/23
High Gas Pressure CF-162	Tecmark (opt.)	GFS4559-4091	2/1/23
Low Gas Pressure CF-162	Tecmark (opt.)	GFS4553-4090	2/1/23
Flame Safeguard (Primary) CF-310, CF 320	SIT Controls	BIC-938FT	2/1/23
Flame Detector CF-310, CF-320	Sapco	SCE-2PLT20002S	2/1/23
Safety or Safety Relief Valve(s) CW-510, CW-520	Conbraco	10-417-10	2/1/23

(opt.) = Optional Components that may not be installed on this appliance. The installer may strike through an item if it is not on the appliance.

Manufacturer LOCHINVAR

Model FTX 600N

Size 600,000 Btu/hr

Capacity 585,000 Btu/hr

Operational Test Performed, Date 2/1/23

Representing Equipment Manufacturer, Name CUMMINS WAGNER CO. INC.

Signature T. M. Day Date 2/1/23

Representing Installing Contractor, Name Poole + KENT

Signature _____ Date _____