



**AIR AND RADIATION ADMINISTRATION
DRAFT PART 70 OPERATING PERMIT**

DOCKET # 24-013-0056

COMPANY: Colonial Pipeline Dorsey Junction

LOCATION: 929 Hoods Mille Road
Woodbine MD 21797

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**MARYLAND DEPARTMENT OF THE ENVIRONMENT
AIR AND RADIATION ADMINISTRATION
AIR QUALITY PERMITS PROGRAM
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.

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**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 Colonial Pipeline Company – Dorsey Junction. The facility includes a tank farm for gasoline and distillates and additives, support equipment, and 8 portable emergency generators.

The applicant is represented by:

Mr. Tyson Garvey, Plant Manager
Colonial Pipeline Company – Dorsey Junction
929 Hoods Mill Road
Woodbine, MD 21797

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.

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BACKGROUND

Colonial Pipeline Company – Dorsey Junction (Colonial Pipeline) located at 929 Hoods Mill Road, Woodbine, Maryland, 21797, is a refined petroleum pipeline breakout station for Colonial Pipeline Company's interstate transportation pipeline system. The facility's location in Carroll County, Maryland (Air Quality Region III) is within the Baltimore ozone non-attainment area. The facility's tank farm includes breakout tanks for gasoline, distillates, additives, and other supporting equipment. The primary Standard Industrial Classification (SIC) code for this facility is 4613.

Significant sources of air emissions at the facility include petroleum product breakout tanks and fugitive emissions from piping components such as valves, pumps, and connectors.

The following table summarizes the actual emissions from Colonial Pipeline from 2018 to 2022 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)
2020	0.43	0.11	0.95	0.12	65.4	0.69
2021	1.50	0.11	1.03	0.34	66.3	0.20
2022	2.37	0.15	1.07	0.52	66.8	0.72
2023	0.14	0.02	0.94	0.03	71.61	0.74
2024	0.09	0.02	0.94	0.02	70.0	0.22

The major source threshold for triggering Title V permitting requirements in Carroll County is 25 tons per year for VOC, 25 tons for NO_x, 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, Colonial Pipeline is required to obtain a Title V – Part 70 Operating Permit under COMAR 26.11.03.01.

Colonial Pipeline's current Title V – Part 70 Operating Permit was issued on July 1, 2019, and expires on June 30, 2024. The renewal Title V – Part 70 Operating Permit will be issued to replace the current permit. Colonial Pipeline submitted their Part 70 permit renewal application to the Department on June 20, 2023. An administrative completeness review was conducted, and the application was deemed administratively complete. An administrative completeness letter was sent on September 26, 2023, granting Colonial Pipeline an application shield. During the renewal period Colonial Pipeline was issued a permit-to-construct on

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November 5, 2020, authorizing the installation of a replacement internal floating roof to replace an existing internal floating roof for Tank 1031 (ARA Registration No. 013-0056-9-0132).

CAM APPLICABILITY

Compliance Assurance Monitoring (CAM) 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.

None of the tanks at Colonial Pipeline employ control devices as defined in 40 CFR §64.1. Although some insignificant activities at the facility are equipped with air strippers to minimize emissions of VOC from wastewater and groundwater treatment systems, the units do not have the potential to emit pre-control device emissions to be classified as a major source and are therefore not subject to CAM requirements. All of the emission units at Colonial Pipeline either do not employ a control device or have pre-control emissions less than applicable major source thresholds, therefore CAM does not apply.

APPLICABILITY OF FEDERAL REGULATIONS

NSPS Applicability

Colonial Pipeline operates three (3) volatile organic liquid storage tanks (Tanks 1040, 1041 and 5200) 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 volatile organic liquids subject to the NSPS requirements. The NSPS requirements of 40 CFR, Part 60, Subpart Kb are included in the Title V – Part 70 Operating Permit for these tanks.

NESHAP Applicability

Colonial Pipeline 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.

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Colonial Pipeline is an area source of HAP emissions and is subject to the requirements of 40 CFR, Part 63, Subpart BBBBBB – National Emission Standards for Hazardous Air Pollutants for Gasoline Distribution Bulk Terminals, Bulk Plants, and Pipeline Facilities. The compliance date for existing sources was January 10, 2011. All applicable requirements of 40 CFR, Part 63, Subpart BBBBBB are included in the renewal Title V – Part 70 Operating Permit. No other NESHAP requirements apply to Colonial Pipeline at this time.

GREENHOUSE GAS (GHG) EMISSIONS

Colonial Pipeline emits the following greenhouse gases (GHG) related to Clean Air Act requirements: carbon dioxide, methane, and nitrous oxide. These GHGs originate from emergency generators.

The facility has not triggered Prevention of Significant Deterioration (PSD) requirements for GHG emissions; therefore, there are no applicable GHG Clean Air Act requirements.

Colonial Pipeline is not a major source for GHG emissions. The following table summarizes the actual emissions from Colonial Pipeline based on its Annual Emission Certification Reports:

Table 2: Greenhouse Gases Emissions Summary

GHG	Conversion factor	2022 tpy CO₂e	2023 tpy CO₂e	2024 tpy CO₂e
Carbon dioxide CO ₂	1	98.89	8.96	11.0
Methane CH ₄	25	4.60	0.5	0.23
Nitrous Oxide N ₂ O	300	0.00	42	27.45
Total GHG CO ₂ eq		103.45	65.24	103.45

CHANGES AND MODIFICATIONS TO THE PART 70 OPERATING PERMIT

Since the prior Part 70 permit was issued the facility modified Tank 1031 by replacing the internal floating roof. Tank 1031 is equipped with a mechanical shoe primary seal and a mechanical shoe secondary seal. Permit to Construct No. 013-0056-9-0132 was issued on November 5, 2020, to include this modification. In addition, five (5) comfort air conditioning units have been installed for a total of ten

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(10) comfort air conditioning units for building comfort included in the insignificant activities section.

EMISSION UNIT IDENTIFICATION

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

Table 2: Emission Unit Identification

Emissions Unit Number	ARA Registration Number	Emissions Unit Name and Description	Date of Installation
Portable EU-1 through EU-8	013-0056-9-0202	Group of eight (8) portable diesel emergency generators each rated at 2000 kilowatts to be brought on-site as needed for emergency purposes.	as needed for emergency purposes
EU-D1000	013-0056-9-0101	One (1) 4,000-gallon utility tank (Tank D1000) for bulk storage of red dye.	1996
EU- Air Stripper	013-0056-9-0083	One (1) air stripper for tank bottom water treatment. This emissions unit is included in the insignificant activities table.	1994
Gasoline Breakout Tanks Subject to COMAR 26.11.13.03 and NESHAP 40 CFR 63 Subpart, BBBB			
EU-1010	013-0056-9-0132	2,268,000-gallon gasoline breakout tank equipped with an internal floating roof (IFR).	1963 IFR replaced in 2012
EU-1011	013-0056-9-0132	5,544,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2016
EU-1012	013-0056-9-0132	1,386,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2010
EU-1013	013-0056-9-0132	1,386,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2011
EU-1014	013-0056-9-0132	1,008,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2015
EU-1015	013-0056-9-0132	1,386,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2013
EU-1016	013-0056-9-0132	2,268,000-gallon, gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2011

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EU-1030	013-0056-9-0132	1,386,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2013
EU-1031	013-0056-9-0132	1,806,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2010 and 2020
EU-1032	013-0056-9-0132	6,300,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2009
EU-1033	013-0056-9-0132	3,360,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2009
EU-1034	013-0056-9-0132	1,806,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2012
Gasoline Breakout Tanks Subject to COMAR 26.11.13.03 and NSPS 40 CFR 60, Subpart Kb			
EU-1040	013-0056-9-0132	1,008,000-gallon gasoline breakout tank equipped with an IFR. Tank 1040 meets the requirements of NESHAP 40 CFR 63, Subpart BBBB by complying with NSPS 40 CFR 60, Subpart Kb.	1997
EU-1041	013-0056-9-0132	1,008,000-gallon gasoline breakout tank equipped with an IFR. Tank 1041 meets the requirements of NESHAP 40 CFR 63, Subpart BBBB by complying with NSPS 40 CFR 60, Subpart Kb.	1997
Transmix Breakout Tanks Subject to COMAR 26.11.13.03 Only			
EU-1060	013-0056-9-0132	2,268,000-gallon transmix breakout tank equipped with an IFR.	1963 IFR replaced in 2013
EU-1061	013-0056-9-0132	1,386,000-gallon transmix breakout tank equipped with an IFR.	1963 IFR replaced in 2014
Transmix/Gasoline Phase Separation Breakout Tank Subject to NSPS 40 CFR 60, Subpart Kb Only			
EU-5200	013-0056-9-0132	21,000-gallon transmix/gasoline phase separation tank equipped with an IFR.	2004 IFR replaced in 2013

Note: For the purposes of this permit, the term “gasoline” means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines, as defined in 40 CFR §63.11100. The gasoline tanks listed above may periodically store distillate or transmix based on operational needs. Transmix tanks may also store distillate periodically based on operational needs.

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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

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to the prevention of nuisances and implementation of Maryland's Air Toxics Program.

REGULATORY REVIEW/TECHNICAL REVIEW/COMPLIANCE
METHODOLOGY

EU-1010 through EU-1016, EU-1030 through EU-1034, and EU-1040 through EU-1041 – Gasoline Breakout Tanks (ARA Registration No. 013-0056-9-0132).

All of these tanks are large (greater than 40,000 gallons), closed top, gasoline storage tanks subject to the VOC requirements in COMAR 26.11.13 for large VOC storage tanks. All tanks were constructed prior to 1970, except Tanks Nos. 1040 and 1041, which were constructed in 1997. All of the tanks except Tanks Nos. 1040 and 1041 have had IFR replacements at various dates as shown in the equipment list. IFR replacements do not qualify as a modification that triggers 40 CFR, Part 60, Subpart Kb applicability.

Tanks No. 1010-1016 and 1030-1034 are subject to the area source HAP requirements of 40 CFR 63, Subpart BBBB for gasoline storage tanks at bulk gasoline terminals. Because these tanks were all installed prior to July 23, 1984, these tanks do not trigger the requirements of 40 CFR 60, Subpart Kb. However, the applicable requirements of 40 CFR 63, Subpart BBBB reference several requirements of 40 CFR 60, Subpart Kb.

Tanks No. 1040-1041 trigger applicability of 40 CFR 60, Subpart Kb for volatile organic storage tanks constructed after July 23, 1984, and satisfy the requirements of 40 CFR 63, Subpart BBBB by complying with 40 CFR 60, Subpart Kb.

Colonial Pipeline was issued Permit to Construct No. 013-0056-9-0132 to authorize the installation of a replacement IFR for Tank 1031 on November 5, 2020. There were no new requirements added to the Title V - Part 70 Operating Permit renewal as a result of the installation of the replacement IFR.

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:

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- (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) 40 CFR Part 60, Subpart BBBBBB requires that each IFR of Tanks 1010 through 1016 and Tanks 1030 through 1034 be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
 - (a) 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; or
 - (b) A mechanical shoe seal which 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.

[Authority: 40 CFR §60.112b(a)(1)(ii)(A) and (C), §63.11087(a), and Table 1 to 40 CFR Part 63, Subpart BBBBBB, requirement 2b]

- (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.

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- (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) The Permittee shall comply with the following additional roof and seal requirements for each gasoline storage tank:

- (a) The IFR shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside the tank with a fixed roof. The IFR shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the tank 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. **[Authority: 40 CFR §60.112b(a)(1)(i) and §63.11087(a)]**

- (b) Each opening in a noncontact IFR except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. **[Authority: 40 CFR §60.112b(a)(1)(iii) and §63.11087(a)]**

- (4) The Permittee shall comply with the following additional roof and seal requirements for Tank 1040 and Tank 1041:

- (a) Each internal floating roof shall be equipped with two (2) 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.
- (b) Each opening in the IFR 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.

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- (b) 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.
- (c) Rim space vents shall be equipped with a gasket and are to be set to open only when the IFR is not floating or at the manufacturer's recommended setting.
- (d) Each penetration of the IFR 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.
- (e) Each penetration of the IFR that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- (f) Each penetration of the IFR that allows for passage of a ladder shall have a gasketed sliding cover.

[Authority: 40 CFR §60.112b(a)(1)(ii)(B) and §60.112b(a)(1)(iv) through (ix)]

Tanks 1040 and 1041 are subject to and in compliance with the control requirements of 40 CFR 60, Subpart Kb and 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

All tanks are equipped with an internal floating roof with primary and secondary seals to meet the roof and seal requirements of COMAR 26.11.13.03, 40 CFR 63, Subpart BBBBBB, and 40 CFR Subpart Kb, as applicable. All of the tanks except Tank 1031 are equipped with an IFR with a mechanical shoe primary seal and a rim-mounted secondary seal. Tank 1031 is equipped with an IFR with a mechanical shoe primary seal and a mechanical shoe secondary seal.

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 top-side in-service internal inspections of the tanks in accordance with the U.S. EPA approved alternate monitoring procedure at least once every 10 years. The Permittee is required to notify the Department prior to conducting an internal tank inspection

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and submit reports of any defects noted during the internal and external tank inspections.

40 CFR Part 63, Subpart BBBBBB requires the Permittee to submit semiannual compliance reports to the Department which includes the inspection information specified in 40 CFR §60.115b(a) for all gasoline storage tanks including records of each inspection performed for each storage tank and records of any defects that were detected during the inspections.

In the Notification of Compliance Status required under 40 CFR 63, Subpart BBBBBB, the Permittee identified Tank Nos. 1040 and 1041 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 as long as the tanks are subject to, and in compliance with 40 CFR 60, Subpart Kb, in accordance with 40 CFR §63.11087(f).

Rationale for Periodic Monitoring Strategy for Control of VOC and HAP

COMAR 26.11.13.03, 40 CFR 63, Subpart BBBBBB, and 40 CFR 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 of periodic monitoring required for compliance.

Emission Unit EU-5200: Transmix/Gasoline Phase Separation Tank (ARA Registration No. 013-0056-9-0132)

EU-5200 is a 21,000-gallon transmix/gasoline phase separation tank (Tank No. 5200) equipped with a full-contact internal floating roof with a mechanical shoe primary seal, and a rim mounted secondary seal. Tank No. 5200 is subject to the NSPS requirements of 40 CFR 60, Subpart Kb because its capacity is greater than 19,813 gallons and it was installed in 2004, after the applicability dates of the regulation.

Tank No. 5200 is not subject to COMAR 26.11.13.03 because the regulations apply only to large storage tanks (40,000-gallon capacity or greater). COMAR 26.11.13.04C for small gasoline storage tanks and 40 CFR 63 Subpart BBBBBB for gasoline storage tanks also do not apply because Tank No. 5200 stores a transmix/gasoline phase separation that is not considered gasoline.

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Applicable Requirements

Control of VOC

40 CFR 60.112b(a)(1) which requires the Permittee to equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications:

- (1) The IFR shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside the tank with a fixed roof. The IFR shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the tank 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.

- (2) The tank shall be equipped with an IFR with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the tank and the edge of the IFR. The lower seal may be vapor-mounted, but both must be continuous.
- (3) Each opening in a noncontact IFR except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
- (4) Each opening in the IFR 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.
- (5) 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.
- (6) Rim space vents shall be equipped with a gasket and are to be set to open only when the IFR is not floating or at the manufacturer's recommended setting.

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- (7) Each penetration of the IFR 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.
- (8) Each penetration of the IFR that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- (9) Each penetration of the IFR that allows for passage of a ladder shall have a gasketed sliding cover.

[Authority: 40 CFR §60.112b(a)(1)(i) through (ix)]

Operating Limitation

The Permittee shall apply for and obtain a permit to construct from the Department prior to storing gasoline in Tank 5200. **[Authority: ARA premises wide Permit to Construct issued on February 23, 2016]**

Compliance Demonstration for Control of VOC and Operating Limitation

Tank No. 5200 is equipped with an internal floating roof with a mechanical shoe primary seal, and a rim mounted secondary seal to meet the roof and seal requirements of 40 CFR 60, Subpart Kb. The Permittee is required to conduct annual visual inspections of the roof and seal 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 must also keep records of the amounts, types, and composition of all materials stored in the tank to ensure that the tank does not store gasoline.

Rationale for Periodic Monitoring Strategy for Control of VOC and Operating Limitation

40 CFR 60, Subpart Kb outlines 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 records of materials stored to ensure that gasoline is not stored in the tank. These inspections and records provide the appropriate amount of periodic monitoring required for compliance.

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Emission Units EU-1060 and EU-1061: Transmix Breakout Tanks (ARA Registration No. 013-0056-9-0132).

EU-1060 and EU-1061 are 2,268,000-gallon and 1,386,000-gallon, respectively, above ground transmix breakout tanks (Tank Nos. 1060 and 1061) with geodesic dome roofs and aluminum internal floating roofs equipped with a mechanical shoe primary seal and a rim mounted secondary seal. These emission units are large (greater than 40,000 gallons) tanks. These tanks were constructed prior to 1973 and have not undergone any major modifications or reconstructions as defined in 40 CFR Part 60.14, and 60.15. The tanks are currently not subject to the NSPS requirements of 40 CFR 60, Subparts K, Ka or Kb because they were installed prior to the applicability dates of those regulations and have not undergone any major modifications or reconstructions that would trigger NSPS Subparts K, Ka, or Kb. Tanks No. 1060 and 1061 are not subject to 40 CFR 63 Subpart BBBBBB for gasoline storage tanks because they do not store gasoline.

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.

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- (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.

Operational Limitation:

The Permittee shall apply for and obtain a permit to construct from the Department prior to storing gasoline in Tank No. 1060 or Tank No. 1061. **[Authority: ARA premises wide Permit to Construct issued on February 23, 2016]**

Compliance Demonstration for Control of VOC and Operating Limitation

Tank Nos. 1060 and 1061 are each equipped with an internal floating roof with a mechanical shoe primary seal and a rim mounted secondary seal to meet the roof and seal requirements of COMAR 26.11.13.03. 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 top-side in-service internal inspections of the tanks in accordance with the U.S. EPA approved alternate monitoring procedure at least once every 10 years. The Permittee must also keep records of the amounts, types, and composition of all materials stored in the tanks to ensure that the tanks do not store gasoline.

Rationale for Periodic Monitoring Strategy for Control of VOC and Operating Limitation

COMAR 26.11.13.03 outlines 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 to demonstrate compliance with the gas-tight device requirement and records of materials stored to ensure that gasoline is not stored in the tanks. These inspections and records provide the appropriate amount periodic monitoring required for compliance.

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Emission Unit: EU-D1000 - Utility Tank for Bulk Storage of Red Dye (ARA Registration No. 013-0056-9-0101)

EU-D1000 is a 4,000-gallon utility tank (Tank D1000) for bulk storage of red dye installed in 1996. Due to the tank's capacity of less than 19,813 gallons, it is not subject to the requirements of 40 CFR 60, Subpart Kb. Tank D1000 is not subject to COMAR 26.11.13.03 because the regulations apply only to large storage tanks, 40,000-gallon capacity or greater. COMAR 26.11.13.04C for small gasoline storage tanks and 40 CFR 63 Subpart BBBBBB for gasoline storage tanks also do not apply because Tank D1000 stores additive that is not considered gasoline.

Applicable Requirements

COMAR 26.11.06.06B(1)(b) requires that the Permittee limit emissions of VOC to not more than 20 pounds per day unless VOC emissions are reduced by 85 percent or more overall.

Compliance Demonstration for Control of VOC

To demonstrate compliance with the requirements of COMAR 26.11.06.06B(1)(b) the Permittee shall keep monthly records to document amounts, types, and composition of all materials loaded into the tank.

Rationale for Periodic Monitoring Strategy for Control of VOC

Maintaining records of the amounts, types, and composition of all materials loaded into the tank can be used to support the VOC emissions calculations and are sufficient to demonstrate compliance with the requirements for Tank D1000. No additional periodic monitoring is necessary.

Emission Unit: EG-1-8 – (8) Eight Portable Diesel Emergency Generators Each Rated at 2000 kilowatts to be Brought On-site as Needed for Emergency Purposes (ARA Registration No. 013-0056-9-0202).

Applicable Requirements:

Visible Emissions and Opacity Limitations

COMAR 26.11.09.05E(2), which states that “a person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.”

COMAR 26.11.09.05E(3), which states that “a person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.”

Exceptions. **COMAR 26.11.09.05E(4)** establishes the following:

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- (1) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
- (2) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (i) Engines that are idled continuously when not in service: 30 minutes; and (ii) All other engines: 15 minutes.
- (3) Section E(2) and (3) do not apply while maintenance, repair, or testing is being performed by qualified mechanics.

Compliance Demonstration for Visible Emissions and Opacity Limitations and Rationale for Periodic Monitoring Strategy

A properly operated and maintained engine of this size should not cause visible emissions in excess of the applicable standards. The Permittee shall operate and maintain the stationary internal combustion engine in a manner to prevent visible emissions. The Permittee shall maintain records of all maintenance/repairs performed and make them available to the Department upon request. The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations." **[Authority: COMAR 26.11.03.06C]**

Control of Sulfur Oxides

COMAR 26.11.09.07A(2)(b) which states that the Permittee shall not burn any distillate fuel oil with a sulfur content by weight greater than 0.3%.

Compliance Demonstration for Control of Sulfur Oxides and Rationale for Periodic Monitoring Strategy

The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the limitation on the sulfur content of fuel oil. The Permittee shall keep records of fuel supplier certifications of sulfur content in fuel and submit the records to the Department upon request. Fuel supplier certifications are sufficient to demonstrate compliance with all applicable fuel sulfur limitations. No additional monitoring is required.

Operational Limitations

40 CFR §1068.30 - The engine must be portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of portability include, but is not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. Each engine may not remain on site for more than 12 consecutive months.

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Compliance Demonstration and Rationale for Periodic Monitoring Strategy

The Permittee must maintain the beginning and end dates of each period that the engine is brought on site for operation. The Permittee is also required to maintain an operating log for the engine including the dates and hours the engine is operated and the reason the engine was in operation during that time. These records are sufficient to demonstrate compliance.

EU-General – General Facility Wide Requirements

Colonial Pipeline is 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, Colonial Pipeline could potentially emit major source levels of HAP and NOx emissions without operational and emissions limits. Synthetic minor limitations for HAP and NOx emissions are included in Colonial Pipeline's Title V - Part 70 Operating permit and the federally enforceable premises wide Permit to Construct issued on February 23, 2016. The throughput limits establish federally enforceable requirements that limit the potential facility wide HAP and NOx emissions.

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.

The Permittee is required to submit semiannual reports as specified in 40 CFR 63, Subpart BBBBBB describing any malfunction that may have caused any applicable emission limitation to be exceeded. The Permittee also is required to submit a semiannual compliance report including any equipment leaks found during leak inspections not repaired within 15 days and to include excess emission reports for leaks for which no repair was made within five (5) days and not repaired within 15 days.

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.

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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, distillate, and additives 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) 2,562,840,000 gallons of gasoline (refers to gasoline grades that include conventional, re-formulated and blend stock gasoline, and gasoline-distillate mixtures (e.g., *transmix*)); and
 - (b) 3,055,297,000 gallons of distillates (includes fuel oils and kerosenes); and
 - (c) 104,000 gallons of additives.

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

Premises wide NOx emissions shall be less than 25 tons in any rolling 12-month period.

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

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

Rationale for Periodic Monitoring Strategy for Operational and Emissions Limitations to Preclude Applicability of Major Source HAP and NOx Requirements

Records of HAP and NOx emissions and gasoline and distillate throughput submitted annually are sufficient to demonstrate compliance with the NOx and HAP emissions and throughput limits.

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COMPLIANCE SCHEDULE

Colonial Pipeline is currently in compliance with all applicable air quality regulations.

TITLE IV – ACID RAIN

Not Applicable

TITLE VI – OZONE DEPLETING SUBSTANCES

Colonial Pipeline is not subject to Title VI requirements.

SECTION 112(r) – ACCIDENTAL RELEASE

Colonial Pipeline is not subject to the requirements of Section 112(r).

PERMIT SHIELD

Colonial Pipeline 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. 5 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

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The one (1) 162 hp emergency generator, one (1) 132 hp emergency generator, and three (3) 399 hp emergency fire pump engines are subject to the following requirements:

- (a) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (b) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (c) Exceptions:
 - (i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (a) Engines that are idled continuously when not in service: 30 minutes
 - (b) all other engines: 15 minutes.
 - (iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.
- (d) For the 162 hp emergency generator, 40 CFR 63, Subpart ZZZZ which states that the Permittee must:
 - (i) Change oil and filter every 500 hours of operation or annually, whichever comes first; **[Authority: 40 CFR §63.6603, Table 2d, No. 4a]**
 - (ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as

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necessary; **[Authority: 40 CFR §63.6603, Table 2d, No. 4b]**

- (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary; **[Authority: 40 CFR §63.6603, Table 2d, No. 4c]**
 - (iv) operate and maintain the engine and keep records as specified in Subpart ZZZZ; and
 - (v) keep records of the hours of operation of the engine as recorded through a non-resettable hour meter.
[Authority: 40 CFR §63.6655(f)]
- (e) For one (1) 132 hp emergency generator, and three (3) 399 hp emergency fire pump engines, 40 CFR 60, Subpart IIII which states that the Permittee must:
- (i) purchase an engine certified to the emission standards in 40 CFR §60.4205(b) and (c) for the same model year and maximum engine power;
[Authority: 40 CFR §60.4205(b) and (c)]
 - (ii) install and configure the engine according to the manufacturer's emission-related specifications;
[Authority: 40 CFR §60.4211(a)(1)]
 - (iii) operate and maintain the diesel engine that achieves the emissions standards as required by 40 CFR §60.4205 for emergency engines according to the manufacturer's emissions related written instructions over the entire life of the engine; **[Authority: 40 CFR §60.4206]**
 - (iv) change those settings that are permitted by the manufacturer; **[Authority: 40 CFR §60.4211(a)(2)]**
 - (v) meet the requirements of 40 CFR Parts 89, 94, and/or 1068, as applicable; **[Authority: 40 CFR §60.4211(a)(3)]**

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(vi) use diesel fuel in the engine that meets the requirements of 40 CFR §80.510(b); and 1090.305
[Authority: 40 CFR §60.4207(b)]

(vii) meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII. **[Authority: 40 CFR §63.6590(c)(1)]**

- (2) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat; *Individual size small office heaters only.
- (3) No. 20 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less; *Small containers of tank cleaning solutions only. The quantity of small containers varies often. Two (2) 55-gallon drums of transmix.
- (4) Containers, reservoirs, or tanks used exclusively for:
- (a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;
- (b) No. 1 Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater; *1,200-gallon storage tank for drag reducing agent (DRA).
- (c) No. 13 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;
- (i) Tank No. 1050: 2,268,000-gallon vertical fixed roof jet kerosene tank;
- (ii) Tank No. 1051: 2,268,000-gallon vertical fixed roof jet kerosene tank;
- (iii) Tank No. 1052: 2,814,000-gallon vertical fixed roof jet kerosene tank;
- (iv) Tank No. 1070: 9,156,000-gallon vertical fixed roof distillate breakout tank;

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- (v) Tank No. 1071: 5,040,000-gallon
vertical fixed roof distillate breakout
tank;
- (vi) Tank No. 1072: 3,360,000-gallon
vertical fixed roof distillate breakout
tank;
- (vii) Tank No. 1073: 4,032,000-gallon
vertical fixed roof distillate breakout
tank;
- (viii) Tank No. 1074: 1,806,000-gallon
vertical fixed roof jet kerosene tank;
- (ix) Tank No. 1075: 2,268,000-gallon
vertical fixed roof jet kerosene tank;
- (x) Tank No. 1076: 4,032,000-gallon
vertical fixed roof jet kerosene tank;
- (xi) Tank No. 1077: 3,360,000-gallon
vertical fixed roof distillate breakout
tank;
- (xii) Tank No. 1080: 1,015,000-gallon
vertical fixed roof distillate breakout
tank; and
- (xiii) Tank No. 1081: 1,015,000-gallon
vertical fixed roof distillate breakout
tank.

(d) No. 20 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; *Paint stored in 55-gallon drums, 5-gallon buckets, and small cans.

- (5) ✓ First aid and emergency medical care provided at the facility, including related activities such as sterilization and medicine preparation

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used in support of a manufacturing or production process; *First aid kits only.

- (6) ✓ Potable water treatment equipment, not including air stripping equipment; *Water softeners and particulate filters only.
- (7) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act; *Ten (10) units for building and office comfort.
- (8) ✓ Laboratory fume hoods and vents; *One clean air exhaust fan in lab.
- (9) 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. 3 Oil/water separators

No. 1 Air Stripper for groundwater treatment

No. 1 Air Stripper for tank bottom water treatment (ARA Registration No. 013-0056-9-0083)

No. 2 Underground sumps

No. 1 Maintenance activities

STATE ONLY ENFORCEABLE REQUIREMENTS

This section of the permit contains 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:

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- (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.

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SECTION I SOURCE IDENTIFICATION

1. DESCRIPTION OF FACILITY

Colonial Pipeline Company - Dorsey Junction (Colonial Pipeline) is a refined petroleum pipeline breakout station for Colonial Pipeline's interstate transportation pipeline system. The facility's tank farm includes breakout tanks for gasoline, distillates, transmix, additives, and other supporting equipment. The facility is located in Carroll County, Maryland (Air Quality Region III) which is within the Baltimore ozone non-attainment area. The primary Standard Industrial Classification (SIC) code for this facility is 4613.

Significant sources of air emissions at the facility include petroleum product breakout tanks and fugitive emissions from piping components such as valves, pumps, and connectors.

2. FACILITY INVENTORY LIST

Emissions Unit Number	MDE- ARA Registration Number	Emissions Unit Name and Description	Date of Installation
Portable EU-1 through EU-8	013-0056-9-0202	Group of eight (8) portable diesel emergency generators each rated at 2000 kilowatts to be brought on-site as needed for emergency purposes.	as needed for emergency purposes
EU-D1000	013-0056-9-0101	One (1) 4,000-gallon utility tank (Tank D1000) for bulk storage of red dye.	1996
EU- Air Stripper	013-0056-9-0083	One (1) air stripper for tank bottom water treatment. This emissions unit is included in the insignificant activities table.	1994
Gasoline Breakout Tanks Subject to COMAR 26.11.13.03 and NESHAP 40 CFR 63 Subpart, BBBB			
EU-1010	013-0056-9-0132	2,268,000-gallon gasoline breakout tank equipped with an internal floating roof (IFR).	1963 IFR replaced in 2012
EU-1011	013-0056-9-0132	5,544,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2016
EU-1012	013-0056-9-0132	1,386,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2010

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Emissions Unit Number	MDE- ARA Registration Number	Emissions Unit Name and Description	Date of Installation
EU-1013	013-0056-9-0132	1,386,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2011
EU-1014	013-0056-9-0132	1,008,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2015
EU-1015	013-0056-9-0132	1,386,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2013
EU-1016	013-0056-9-0132	2,268,000-gallon, gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2011
EU-1030	013-0056-9-0132	1,386,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2013
EU-1031	013-0056-9-0132	1,806,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2010 and 2020
EU-1032	013-0056-9-0132	6,300,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2009
EU-1033	013-0056-9-0132	3,360,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2009
EU-1034	013-0056-9-0132	1,806,000-gallon gasoline breakout tank equipped with an IFR.	1963 IFR replaced in 2012
Gasoline Breakout Tanks Subject to COMAR 26.11.13.03 and NSPS 40 CFR 60, Subpart Kb			
EU-1040	013-0056-9-0132	1,008,000-gallon gasoline breakout tank equipped with an IFR. Tank 1040 meets the requirements of NESHAP 40 CFR 63, Subpart BBBB by complying with NSPS 40 CFR 60, Subpart Kb.	1997
EU-1041	013-0056-9-0132	1,008,000-gallon gasoline breakout tank equipped with an IFR. Tank 1041 meets the requirements of NESHAP 40 CFR 63, Subpart BBBB by complying with NSPS 40 CFR 60, Subpart Kb.	1997
Transmix Breakout Tanks Subject to COMAR 26.11.13.03 Only			

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Emissions Unit Number	MDE- ARA Registration Number	Emissions Unit Name and Description	Date of Installation
EU-1060	013-0056-9-0132	2,268,000-gallon transmix breakout tank equipped with an IFR.	1963 IFR replaced in 2013
EU-1061	013-0056-9-0132	1,386,000-gallon transmix breakout tank equipped with an IFR.	1963 IFR replaced in 2014
Transmix/Gasoline Phase Separation Breakout Tank Subject to NSPS 40 CFR 60, Subpart Kb Only			
EU-5200	013-0056-9-0132	21,000-gallon transmix/gasoline phase separation tank equipped with an IFR.	2004 IFR replaced in 2013

Note: For the purposes of this permit, the term “gasoline” means any petroleum distillate or petroleum distillate/alcohol blend having a Reid vapor pressure of 27.6 kilopascals or greater, which is used as a fuel for internal combustion engines, as defined in 40 CFR §63.11100. The gasoline tanks listed above may periodically store distillate or transmix based on operational needs. Transmix tanks may also store distillate periodically based on operational needs.

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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)

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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

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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;

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- 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.

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- 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,

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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:

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- (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

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- (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.

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- (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;

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- (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.

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- 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

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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;

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- (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.

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- 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;

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- 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 by (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.

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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.

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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.

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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;

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- 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.

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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:

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- 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

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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)

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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:

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- (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.

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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

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- 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.

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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

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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	<u>Emissions Unit Numbers</u> EU-1010: 2,268,000-gallon gasoline breakout tank equipped with an IFR EU-1011: 5,544,000-gallon gasoline breakout tank equipped with an IFR EU-1012: 1,386,000-gallon gasoline breakout tank equipped with an IFR EU-1013: 1,386,000-gallon gasoline breakout tank equipped with an IFR EU-1014: 1,008,000-gallon gasoline breakout tank equipped with an IFR EU-1015: 1,386,000-gallon gasoline breakout tank equipped with an IFR EU-1016: 2,268,000-gallon gasoline breakout tank equipped with an IFR EU-1030: 1,386,000-gallon gasoline breakout tank equipped with an IFR EU-1031: 1,806,000-gallon gasoline breakout tank equipped with an IFR EU-1032: 6,300,000-gallon gasoline breakout tank equipped with an IFR EU-1033: 3,360,000-gallon gasoline breakout tank equipped with an IFR EU-1034: 1,806,000-gallon gasoline breakout tank equipped with an IFR EU-1040: 1,008,000-gallon gasoline breakout tank equipped with an IFR EU-1041: 1,008,000-gallon gasoline breakout tank equipped with an IFR (ARA Registration No. 013-0056-9-0132) Tanks 1040 and 1041 meet the requirements of NESHAP 40 CFR 63, Subpart BBBB by complying with NSPS 40 CFR 60, Subpart Kb.

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Table IV – 1	
1.1	<p><u>Applicable Standards/Limits:</u></p> <p><u>Control of VOC and HAP</u></p> <ol style="list-style-type: none"> 1. COMAR 26.11.13.03A(1)(a) and (b) which requires the Permittee to meet the following equipment requirements: <ol style="list-style-type: none"> (a) Each tank’s gauging and sampling devices shall be gas tight except when in use. [Authority: COMAR 26.11.13.03A(1)(a)] (b) Each tank shall be equipped with one of the following properly installed, operating, and well maintained emission control systems: <ol style="list-style-type: none"> i. An internal floating roof equipped with a primary and secondary seal; [Authority: COMAR 26.11.13.03A(1)(b)(i)] ii. A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere; or [Authority: COMAR 26.11.13.03A(1)(b)(ii)] 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. [Authority: COMAR 26.11.13.03A(1)(b)(iii)] 2. COMAR 26.11.13.03A(2) which requires the Permittee to meet the following seal requirements: <ol style="list-style-type: none"> (a) There shall be no visible holes, tears, or other openings in the seal or seal fabric. [Authority: COMAR 26.11.13.03A(2)(a)] (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. [Authority: COMAR 26.11.13.03A(2)(b)]

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Table IV – 1	
	<p>(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. [Authority: COMAR 26.11.13.03A(2)(c)]</p> <p>3. The Permittee shall comply with the following roof and seal requirements for each gasoline storage tank:</p> <p>(a) The IFR shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside the tank with a fixed roof. The IFR shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the tank is completely emptied or subsequently emptied and refilled.</p> <p>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. [Authority: 40 CFR §60.112b(a)(1)(i), §63.11087(a), and Table 1 to 40 CFR Part 63, Subpart BBBB, requirement 2b]</p> <p>(b) Each opening in a noncontact IFR except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. [Authority: 40 CFR §60.112b(a)(1)(iii), §63.11087(a), and Table 1 to 40 CFR Part 63, Subpart BBBB, requirement 2b]</p> <p>4. The Permittee shall comply with the following roof and seal requirements for Tanks 1010 through 1016 and Tanks 1030 through 1034. 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:</p> <p>(a) A foam- or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal); or</p> <p>(b) A mechanical shoe seal.</p>

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Table IV – 1	
	<p>[Authority: 40 CFR §60.112b(a)(1)(ii)(A) and (C), §63.11087(a), and Table 1 to 40 CFR Part 63, Subpart BBBBBB, requirement 2b]</p> <p>4. The Permittee shall comply with the following roof and seal requirements for Tank 1040 and Tank 1041:</p> <ul style="list-style-type: none"> (a) Each IFR shall be equipped with two (2) 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. (b) Each opening in the IFR 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. (c) 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. (d) Rim space vents shall be equipped with a gasket and are to be set to open only when the IFR is not floating or at the manufacturer's recommended setting. (e) Each penetration of the IFR 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. (f) Each penetration of the IFR that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.

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Table IV – 1	
	<p>(g) Each penetration of the IFR that allows for passage of a ladder shall have a gasketed sliding cover.</p> <p>[Authority: 40 CFR §60.112b(a)(1)(ii)(B) and §60.112b(a)(1)(iv) through (ix)]</p> <p>Tanks 1040 and 1041 are subject to and in compliance with the control requirements of 40 CFR 60, Subpart Kb, and are deemed in compliance with the gasoline storage tank requirements under 40 CFR 63, Subpart BBBB. [Authority: 40 CFR §63.11087(f)]</p>
1.2	<p><u>Testing Requirements:</u></p> <p><u>Control of VOC and HAP</u></p> <p>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)]</p>
1.3	<p><u>Monitoring Requirements:</u></p> <p><u>Control of VOC and HAP</u></p> <p>1. The Permittee shall perform an annual visual inspection of each tank's gauging and sampling devices. If the visual inspection shows non-compliance with the gas-tight requirement, the Permittee shall make repairs to the gauging and sampling devices to a gas tight condition.</p> <p>If the tank is not in compliance with the gas-tight requirement, the Permittee shall repair the device 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 will assure that the device will be repaired or the tank will be emptied as soon as possible.</p>

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	<p>[Authority: COMAR 26.11.03.06C and premises wide Permit to Construct issued February 23, 2016]</p> <p>2. The Permittee shall comply with the following inspection requirements for each gasoline storage tank:</p> <ul style="list-style-type: none"> (a) The Permittee shall visually inspect the IFR, the primary seal, and the secondary seal, prior to filling or refilling the storage vessel with volatile organic liquid (VOL). 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), §63.11087(c) and §63.11092(e)(1)] (b) The Permittee shall visually inspect the IFR, 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 IFR is not resting on the surface of the gasoline 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 in the inspection report required in 40 CFR §60.115b(a)(3). 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 26.11.03.06C, COMAR 26.11.13.03A(3)(a) and (b), 40 CFR §60.113b(a)(2) and (a)(3)(ii), §63.11087(c) and §63.11092(e)(1)] (c) The Permittee shall visually inspect the IFR, the primary seal, the secondary seal, gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the IFR 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

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	<p>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 specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraph (b) of this section except as allowed by the Alternate Monitoring Plan described in paragraph (d) of this section. [Authority: COMAR 26.11.13.03A(3)(c), 40 CFR §63.11087(c), §63.11092(e)(1) and 40 CFR 60.113b(a)(4)]</p> <p>(d) For gasoline breakout tanks for which an Alternate Monitoring Plan is approved under 40 CFR Part 63 Subpart A or 40 CFR Part 60 Subpart A, and in the absence of an independent need to conduct an out of service internal inspection within the interval specified in paragraph (c) of this section, the Permittee may comply with the requirements of paragraph (c) of this section by conducting an in-service internal inspection of each tank's IFR and its seals in accordance with the following requirements:</p> <p>(i) While performing an in-service internal inspection, the Permittee shall also measure seal gaps and document the location and dimensions of any seal gaps in both the primary and secondary seals that are greater than 1/8 inch in width (gap between the seal and the tank wall); and document the location and dimension of any holes, tears, or other openings in the seal fabric of either the primary or secondary seals.</p> <p>Any of the following conditions constitute inspection failure under a top-side in-service internal inspection: stored liquid on the floating roof; holes or tears in the primary or secondary seal; equipment not operating or functioning as designed to comply with COMAR 26.11.13.03, 40 CFR 60, Subpart Kb, and 40 CFR 63, Subpart BBBBBB as applicable; and gaps of more than 1/8 inch between any deck fitting gasket, seal, or wiper and any</p>

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	<p>surface that it is intended to seal. If a failure is detected during an inspection, 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 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 will assure that the control equipment will be repaired or the tank will be emptied as soon as possible.</p> <p>(ii) Notwithstanding paragraph (i) above, whenever a tank is emptied and degassed for maintenance purposes or integrity assessments, the Permittee shall conduct a full top-side and bottom-side internal inspection of the tank's IFR and its seals in accordance with 40 CFR 60.112b(a)(4) and 40 CFR 63.11092(e)(1) and paragraph (c) of this section.</p> <p>[Authority: U.S. EPA approved alternative monitoring plan as allowed under 40 CFR §60.13 and §63.8, and premises-wide Permit to Construct issued February 23, 2016. The alternative monitoring plan satisfies the internal inspection requirements specified under COMAR 26.11.13.03A(3)(c), 40 CFR §60.113b(a)(4), §63.11087(c) and §63.11092(e)(1)]</p>
1.4	<p><u>Record Keeping Requirements:</u> The Permittee shall keep all required records on-site for at least five (5) years, unless otherwise specified.</p> <p><u>Control of VOC and HAP</u></p> <ol style="list-style-type: none"> 1. Records of each visual inspection of a tank's gauging and sampling devices including the date of the inspection, the results of each inspection, and any repairs made. [Authority: COMAR 26.11.03.06C] 2. Records of each external and internal (top-side in-service and full out of service) tank inspection as required by 40 CFR §60.113b(a) and COMAR 26.11.13.03A(3) including identification of the tank on which the inspection was performed, the date the tank was inspected, the

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	<p>observed condition of each component of the control equipment (seals, IFR, and fittings), and records of all repairs and replacements of seals, including the date and the action taken. [Authority: COMAR 26.11.13.03C(1) and (2), 40 CFR §60.115b(a)(2), §63.11087(e), and §63.11094(a)]</p> <p>3. Records of the average monthly storage temperature and throughput. [Authority: COMAR 26.11.13.03C(3)]</p> <p>4. For Tanks 1040 and 1041 only, readily accessible records kept for the life of the tank showing the dimension of the tank and an analysis showing the capacity of the tank. [Authority: 40 CFR §60.116b(a) and (b)]</p> <p>5. For Tanks 1040 and 1041 only, records of the VOL stored, the period of storage and the maximum true vapor pressure of that VOL during the respective storage period. 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)]</p>
1.5	<p><u>Reporting Requirements:</u></p> <p><u>Control of VOC and HAP</u></p> <p>1. The Permittee shall notify the Department in writing at least 15 days prior to an internal inspection of each tank (top-side in-service and full out of service) and at least 30 days prior to the filling or refilling of each gasoline storage tank to afford the Department an opportunity to have an observer present.</p> <p>If the inspection is not planned and the Permittee could not have known about the inspection 30 days in advance of refilling the gasoline storage tank, the Permittee shall notify the Department at least 7 days prior to refilling the tank. 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 7 days prior to the refilling. [Authority: COMAR 26.11.03.06C, COMAR 26.11.13.03A(3)(d), 40 CFR §60.113b(a)(5), §63.11087(c), and §63.11092(e)]</p>

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	<p>2. The Permittee shall submit a report to the Department within 30 days after each inspection of Tank 1040 or Tank 1041 that finds holes or tears in the seal or seal fabric, or defects in the IFR, or other control equipment defects listed in 40 CFR §60.113b(a)(3)(ii). The report shall identify the tank 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 §63.11087(e), §63.11095(a)(1), §60.115b(a)(4)]</p> <p>3. 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 IFR is not resting on the surface of the VOL inside the storage vessel, there is liquid accumulated on the roof, the seal is detached, or there are holes or tears in the seal fabric), a report shall be furnished 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 the date the repair was made. [Authority: 40 CFR §63.11087(e), §63.11095(a)(1), and §60.115b(a)(3)]</p> <p>4. The Permittee shall submit a semiannual compliance report to the Department. The semiannual compliance report shall include the information specified in 40 CFR §60.115b(a) for all gasoline storage tanks including the following: [Authority: 40 CFR §63.11087(e) and §63.11095(a)(1)]</p> <p>(a) Records of each inspection performed for each storage tank as required by 40 CFR §60.113b(a)(1), (a)(2), and (a)(4) and COMAR 26.11.13.03A(3). [Authority: 40 CFR §60.115b(a)(2), 40 CFR §63.11087(e), and §63.11095(a)(1)]</p> <p>(b) Records of each inspection performed for storage tanks T1040 and T1041 as required by 40 CFR §60.113b(a)(3). [Authority: 40 CFR §60.115b(a)(2), 40 CFR §63.11087(e), and §63.11095(a)(1)]</p> <p>(c) Reports of the storage tank having defects described in 40 CFR §60.113b(a)(2) that are detected during the annual visual inspection required by 40 CFR §60.113b(a)(2). [Authority: 40 CFR §60.115b(a)(3), 40 CFR §63.11087(e), and §63.11095(a)(1)]</p>

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	<p>(d) For Tanks 1040 and 1041 only, reports that find the storage tanks not meeting the specifications of 40 CFR §60.112b(a)(1) or §60.113b(a)(3) during the inspections required by 40 CFR §60.113b(a)(3). [Authority: 40 CFR §60.115b(a)(4), 40 CFR §63.11087(e), and §63.11095(a)(1)]</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above for Emissions Unit Nos. EU-1010 through EU-1016, EU-1030 through EU-1034, and EU-1040 and EU-1041.

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2.0	<p><u>Emissions Unit Number</u></p> <p>EU-5200: 21,000-gallon gasoline transmix/gasoline phase separation tank equipped with an IFR with a mechanical shoe primary seal and a rim mounted secondary seal (ARA Registration No. 013-0056-9-0132).</p>
2.1	<p><u>Applicable Standards/Limits:</u></p> <p><u>Control of VOC</u></p> <p>40 CFR 60.112b(a)(1) which requires the Permittee to equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications:</p> <ol style="list-style-type: none"> 1. The IFR shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside the tank with a fixed roof. The IFR shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the tank is completely emptied or subsequently emptied and refilled. <p>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.</p> <ol style="list-style-type: none"> 2. The tank shall be equipped with an IFR with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the tank and the

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	<p>edge of the IFR. The lower seal may be vapor-mounted, but both must be continuous.</p> <ol style="list-style-type: none"> 3. Each opening in a noncontact IFR except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface. 4. Each opening in the IFR 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. 5. 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. 6. Rim space vents shall be equipped with a gasket and are to be set to open only when the IFR is not floating or at the manufacturer's recommended setting. 7. Each penetration of the IFR 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. 8. Each penetration of the IFR that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover. 9. Each penetration of the IFR that allows for passage of a ladder shall have a gasketed sliding cover. <p>[Authority: 40 CFR §60.112b(a)(1)(i) through (ix)]</p> <p><u>Operating Limitation</u> The Permittee shall apply for and obtain a permit to construct from the Department prior to storing gasoline in Tank 5200. [Authority: ARA premises wide Permit to Construct issued on February 23, 2016]</p>

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2.2	<p><u>Testing Requirements:</u></p> <p><u>Control of VOC</u> See Monitoring, Recordkeeping and Requirements.</p> <p><u>Operating Limitation</u> See Recordkeeping and Reporting Requirements.</p>
2.3	<p><u>Monitoring Requirements:</u></p> <p><u>Control of VOC</u> The Permittee shall meet the following monitoring requirements:</p> <ol style="list-style-type: none"> 1. The Permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling or refilling the storage vessel with gasoline. 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)] 2. The Permittee shall also visually inspect the storage vessel in accordance with the following specifications: <ol style="list-style-type: none"> (a) The Permittee shall visually inspect the IFR 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 IFR is not resting on the surface of the gasoline 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 within 45 days and if the tank cannot be emptied within 45 days, a 30-day extension may be requested from the Department in the inspection report required in §60.115b(a)(3). 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: 40 CFR §60.113b(a)(2) and (a)(3)(ii)]

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	<p style="text-align: center;"><u>OR</u></p> <p>(b) The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, 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 specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraph (a) of this section. [Authority: 40 CFR 60.113b(a)(4)]</p> <p><u>Operational Limitation</u> See Recordkeeping and Reporting Requirements.</p>
2.4	<p><u>Record Keeping Requirements:</u> The Permittee shall keep all required records on-site for at least five (5) years.</p> <p><u>Control of VOC</u> The Permittee shall create, maintain, and retain the following:</p> <ol style="list-style-type: none"> 1. A record of each inspection performed as required by 40 CFR 60.113b(a). 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). The Permittee shall also record all repairs or replacement of the seals, including the date and the action taken. [Authority: 40 CFR 60.115b(a)(2) and COMAR 26.11.03.06C] 2. Records of the dimensions of each storage vessels and an analysis showing the capacity of the storage vessel. Records shall be kept on-

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	<p>site for the life of the storage vessel. [Authority: 40 CFR 60.116b(a) and (b)]</p> <p>3. Records of the VOL stored, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period. 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)]</p> <p><u>Operational Limitation</u> The Permittee shall keep records and make them available to the Department upon request of the amounts, types, and composition of all materials stored in the tank. [Authority: COMAR 26.11.03.06C]</p>
2.5	<p><u>Reporting Requirements:</u></p> <p><u>Control of VOC</u> The Permittee shall meet the following reporting requirements:</p> <p>1. The Permittee shall notify the Department in writing at least 30 days prior to the filling or refilling of the storage vessel for which an inspection is required to afford the Department the opportunity to have an observer present. If the inspection is not planned and the Permittee could not have known about the inspection 30 days in advance or 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)]</p> <p>2. 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 IFR is not resting on the surface of the VOL inside the storage vessel, there is liquid accumulated on the roof, the seal is detached, or there are holes or tears in the seal fabric), a report shall be furnished 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</p>

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	<p>nature of and the date the repair was made. [Authority: 40 CFR §60.115b(a)(3)]</p> <p>3. 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 the Department with a report within thirty (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 40 CFR 60.113b(a)(3) and list each repair made. [Authority: 40 CFR 60.115b(a)(4)]</p> <p><u>Operating Limitations</u> The Permittee shall submit material storage records to the Department upon request. [Authority: COMAR 26.11.03.06C]</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above for Emissions Unit Nos. EU-5200.

Table IV – 3	
3.0	<p><u>Emissions Unit Number(s)</u></p> <p>EU-1060: 2,268,000-gallon transmix breakout tank equipped with an IFR. EU-1061: 1,386,000-gallon transmix breakout tank equipped with an IFR. (ARA Registration No. 013-0056-9-0132)</p>
3.1	<p><u>Applicable Standards/Limits:</u></p> <p><u>Control of VOC</u></p> <p>1. COMAR 26.11.13.03A(1)(a) and (b) which requires the Permittee to meet the following equipment requirements:</p> <p style="padding-left: 40px;">(a) Each tank's gauging and sampling devices shall be gas tight except when in use. [Authority: COMAR 26.11.13.03A(1)(a)]</p> <p style="padding-left: 40px;">(b) Each tank shall be equipped with one of the following properly installed, operating, and well maintained emission control systems:</p>

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	<p>i. An internal floating roof equipped with a primary and secondary seal; [Authority: COMAR 26.11.13.03A(1)(b)(i)]</p> <p>ii. A pressure tank system that maintains a pressure at all times to prevent loss of vapors to the atmosphere; or [Authority: COMAR 26.11.13.03A(1)(b)(ii)]</p> <p>iii. A vapor control system capable of collecting the vapors from the tank and disposing of these vapors to prevent their emission to the atmosphere. [Authority: COMAR 26.11.13.03A(1)(b)(iii)]</p> <p>2. COMAR 26.11.13.03A(2) which requires the Permittee to meet the following seal requirements:</p> <p>(a) There shall be no visible holes, tears, or other openings in the seal or seal fabric. [Authority: COMAR 26.11.13.03A(2)(a)]</p> <p>(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. [Authority: COMAR 26.11.13.03A(2)(b)]</p> <p>(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, gauging and sampling devices) that are greater than 1/8 inch in width may not exceed 1.0 square inch per foot of tank diameter. [Authority: COMAR 26.11.13.03A(2)(c)]</p> <p><u>Operational Limitation:</u> The Permittee shall apply for and obtain a permit to construct from the Department prior to storing gasoline in Tank No. 1060 or Tank No. 1061. [Authority: ARA premises wide Permit to Construct issued on February 23, 2016]</p>

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3.2	<p><u>Testing Requirements:</u></p> <p><u>Control of VOC</u> The Permittee shall determine the total seal gap during an internal inspection of a tank, 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)]</p> <p><u>Operational Limitation</u> See Recordkeeping and Reporting Requirements.</p>
3.3	<p><u>Monitoring Requirements:</u></p> <p><u>Control of VOC</u></p> <ol style="list-style-type: none"> 1. The Permittee shall perform an annual visual inspection of each tank's gauging and sampling devices. If the visual inspection shows non-compliance with the gas-tight requirement, the Permittee shall make repairs to return the gauging and sampling devices to a gas tight condition. If the tank is not in compliance with the gas-tight requirement, the Permittee shall repair the device 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 will assure that the device will be repaired or the tank will be emptied as soon as possible. [Authority: COMAR 26.11.03.06C and premises wide Permit to Construct issued February 23, 2016] 2. The Permittee shall comply with the following inspection requirements for each transmix storage tank: <ol style="list-style-type: none"> (a) The Permittee shall perform an annual visual inspection of each tank's IFR and seals from the roof hatch. If the visual inspection shows non-compliance with the seal requirements listed in COMAR 26.11.13.03(A)(2)(a) and (b) as listed above in Section 3.1 of this Table (Table IV-3), or liquid product on the

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	<p>roof, the Permittee shall perform an internal inspection of the IFR and seals. At a minimum frequency, the Permittee shall perform an internal inspection of each tank and its seals within 10 years from the date of the last internal inspection.</p> <p>[Authority: COMAR 26.11.03.06C and COMAR 26.11.13.03A(3)(a), (b) and (c)]</p> <p>(b) For transmix storage tanks for which the Department has approved an Alternate Monitoring Plan developed in accordance with 40 CFR Part 63 Subpart A or 40 CFR Part 60 Subpart A, and in the absence of an independent need to conduct an out of service internal inspection within the 10-year interval specified in paragraph (a) of this section, the Permittee may comply with the requirements of paragraph (a) of this section by conducting an in-service internal inspection of each tank's IFR and its seals in accordance with the following requirements:</p> <p>(i) While performing an in-service internal inspection, the Permittee shall also measure seal gaps and document the location and dimensions of any seal gaps in both the primary and secondary seals that are greater than 1/8 inch in width (gap between the seal and the tank wall); and document the location and dimension of any holes, tears, or other openings in the seal fabric of either the primary or secondary seals.</p> <p>Any of the following conditions constitute inspection failure under a top-side in-service internal inspection: stored liquid on the floating roof; holes or tears in the primary or secondary seal; equipment not operating or functioning as designed to comply with COMAR 26.11.13.03; and gaps of more than 1/8 inch between any deck fitting gasket, seal, or wiper and any surface that it is intended to seal. If a failure is detected during an inspection, 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 within 45 days and if the tank cannot be emptied within 45 days, a 30-day extension may be requested</p>

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	<p>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.</p> <p>(ii) Notwithstanding paragraph (i) above, whenever a tank is emptied and degassed for maintenance purposes or integrity assessments, the Permittee shall conduct a full top-side and bottom-side internal inspection of the tank's IFR and its seals.</p> <p>[Authority: COMAR 26.11.03.06C; U.S. EPA approved alternative monitoring plan as allowed under 40 CFR §60.13 and §63.8 and approved by the Department to satisfy the internal inspection requirements specified under COMAR 26.11.13.03A(3)(c)]</p> <p><u>Operational Limitation</u> See Recordkeeping and Reporting Requirements.</p>
3.4	<p><u>Record Keeping Requirements:</u> The Permittee shall keep all required records on-site for at least five (5) years.</p> <p><u>Control of VOC:</u> The Permittee shall keep the following records:</p> <ol style="list-style-type: none"> 1. Records of each visual inspection of a tank's gauging and sampling devices including the date of the inspection, the results of each inspection, and any repairs made. [Authority: COMAR 26.11.03.06C] 2. Records of each external and internal (top-side in-service and full out of service) tank inspection including identification of the tank on which the inspection was performed, the date the tank was inspected, the observed condition of each component of the control equipment (seals, IFR, and fittings), and records of all repairs and replacements of seals, including the date and the action taken. [Authority: COMAR 26.11.03.06C and COMAR 26.11.13.03C(1) and (2)] 3. Records of the average monthly storage temperature and throughput. [Authority: COMAR 26.11.13.03C(3)]

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	<p><u>Operational Limitation</u> The Permittee shall keep records and make them available to the Department upon request of the amounts, types, and composition of all materials stored in each tank. [Authority: COMAR 26.11.03.06C]</p>
3.5	<p><u>Reporting Requirements:</u></p> <p><u>Control of VOC</u> The Permittee shall notify the Department in writing at least 15 days prior to an internal inspection of each transmix storage tank. [Authority: COMAR 26.11.13.03A(3)(d)]</p> <p><u>Operating Limitation</u> The Permittee shall submit material storage records to the Department upon request. [Authority: COMAR 26.11.03.06C]</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above for Emissions Unit Nos. EU-1060 and EU-1061.

Table IV – 4	
4.0	<p><u>Emissions Unit Number(s)</u></p> <p>EU–D1000: One (1) 4,000-gallon utility tank (Tank D1000) for bulk storage of red dye (ARA Registration No. 013-0056-9-0101)</p>
4.1	<p><u>Applicable Standards/Limits:</u></p> <p><u>Control of VOC</u></p> <p>COMAR 26.11.06.06B(1)(b) requires that the Permittee limit emissions of VOC to not more than 20 pounds per day unless VOC emissions are reduced by 85 percent or more overall.</p>
4.2	<p><u>Testing Requirements:</u></p> <p><u>Control of VOC</u></p> <p>See Record Keeping and Reporting Requirements.</p>

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Table IV – 4	
4.3	<p><u>Monitoring Requirements:</u></p> <p><u>Control of VOC</u></p> <p>See Recordkeeping and Reporting Requirements.</p>
4.4	<p><u>Record Keeping Requirements:</u> The Permittee shall keep all required records on-site for at least five (5) years.</p> <p><u>Control of VOC:</u></p> <p>The Permittee shall keep records and make them available to the Department upon request of the amounts, types, and composition of all materials loaded into the tank to support calculations demonstrating that emissions of VOC are less than the 20 pounds per day or that the VOC emissions from the tank are reduced by 85 percent or more overall. [Authority: COMAR 26.11.03.06C]</p>
4.5	<p><u>Reporting Requirements:</u></p> <p><u>Control of VOC</u></p> <p>The Permittee shall report emissions from the tank as part of the Emissions Certification Report required in Section III, Condition 8 of this permit. [Authority: COMAR 26.11.02.19C and D]</p>

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above for Emissions Unit Nos. EU-D1000.

Table IV – 5	
5.0	<p><u>Emissions Unit Numbers</u></p> <p>Portable EU-1 through EU-8: Eight (8) portable diesel emergency generators each rated at 2,000 kilowatts to be brought on-site as needed for emergency purposes (ARA Registration No. 013-0056-9-0202).</p>
5.1	<p><u>Applicable Standards/Limits:</u></p> <p><u>Visible Emissions</u></p> <p>1. COMAR 26.11.09.05E(2), which states that “a person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.”</p>

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Table IV – 5	
	<p>2. COMAR 26.11.09.05E(3), which states that “a person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.”</p> <p>Exceptions. COMAR 26.11.09.05E(4) establishes the following:</p> <ul style="list-style-type: none"> (a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system. (b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (i) Engines that are idled continuously when not in service: 30 minutes; and (ii) All other engines: 15 minutes. (c) Section E(2) and (3) do not apply while maintenance, repair, or testing is being performed by qualified mechanics. <p><u>Control of Sulfur Oxides</u> COMAR 26.11.09.07A(2)(b) which states that the Permittee shall not burn any distillate fuel oil with a sulfur content by weight greater than 0.3%.</p> <p><u>Operational Limitations</u> The emergency generators shall meet the following requirements for nonroad engines:</p> <ul style="list-style-type: none"> 1. Each engine must be portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform. [Authority: 40 CFR §1068.30 and ARA premises wide Permit to Construct issued on February 23, 2016] 2. Each engine may not remain on-site for more than 12 consecutive months. [Authority: 40 CFR §1068.30 and ARA premises wide Permit to Construct issued on February 23, 2016]

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Table IV – 5	
5.2	<p><u>Testing Requirements:</u></p> <p><u>Visible Emissions Limitations</u> See Monitoring, Record Keeping, and Reporting Requirements.</p> <p><u>Control of Sulfur Oxides</u> See Monitoring, Record Keeping, and Reporting Requirements.</p> <p><u>Operational Limitations</u> See Record Keeping and Reporting Requirements.</p>
5.3	<p><u>Monitoring Requirements:</u></p> <p><u>Visible Emissions Limitations</u> The Permittee shall operate and maintain the stationary internal combustion engine in a manner to prevent visible emissions. [Authority: COMAR 26.11.03.06C]</p> <p><u>Control of Sulfur Oxides</u> The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the sulfur content requirement for the fuel oil. [Authority: COMAR 26.11.03.06C]</p> <p><u>Operational Limitations</u> See Record Keeping and Reporting Requirements.</p>
5.4	<p><u>Record Keeping Requirements:</u> The Permittee shall keep all required records on-site for at least five (5) years.</p> <p><u>Visible Emissions</u> The Permittee shall maintain records of all maintenance/repairs performed and make them available to the Department upon request. [Authority: COMAR 26.11.03.06C]</p> <p><u>Control of Sulfur Oxides</u> The Permittee shall retain fuel supplier certifications at the premises stating that the fuel is in compliance with the sulfur content requirement for the fuel oil. [Authority: COMAR 26.11.03.06C]</p> <p><u>Operational Limitations</u> For each of the eight (8) temporary, portable diesel emergency generators, the Permittee shall keep the following records:</p>

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	<ol style="list-style-type: none"> 1. The beginning and end dates of each period that the engine is brought on-site for operation; and 2. The hours of operation of the engine during each period that the engine is brought on-site, including the date and time of operation, the reason the engine was in operation during that time, and documentation demonstrating that the operation was for an emergency, emergency demand response, maintenance or testing purposes only. [Authority: ARA premises wide Permit to Construct issued on February 23, 2016]
5.5	<u>Reporting Requirements:</u> <u>Visible Emissions</u> The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, "Report of Excess Emissions and Deviations." [Authority: COMAR 26.11.03.06C] <u>Control of Sulfur Oxides</u> The Permittee shall report fuel supplier certification records to the Department upon request. [Authority: COMAR 26.11.03.06C] <u>Operational Limitations</u> Operating records shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]

A permit shield shall cover the applicable requirements of the Clean Air Act that are listed in the table above for Emissions Unit Nos. EU-1 through EU-8.

Table IV – 6	
6.0	<u>Emissions Unit Number: EU - General</u> General Facility Wide Requirements
6.1	<u>Applicable Standards/Limits:</u> <u>Control of HAP</u>

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	<p>40 CFR 63, Subpart BBBB, which requires general emission minimization procedures and premises wide leak inspections for control of HAP emissions from bulk gasoline terminals.</p> <p><u>Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements</u></p> <p>1. Premises wide HAP emissions shall be less than the following limits in any rolling 12-month period:</p> <p style="padding-left: 40px;">(a) 10 tons for any individual HAP; and</p> <p style="padding-left: 40px;">(b) 25 tons for the total combination of HAP.</p> <p>2. Premises wide throughputs of gasoline, distillate, and additives 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:</p> <p style="padding-left: 40px;">(a) 2,562,840,000 gallons of gasoline (refers to gasoline grades that include conventional, re-formulated and blend stock gasoline, and gasoline-distillate mixtures (e.g., <i>transmix</i>)); and</p> <p style="padding-left: 40px;">(b) 3,055,297,000 gallons of distillates (includes fuel oils and kerosenes); and</p> <p style="padding-left: 40px;">(c) 104,000 gallons of additives.</p> <p><u>Operational and Emissions Limitations to Preclude Applicability of Major Source NOx Requirements</u></p> <p>Premises wide NOx emissions shall be less than 25 tons in any rolling 12 month period.</p> <p>[Authority: ARA premises wide Permit to Construct issued on February 23, 2016]</p>
6.2	<p><u>Testing Requirements:</u></p> <p><u>Control of HAP</u></p> <p>See Monitoring, Record Keeping and Reporting Requirements.</p>

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	<p><u>Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements</u> See Record Keeping and Reporting Requirements.</p> <p><u>Operational and Emissions Limitations to Preclude Applicability of Major Source NOx Requirements</u> See Record Keeping and Reporting Requirements.</p>
6.3	<p><u>Monitoring Requirements:</u></p> <p><u>Control of HAP</u> The Permittee shall comply with the following monitoring requirements:</p> <ol style="list-style-type: none"> 1. The Permittee must, at all times, operate and maintain all gasoline storage tanks and all equipment components in vapor or liquid gasoline service associated with the pipeline breakout station, 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: <ol style="list-style-type: none"> (a) For this inspection, detection methods incorporating sight, sound and smell are acceptable. (b) A log book, recorded in a form suitable and readily available for expeditious inspection and review, 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.

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	<p>(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 five (5) calendar days after the leak is detected. Repair or replacement of leaking equipment shall be completed within 15 calendar days after detection of each leak, except as provided in 40 CFR §63.11089(d).</p> <p>(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.</p> <p>[Authority: 40 CFR §63.11089(a) through (d)]</p> <p><u>Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements</u> See Record Keeping and Reporting Requirements.</p> <p><u>Operational and Emissions Limitations to Preclude Applicability of Major Source NOx Requirements</u> See Record Keeping and Reporting Requirements.</p>
6.4	<p><u>Record Keeping Requirements:</u> The Permittee shall keep all required records on-site for at least five (5) years.</p> <p><u>Control of HAP</u></p> <p>1. The Permittee shall maintain the following operation and maintenance records:</p> <p>(a) Records of the occurrence and duration of each malfunction of operation (i.e., process equipment) or the air pollution control and monitoring equipment.</p> <p>(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.</p>

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	<p>[Authority: 40 CFR §63.11085(b) and §63.11094(g)(1) and (2)]</p> <p>2. The Permittee shall maintain the following leak inspection records:</p> <ul style="list-style-type: none">(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, recorded in a form suitable and readily available for expeditious inspection and review for leak inspections and record the following information for each leak that is detected:<ul style="list-style-type: none">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. <p>[Authority: 40 CFR §63.11089(g), 40 CFR §63.11094(d) and (e)]</p>

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Table IV – 6	
	<p><u>Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements</u></p> <p>The Permittee shall maintain the following records:</p> <ol style="list-style-type: none"> 1. Premises wide estimated emissions of each individual HAP in tons per month and total tons per rolling 12-month period. 2. Premises wide estimated emissions of total HAP in tons per month and total tons per rolling 12-month period. 3. Total premises wide gasoline throughput in gallons per month and total gallons per rolling 12-month period. 4. Total premises wide distillate throughput in gallons per month and total gallons per rolling 12-month period. 5. Total premises wide additives throughput in gallons per month and total gallons per rolling 12-month period. <p>[Authority: ARA premises wide Permit to Construct issued February 23, 2016]</p> <p><u>Operational and Emissions Limitations to Preclude Applicability of Major Source NOx Requirements</u></p> <p>The Permittee shall maintain and shall make available to the Department upon request, records of the following information:</p> <p>Monthly records of estimated premises wide NOx emissions. Monthly records of premises wide NOx emissions are required beginning with the first month that any of the fuel combustion equipment registered under ARA Registration No. 013-0056-9-0202 operates at the premises.</p> <p>[Authority: ARA premises wide Permit to Construct issued February 23, 2016]</p>
6.5	<p><u>Reporting Requirements:</u></p> <p><u>Control of HAP</u></p> <ol style="list-style-type: none"> 1. The Permittee shall submit a semiannual compliance report and shall include the number of equipment leaks found during the equipment leak inspections not repaired within 15 days after detection. <p>[Authority: 40 CFR §63.11089(g) and §63.11095(a)(3)]</p>

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	<p>2. The Permittee shall submit 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 five (5) days or for which repair was not completed within 15 days after detection:</p> <p style="padding-left: 40px;">(a) The date on which the leak was detected;</p> <p style="padding-left: 40px;">(b) The date of each attempt to repair the leak;</p> <p style="padding-left: 40px;">(c) The reasons for the delay of repair; and</p> <p style="padding-left: 40px;">(d) The date of successful repair.</p> <p style="text-align: center;">[Authority: 40 CFR §63.11089(g) and §63.11095(b)(5)]</p> <p>3. The Permittee shall submit a semiannual report to the Department as specified in 40 CFR §63.11095(a). The report shall include the following information and may be submitted as a part of the semiannual compliance report:</p> <p style="padding-left: 40px;">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 40 CFR §63.11085(b) and 40 CFR §63.11095(d)]</p> <p><u>Operational and Emissions Limitations to Preclude Applicability of Major Source HAP Requirements</u></p> <p style="padding-left: 40px;">The Permittee shall submit records of premises wide HAP emissions and gasoline, distillate and additive throughput to the Department as part of the required annual emission certification. [Authority: COMAR 26.11.02.19C and D]</p>

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Table IV – 6	
	<u>Operational and Emissions Limitations to Preclude Applicability of Major Source NOx Requirements</u> The Permittee shall submit records of premises wide NOx emissions to the Department as part of the required annual emission certification. [Authority: COMAR 26.11.02.19C and D]

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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. 5 Stationary internal combustion engines with an output less than 500 brake horsepower (373 kilowatts) and which are not used to generate electricity for sale or for peak or load shaving;

The one (1) 162 hp emergency generator, one (1) 132 hp emergency generator, and three (3) 399 hp emergency fire pump engines are subject to the following requirements:

- (a) COMAR 26.11.09.05E(2), Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (b) COMAR 26.11.09.05E(3), Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (c) Exceptions:
 - (i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
 - (ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (a) Engines that are idled continuously when not in service: 30 minutes
 - (b) all other engines: 15 minutes.
 - (iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair or testing is being performed by qualified mechanics.

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- (d) For the 162 hp emergency generator, 40 CFR 63, Subpart ZZZZ which states that the Permittee must:
 - (i) Change oil and filter every 500 hours of operation or annually, whichever comes first; **[Authority: 40 CFR §63.6603, Table 2d, No. 4a]**
 - (ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; **[Authority: 40 CFR §63.6603, Table 2d, No. 4b]**
 - (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary; **[Authority: 40 CFR §63.6603, Table 2d, No. 4c]**
 - (iv) operate and maintain the engine and keep records as specified in Subpart ZZZZ; and
 - (v) keep records of the hours of operation of the engine as recorded through a non-resettable hour meter. **[Authority: 40 CFR §63.6655(f)]**
- (e) For one (1) 132 hp emergency generator, and three (3) 399 hp emergency fire pump engines, 40 CFR 60, Subpart IIII which states that the Permittee must:
 - (i) purchase an engine certified to the emission standards in 40 CFR §60.4205(b) and (c) for the same model year and maximum engine power; **[Authority: 40 CFR §60.4205(b) and (c)]**
 - (ii) install and configure the engine according to the manufacturer's emission-related specifications; **[Authority: 40 CFR §60.4211(a)(1)]**
 - (iii) operate and maintain the diesel engine that achieves the emissions standards as required by 40 CFR §60.4205 for emergency engines according to the manufacturer's emissions related written instructions over the entire life of the engine; **[Authority: 40 CFR §60.4206]**

COLONIAL PIPELINE COMPANY – DORSEY JUNCTION
929 HOODS MILL ROAD
WOODBINE, MARYLAND, 21797
DRAFT PART 70 OPERATING PERMIT NO. 24-013-0056

- (iv) change those settings that are permitted by the manufacturer; **[Authority: 40 CFR §60.4211(a)(2)]**
 - (v) meet the requirements of 40 CFR Parts 89, 94, and/or 1068, as applicable; **[Authority: 40 CFR §60.4211(a)(3)]**
 - (vi) use diesel fuel in the engine that meets the requirements of 40 CFR §80.510(b); and 1090.305 **[Authority: 40 CFR §60.4207(b)]**
 - (vii) meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60, Subpart IIII. **[Authority: 40 CFR §63.6590(c)(1)]**
- (2) ✓ Space heaters utilizing direct heat transfer and used solely for comfort heat; *Individual size small office heaters only.
- (3) No. 20 Unheated VOC dispensing containers or unheated VOC rinsing containers of 60 gallons (227 liters) capacity or less; *Small containers of tank cleaning solutions only. The quantity of small containers varies often. Two (2) 55-gallon drums of transmix.
- (4) Containers, reservoirs, or tanks used exclusively for:
- (a) ✓ Storage of butane, propane, or liquefied petroleum, or natural gas;
 - (b) No. 1 Unheated storage of VOC with an initial boiling point of 300 °F (149 °C) or greater; *1,200-gallon storage tank for drag reducing agent (DRA).
 - (c) No. 13 Storage of Numbers 1, 2, 4, 5, and 6 fuel oil and aviation jet engine fuel;
 - (i) Tank No. 1050: 2,268,000-gallon vertical fixed roof jet kerosene tank;
 - (ii) Tank No. 1051: 2,268,000-gallon vertical fixed roof jet kerosene tank;

**COLONIAL PIPELINE COMPANY – DORSEY JUNCTION
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- (iii) Tank No. 1052: 2,814,000-gallon
vertical fixed roof jet kerosene tank;
- (iv) Tank No. 1070: 9,156,000-gallon
vertical fixed roof distillate breakout
tank;
- (v) Tank No. 1071: 5,040,000-gallon
vertical fixed roof distillate breakout
tank;
- (vi) Tank No. 1072: 3,360,000-gallon
vertical fixed roof distillate breakout
tank;
- (vii) Tank No. 1073: 4,032,000-gallon
vertical fixed roof distillate breakout
tank;
- (viii) Tank No. 1074: 1,806,000-gallon
vertical fixed roof jet kerosene tank;
- (ix) Tank No. 1075: 2,268,000-gallon
vertical fixed roof jet kerosene tank;
- (x) Tank No. 1076: 4,032,000-gallon
vertical fixed roof jet kerosene tank;
- (xi) Tank No. 1077: 3,360,000-gallon
vertical fixed roof distillate breakout
tank;
- (xii) Tank No. 1080: 1,015,000-gallon
vertical fixed roof distillate breakout
tank; and
- (xiii) Tank No. 1081: 1,015,000-gallon
vertical fixed roof distillate breakout
tank.

- (d) No. 20 The storage of VOC normally used as solvents, diluents, thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings and

COLONIAL PIPELINE COMPANY – DORSEY JUNCTION
929 HOODS MILL ROAD
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DRAFT PART 70 OPERATING PERMIT NO. 24-013-0056

having individual capacities of 2,000 gallons (7.6 cubic meters) or less; *Paint stored in 55-gallon drums, 5-gallon buckets, and small cans.

- (5) ✓ 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; *First aid kits only.
- (6) ✓ Potable water treatment equipment, not including air stripping equipment; *Water softeners and particulate filters only.
- (7) ✓ Comfort air conditioning subject to requirements of Title VI of the Clean Air Act; *Ten (10) units for building and office comfort.
- (8) ✓ Laboratory fume hoods and vents; *One clean air exhaust fan in lab.
- (9) 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. 3 Oil/water separators

No. 1 Air Stripper for groundwater treatment

No. 1 Air Stripper for tank bottom water treatment (ARA Registration No. 013-0056-9-0083)

No. 2 Underground sumps

No. 1 Maintenance activities

**COLONIAL PIPELINE COMPANY – DORSEY JUNCTION
929 HOODS MILL ROAD
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DRAFT PART 70 OPERATING PERMIT NO. 24-013-0056**

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.



Colonial Pipeline Company

Tyson Garvey
Operations Manager

Phone: 410-970-2148
tgarvey@colpipe.com

June 23, 2023

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

CERTIFIED MAIL

Subject: **Title V Renewal Application (Premises No. 24-013-0056)
Colonial Pipeline Company – Dorsey Junction Facility**

Dear Ms. Sariscak:

Colonial Pipeline Company owns and operates a refined petroleum pipeline breakout station in Woodbine, Maryland (referred to as “Colonial Pipeline Company – Dorsey Junction”).

The current Dorsey Junction Part 70 permit expires June 30, 2024. As such, please find enclosed one (1) hard copy and one (1) electronic copy of Dorsey Junction’s Title V application requested by July 1, 2023. The electronic copy contains the application files in .pdf format.

The application includes the following required forms and supporting documentation: process flow diagram (Appendix A); site plot plan (Appendix B); 2022 annual emissions certification report (Appendix C); 2022 annual compliance certification report (Appendix D), and potential to emit (PTE) calculation spreadsheets (Appendix E).

No significant modifications or operational changes have occurred at the Dorsey Junction facility during this permit term. However, one internal floating roof (IFR) change occurred during this permit term for Tank 1031. The Premises Wide Permit to Construct (PTC) for the IFR change, issued September 22, 2020 (Appendix F), is included for reference for the Part 70 permit renewal application.

Lastly, a new Maryland Toxic Air Pollutant (TAP) demonstration was completed to demonstrate that the Dorsey Junction Facility was in compliance with COMAR 26.11.15 and 16. Files associated with the TAPs compliance demonstration are included as Appendix G.

Should the Department not issue a new Part 70 Permit for Dorsey Junction before the June 30, 2024 expiration date of the current Part 70 Permit, Colonial hereby requests to be covered under the permit shield as described in COMAR 26.11.03.23.

If you should have any questions or comments regarding the enclosed materials, please contact Mark Harris, Colonial's Environmental Specialist, at (240) 651-4399.

Sincerely,



Tyson Garvey
Operations Manager
COLONIAL PIPELINE COMPANY

Enclosures:

Title V renewal application and supporting documentation.
(1 hard copy; 1 electronic copy)

cc: J. Fincher, Colonial Pipeline Company
M. Harris, Colonial Pipeline Company
S. Carpenter, Colonial Pipeline Company
C. McGroarty, Environmental Resources Management

PART 70 PERMIT RENEWAL APPLICATION

*Colonial Pipeline Company –
Dorsey Junction*
Part 70 Permit Renewal
Application

June 2023

Work Order No.: 0676049

Environmental Resources Management
180 Admiral Cochrane Drive, Suite 400
Annapolis, MD 21401
www.erm.com

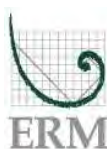


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- B *SITE PLOT PLAN***
- C *EMISSIONS CERTIFICATION REPORT (2022)***
- D *COMPLIANCE CERTIFICATION REPORT (2022)***
- E *FACILITY POTENTIAL-TO-EMIT CALCULATIONS***
- F *PREMISES WIDE PERMITS TO CONSTRUCT FOR INTERNAL
FLOATING ROOF UPDATES***
- G *TOXIC AIR POLLUTANT COMPLIANCE DEMONSTRATION FILES***

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

- () 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 any 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.

Not Applicable

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.

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)

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:		
Street Address: 1000 Lake St.		
City:	State:	Zip Code:
Telephone Number	Fax Number	

Facility Information:

Name of Facility:		
Street Address:		
City:	State:	Zip Code:
Plant Manager:	Telephone Number:	Fax Number:
24-Hour Emergency Telephone Number for Air Pollution Matters:		

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.



MARYLAND DEPARTMENT OF THE ENVIRONMENT

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 *Tyson Garvey*

6/23/2023

SIGNATURE

DATE

Tyson Garvey

PRINTED NAME

Operations Manager

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).

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_____ NOx_____ VOC_____ SOx_____ CO_____ HAPs_____

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.)



1. Emissions Unit No.:		2. MDE Registration No.:(if applicable)	
1a. Date of installation (month/year):			
3. Detailed description of the emissions unit, including all emission point(s) and the assigned number(s):			
<hr/>			
<hr/>			
<hr/>			
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<hr/>			
<hr/>			
4. Federally Enforceable Limit on the Operating Schedule for this Emissions Unit:			
General Reference:_____			
Continuous Processes:		_____ hours/day	_____ 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: _____		Potential Major:_____ (note: before control device)	
B. Actual Emissions:		NOx_____	SOx_____ VOC_____
		PM10_____	HAPs_____



SECTION 3A. EMISSIONS UNIT DESCRIPTIONS

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2. _____	_____	_____											
3. _____	_____	_____											
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Compliance Demonstration:

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ☐ Annual Compliance Certification: _____
- ☐ Semi-Annual Monitoring Report: _____

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

Emissions Unit No.: _____ General Reference: _____

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: _____
☐ Semi-Annual Monitoring Report: _____

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

Emissions Unit No.: _____ General Reference: _____

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: _____
☐ Semi-Annual Monitoring Report: _____

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

Emissions Unit No.: _____ General Reference: _____

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: _____
☐ Semi-Annual Monitoring Report: _____

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

Emissions Unit No.: _____ General Reference: _____

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: _____
☐ Semi-Annual Monitoring Report: _____

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

Emissions Unit No.: _____ **General Reference:** _____

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: _____
- ☐ Semi-Annual Monitoring Report: _____

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

Emissions Unit No.: _____ **General Reference:** _____

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: _____
- ☐ Semi-Annual Monitoring Report: _____

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

Emissions Unit No.: _____ General Reference: _____

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: _____
☐ Semi-Annual Monitoring Report: _____

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 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.** _____

[illegible]

**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:

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: _____

Check appropriate reports required to be submitted:

- ☐ Quarterly Monitoring Report: _____
- ☐ Annual Compliance Certification: _____
- ☐ Semi-Annual Monitoring Report: _____



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.:</u>
3. <u>Type and Description of Control Equipment:</u>	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.:</u>
3. <u>Type and Description of Control Equipment:</u>	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.:</u>
3. <u>Type and Description of Control Equipment:</u>	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.:</u>
3. <u>Type and Description of Control Equipment:</u>	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.:</u>
3. <u>Type and Description of Control Equipment:</u>	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.:</u>
3. <u>Type and Description of Control Equipment:</u>	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
5. Capture Efficiency:	



SECTION 4. CONTROL EQUIPMENT

1. <u>Associated Emissions Units No.</u> :	2. <u>Emissions Point No.</u> :
3. <u>Type and Description of Control Equipment</u> :	
4. Pollutants Controlled:	Control Efficiency:
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					
CAS Number					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
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					



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					
CAS Number					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
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					



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					
CAS Number					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
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					



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					
CAS Number					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Fugitive Emissions	1.04E-04	4.17E-02	2.01E-05		
Total					



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					
CAS Number					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
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					



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					
CAS Number					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
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					



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					
CAS Number					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
Emissions Unit #					
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					



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:

2. Brief Description:

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



**SECTION 7. COMPLIANCE SCHEDULE FOR NONCOMPLYING EMISSIONS
UNITS**

1. Emissions Unit #	Anticipated Compliance Date
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:	County
Premises Number:	
Street Address: 929 Hoods Mill Rd	
24-hour Emergency Telephone Number for Air Pollution Matters:	
Type of Equipment (List Significant Units):	



**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-
ONLY ENFORCEABLE REQUIREMENTS**

Registration No.: _____

Emissions Unit No.: _____ **General Reference:** _____

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

Methods used to demonstrate compliance:



**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-
ONLY ENFORCEABLE REQUIREMENTS**

Registration No.: _____

Emissions Unit No.: _____ **General Reference:** _____

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

Methods used to demonstrate compliance:



**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-
ONLY ENFORCEABLE REQUIREMENTS**

Registration No.: _____

Emissions Unit No.: _____ **General Reference:** _____

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

Methods used to demonstrate compliance:



**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-
ONLY ENFORCEABLE REQUIREMENTS**

Registration No.: _____

Emissions Unit No.: _____ **General Reference:** _____

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

Methods used to demonstrate compliance:



**CITATION TO AND DESCRIPTION OF APPLICABLE STATE-
ONLY ENFORCEABLE REQUIREMENTS**

Registration No.: _____

Emissions Unit No.: _____ **General Reference:** _____

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

Methods used to demonstrate compliance:



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. ____ 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. ____ 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. ____ 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. ____ _____

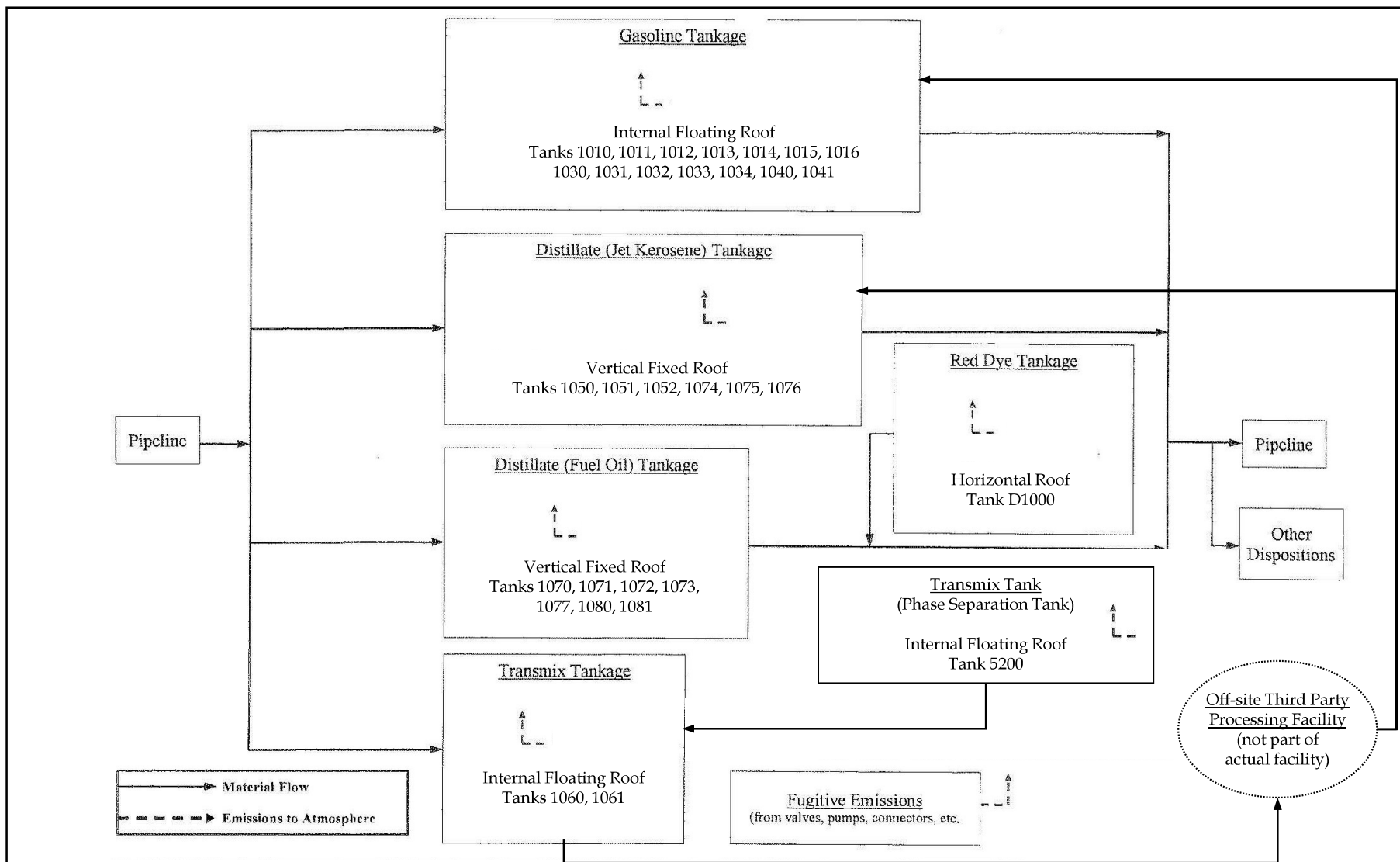
(32) any other emissions unit at the facility which is not subject to an applicable requirement of the Clean Air Act (list and describe):

No. ____ _____

No. ____ _____

No. ____ _____

Appendix A
Process Flow Diagram

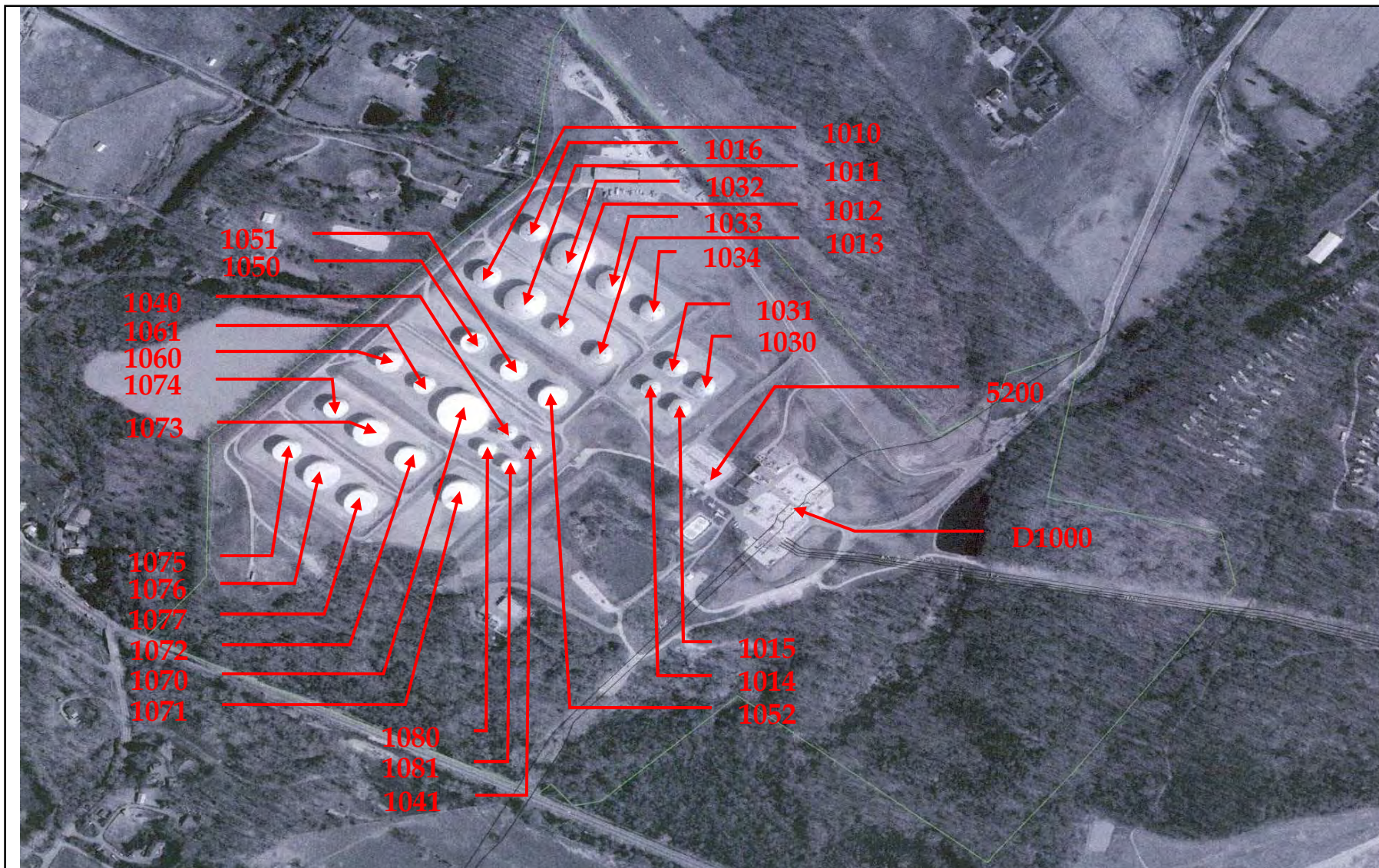


Source:
Title V
Renewal
Application
2023

Process Flow Diagram
Colonial Pipeline Company - Dorsey Junction
929 Hoods Mill Rd
Woodbine, MD



Appendix B
Site Plot Plan



Source:
Colonial
Pipeline
Company

Site Plot Plan
Colonial Pipeline Company - Dorsey Junction
929 Hoods Mill Rd
Woodbine, MD

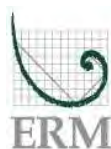


Appendix C
Emissions Certification Report
(2022)

EMISSIONS CERTIFICATION REPORT

Colonial Pipeline Company – Dorsey Junction
2022 Emissions Certification Report

Environmental Resources Management
180 Admiral Cochrane Drive, Suite 400
Annapolis, MD 21401
www.erm.com



Emissions Certification Report

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 Administration
Air Quality Compliance Program
410-537-3220

FORM 1:

GENERAL FACILITY INFORMATION
EMISSION CERTIFICATION REPORT

Calendar Year: 2022

A. FACILITY IDENTIFICATION				Do Not Write in This Space	
Facility Name				Date Received Regional:	
Colonial Pipeline Company - Dorsey Junction					
Address				Date Received State:	
929 Hoods Mill Road					
City	County	Zip Code		AIRS Code:	
Woodbine	Carroll	21797			
B. Briefly Describe the Major Function of the Facility				FINDS Code:	
Colonial Pipeline Company is a federally regulated common carrier pipeline transporting refined petroleum products consisting of gasoline, kerosene, and No. 2 fuel oil. This facility serves as a breakout tank farm. It receives product via large diameter pipelines and delivers it via smaller diameter pipelines.				SIC Code:	
				Facility Number:	
				TEMPO ID:	
				Reviewed	
C. SEASONAL PRODUCTION (% , if applicable)				Name	
Winter (Dec. - Feb.)	Spring (Mar - May)	Summer (Jun - Aug)	Fall (Sept - Nov)	Date	
25.5%	23.6%	24.7%	26.2%		
D. Explain Any Increase/Decrease of Emissions From Previous Calendar Year for Each Registration at this premises.					
<p>Actual VOC emissions are approximately 0.46 tons more in 2022 than in 2021, which equals an increase of 0.7%. While there was a 1.83 ton decrease in emissions from tank cleanings, the primary cause of the emissions increase was a 13.6% increase in overall facility-wide throughput and a 6.2% increase in roof landing events.</p> <p>Similar to 2021, benzene, acrolein, formaldehyde, and isooctane emissions were greater than the Form 4 reporting threshold in 2022.</p>					
E. CONTROL DEVICE INFORMATION (for NOx and VOC sources only)					
Control Device		Capture Efficiency		Removal Efficiency	
Internal Floating Roofs on		NA		NA	
Tanks 1010, 1011, 1012, 1013, 1014					
1015, 1016, 1030, 1031, 1032, 1033,					
1034, 1040, 1041, 1060, 1061, 5200					
<p>I am familiar with the premises and the installations and sources for which this report is submitted. I have personally examined the information in this report, which consists of <u>44</u> pages (including attachments), and certify that the information is correct to the best of my knowledge.</p>					
Tyson Garvey		Operations Manager			
Name (Print/Type)		Title		Date	
Signature		(410) 970-2148		Telephone Number	

1/9/08

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 Administration
Air Quality Compliance Program
410-537-3220

AIR TOXICS

EMISSION CERTIFICATION REPORT

Report for Calendar Year **2022**

A. PREMISES IDENTIFICATION		Do Not Write in This Space
Company Name Colonial Pipeline Company - Dorsey Junction		Date Received Regional:
Address 929 Hoods Mill Road		Date Received State:
City Woodbine	County Carroll	Zip Code 21797
B. Certify the results of an analysis of toxic air pollutants from the Permittee's facility		FINDS Code:
As part of the June 2018 Title V Permit renewal application, Colonial provided		SIC Code:
an updated compliance demonstration in accordance with COMAR 26.11.15		Facility Number:
and 16. This demonstration that was in compliance with the TAPs		
screening level thresholds remains valid.		TEMPO ID:
As the actual emissions for 2022 are less than the potential emissions included		Reviewed Name Date
as a part of the Title V Permit renewal application submitted in June 2018,		
Dorsey Junction maintained compliance with all regulations under		
COMAR 26.11.15 and 16 in 2022.		

I am familiar with the premises and the installations and sources for which this report is submitted. I have personally examined the information in this report, which consists of 44 pages (including attachments), and certify that the information is correct to the best of my knowledge.

Tyson Garvey	Operations Manager	
_____ Name (Print/Type)	_____ Title	_____ Date
 (410) 970-2148		
_____ Signature	_____ Telephone Number	

FORM 2:

**CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction Facility ID: 24-013-0056 Pollutant: VOC

Equipment Description / Registration Number	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Estimation Method
				Tons/yr	lbs/dy	Hrs/dy	Days/wk	Wks/yr	Days/yr	lbs/day	Hrs/dy	Start	End	
1010 Breakout Tank	4-04	Gasoline	s	2.80	19.4	24	7	52	289	19.4	24	--	--	C3
			f											
1011 Breakout Tank	4-04	Gasoline	s	6.83	38.5	24	7	52	355	38.5	24	--	--	C3
			f											
1012 Breakout Tank	4-04	Gasoline	s	1.79	18.6	24	7	52	193	18.6	24	--	--	C3
			f											
1013 Breakout Tank	4-04	Gasoline / Distillate	s	1.85	20.3	24	7	52	182	20.3	24	--	--	C3
			f											
1014 Breakout Tank	4-04	Gasoline / Distillate	s	2.09	17.7	24	7	52	236	17.7	24	--	--	C3
			f											
1015 Breakout Tank	4-04	Gasoline	s	2.46	15.2	24	7	52	324	15.2	24	--	--	C3
			f											
1016 Breakout Tank	4-04	Gasoline	s	1.19	52.9	24	7	52	45	0.00	24	--	--	C3
			f											
1030 Breakout Tank	4-04	Gasoline	s	2.02	14.1	24	7	52	287	14.1	24	--	--	C3
			f											
1031 Breakout Tank	4-04	Gasoline	s	1.60	17.0	24	7	52	189	17.0	24	--	--	C3
			f											
1032 Breakout Tank	4-04	Gasoline	s	5.89	33.0	24	7	52	357	33.0	24	--	--	C3
			f											
Totals				Continue to next page										

s - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) 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 temperature (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 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: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction Facility ID: 24-013-0056 Pollutant: VOC

Equipment Description / Registration Number	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Estimation
				Tons/yr	Lbs/dy	Hrs/dy	Days/wk	Wks/yr	Days/yr	Lbs/day	Hrs/dy	Start	End	Method
1033 Breakout Tank	4-04	Gasoline	s	4.34	26.3	24	7	52	330	26.3	24	--	--	C3
			f											
1034 Breakout Tank	4-04	Gasoline / Distillate	s	2.81	25.5	24	7	52	220	25.5	24	--	--	C3
			f											
1040 Breakout Tank	4-04	Gasoline	s	2.50	16.1	24	7	52	310	16.1	24	--	--	C3
			f											
1041 Breakout Tank	4-04	Gasoline	s	2.48	17.6	24	7	52	282	17.6	24	--	--	C3
			f											
1050 Breakout Tank	4-04	Kerosene	s	1.06	5.83	24	7	52	365	5.83	24	--	--	C3
			f											
1051 Breakout Tank	4-04	Kerosene	s	0.982	5.38	24	7	52	365	5.38	24	--	--	C3
			f											
1052 Breakout Tank	4-04	Kerosene	s	1.14	6.22	24	7	52	365	6.22	24	--	--	C3
			f											
1060 Breakout Tank	4-04	Gasoline	s	2.25	12.5	24	7	52	361	12.5	24	--	--	C3
			f											
1061 Breakout Tank	4-04	Gasoline	s	1.20	6.70	24	7	52	359	6.70	24	--	--	C3
			f											
1070 Breakout Tank	4-04	Distillate	s	3.43	18.8	24	7	52	365	18.8	24	--	--	C3
			f											
Totals				Continue to next page										

s - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) 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 temperature (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

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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.

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C7 - Source closed, operation ceased.
C8 - Computer calculated based on standard.

FORM 2:

**CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction Facility ID: 24-013-0056 Pollutant: VOC

Equipment Description / Registration Number	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Estimation
				Tons/yr	lbs/dy	Hrs/dy	Days/wk	Wks/yr	Days/yr	lbs/day	Hrs/dy	Start	End	Method
1071 Breakout Tank	4-04	Kerosene	s	1.09	5.99	24	7	52	365	5.99	24	--	--	C3
			f											
1072 Breakout Tank	4-04	Distillate	s	0.495	2.71	24	7	52	365	2.71	24	--	--	C3
			f											
1073 Breakout Tank	4-04	Distillate	s	1.83	10.0	24	7	52	365	10.0	24	--	--	C3
			f											
1074 Breakout Tank	4-04	Kerosene / Distillate	s	0.111	0.610	24	7	52	365	0.610	24	--	--	C3
			f											
1075 Breakout Tank	4-04	Distillate	s	0.008	1.19	24	7	52	14	0.00	24	--	--	C3
			f											
1076 Breakout Tank	4-04	Distillate	s	0.501	2.87	24	7	52	349	2.87	24	--	--	C3
			f											
1077 Breakout Tank	4-04	Kerosene	s	0.00	0.00	24	7	52	0	0.00	24	--	--	C3
			f											
1080 Breakout Tank	4-04	Distillate	s	0.192	1.54	24	7	52	249	1.54	24	--	--	C3
			f											
1081 Breakout Tank	4-04	Distillate	s	0.183	1.43	24	7	52	255	1.43	24	--	--	C3
			f											
5200 Transmix Utility Tank	4-04	Gasoline	s	0.161	0.883	24	7	52	365	0.883	24	--	--	C3
			f											
Totals				Continue to next page										

s - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) 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 temperature (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.

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C6 - New Construction, not operational.
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FORM 2:

**CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2022Facility Name: Colonial Pipeline Company - Dorsey JunctionFacility ID: 24-013-0056Pollutant: VOC

Equipment Description / Registration Number	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Estimation Method
				Tons/yr	lbs/dy	Hrs/dy	Days/wk	Wks/yr	Days/yr	lbs/day	Hrs/dy	Start	End	
Emergency Generator	4-04	Distillate	s	1.77E-04	0.001	24	7	52	365	0.001	24	--	--	C3
Storage Tank			f											
Underground	4-04	Gasoline	s	0.960	5.26	24	7	52	365	5.26	24	--	--	C3
Sump 03			f											
Underground	4-04	Gasoline	s	0.960	5.26	24	7	52	365	5.26	24	--	--	C3
Sump 04			f											
DRA Tank	4-04	DRA	s	0.001	0.006	24	7	52	365	0.006	24	--	--	C3
			f											
D1000	4-04	Red Dye	s	4.71E-04	0.003	24	7	52	365	0.003	24	--	--	C3
Additive Tank			f											
OWS #1	4-04	Water	s	0.017	0.091	24	7	52	365	0.091	24	--	--	C1
			f											
OWS #2	4-04	Water	s	0.001	0.005	24	7	52	365	0.005	24	--	--	C1
			f											
OWS #3	4-04	Water	s	0.017	0.093	24	7	52	365	0.093	24	--	--	C1
			f											
Sting Water	4-04	Water	s	2.66E-04	0.001	24	7	52	365	0.001	24	--	--	C1
Batch Tank			f											
Totals				Continue to next page										

s - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) are lbs/operating day of the source

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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

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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 factor.

C6 - New Construction, not operational.

C7 - Source closed, operation ceased.

C8 - Computer calculated based on standard.

1/9/08

FORM 2:

**CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: **2022**Facility Name: **Colonial Pipeline Company - Dorsey Junction**Facility ID: **24-013-0056**Pollutant: **VOC**

Equipment Description / Registration Number	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Estimation Method
				Tons/yr	lbs/dy	Hrs/dy	Days/wk	Wks/yr	Days/yr	lbs/day	Hrs/dy	Start	End	
Sting Water Air Stripper	4-04	Gasoline	s	0.004	0.209	24	--	--	36	0.288	24	--	--	C1
Ground Water Air Stripper	4-04	Gasoline	f	0.025	0.136	24	--	--	365	0.129	24	--	--	C1
Fugitives Pipeline Components	4-04	Gasoline	s	7.44	40.8	24	7	52	365	40.8	24	--	--	C5
Maintenance Activities	4-04	Gasoline	s	1.87	10.3	24	--	--	365	10.3	--	--	--	C4
Emergency Generator Engine Combustion	4-04	Distillate	s	0.005	0.177	--	--	--	52	0.185	--	--	--	C3
Fire Water Pump 1 Engine Combustion	4-04	Distillate	f	8.22E-05	0.003	--	--	--	13	0.003	--	--	--	C3
Fire Water Pump 1 Storage Tank	4-04	Distillate	s	2.81E-04	0.043	24	--	--	365	0.043	24	--	--	C3
Fire Water Pump 2 Engine Combustion	4-04	Distillate	f	5.01E-06	0.001	--	--	--	13	0.001	--	--	--	C3
Fire Water Pump 2 Storage Tank	4-04	Distillate	s	0.001	0.003	24	--	--	365	0.003	24	--	--	C3
Fire Water Pump 3 Engine Combustion	4-04	Distillate	f	2.81E-04	0.043	--	--	--	13	0.043	--	--	--	C3
Fire Water Pump 3 Storage Tank	4-04	Distillate	s	5.01E-06	0.001	--	--	--	13	0.001	--	--	--	C3
Temp. Generator 1 Engine Combustion	4-04	Distillate	f	0.001	0.003	24	--	--	365	0.003	24	--	--	C3
Temp. Generator 2 Engine Combustion	4-04	Distillate	s	0.009	8.60	--	--	--	2	8.60	--	--	--	C3
Temp. Generator 2 Engine Combustion	4-04	Distillate	f	1.54E-04	0.154	--	--	--	2	0.154	--	--	--	C3
Temp. Generator 3 Engine Combustion	4-04	Distillate	s	0.018	18.4	--	--	--	2	18.4	--	--	--	C3
Temp. Generator 3 Engine Combustion	4-04	Distillate	f	3.28E-04	0.328	--	--	--	2	0.328	--	--	--	C3
Temp. Generator 4 Engine Combustion	4-04	Distillate	s	0.011	10.7	--	--	--	2	10.7	--	--	--	C3
Temp. Generator 4 Engine Combustion	4-04	Distillate	f	1.92E-04	0.192	--	--	--	18	0.192	--	--	--	C3
Temp. Pump Engine Combustion	4-04	Distillate	s	0.069	7.68	--	--	--	12	0.00	--	--	--	C3
iDOT Generator Engine Combustion	4-04	Distillate	f	0.001	0.137	--	--	--	12	0.00	--	--	--	C3
iDOT Generator Storage Tank	4-04	Distillate	s	0.059	6.58	--	--	--	52	0.00	--	--	--	C3
Totals				66.8	530					462				

s - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) 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 temperature (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 factor.
C6 - New Construction, not operational.
C7 - Source closed, operation ceased.
C8 - Computer calculated based on standard.

1/9/08

FORM 2:

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022Facility Name: Colonial Pipeline Company - Dorsey JunctionFacility ID: 24-013-0056Pollutant: NO_x

Equipment Description / Registration Number	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD lbs/day	Operating Schedule			Estimation Method
				Tons/yr	lbs/dy	Hrs/dy	Days/wk	Wks/yr	Days/yr		Hrs/dy	Start	End	
Emergency Generator	4-04	Distillate	s	0.058	2.22	--	--	--	52	2.33	--	--	--	C3
Engine Combustion			f											
iDOT Generator	4-04	Distillate	s	0.025	0.960	--	--	--	52	1.58	--	--	--	C4
Engine Combustion			f											
Fire Water Pump 1	4-04	Distillate	s	0.007	1.15	--	--	--	13	1.15	--	--	--	C3
Engine Combustion			f											
Fire Water Pump 2	4-04	Distillate	s	0.007	1.15	--	--	--	13	1.15	--	--	--	C3
Engine Combustion			f											
Fire Water Pump 3	4-04	Distillate	s	0.007	1.15	--	--	--	13	1.15	--	--	--	C3
Engine Combustion			f											
Temp. Generator 1	4-04	Distillate	s	0.298	298	--	--	--	2	298	--	--	--	C3
Engine Combustion			f											
Temp. Generator 2	4-04	Distillate	s	0.231	231	--	--	--	2	231	--	--	--	C3
Engine Combustion			f											
Temp. Generator 3	4-04	Distillate	s	0.135	135	--	--	--	2	135	--	--	--	C3
Engine Combustion			f											
Temp. Generator 4	4-04	Distillate	s	0.867	96.3	--	--	--	18	0.00	--	--	--	C3
Engine Combustion			f											
Temp. Pump	4-04	Distillate	s	0.743	82.5	--	--	--	12	0.00	--	--	--	C3
Engine Combustion			f											
			s											
			f											
			s											
			f											
Totals				2.38	849					671				

s - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) are lbs/operating day of the source

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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
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A9 - Other, Specify

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C8 - Computer calculated based on standard.

1/9/08

FORM 2:

**CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction

Facility ID: 24-013-0056

Pollutant: CO

Equipment Description / Registration Number	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD	Operating Schedule			Estimation
				Tons/yr	lbs/dy	Hrs/dy	Days/wk	Wks/yr	Days/yr	lbs/day	Hrs/dy	Start	End	Method
Emergency Generator	4-04	Distillate	s	0.012	0.479	--	--	--	52		--	--	--	C3
Engine Combustion			f											
iDOT Generator	4-04	Distillate	s	0.006	0.240	--	--	--	52		--	--	--	C4
Engine Combustion			f											
Fire Water Pump 1	4-04	Distillate	s	0.002	0.352	--	--	--	13		--	--	--	C3
Engine Combustion			f											
Fire Water Pump 2	4-04	Distillate	s	0.002	0.352	--	--	--	13		--	--	--	C3
Engine Combustion			f											
Fire Water Pump 3	4-04	Distillate	s	0.002	0.352	--	--	--	13		--	--	--	C3
Engine Combustion			f											
Temp. Generator 1	4-04	Distillate	s	0.068	68.3	--	--	--	2		--	--	--	C3
Engine Combustion			f											
Temp. Generator 2	4-04	Distillate	s	0.050	49.7	--	--	--	2		--	--	--	C3
Engine Combustion			f											
Temp. Generator 3	4-04	Distillate	s	0.029	29.0	--	--	--	2		--	--	--	C3
Engine Combustion			f											
Temp. Generator 4	4-04	Distillate	s	0.187	20.8	--	--	--	18		--	--	--	C3
Engine Combustion			f											
Temp. Pump	4-04	Distillate	s	0.160	17.8	--	--	--	12		--	--	--	C3
Engine Combustion			f											
			s											
			f											
			s											
			f											
Totals				0.519	187									

s - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) are lbs/operating day of the source

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C7 - Source closed, operation ceased.
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FORM 2:

CRITERIA AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022Facility Name: Colonial Pipeline Company - Dorsey JunctionFacility ID: 24-013-0056Pollutant: SO_x

Equipment Description / Registration Number	SCC Number	Fuel		Actual Emissions		Operating Schedule (Actual)				TOSD lbs/day	Operating Schedule			Estimation Method
				Tons/yr	lbs/dy	Hrs/dy	Days/wk	Wks/yr	Days/yr		Hrs/dy	Start	End	
Emergency Generator	4-04	Distillate	s	0.004	0.147	--	--	--	52		--	--	--	C3
Engine Combustion			f											
iDOT Generator	4-04	Distillate	s	0.008	0.319	--	--	--	52		--	--	--	C3
Engine Combustion			f											
Fire Water Pump 1	4-04	Distillate	s	0.003	0.409	--	--	--	13		--	--	--	C3
Engine Combustion			f											
Fire Water Pump 2	4-04	Distillate	s	0.003	0.409	--	--	--	13		--	--	--	C3
Engine Combustion			f											
Fire Water Pump 3	4-04	Distillate	s	0.003	0.409	--	--	--	13		--	--	--	C3
Engine Combustion			f											
Temp. Generator 1	4-04	Distillate	s	1.51E-04	0.151	--	--	--	2		--	--	--	C3
Engine Combustion			f											
Temp. Generator 2	4-04	Distillate	s	0.015	15.2	--	--	--	2		--	--	--	C3
Engine Combustion			f											
Temp. Generator 3	4-04	Distillate	s	0.009	8.91	--	--	--	2		--	--	--	C3
Engine Combustion			f											
Temp. Generator 4	4-04	Distillate	s	0.057	6.37	--	--	--	18		--	--	--	C3
Engine Combustion			f											
Temp. Pump	4-04	Distillate	s	0.049	5.46	--	--	--	12		--	--	--	C3
Engine Combustion			f											
			s											
			f											
			s											
			f											
Totals				0.151	37.8									

s - Stack Emissions f - Fugitive Emissions Daily emissions (lbs/dy) 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 temperature (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 factor.
C6 - New Construction, not operational.
C7 - Source closed, operation ceased.
C8 - Computer calculated based on standard.

1/9/08

FORM 3:

EMISSIONS CERTIFICATION REPORT

Particulate Matter

Calendar Year: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction

Facility ID# 24-013-0056

Pollutant: PM

Equipment Description/ Registration No.	SCC Number	Fuel		PM - Filterable		PM 10 - Filterable		PM 2.5 - Filterable		PM - Condensable		Operation	Emission
				Tons/yr	Lbs/day	Tons/yr	Lbs/day	Tons/yr	Lbs/day	Tons/yr	Lbs/day	Days/yr	Methods
Maintenance Activities**	4-04	Gasoline	S									365	
			F	3.95	21.6	0.934	5.12	0.093	0.512	0.00	0.00		
Emergency Generator	4-04	Distillate	S	0.004	0.142	0.004	0.142	0.004	0.142	4.10E-04	0.016	52	C3
Engine Combustion*			F										
iDOT Generator	4-04	Distillate	S	9.62E-04	0.037	9.62E-04	0.037	9.62E-04	0.037	1.07E-04	0.004	52	C4
Engine Combustion*			F										
Fire Water Pump 1	4-04	Distillate	S	2.57E-04	0.040	2.57E-04	0.040	2.57E-04	0.040	2.86E-05	0.004	13	C3
Engine Combustion*			F										
Fire Water Pump 2	4-04	Distillate	S	2.57E-04	0.040	2.57E-04	0.040	2.57E-04	0.040	2.86E-05	0.004	13	C3
Engine Combustion*			F										
Fire Water Pump 3	4-04	Distillate	S	2.57E-04	0.040	2.57E-04	0.040	2.57E-04	0.040	2.86E-05	0.004	13	C3
Engine Combustion*			F										
Temp. Generator 1	4-04	Distillate	S	0.005	5.45	0.005	5.45	0.005	5.45	0.001	0.606	2	C3
Engine Combustion*			F										
Temp. Generator 2	4-04	Distillate	S	0.015	14.7	0.015	14.7	0.015	14.7	0.002	1.64	2	C3
Engine Combustion*			F										
Temp. Generator 3	4-04	Distillate	S	0.009	8.61	0.009	8.61	0.009	8.61	9.56E-04	0.956	2	C3
Engine Combustion*			F										
Temp. Generator 4	4-04	Distillate	S	0.055	6.15	0.055	6.15	0.055	6.15	6.15E-03	0.684	18	C3
Engine Combustion*			F										
Temp. Pump	4-04	Distillate	S	0.047	5.27	0.047	5.27	0.047	5.27	0.005	0.586	12	C3
Engine Combustion*			F										
* - AP-42 Section 3.3 does not provide a breakdown of condensable and filterable particulate, but AP-42 Section 3.4 does have specific factors. Based on AP-42, Section 3.4, filterable PM is assumed to be approximately 90% emissions from combustion sources.			S										
			F										
All Filt PM is less than 1 micron therefore assumed PM-Filt=PM10-Filt=PM2.5-Filt			S										
			F										
			S										
** - Maintenance activities include emissions from abrasive blasting			F										
Breakdown of condensable and filterable particulate is not defined, therefore Total PM reported as filterable.			S										
			F										
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FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction Facility ID: 24-013-0056 Pollutant: Benzene *

Equipment Description / Registration Number ¹	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	lbs/dy	lbs/hr		
1010	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1011	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1012	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1013	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1014	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1015	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1016	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1030	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1031	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1032	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1033	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1034	< 0.1	< 0.24	< 0.01		
Breakout Tank					
Totals		Continue to next page			

* 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 = Adsorption

O = Other

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction Facility ID: 24-013-0056 Pollutant: Benzene *

Equipment Description / Registration Number ¹	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	lbs/dy	lbs/hr		
1040	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1041	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1050	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1051	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1052	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1060	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1061	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1070	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1071	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1072	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1073	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1074	< 0.1	< 0.24	< 0.01		
Breakout Tank					
Totals		Continue to next page			

* 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 = Adsorption

O = Other

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022Facility Name: Colonial Pipeline Company - Dorsey JunctionFacility ID: 24-013-0056Pollutant: Benzene *

Equipment Description / Registration Number ¹	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	lbs/dy	lbs/hr		
1075	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1076	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1077	NA	NA	NA		
Breakout Tank					
1080	< 0.1	< 0.24	< 0.01		
Breakout Tank					
1081	< 0.1	< 0.24	< 0.01		
Breakout Tank					
5200	< 0.1	< 0.24	< 0.01		
Phase Separation Tank					
Emergency Generator	< 0.1	< 0.24	< 0.01		
Storage Tank					
Underground	< 0.1	< 0.24	< 0.01		
Sump 03					
Underground	< 0.1	< 0.24	< 0.01		
Sump 04					
DRA Tank	< 0.1	< 0.24	< 0.01		
Tank					
D1000	NA	NA	NA		
Additive Tank					
Totals	Continue to next page				

* 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 = Adsorption

O = Other

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2022Facility Name: Colonial Pipeline Company - Dorsey JunctionFacility ID: 24-013-0056Pollutant: Benzene *

Equipment Description / Registration Number ¹	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	lbs/dy	lbs/hr		
OWS #1	< 0.1	< 0.24	< 0.01		
OWS #2	< 0.1	< 0.24	< 0.01		
OWS #3	< 0.1	< 0.24	< 0.01		
Sting Water Batch Tank	< 0.1	< 0.24	< 0.01		
Sting Water Air Stripper	< 0.1	< 0.24	< 0.01		
Ground Water Air Stripper	< 0.1	< 0.24	< 0.01		
Fugitive Emissions	< 0.1	< 0.24	< 0.01		
Emergency Generator Engine Combustion	< 0.1	< 0.24	< 0.01		
Maintenance Activities	< 0.1	< 0.24	< 0.01		
Fire Water Pump Engine 1 Engine Combustion	< 0.1	< 0.24	< 0.01		
Fire Water Pump Engine 1 Storage Tank	< 0.1	< 0.24	< 0.01		
Fire Water Pump Engine 2 Engine Combustion	< 0.1	< 0.24	< 0.01		
Fire Water Pump Engine 2 Storage Tank	< 0.1	< 0.24	< 0.01		
Fire Water Pump Engine 3 Engine Combustion	< 0.1	< 0.24	< 0.01		
Fire Water Pump Engine 3 Storage Tank	< 0.1	< 0.24	< 0.01		
Temp. Gen. 1 Engine Combustion	< 0.1	< 0.24	< 0.01		
Temp. Gen. 2 Engine Combustion	< 0.1	< 0.24	< 0.01		
Temp. Gen. 3 Engine Combustion	< 0.1	< 0.24	< 0.01		
Temp. Gen. 4 Engine Combustion	< 0.1	< 0.24	< 0.01		
Temp. Pump Engine Combustion	< 0.1	< 0.24	< 0.01		
iDOT Generator Engine Combustion	< 0.1	< 0.24	< 0.01		
iDOT Generator Storage Tank	< 0.1	< 0.24	< 0.01		
Totals	0.198	1.38	0.076		

* 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 = Adsorption

O = Other

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**Calendar Year: 2022Facility Name: Colonial Pipeline Company - Dorsey Junction Facility ID: 24-013-0056 Pollutant: Isooctane *

Equipment Description / Registration Number ¹	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	lbs/dy	lbs/hr		
1010	< 1	< 2.4	< 0.1		
Breakout Tank					
1011	< 1	< 2.4	< 0.1		
Breakout Tank					
1012	< 1	< 2.4	< 0.1		
Breakout Tank					
1013	< 1	< 2.4	< 0.1		
Breakout Tank					
1014	< 1	< 2.4	< 0.1		
Breakout Tank					
1015	< 1	< 2.4	< 0.1		
Breakout Tank					
1016	< 1	< 2.4	< 0.1		
Breakout Tank					
1030	< 1	< 2.4	< 0.1		
Breakout Tank					
1031	< 1	< 2.4	< 0.1		
Breakout Tank					
1032	< 1	< 2.4	< 0.1		
Breakout Tank					
1033	< 1	< 2.4	< 0.1		
Breakout Tank					
1034	< 1	< 2.4	< 0.1		
Breakout Tank					
Totals		Continue to next page			

* 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 = Adsorption

O = Other

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction Facility ID: 24-013-0056 Pollutant: Isooctane *

Equipment Description / Registration Number ¹	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	lbs/dy	lbs/hr		
1040	< 1	< 2.4	< 0.1		
Breakout Tank					
1041	< 1	< 2.4	< 0.1		
Breakout Tank					
1050	NA	NA	NA		
Breakout Tank					
1051	NA	NA	NA		
Breakout Tank					
1052	NA	NA	NA		
Breakout Tank					
1060	< 1	< 2.4	< 0.1		
Breakout Tank					
1061	< 1	< 2.4	< 0.1		
Breakout Tank					
1070	NA	NA	NA		
Breakout Tank					
1071	NA	NA	NA		
Breakout Tank					
1072	NA	NA	NA		
Breakout Tank					
1073	NA	NA	NA		
Breakout Tank					
1074	NA	NA	NA		
Breakout Tank					
Totals		Continue to next page			

* 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 = Adsorption

O = Other

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

**TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT**

Calendar Year: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction Facility ID: 24-013-0056 Pollutant: Isooctane *

Equipment Description / Registration Number ¹	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	lbs/dy	lbs/hr		
1075 Breakout Tank	NA	NA	NA		
1076 Breakout Tank	NA	NA	NA		
1077 Breakout Tank	NA	NA	NA		
1080 Breakout Tank	NA	NA	NA		
1081 Breakout Tank	NA	NA	NA		
5200 Phase Separation Tank	< 1	< 2.4	< 0.1		
Emergency Generator Storage Tank	NA	NA	NA		
Underground Sump 03	< 1	< 2.4	< 0.1		
Underground Sump 04	< 1	< 2.4	< 0.1		
DRA Tank	NA	NA	NA		
iDOT Generator Tank	NA	NA	NA		
D1000 Additive Tank	NA	NA	NA		
Fire Water Tank 1 Tank	NA	NA	NA		
Fire Water Tank 2 Tank	NA	NA	NA		
Fire Water Tank 3 Tank	NA	NA	NA		
Totals	Continue to next page				

* 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 = Adsorption
O = Other

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction

Facility ID:

24-013-0056

Pollutant:

Isooctane

*

Equipment Description / Registration Number ¹	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	lbs/dy	lbs/hr		
OWS #1	NA	NA	NA		
OWS #2	NA	NA	NA		
OWS #3	NA	NA	NA		
Sting Water Batch Tank	NA	NA	NA		
Sting Water Air Stripper	< 1	< 2.4	< 0.1		
Ground Water Air Stripper	< 1	< 2.4	< 0.1		
Fugitive Emissions	< 1	< 2.4	< 0.1		
Maintenance Activities	< 1	< 2.4	< 0.1		
Emergency Generator Engine Combustion	NA	NA	NA		
Fire Water Pump Engine 1 Engine Combustion	NA	NA	NA		
Fire Water Pump Engine 2 Engine Combustion	NA	NA	NA		
Fire Water Pump Engine 3 Engine Combustion	NA	NA	NA		
Temp. Gen. 1 Engine Combustion	NA	NA	NA		
Temp. Gen. 2 Engine Combustion	NA	NA	NA		
Temp. Gen. 3 Engine Combustion	NA	NA	NA		
Temp. Gen. 4 Engine Combustion	NA	NA	NA		
Temp. Pump Engine Combustion	NA	NA	NA		
iDOT Generator Engine Combustion	NA	NA	NA		
Totals	< 1	2.84	0.118		

* 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 = Adsorption

O = Other

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022Facility Name: Colonial Pipeline Company - Dorsey JunctionFacility ID: 24-013-0056Pollutant: Formaldehyde *

Equipment Description / Registration Number ¹	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	lbs/dy	lbs/hr		
Emergency Generator Engine Combustion	< 0.01	< 0.024	0.001		
iDOT Generator Engine Combustion	< 0.01	< 0.024	0.001		
Fire Water Pump Engine 1 Engine Combustion	< 0.01	< 0.024	0.003		
Fire Water Pump Engine 2 Engine Combustion	< 0.01	< 0.024	0.003		
Fire Water Pump Engine 3 Engine Combustion	< 0.01	< 0.024	0.003		
Temp. Gen. 1 Engine Combustion	< 0.01	< 0.024	< 0.001		
Temp. Gen. 2 Engine Combustion	< 0.01	0.061	0.003		
Temp. Gen. 3 Engine Combustion	< 0.01	0.036	0.002		
Temp. Gen. 4 Engine Combustion	< 0.01	0.026	0.001		
Temp. Pump Engine Combustion	< 0.01	< 0.024	0.002		
Totals	< 0.01	0.159	0.021		

* 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

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 4:

TOXIC AIR POLLUTANTS
EMISSIONS CERTIFICATION REPORT

Calendar Year: 2022

Facility Name: Colonial Pipeline Company - Dorsey Junction Facility ID: 24-013-0056 Pollutant: Acrolein *

Equipment Description / Registration Number ¹	Actual Emissions			Control Device**	% Efficiency
	Tons/yr	lbs/dy	lbs/hr		
Emergency Generator Engine Combustion	< 0.01	< 0.024	< 0.001		
iDOT Generator Engine Combustion	< 0.01	< 0.024	< 0.001		
Fire Water Pump Engine 1 Engine Combustion	< 0.01	< 0.024	< 0.001		
Fire Water Pump Engine 2 Engine Combustion	< 0.01	< 0.024	< 0.001		
Fire Water Pump Engine 3 Engine Combustion	< 0.01	< 0.024	< 0.001		
Temp. Gen. 1 Engine Combustion	< 0.01	< 0.024	< 0.001		
Temp. Gen. 2 Engine Combustion	< 0.01	< 0.024	< 0.001		
Temp. Gen. 3 Engine Combustion	< 0.01	< 0.024	< 0.001		
Temp. Gen. 4 Engine Combustion	< 0.01	< 0.024	< 0.001		
Temp. Pump Engine Combustion	< 0.01	< 0.024	< 0.001		
Totals	< 0.01	< 0.024	1.65E-03		

* 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

¹Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

FORM 5:Calendar Year: 2022**BILLABLE TOXIC AIR POLLUTANTS**
EMISSIONS CERTIFICATION REPORTFacility Name: Colonial Pipeline Company -
Dorsey JunctionFacility ID: 24-013-0056

Chemical Name	CAS Number		Actual Emissions			Estimation Method
			Tons/year	Lbs/Day	Lbs/hr	
carbon disulfide	75-15-0	S	0	0	0	C2
		F	0	0	0	C2
carbonyl sulfide	463-58-1	S	0	0	0	C2
		F	0	0	0	C2
chlorine	7782-50-5	S	0	0	0	C2
		F	0	0	0	C2
cyanide compounds	57-12-5	S	0	0	0	C2
		F	0	0	0	C2
hydrochloric acid	7647-01-0	S	0	0	0	C2
		F	0	0	0	C2
hydrogen fluoride	7664-39-3	S	0	0	0	C2
		F	0	0	0	C2
methyl chloroform	71-55-6	S	0	0	0	C2
		F	0	0	0	C2
methylene chloride	75-09-2	S	0	0	0	C2
		F	0	0	0	C2
perchloroethylene	127-18-4	S	0	0	0	C2
		F	0	0	0	C2
phosphine	7803-51-2	S	0	0	0	C2
		F	0	0	0	C2
titanium tetrachloride	7550-45-0	S	0	0	0	C2
		F	0	0	0	C2
TOTALS			0	0	0	

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 judgement
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 to include only the chemicals identified.

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.

See Attachment 1 for minimum reporting values.

3/9/09

FORM 6:Calendar Year: 2022**GREENHOUSE GAS EMISSIONS
EMISSIONS CERTIFICATION REPORT**Facility Name: Colonial Pipeline Company - Dorsey JunctionFacility ID#: 24-013-0056Pollutant: CO2 *

Equipment Description/ Registration Number* ¹	Actual Emissions		
	Tons/yr	lbs/day	Lbs/hour
Emergency Generator Engine Combustion	2.14	82.4	186
iDOT Generator Engine Combustion	4.65	179	151
Fire Water Pump Engine 1 Engine Combustion	1.49	229	459
Fire Water Pump Engine 2 Engine Combustion	1.49	229	459
Fire Water Pump Engine 3 Engine Combustion	1.49	229	459
Temp. Gen. 1 Engine Combustion	14.4	14,400	778
Temp. Gen. 2 Engine Combustion	8.55	8,553	462
Temp. Gen. 3 Engine Combustion	5.00	5,000	270
Temp. Gen. 4 Engine Combustion	32.2	3,573	154
Temp. Pump Engine Combustion	27.6	3,062	259
Totals	98.9	35,537	3,637

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 separate form for each pollutant.

*1 Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/15/08

FORM 6:Calendar Year: 2022**GREENHOUSE GAS EMISSIONS
EMISSIONS CERTIFICATION REPORT**Facility Name: Colonial Pipeline Company - Dorsey JunctionFacility ID#: 24-013-0056Pollutant: CH4 *

Equipment Description/ Registration Number ^{*1}	Actual Emissions		
	Tons/yr	lbs/day	Lbs/hour
Emergency Generator Engine Combustion	0.005	0.180	0.407
iDOT Generator Engine Combustion	0.010	0.391	0.329
Fire Water Pump Engine 1 Engine Combustion	2.86E-04	0.044	0.088
Fire Water Pump Engine 2 Engine Combustion	2.86E-04	0.044	0.088
Fire Water Pump Engine 3 Engine Combustion	2.86E-04	0.044	0.088
Temp. Gen. 1 Engine Combustion	0.009	8.75	0.473
Temp. Gen. 2 Engine Combustion	0.019	18.7	1.01
Temp. Gen. 3 Engine Combustion	0.011	10.9	0.590
Temp. Gen. 4 Engine Combustion	0.070	7.80	0.336
Temp. Pump Engine Combustion	0.060	6.68	0.565
Totals	0.184	53.5	3.98

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 separate form for each pollutant.

*1 Emissions must be broken down by equipment registration number (ex. 9-0076, 9-0077)

1/15/08

Emissions Calculations

Facility-wide VOC Emissions Summary (2022)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Tank No.	Product Stored	Tank Type	Capacity		Diameter (ft)	Annual Throughput		No. of Days Empty (4/1 - 9/30)	No. of Days Operating (4/1 - 9/30)	Throughput (4/1 - 9/30) (bbls)	Throughput (4/1 - 9/30) /day (Mgals)	Number of Turnovers	Tank Emissions based on 365 days		Days Empty	No. days Operating per year	Standing/Breathing Losses (365 days) (tpy)	Adjusted Emissions to # of operating days (tpy)	Landing Loss (tpy)	Cleaning Loss (tpy)	Adjusted TOSD (lbs/period)	Adjusted TOSD (lbs/day)	Total Emissions		
			(bbls)	(Mgals)		(bbls)	(Mgals)						(lbs/yr)	(tpy)									(tpy)	(lbs/day)	(tpy)
1010	Gasoline	Internal Floating Roof Tank	54,000	2,268	90	1,882,770	79,076	47	136	801,218	247	34.9	3,737	1.87	76	289	1.79	1.50	1.31	0	2,638	19.4	2.80	5,607	19.4
1011	Gasoline	Internal Floating Roof Tank	132,000	5,544	140	12,134,771	509,660	4	179	7,177,158	1,684	91.9	8,523	4.26	10	355	3.92	4.15	2.68	0	6,889	38.5	6.83	13,662	38.5
1012	Gasoline	Internal Floating Roof Tank	33,000	1,386	70	653,328	27,440	155	28	88,597	133	19.8	2,428	1.21	172	193	1.18	0.659	0.306	0.830	521	18.6	1.79	3,589	18.6
1013	Gasoline / Distillate	Internal Floating Roof Tank	33,000	1,386	70	1,093,228	45,916	151	32	240,590	316	33.1	2,470	1.23	183	182	1.17	0.647	1.20	0	649	20.3	1.85	3,693	20.3
1014	Gasoline / Distillate	Internal Floating Roof Tank	24,000	1,008	60	705,417	29,628	92	91	176,863	81.6	29.4	1,943	0.972	129	236	0.925	0.645	1.44	0	1,609	17.7	2.09	4,173	17.7
1015	Gasoline	Internal Floating Roof Tank	33,000	1,386	70	1,161,360	48,777	14	169	362,389	90.1	35.2	2,486	1.24	41	324	1.18	1.11	1.35	0	2,569	15.2	2.46	4,925	15.2
1016	Gasoline	Internal Floating Roof Tank	54,000	2,268	90	556,576	23,376	183	0	0	0	10.3	3,620	1.81	320	45	1.79	0.245	0.746	0.201	0	0.00	1.19	2,382	52.9
1030	Gasoline	Internal Floating Roof Tank	33,000	1,386	70	1,161,998	48,804	59	124	513,772	174	35.2	2,486	1.24	78	287	1.18	0.991	1.03	0	1,749	14.1	2.02	4,049	14.1
1031	Gasoline	Internal Floating Roof Tank	43,000	1,806	80	1,043,167	43,813	151	32	173,503	228	24.3	3,031	1.52	176	189	1.46	0.810	0.794	0	543	17.0	1.60	3,207	17.0
1032	Gasoline	Internal Floating Roof Tank	150,000	6,300	150	9,859,549	414,101	5	178	5,743,130	1,355	65.7	9,419	4.71	8	357	4.45	4.61	1.28	0	5,873	33.0	5.89	11,779	33.0
1033	Gasoline	Internal Floating Roof Tank	80,000	3,360	110	3,822,739	160,555	22	161	1,654,261	432	47.8	5,343	2.67	35	330	2.53	2.43	1.91	0	4,230	26.3	4.34	8,671	26.3
1034	Gasoline / Distillate	Internal Floating Roof Tank	43,000	1,806	80	1,105,570	46,434	56	127	445,449	147	25.7	3,035	1.52	145	220	1.46	0.936	0.906	0.968	3,244	25.5	2.81	5,620	25.5
1040	Gasoline	Internal Floating Roof Tank	24,000	1,008	60	265,947	11,170	28	155	130,489	35.4	11.1	1,731	0.866	55	310	0.848	0.738	1.76	0	2,498	16.1	2.50	4,996	16.1
1041	Gasoline	Internal Floating Roof Tank	24,000	1,008	60	265,829	11,165	41	142	128,718	38.1	11.1	1,718	0.859	83	282	0.841	0.678	1.81	0	2,496	17.6	2.48	4,957	17.6
1050	Kerosene	Vertical Fixed Roof Tank	54,000	2,268	90	1,696,907	71,354	0	183	902,555	207	31.5	2,127	1.06	0	365	0.164	1.06		0	1,066	5.83	1.06	2,127	5.83
1051	Kerosene	Vertical Fixed Roof Tank	54,000	2,268	90	1,503,574	63,150	0	183	794,786	182	27.8	1,965	0.982	0	365	0.164	0.982		0	985	5.38	0.982	1,965	5.38
1052	Kerosene	Vertical Fixed Roof Tank	67,000	2,814	100	1,868,535	78,478	0	183	857,643	197	27.9	2,271	1.14	0	365	0.203	1.14			1,139	6.22	1.14	2,271	6.22
1060	Gasoline	Internal Floating Roof Tank	54,000	2,268	90	581,948	24,442	4	179	267,859	62.8	10.8	4,244	2.12	4	361	2.10	2.10	0.151	0	2,232	12.5	2.25	4,501	12.5
1061	Gasoline	Internal Floating Roof Tank	33,000	1,386	70	557,656	23,422	1	182	254,969	58.8	16.9	2,071	1.04	6	359	1.00	1.02	0.183	0	1,219	6.70	1.20	2,404	6.70
1070	Distillate	Vertical Fixed Roof Tank	218,000	9,156	180	7,431,132	312,108	0	183	3,448,520	791	34.1	6,858	3.43	0	365	0.541	3.43		0	3,438	18.8	3.43	6,858	18.8
1071	Kerosene	Vertical Fixed Roof Tank	120,000	5,040	134	1,393,821	58,540	0	183	662,499	152	11.62	2,188	1.09	0	365	0.368	1.09		0	1,097	5.99	1.09	2,188	5.99
1072	Distillate	Vertical Fixed Roof Tank	80,000	3,360	110	722,908	30,362	0	183	322,678	74.1	9.04	990	0.495	0	365	0.199	0.495		0	496	2.71	0.495	990	2.71
1073	Distillate	Vertical Fixed Roof Tank	96,000	4,032	120	5,153,074	216,429	0	183	2,503,944	575	53.7	3,656	1.83	0	365	0.238	1.83		0	1,833	10.0	1.83	3,656	10.0
1074	Kerosene / Distillate	Vertical Fixed Roof Tank	43,000	1,806	80	9,742	409	0	183	9,742	2.24	0.23	223	0.111	0	365	0.106	0.111		0	112	0.610	0.111	223	0.610
1075	Distillate	Vertical Fixed Roof Tank	54,000	2,268	90	18,364	771	183	0	0	0	0.3	272	0.136	351	14	0.133	0.008		0	0	0.00	0.008	16.6	1.19
1076	Distillate	Vertical Fixed Roof Tank	96,000	4,032	120	663,597	27,871	0	183	306,919	70.4	7	1,022	0.511	16	349	0.238	0.501		0	525	2.87	0.501	1,002	2.87
1077	Kerosene	Vertical Fixed Roof Tank	80,000	3,360	110	0	0	183	0	0	0	0	493	0.247	365	0	0.247	0.00		0	0	0.00	0.00	0	0.00
1080	Distillate	Vertical Fixed Roof Tank	24,175	1,015	60	374,231	15,718	66	117	163,042	58.5	15.5	421	0.211	116	249	0.059	0.192		0	180	1.54	0.192	384	1.54
1081	Distillate	Vertical Fixed Roof Tank	24,175	1,015	60	353,639	14,853	53	130	155,876	50.4	14.6	401	0.200	110	255	0.059	0.183		0	186	1.43	0.183	365	1.43
5200	Gasoline	Internal Floating Roof Tank	500	21.0	15	7,956	334	0	183	5,490	1.26	15.9	322	0.161	0	365	0.159	0.161	0	162	0.883	0.161	322	0.883	
Emergency Generator	Distillate	Horizontal Tank	11.9	0.500	3.5	179	7.52	0	183	89.5	0.021	15.0	0.354	1.77E-04	0	365	8.24E-05	1.77E-04		0	0.177	0.001	1.77E-04	0.354	0.001
Sump 03	Gasoline	Vertical Fixed Roof Tank	100	4.20	8.0	10,000	420	0	183	5,000	1.15	100	1,919	0.960	0	365	0.380	0.960		0	962	5.26	0.960	1,919	5.26
Sump 04	Gasoline	Vertical Fixed Roof Tank	100	4.20	8.0	10,000	420	0	183	5,000	1.15	100	1,919	0.960	0	365	0.380	0.960		0	962	5.26	0.960	1,919	5.26
DRA Tank	DRA	Vertical Fixed Roof Tank	28.6	1.20	6.0	743	31.2	0	183	371	0.085	26.0	2.29	0.001	0	365	3.48E-04	0.001		0	1.15	0.006	0.001	2.29	0.006
IDOT Generator	Distillate	Horizontal Tank	4.50	0.189	3.0	15.0	0.630	0	183	7.50	0.002	3.33	0.103	5.13E-05	0	365	4.33E-05	5.13E-05		0	0.051	2.81E-04	5.13E-05	0.103	2.81E-04
D1000	Red Dye	Horizontal Tank	95.2	4.00	8.4	0	0	0	183	0	0	0	0.942	4.71E-04	0	365	4.71E-04	4.71E-04		0	0.472	0.003	4.71E-04	0.942	0.003
Fire Water Tank 1	Distillate	Horizontal Tank	20.2	0.849	5.4	1,637	68.8	0	183	819	0.188	81.0	1.27	6.35E-04	0	365	1.69E-04	6.35E-04		0	0.636	0.003	0.001	1.27	0.003
Fire Water Tank 2	Distillate	Horizontal Tank	20.2	0.849	5.4	1,637	68.8	0	183	819	0.188	81.0	1.27	6.35E-04	0	365	1.69E-04	6.35E-04		0	0.636	0.003	0.001	1.27	0.003
Fire Water Tank 3	Distillate	Horizontal Tank	20.2	0.849	5.4	1,637	68.8	0	183	819	0.188	81.0	1.27	6.35E-04	0	365	1.69E-04	6.35E-04		0	0.636	0.003	0.001	1.27	0.003
OWS #1	Water	OWS	62.0	2.61		6,202	261	0	183	3,101	0.712	100	33.3	0.017	0	365	0	0.017		0	16.7	0.091	0.017	33.3	0.091
OWS #2	Water	OWS	23.8	1.00		2,381	100	0	183	1,190	0.273	100	1.78	0.001	0	365	0	0.001		0	0.892	0.005	0.001	1.78	0.005
OWS #3	Water	OWS	63.1	2.65		6,312	265	0	183	3,156	0.724	100	33.9	0.017	0	365	0	0.017		0	17.0	0.093	0.017	33.9	0.093
Batch Tank	Water	Horizontal Tank	23.8	1.00		2,381	100	0	183	1,190	0.273	100	0.533	2.66E-04	0	365	0	2.66E-04		0	0.267	0.001	2.66E-04	0.533	0.001
Tanks Total			1,858,435	78,054		58,094,458	2,439,967						85,410												

Drain Dry Low Leg Landing Loss Emissions (2022)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Facility	Month	YEAR	Tank No	Product	Total Number of Drain Dry Landings	Drain Dry Landings associated with a Cleaning Event	Drain Dry Landings with High Legs other than Cleaning Event Landing	Number of Low Leg Drain Dry Landings	D	W _L	M _V	V _V	P	R	T	T	S	L _s			L _f	LL	LL	
									Tank Diameter	Liquid density	Stock vapor molecular weight	Volume of vapor space	True vapor pressure of the stock lq	Ideal Gas Constant	Temperature	Temperature	Filling Saturation Factor (for drain dry tanks)	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Filling Landing Losses	Total Landing Losses	Total Landing Losses	Total Landing Losses
									feet	lb/gallon	lb/lb-mol	ft³	psia	psia ft³/lb-mole R	deg F	deg R		lb/event	lb/event	lb/event	lb/event	lb/event	lb/year	tons/year
Dorsey	Jan	2022	1010	GASOLINE	0	0	0	0	90	5.6	62	6,558	5.05	10.7	34.4	494	0.15	224	232	224	58.1	283	0	0.000
Dorsey	Jan	2022	1011	GASOLINE	1	0	0	1	140	5.6	62	22,168	5.05	10.7	34.4	494	0.15	543	785	543	196	739	739	0.370
Dorsey	Jan	2022	1012	GASOLINE	0	0	0	0	70	5.6	62	2,066	5.05	10.7	34.4	494	0.15	136	73.2	136	18.3	91.5	0	0.000
Dorsey	Jan	2022	1013	GASOLINE	1	0	0	1	70	5.6	62	2,611	5.05	10.7	34.4	494	0.15	136	92.5	136	23.1	116	116	0.058
Dorsey	Jan	2022	1014	GASOLINE	2	0	0	2	60	5.6	62	3,111	5.05	10.7	34.4	494	0.15	100	110	100	27.6	127	255	0.127
Dorsey	Jan	2022	1015	GASOLINE	1	0	0	1	70	5.6	62	4,368	5.05	10.7	34.4	494	0.15	136	155	136	38.7	174	174	0.087
Dorsey	Jan	2022	1016	GASOLINE	0	0	0	0	90	5.6	62	7,743	5.05	10.7	34.4	494	0.15	224	274	224	68.6	293	0	0.000
Dorsey	Jan	2022	1030	GASOLINE	2	0	0	2	70	5.6	62	2,347	5.05	10.7	34.4	494	0.15	136	83.2	83.2	20.8	104	208	0.104
Dorsey	Jan	2022	1031	GASOLINE	1	0	0	1	80	5.6	62	4,913	5.05	10.7	34.4	494	0.15	177	174	174	43.5	218	218	0.109
Dorsey	Jan	2022	1032	GASOLINE	0	0	0	0	150	5.6	62	20,405	5.05	10.7	34.4	494	0.15	623	723	623	181	804	0	0.000
Dorsey	Jan	2022	1033	GASOLINE	0	0	0	0	110	5.6	62	8,793	5.05	10.7	34.4	494	0.15	335	312	312	77.9	389	0	0.000
Dorsey	Jan	2022	1034	GASOLINE	2	0	0	2	80	5.6	62	4,958	5.05	10.7	34.4	494	0.15	177	176	176	43.9	220	439	0.220
Dorsey	Jan	2022	1040	GASOLINE	0	0	0	0	60	5.6	62	7,339	5.05	10.7	34.4	494	0.15	100	260	100	65.0	165	0	0.000
Dorsey	Jan	2022	1041	GASOLINE	0	0	0	0	60	5.6	62	7,766	5.05	10.7	34.4	494	0.15	100	275	100	68.8	169	0	0.000
Dorsey	Jan	2022	1060	GASOLINE	0	0	0	0	90	5.6	62	8,524	5.05	10.7	34.4	494	0.15	224	302	224	75.5	300	0	0.000
Dorsey	Jan	2022	1061	GASOLINE	0	0	0	0	70	5.6	62	4,806	5.05	10.7	34.4	494	0.15	136	170	136	42.6	178	0	0.000
Dorsey	Feb	2022	1010	GASOLINE	0	0	0	0	90	5.6	62	6,558	5.25	10.7	36.1	496	0.15	224	241	224	60.2	285	0	0.000
Dorsey	Feb	2022	1011	GASOLINE	1	0	0	1	140	5.6	62	22,168	5.25	10.7	36.1	496	0.15	543	814	543	203	747	747	0.373
Dorsey	Feb	2022	1012	GASOLINE	2	0	0	2	70	5.6	62	2,066	5.25	10.7	36.1	496	0.15	136	75.9	75.9	19.0	94.8	190	0.095
Dorsey	Feb	2022	1013	GASOLINE	0	0	0	0	70	5.6	62	2,611	5.25	10.7	36.1	496	0.15	136	95.9	95.9	24.0	120	0	0.000
Dorsey	Feb	2022	1014	GASOLINE	4	0	0	4	60	5.6	62	3,111	5.25	10.7	36.1	496	0.15	100	114	100	28.6	128	513	0.257
Dorsey	Feb	2022	1015	GASOLINE	1	0	0	1	70	5.6	62	4,368	5.25	10.7	36.1	496	0.15	136	160	136	40.1	176	176	0.088
Dorsey	Feb	2022	1016	GASOLINE	0	0	0	0	90	5.6	62	7,743	5.25	10.7	36.1	496	0.15	224	284	224	71.1	296	0	0.000
Dorsey	Feb	2022	1030	GASOLINE	1	0	0	1	70	5.6	62	2,347	5.25	10.7	36.1	496	0.15	136	86.2	86.2	21.5	108	108	0.054
Dorsey	Feb	2022	1031	GASOLINE	0	0	0	0	80	5.6	62	4,913	5.25	10.7	36.1	496	0.15	177	180	177	45.1	222	0	0.000
Dorsey	Feb	2022	1032	GASOLINE	0	0	0	0	150	5.6	62	20,405	5.25	10.7	36.1	496	0.15	623	749	623	187	811	0	0.000
Dorsey	Feb	2022	1033	GASOLINE	1	0	0	1	110	5.6	62	8,793	5.25	10.7	36.1	496	0.15	335	323	323	80.7	404	404	0.202
Dorsey	Feb	2022	1034	GASOLINE	1	0	0	1	80	5.6	62	4,958	5.25	10.7	36.1	496	0.15	177	182	177	45.5	223	223	0.111
Dorsey	Feb	2022	1040	GASOLINE	3	0	0	3	60	5.6	62	7,339	5.25	10.7	36.1	496	0.15	100	269	100	67.4	167	501	0.251
Dorsey	Feb	2022	1041	GASOLINE	0	0	0	0	60	5.6	62	7,766	5.25	10.7	36.1	496	0.15	100	285	100	71.3	171	342	0.171
Dorsey	Feb	2022	1060	GASOLINE	0	0	0	0	90	5.6	62	8,524	5.25	10.7	36.1	496	0.15	224	313	224	78.2	303	0	0.000
Dorsey	Feb	2022	1061	GASOLINE	0	0	0	0	70	5.6	62	4,806	5.25	10.7	36.1	496	0.15	136	176	136	44.1	180	0	0.000
Dorsey	Mar	2022	1010	GASOLINE	2	0	0	2	90	5.6	62	6,558	5.49	10.7	44.2	504	0.15	224	248	224	61.9	286	573	0.286
Dorsey	Mar	2022	1011	GASOLINE	1	0	0	1	140	5.6	62	22,168	5.49	10.7	44.2	504	0.15	543	837	543	209	752	752	0.376
Dorsey	Mar	2022	1012	GASOLINE	2	0	0	2	70	5.6	62	2,066	5.49	10.7	44.2	504	0.15	136	78.0	78.0	19.5	97.5	195	0.098
Dorsey	Mar	2022	1013	GASOLINE	1	0	0	1	70	5.6	62	2,611	5.49	10.7	44.2	504	0.15	136	98.6	98.6	24.6	123	123	0.062
Dorsey	Mar	2022	1014	GASOLINE	1	0	0	1	60	5.6	62	3,111	5.49	10.7	44.2	504	0.15	100	117	100	29.4	129	129	0.065
Dorsey	Mar	2022	1015	GASOLINE	3	0	0	3	70	5.6	62	4,368	5.49	10.7	44.2	504	0.15	136	165	136	41.2	177	531	0.266
Dorsey	Mar	2022	1016	GASOLINE	0	0	0	0	90	5.6	62	7,743	5.49	10.7	44.2	504	0.15	224	292	224	73.1	298	0	0.000
Dorsey	Mar	2022	1030	GASOLINE	2	0	0	2	70	5.6	62	2,347	5.49	10.7	44.2	504	0.15	136	88.6	88.6	22.2	111	222	0.111
Dorsey	Mar	2022	1031	GASOLINE	1	0	0	1	80	5.6	62	4,913	5.49	10.7	44.2	504	0.15	177	185	177	46.4	224	224	0.112
Dorsey	Mar	2022	1032	GASOLINE	0	0	0	0	150	5.6	62	20,405	5.49	10.7	44.2	504	0.15	623	770	623	193	816	0	0.000
Dorsey	Mar	2022	1033	GASOLINE	3	0	0	3	110	5.6	62	8,793	5.49	10.7	44.2	504	0.15	335	332	332	83.0	415	1,245	0.622
Dorsey	Mar	2022	1034	GASOLINE	1	0	0	1	80	5.6	62	4,958	5.49	10.7	44.2	504	0.15	177	187	177	46.8	224	224	0.112
Dorsey	Mar	2022	1040	GASOLINE	2	0	0	2	60	5.6	62	7,339	5.49	10.7	44.2	504	0.15	100	277	100	69.3	169	338	0.169
Dorsey	Mar	2022	1041	GASOLINE	2	0	0	2	60	5.6	62	7,766	5.49	10.7	44.2	504	0.15	100	293	100	73.3	173	346	0.173
Dorsey	Mar	2022	1060	GASOLINE	0	0	0	0	90	5.6	62	8,524	5.49	10.7	44.2	504	0.15	224	322	224	80.4	305	0	0.000
Dorsey	Mar	2022	1061	GASOLINE	0	0	0	0	70	5.6	62	4,806	5.49	10.7	44.2	504	0.15	136	181	136	45.4	181	181	0.091
Dorsey	Apr	2022	1010	GASOLINE	0	0	0	0	90	5.6	67	6,558	5.65	10.7	54.7	514	0.15	224	270	224	67.5	292		

Drain Dry Low Leg Landing Loss Emissions (2022)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Facility	Month	YEAR	Tank No	Product	Total Number of Drain Dry Landings	Drain Dry Landings associated with a Cleaning Event	Drain Dry Landings with High Legs other than Cleaning Event Landing	Number of Low Leg Drain Dry Landings	D	W _L	M _V	V _V	P	R	T	T	S	L _s		L _s equation	L _f	LL	LL	
									Tank Diameter	Liquid density	Stock vapor molecular weight	Volume of vapor space	True vapor pressure of the stock lq	Ideal Gas Constant	Temperature	Temperature	Filling Saturation Factor (for drain dry tanks)	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Filling Landing Losses	Total Landing Losses	Total Landing Losses	Total Landing Losses
									feet	lb/gallon	lb/lb-mol	ft³	psia	psia ft³/lb-mole R	deg F	deg R		lb/event	lb/event	lb/event	lb/event	lb/event	lb/year	tons/year
Dorsey	May	2022	1016	GASOLINE	0	0	0	0	90	5.6	67	7,743	5.12	10.7	63.6	523	0.15	224	284	224	71.0	295	0	0.000
Dorsey	May	2022	1030	GASOLINE	2	0	0	2	70	5.6	67	2,347	5.12	10.7	63.6	523	0.15	136	86.1	86.1	21.5	108	215	0.108
Dorsey	May	2022	1031	GASOLINE	0	0	0	0	80	5.6	67	4,913	5.12	10.7	63.6	523	0.15	177	180	177	45.1	222	0	0.000
Dorsey	May	2022	1032	GASOLINE	0	0	0	0	150	5.6	67	20,405	5.12	10.7	63.6	523	0.15	623	749	623	187	811	0	0.000
Dorsey	May	2022	1033	GASOLINE	0	0	0	0	110	5.6	67	8,793	5.12	10.7	63.6	523	0.15	335	323	323	80.6	403	0	0.000
Dorsey	May	2022	1034	GASOLINE	0	0	0	0	80	5.6	67	4,958	5.12	10.7	63.6	523	0.15	177	182	177	45.5	223	0	0.000
Dorsey	May	2022	1040	GASOLINE	2	0	0	2	60	5.6	67	7,339	5.12	10.7	63.6	523	0.15	100	269	100	67.3	167	334	0.167
Dorsey	May	2022	1041	GASOLINE	1	0	0	1	60	5.6	67	7,766	5.12	10.7	63.6	523	0.15	100	285	100	71.2	171	171	0.085
Dorsey	May	2022	1060	GASOLINE	1	0	0	1	90	5.6	67	8,524	5.12	10.7	63.6	523	0.15	224	313	224	78.2	303	303	0.151
Dorsey	May	2022	1061	GASOLINE	0	0	0	0	70	5.6	67	4,806	5.12	10.7	63.6	523	0.15	136	176	136	44.1	180	0	0.000
Dorsey	Jun	2022	1010	GASOLINE	1	0	0	1	90	5.6	67	6,558	6.14	10.7	73.0	533	0.15	224	283	224	70.8	295	295	0.148
Dorsey	Jun	2022	1011	GASOLINE	1	0	0	1	140	5.6	67	22,168	6.14	10.7	73.0	533	0.15	543	957	543	239	782	782	0.391
Dorsey	Jun	2022	1012	GASOLINE	0	0	0	0	70	5.6	67	2,066	6.14	10.7	73.0	533	0.15	136	89.2	89.2	22.3	112	0	0.000
Dorsey	Jun	2022	1013	GASOLINE	2	0	0	2	70	5.6	67	2,611	6.14	10.7	73.0	533	0.15	136	261	113	28.2	141	282	0.141
Dorsey	Jun	2022	1014	GASOLINE	0	0	0	0	60	5.6	67	3,111	6.14	10.7	73.0	533	0.15	100	134	100	33.6	133	0	0.000
Dorsey	Jun	2022	1015	GASOLINE	0	0	0	0	70	5.6	67	4,368	6.14	10.7	73.0	533	0.15	136	189	136	47.2	183	0	0.000
Dorsey	Jun	2022	1016	GASOLINE	0	0	0	0	90	5.6	67	7,743	6.14	10.7	73.0	533	0.15	224	334	224	83.6	308	0	0.000
Dorsey	Jun	2022	1030	GASOLINE	0	0	0	0	70	5.6	67	2,347	6.14	10.7	73.0	533	0.15	136	101	101	25.3	127	0	0.000
Dorsey	Jun	2022	1031	GASOLINE	0	0	0	0	80	5.6	67	4,913	6.14	10.7	73.0	533	0.15	177	212	177	53.0	230	0	0.000
Dorsey	Jun	2022	1032	GASOLINE	0	0	0	0	150	5.6	67	20,405	6.14	10.7	73.0	533	0.15	623	881	623	220	844	0	0.000
Dorsey	Jun	2022	1033	GASOLINE	1	0	0	1	110	5.6	67	8,793	6.14	10.7	73.0	533	0.15	335	380	335	94.9	430	430	0.215
Dorsey	Jun	2022	1040	GASOLINE	2	0	0	2	60	5.6	67	7,339	6.14	10.7	73.0	533	0.15	100	317	100	79.2	179	358	0.179
Dorsey	Jun	2022	1041	GASOLINE	2	0	0	2	60	5.6	67	7,766	6.14	10.7	73.0	533	0.15	100	335	100	83.8	184	367	0.184
Dorsey	Jun	2022	1060	GASOLINE	0	0	0	0	90	5.6	67	8,524	6.14	10.7	73.0	533	0.15	224	368	224	92.0	316	0	0.000
Dorsey	Jun	2022	1061	GASOLINE	0	0	0	0	70	5.6	67	4,806	6.14	10.7	73.0	533	0.15	136	208	136	51.9	188	0	0.000
Dorsey	Jul	2022	1010	GASOLINE	0	0	0	0	90	5.6	67	6,558	6.67	10.7	77.5	537	0.15	224	305	224	76.2	301	0	0.000
Dorsey	Jul	2022	1011	GASOLINE	0	0	0	0	140	5.6	67	22,168	6.67	10.7	77.5	537	0.15	543	1030	543	258	801	0	0.000
Dorsey	Jul	2022	1012	GASOLINE	1	0	0	1	70	5.6	67	2,066	6.67	10.7	77.5	537	0.15	136	96.1	96.1	24.0	120	120	0.060
Dorsey	Jul	2022	1013	GASOLINE	0	0	0	0	70	5.6	67	2,611	6.67	10.7	77.5	537	0.15	136	121	121	30.3	152	0	0.000
Dorsey	Jul	2022	1014	GASOLINE	1	0	0	1	60	5.6	67	3,111	6.67	10.7	77.5	537	0.15	100	145	100	36.2	136	136	0.068
Dorsey	Jul	2022	1015	GASOLINE	0	0	0	0	70	5.6	67	4,368	6.67	10.7	77.5	537	0.15	136	203	136	50.8	187	0	0.000
Dorsey	Jul	2022	1016	GASOLINE	0	0	0	0	90	5.6	67	7,743	6.67	10.7	77.5	537	0.15	224	360	224	90.0	314	0	0.000
Dorsey	Jul	2022	1030	GASOLINE	2	0	0	2	70	5.6	67	2,347	6.67	10.7	77.5	537	0.15	136	109	109	27.3	136	273	0.136
Dorsey	Jul	2022	1031	GASOLINE	1	0	0	1	80	5.6	67	4,913	6.67	10.7	77.5	537	0.15	177	228	177	57.1	234	234	0.117
Dorsey	Jul	2022	1032	GASOLINE	1	0	0	1	150	5.6	67	20,405	6.67	10.7	77.5	537	0.15	623	949	623	237	861	861	0.430
Dorsey	Jul	2022	1033	GASOLINE	2	0	0	2	110	5.6	67	8,793	6.67	10.7	77.5	537	0.15	335	409	335	102	437	875	0.437
Dorsey	Jul	2022	1034	GASOLINE	0	0	0	0	80	5.6	67	4,958	6.67	10.7	77.5	537	0.15	177	230	177	57.6	235	0	0.000
Dorsey	Jul	2022	1040	GASOLINE	1	0	0	1	60	5.6	67	7,339	6.67	10.7	77.5	537	0.15	100	341	100	85.3	185	185	0.093
Dorsey	Jul	2022	1041	GASOLINE	2	0	0	2	60	5.6	67	7,766	6.67	10.7	77.5	537	0.15	100	361	100	90.2	190	380	0.190
Dorsey	Jul	2022	1060	GASOLINE	0	0	0	0	90	5.6	67	8,524	6.67	10.7	77.5	537	0.15	224	396	224	99.1	323	0	0.000
Dorsey	Jul	2022	1061	GASOLINE	0	0	0	0	70	5.6	67	4,806	6.67	10.7	77.5	537	0.15	136	223	136	55.9	192	0	0.000
Dorsey	Aug	2022	1010	GASOLINE	0	0	0	0	90	5.6	67	6,558	6.46	10.7	76.0	536	0.15	224	296	224	74.1	299	0	0.000
Dorsey	Aug	2022	1011	GASOLINE	0	0	0	0	140	5.6	67	22,168	6.46	10.7	76.0	536	0.15	543	1,002	543	250	794	0	0.000
Dorsey	Aug	2022	1012	GASOLINE	0	0	0	0	70	5.6	67	2,066	6.46	10.7	76.0	536	0.15	136	93	93.4	23.3	117	0	0.000
Dorsey	Aug	2022	1013	GASOLINE	0	0	0	0	70	5.6	67	2,611	6.46	10.7	76.0	536	0.15	136	118	118	29.5	147	0	0.000
Dorsey	Aug	2022	1014	GASOLINE	1	0	0	1	60	5.6	67	3,111	6.46	10.7	76.0	536	0.15	100	141	100	35.1	135	135	0.067
Dorsey	Aug	2022	1015	GASOLINE	0	0	0	0	70	5.6	67	4,368	6.46	10.7	76.0	536	0.15	136	197	136	49.4	185	0	0.000
Dorsey	Aug	2022	1016	GASOLINE	0	0	0	0	90	5.6	67	7,743	6.46	10.7	76.0	536	0.15	224	350	224	87.5	312	0	0.000
Dorsey	Aug	2022	1030	GASOLINE	1	0	0	1	70	5.6	67	2,347	6.46	10.7	76.0									

Drain Dry Low Leg Landing Loss Emissions (2022)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Facility	Month	YEAR	Tank No	Product	Total Number of Drain Dry Landings	Drain Dry Landings associated with a Cleaning Event	Drain Dry Landings with High Legs other than Cleaning Event Landing	Number of Low Leg Drain Dry Landings	D	W _L	M _v	V _v	P	R	T	T	S	L _s			L _f	LL	LL	
									Tank Diameter	Liquid density	Stock vapor molecular weight	Volume of vapor space	True vapor pressure of the stock lq	Ideal Gas Constant	Temperature	Temperature	Filling Saturation Factor (for drain dry tanks)	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Filling Landing Losses	Total Landing Losses	Total Landing Losses	Total Landing Losses
									feet	lb/gallon	lb/lb-mol	ft^3	psia	psia ft^3 / lb-mole R	deg F	deg R		lb/event	lb/event	lb/event	lb/event	lb/event	lb/year	tons/year
Dorsey	Sep	2022	1040	GASOLINE	2	0	0	2	60	5.6	65	7,339	7.30	10.7	68.6	528	0.15	100	369	100	92.1	192	384	0.192
Dorsey	Sep	2022	1041	GASOLINE	2	0	0	2	60	5.6	65	7,766	7.30	10.7	68.6	528	0.15	100	390	100	97.5	197	394	0.197
Dorsey	Sep	2022	1060	GASOLINE	0	0	0	0	90	5.6	65	8,524	7.30	10.7	68.6	528	0.15	224	428	224	107	331	0	0.000
Dorsey	Sep	2022	1061	GASOLINE	0	0	0	0	70	5.6	65	4,806	7.30	10.7	68.6	528	0.15	136	241	136	60.3	196	0	0.000
Dorsey	Oct	2022	1010	GASOLINE	2	0	0	2	90	5.6	62	6,558	6.95	10.7	56.7	516	0.15	224	306	224	76.5	301	602	0.301
Dorsey	Oct	2022	1011	GASOLINE	1	0	0	1	140	5.6	62	22,168	6.95	10.7	56.7	516	0.15	543	1,034	543	258	802	802	0.401
Dorsey	Oct	2022	1012	GASOLINE	0	0	0	0	70	5.6	62	2,066	6.95	10.7	56.7	516	0.15	136	96.4	136	24.1	120	0	0.000
Dorsey	Oct	2022	1013	GASOLINE	3	0	0	3	70	5.6	62	2,611	6.95	10.7	56.7	516	0.15	136	122	122	30.4	152	457	0.228
Dorsey	Oct	2022	1014	GASOLINE	1	0	0	1	60	5.6	62	3,111	6.95	10.7	56.7	516	0.15	100	145	100	36.3	136	136	0.068
Dorsey	Oct	2022	1015	GASOLINE	1	0	0	1	70	5.6	62	4,368	6.95	10.7	56.7	516	0.15	136	204	136	50.9	187	187	0.093
Dorsey	Oct	2022	1016	GASOLINE	0	0	0	0	90	5.6	62	7,743	6.95	10.7	56.7	516	0.15	224	361	224	90.3	315	0	0.000
Dorsey	Oct	2022	1030	GASOLINE	0	0	0	0	70	5.6	62	2,347	6.95	10.7	56.7	516	0.15	136	109	109	27.4	137	0	0.000
Dorsey	Oct	2022	1031	GASOLINE	1	0	0	1	80	5.6	62	4,913	6.95	10.7	56.7	516	0.15	177	229	177	57.3	235	235	0.117
Dorsey	Oct	2022	1032	GASOLINE	1	0	0	1	150	5.6	62	20,405	6.95	10.7	56.7	516	0.15	623	952	623	238	861	861	0.431
Dorsey	Oct	2022	1033	GASOLINE	0	0	0	0	110	5.6	62	8,793	6.95	10.7	56.7	516	0.15	335	410	335	103	438	0	0.000
Dorsey	Oct	2022	1034	GASOLINE	1	0	0	1	80	5.6	62	4,958	6.95	10.7	56.7	516	0.15	177	231	177	57.8	235	235	0.118
Dorsey	Oct	2022	1040	GASOLINE	2	0	0	2	60	5.6	62	7,339	6.95	10.7	56.7	516	0.15	100	342	100	85.6	185	371	0.185
Dorsey	Oct	2022	1041	GASOLINE	1	0	0	1	60	5.6	62	7,766	6.95	10.7	56.7	516	0.15	100	362	100	90.5	190	190	0.095
Dorsey	Oct	2022	1060	GASOLINE	0	0	0	0	90	5.6	62	8,524	6.95	10.7	56.7	516	0.15	224	398	224	99.4	324	0	0.000
Dorsey	Oct	2022	1061	GASOLINE	0	0	0	0	70	5.6	62	4,806	6.95	10.7	56.7	516	0.15	136	224	136	56.0	192	0	0.000
Dorsey	Nov	2022	1010	GASOLINE	0	0	0	0	90	5.6	62	6,558	5.73	10.7	47.0	507	0.15	224	257	224	64.3	289	0	0.000
Dorsey	Nov	2022	1011	GASOLINE	1	0	0	1	140	5.6	62	22,168	5.73	10.7	47.0	507	0.15	543	870	543	217	761	761	0.380
Dorsey	Nov	2022	1012	GASOLINE	0	0	0	0	70	5.6	62	2,066	5.73	10.7	47.0	507	0.15	136	81.1	136	20.3	101	0	0.000
Dorsey	Nov	2022	1013	GASOLINE	2	0	0	2	70	5.6	62	2,611	5.73	10.7	47.0	507	0.15	136	102	102	25.6	128	256	0.128
Dorsey	Nov	2022	1014	GASOLINE	4	0	0	4	60	5.6	62	3,111	5.73	10.7	47.0	507	0.15	100	122	100	30.5	130	521	0.261
Dorsey	Nov	2022	1015	GASOLINE	2	0	0	2	70	5.6	62	4,368	5.73	10.7	47.0	507	0.15	136	171	136	42.8	179	357	0.179
Dorsey	Nov	2022	1016	GASOLINE	2	0	0	2	90	5.6	62	7,743	5.73	10.7	47.0	507	0.15	224	304	224	75.9	300	601	0.300
Dorsey	Nov	2022	1030	GASOLINE	1	0	0	1	70	5.6	62	2,347	5.73	10.7	47.0	507	0.15	136	92.1	136	23.0	115	115	0.058
Dorsey	Nov	2022	1031	GASOLINE	1	0	0	1	80	5.6	62	4,913	5.73	10.7	47.0	507	0.15	177	193	177	48.2	226	226	0.113
Dorsey	Nov	2022	1032	GASOLINE	0	0	0	0	150	5.6	62	20,405	5.73	10.7	47.0	507	0.15	623	801	623	200	824	0	0.000
Dorsey	Nov	2022	1033	GASOLINE	0	0	0	0	110	5.6	62	8,793	5.73	10.7	47.0	507	0.15	335	345	335	86.2	422	0	0.000
Dorsey	Nov	2022	1034	GASOLINE	1	1	0	0	80	5.6	62	4,958	5.73	10.7	47.0	507	0.15	177	195	177	48.6	226	0	0.000
Dorsey	Nov	2022	1040	GASOLINE	1	0	0	1	60	5.6	62	7,339	5.73	10.7	47.0	507	0.15	100	288	100	72.0	172	172	0.086
Dorsey	Nov	2022	1041	GASOLINE	2	0	0	2	60	5.6	62	7,766	5.73	10.7	47.0	507	0.15	100	305	100	76.2	176	352	0.176
Dorsey	Nov	2022	1060	GASOLINE	0	0	0	0	90	5.6	62	8,524	5.73	10.7	47.0	507	0.15	224	334	224	83.6	308	0	0.000
Dorsey	Nov	2022	1061	GASOLINE	0	0	0	0	70	5.6	62	4,806	5.73	10.7	47.0	507	0.15	136	189	136	47.1	183	0	0.000
Dorsey	Dec	2022	1010	GASOLINE	4	0	0	4	90	5.6	62	6,558	5.37	10.7	37.6	497	0.15	224	246	224	61.4	286	1,143	0.572
Dorsey	Dec	2022	1011	GASOLINE	0	0	0	0	140	5.6	62	22,168	5.37	10.7	37.6	497	0.15	543	830	543	208	751	0	0.000
Dorsey	Dec	2022	1012	GASOLINE	1	1	0	0	70	5.6	62	2,066	5.37	10.7	37.6	497	0.15	136	77.4	136	19.3	96.7	0	0.000
Dorsey	Dec	2022	1013	GASOLINE	6	0	0	6	70	5.6	62	2,611	5.37	10.7	37.6	497	0.15	136	97.8	136	24.4	122	733	0.367
Dorsey	Dec	2022	1014	GASOLINE	2	0	0	2	60	5.6	62	3,111	5.37	10.7	37.6	497	0.15	100	116	100	29.1	129	258	0.129
Dorsey	Dec	2022	1015	GASOLINE	4	0	0	4	70	5.6	62	4,368	5.37	10.7	37.6	497	0.15	136	164	136	40.9	177	707	0.353
Dorsey	Dec	2022	1016	GASOLINE	3	0	0	3	90	5.6	62	7,743	5.37	10.7	37.6	497	0.15	224	290	224	72.5	297	891	0.445
Dorsey	Dec	2022	1030	GASOLINE	1	0	0	1	70	5.6	62	2,347	5.37	10.7	37.6	497	0.15	136	87.9	136	22.0	110	110	0.055
Dorsey	Dec	2022	1031	GASOLINE	1	0	0	1	80	5.6	62	4,913	5.37	10.7	37.6	497	0.15	177	184	177	46.0	223	223	0.112
Dorsey	Dec	2022	1032	GASOLINE	0	0	0	0	150	5.6	62	20,405	5.37	10.7	37.6	497	0.15	623	764	623	191	814	0	0.000
Dorsey	Dec	2022	1033	GASOLINE	0	0	0	0	110	5.6	62	8,793	5.37	10.7	37.6	497	0.15	335	329	329	82.3	412	0	0.000
Dorsey	Dec	2022	1034	GASOLINE	0	0	0	0	80	5.6	62	4,958	5.37	10.7	37.6	497	0.15	177	186	177	46.4	224	0	0.000
Dorsey	Dec	2022	1040	GASOLINE	2	0	0	2	60	5.6	62	7,339	5.37	10.7	37.6	497	0.15	100	275	100	68.7	168	337	0.168
Dorsey	Dec	2022	1041	GASOLINE	2	0	0	2	60	5.6	62	7,766	5.37	10.7	37.6	497	0.15	100	291	100	72.7	172	345	0.172
Dorsey	Dec	2022	1060	GASOLINE	0	0	0	0	90	5.6	62	8,524	5.37	10.7	37.6	497	0.15	224	319	224	79.8	304	0	0.000
Dorsey	Dec	2022	1061	GASOLINE	0	0	0	0	70	5.6	62	4,806	5.37	10.7	37.6	497	0.15	136	180	136	45.0	181	0	0.000

Drain Dry Low Leg Landing Loss Emissions (2022)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Facility	Month	YEAR	Tank No	Product	Total Number of Drain Dry Landings	Drain Dry Landings associated with a Cleaning Event	Drain Dry Landings with High Legs other than Cleaning Event Landing	Number of Low Leg Drain Dry Landings	D	W _L	M _v	V _v	P	R	T	T	S	L _s			L _f	LL	LL	
									Tank Diameter	Liquid density	Stock vapor molecular weight	Volume of vapor space	True vapor pressure of the stock lq	Ideal Gas Constant	Temperature	Temperature	Filling Saturation Factor (for drain dry tanks)	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Filling Landing Losses	Total Landing Losses	Total Landing Losses	Total Landing Losses
									feet	lb/gallon	lb/lb-mol	ft^3	psia	psia ft^3/lb-mole R	deg F	deg R		lb/event	lb/event	lb/event	lb/event	lb/event	lb/year	tons/year
Dorsey	TOTAL		1010	GASOLINE	9	0	0	9													TOTAL		2,613	1.31
Dorsey	TOTAL		1011	GASOLINE	7	0	0	7													TOTAL		5,354	2.68
Dorsey	TOTAL		1012	GASOLINE	7	1	0	6													TOTAL		611	0.306
Dorsey	TOTAL		1013	GASOLINE	18	0	0	18													TOTAL		2,399	1.20
Dorsey	TOTAL		1014	GASOLINE	22	0	0	22													TOTAL		2,884	1.44
Dorsey	TOTAL		1015	GASOLINE	15	0	0	15													TOTAL		2,704	1.35
Dorsey	TOTAL		1016	GASOLINE	5	0	0	5													TOTAL		1,492	0.75
Dorsey	TOTAL		1030	GASOLINE	17	0	0	17													TOTAL		2,066	1.03
Dorsey	TOTAL		1031	GASOLINE	7	0	0	7													TOTAL		1,587	0.794
Dorsey	TOTAL		1032	GASOLINE	3	0	0	3													TOTAL		2,555	1.28
Dorsey	TOTAL		1033	GASOLINE	9	0	0	9													TOTAL		3,814	1.91
Dorsey	TOTAL		1034	GASOLINE	9	1	0	8													TOTAL		1,811	0.906
Dorsey	TOTAL		1040	GASOLINE	20	0	0	20													TOTAL		3,520	1.76
Dorsey	TOTAL		1041	GASOLINE	20	0	0	20													TOTAL		3,622	1.81
Dorsey	TOTAL		1060	GASOLINE	1	0	0	1													TOTAL		303	0.151
Dorsey	TOTAL		1061	GASOLINE	2	0	0	2													TOTAL		366	0.183
Dorsey	TOTAL		5200	GASOLINE	0	0	0	0													TOTAL		0	0.000
TOTALS					171	2	0	169															37,702	18.9

- Notes:
- Landing Loss equations can be found in AP-42 Chapter 7.1-Organic Liquid Storage Tanks.
 - Standing and filling emissions assumed to be based on month tank was landed.
 - The stock liquid density and vapor molecular weight were obtained from Table 7.1-2 in AP-42.
 - Vapor space volume from actual tank strapping data information provided by Colonial Pipeline.
 - The ambient temperatures were obtained from Table 7.1-7 in AP-42 and true vapor pressure values were based on the EM Tanks database for Baltimore, MD based on specific months.

Landing Loss Formulas

$$L_{TI} = L_{SI} + L_{FI}$$

Standing Idle Losses (one time event for drain dry tanks)

$$L_{SI} = 0.0063 \cdot W_L \cdot \text{Tank Area}$$

$L_{SI, \text{ max}} = (P \cdot V_v / R \cdot T) \cdot M_v \cdot S$

Filling Losses (one time event for drain dry tanks)

$$L_{FI} = (P \cdot V_v / R \cdot T) \cdot M_v \cdot S \cdot C_{df}$$

(equation 3-1)

(equation 3-13; where 0.0063 derives from a constant value of 0.042 multiplied by a clingage factor of 0.15)

(equation 3-13; where S = 0.6 consistent with equation 3-13 of AP-42 Chapter 7)

(equation 3-18; where the filling saturation correction factor for wind (C_{df}) is assumed to be 1.0 and the saturation factor (S) is assumed to be 0.15 for drain dry tanks as per AP-42 Section 7.1.3.3.2)

Cleaning Emissions - IFR Tanks (2022)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Tank No.	Product Landed	Product Prior to Cleaning	Product Filled	Tank Type	Month of			D	W _{L-Land}	W _{L-Clean}	M _{V-Land}	M _{V-Clean}	M _{V-Fill}	V _V	P _{Land}	P _{Clean}	P _{Fill}	R	T _{Land}		T _{Clean}		T _{Fill}		Q _V	n _{SR}
					Landing	Cleaning	Filling	Tank Diameter	Landing Liquid density	Cleaning Liquid density	Stock vapor molecular weight	Stock vapor molecular weight	Stock vapor molecular weight	Volume of vapor space	True vapor pressure of the stock lq	True vapor pressure of the stock lq	True vapor pressure of the stock lq	Ideal Gas Constant	Landing Ambient Temperature	Cleaning Ambient Temperature	Filling Ambient Temperature	Ventilation rate during sludge removal	Time for sludge removal			
																								ft	lb/gal	lb/gal
1034	Gasoline	Gasoline	-	Internal Floating Roof	Nov	Nov	-	80	5.6	5.6	62	62	0	33,584	5.73	5.73	0	10.7	47.0	507	47.0	507	0	0	15,000	3.0
1012	Gasoline	Gasoline	Gasoline	Internal Floating Roof	Dec	Dec	Dec	70	5.6	5.6	60	60	60	25,319	5.37	5.37	5.37	10.7	37.6	497	37.6	497	37.6	497	15,000	1.0
1016	-	-	Gasoline	Internal Floating Roof	-	-	Nov	90	-	-	-	-	62	40,916	-	-	5.73	10.7	0	0	0	0	47.0	507	11,200	3.0

Tank No.	Product Landed	Product Prior to Cleaning	Product Filled	Tank Type	t _{v,Day1}	t _{v,Subsequent}	% LEL	C _V	C _{V,max}	C _{V,selected}	d _s	F _e	S	I _S			I _{SR}				I _P		L _F	L _C		
														L _S	L _{S Max}	L _{S Selected}	I _{SR,Day1}	I _{SR,Subsequent}	L _{SR Max}	L _{SR Selected}	L _{P,Day1}	L _{P,Subsequent}	L _F	L _C	L _C	L _C
														Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Sludge Removal Emissions	Sludge Removal Emissions	Sludge Removal Emissions	Sludge Removal Emissions	Vapor space purge (0 for drain dry tanks)	Vapor space purge during cleaning cycle	Filling Landing Losses	Total Tank Cleaning Losses	Total Tank Cleaning Losses	Cleaning Loss per Hour
					hrs/day	hrs/day	%	Average vapor concentration by volume during sludge removal	Maximum average vapor concentration	Selected average vapor concentration	sludge depth	fraction of the sludge that evaporates (= 0.20 if unknown)	Filling Saturation Factor (for drain dry tanks)	lb/event	lb/event	lb/event	lb/event	lb/event	lb/event	lb/event	lb/event	lb/event	lb/event	lb/event	ton/event	lb/hr
1034	Gasoline	Gasoline	-	Internal Floating Roof	10.0	10.0	2.50	0.003	0.391	0.003	0.500	0.2	0.15	177	1,318	177	3,772	7,544	1,756	1,756	0	2.30	0	1,936	0.968	80.7
1012	Gasoline	Gasoline	Gasoline	Internal Floating Roof	10.0	0.0	0.870	0.001	0.366	0.001	1.00	0.2	0.15	136	917	136	1,294	0.00	2,689	1,294	0	0.00	229	1,659	0.830	69.1
1016	-	-	Gasoline	Internal Floating Roof	12.0	10.0	2.50	0.003	-	0.003	1.00	0.2	0.15	-	-	0	-	-	-	0	0	0.00	401	401	0.201	5.57

- Notes:**
- All of the tanks are cone-bottom, drain dry tanks. As such, the emission estimating methodology that was used to estimate VOC emissions from cleaning events was for drain dry tanks and can be found in Technical Report 2568, *Evaporative Loss from the Cleaning of Storage Tanks*, American Petroleum Institute, November 2007.
 - Standing emissions based on month tank was landed and product landed. Cleaning emissions based on month cleaning occurred and product prior to cleaning. Filling emissions based on month of filling and product tank was filled with.
 - The stock liquid density and vapor molecular weight were obtained from Table 7.1-2 in AP-42.
 - Vapor space volume from actual tank strapping data information provided by Colonial Pipeline.
 - The ambient temperatures were obtained from Table 7.1-7 in AP-42 and true vapor pressure values were based on the EM Tanks database for Baltimore, MD based on specific months.
 - Cleaning data obtained from maintenance logs provided by Colonial Pipeline.
 - Average vapor concentration is based on 10% of LEL multiplied by % LEL of calibration gas multiplied by a Response Factor of 1.0 (1.0 recommended factor to use if factor unknown).
 - Vapor space purge emissions are zero for the first day.
 - Tank 1016 was landed and cleaned in October 2021, but was not refilled until November 2022. The refilling emissions are included in this 2022 ECR.
 - Tank 1034 was landed and cleaned in November 2022, but was not refilled before the end of 2022. As the filling will occur in 2023, the filling emissions will be included in 2023 ECR.

IFR Cleaning Formulas

$$L_C = I_S + I_P + L_{SR} + L_F$$

Standing Idle Losses (one time event for drain dry tanks)

$$L_S = 0.0063 \cdot W_L \cdot \text{Tank Area}$$
 (where 0.0063 derives from a constant value of 0.042 multiplied by a clingage factor of 0.15)

$$L_{S \max} = (P_a \cdot V_V / R \cdot T) \cdot M_V \cdot S$$
 (where S = 0.6)

Filling Losses (one time event for drain dry tanks)

$$L_F = (P_a \cdot V_V / R \cdot T) \cdot M_V \cdot S$$
 (where S = 0.15)

Sludge Removal Losses (one time event for drain dry tanks because subsequent days are equal to zero, see below)

$$L_{SR} = I_{SR,Day1} + I_{SR,Subsequent} \text{ OR } L_{SR \max}$$

$$L_{SR,Day1} = 60 \cdot Q_a \cdot t_v \cdot C_v \cdot P_a \cdot M_V / (R \cdot T)$$
 (where P_a = atmospheric pressure at tank location (14.674 psia); t_v = 4 hrs ventilation)

$$L_{SR,Subsequent} = 60 \cdot Q_a \cdot (n_{SR} - 1) \cdot t_v \cdot C_v \cdot P_a \cdot M_V / (R \cdot T)$$
 (where P_a = atmospheric pressure at tank location (14.674 psia); t_v = 0 hrs ventilation)

$$L_{SR \max} = 0.49 \cdot F_e \cdot D^2 \cdot d_s \cdot W_L$$

Vapor Space Purge Emissions (one time event for drain dry tanks because day 1 is equal to zero, see below)

$$L_P = I_{P,Day1} + I_{P,Subsequent}$$

$$I_{P,Day1} = (P_a \cdot V_V / R \cdot T) \cdot M_V \cdot S$$
 (where S = 0 for Day 1 of drain dry tanks)

$$I_{P,Subsequent} = (P_{IH} \cdot V_V / R \cdot T) \cdot M_V \cdot S \cdot (n_{SR} - 1)$$
 (where S = 0.5 for subsequent days for drain dry tanks and P_{IH} assumed to be vapor pressure heavy liquids (aka distillate) which equals 0.006 psia)

EM Tanks Emissions (2022)

**Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland**

Tank	Components	Type	Losses (lb/yr)				Adjustments	Totals	
			Withdrawal	Standing	Working	Breathing		(lb/yr)	(tpy)
1010	Gasoline	IFR	166	3,571	--	--	0	3,737	1.87
1011	Gasoline	IFR	687	7,836	--	--	0	8,523	4.26
1012	Gasoline	IFR	73.9	2,354	--	--	0	2,428	1.21
1013	Gasoline / Distillate	IFR	124	2,346	--	--	0	2,470	1.23
1014	Gasoline / Distillate	IFR	93.2	1,850	--	--	0	1,943	0.972
1015	Gasoline	IFR	131	2,354	--	--	0	2,486	1.24
1016	Gasoline	IFR	49.0	3,571	--	--	0	3,620	1.81
1030	Gasoline	IFR	131	2,354	--	--	0	2,486	1.24
1031	Gasoline	IFR	103	2,928	--	--	0	3,031	1.52
1032	Gasoline	IFR	521	8,898	--	--	0	9,419	4.71
1033	Gasoline	IFR	275	5,068	--	--	0	5,343	2.67
1034	Gasoline / Distillate	IFR	109	2,925	--	--	0	3,035	1.52
1040	Gasoline	IFR	35.1	1,696	--	--	0	1,731	0.866
1041	Gasoline	IFR	35.1	1,683	--	--	0	1,718	0.859
1050	Kerosene	VFR	--	--	1,798	329	0	2,127	1.06
1051	Kerosene	VFR	--	--	1,636	329	0	1,965	0.982
1052	Kerosene	VFR	--	--	1,864	407	0	2,271	1.14
1060	Gasoline	IFR	51.2	4,193	--	--	0	4,244	2.12
1061	Gasoline	IFR	64.0	2,007	--	--	0	2,071	1.04
1070	Distillate	VFR	--	--	5,776	1,083	0	6,858	3.43
1071	Kerosene	VFR	--	--	1,452	736	0	2,188	1.09
1072	Distillate	VFR	--	--	592	398	0	990	0.495
1073	Distillate	VFR	--	--	3,181	475	0	3,656	1.83
1074	Kerosene / Distillate	VFR	--	--	11.3	211	0	223	0.111
1075	Distillate	VFR	--	--	6.45	266	0	272	0.136
1076	Distillate	VFR	--	--	547	475	0	1,022	0.511
1077	Kerosene	VFR	--	--	--	493	0	493	0.247
1080	Distillate	VFR	--	--	304	117	0	421	0.211
1081	Distillate	VFR	--	--	283	117	0	401	0.200
5200	Gasoline	IFR	4.20	318	--	--	0	322	0.161
Emergency Generator	Distillate	Horizontal	--	--	0.189	0.165	0	0.354	1.77E-04
Sump 03	Gasoline	VFR	--	--	1,919	759	-759	1,919	0.960
Sump 04	Gasoline	VFR	--	--	1,919	759	-759	1,919	0.960
DRA Tank	DRA	VFR	--	--	1.59	0.695	0	2.29	0.001
iDOT Generator	Distillate	Horizontal	--	--	0.016	0.087	0	0.103	5.13E-05
D1000	Red Dye	Horizontal	--	--	--	0.942	0	0.942	4.71E-04
Fire Water Tank 1	Distillate	Horizontal	--	--	0.931	0.339	0	1.27	6.35E-04
Fire Water Tank 2	Distillate	Horizontal	--	--	0.931	0.339	0	1.27	6.35E-04
Fire Water Tank 3	Distillate	Horizontal	--	--	0.931	0.339	0	1.27	6.35E-04
Totals			2,653	55,954	21,294	6,957	-1,518	85,340	42.7

Notes:

1. Emissions were calculated using the Mitchell Scientific Emission Master (EM) Tanks software (version 8.4.5.5).
2. Standing emissions are total output from EM Tanks and not yet adjusted to account for days the tank is empty.
3. For gasoline and transmix tanks, emissions are calculated assuming product RVP reflects seasonal RVP of historic product movement.
4. Five temporary diesel engines were used in 2022. Combustion emissions associated with the temporary engines were calculated. Emissions from the portable diesel tanks associated with the temporary diesel engines are assumed to be negligible.

Adjustments:

1. Sumps are underground and therefore breathing losses are treated as negligible. Per Tanks FAQ: "since the surrounding earth limits the diurnal temperature change, the model assumes that there are no breathing losses from the tank (breathing losses from atmospheric pressure fluctuations are assumed to be negligible)."

Fugitive Emissions (2022)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Equipment Type	Service	Equipment Count	VOC EF	VOC EF	VOC Emissions	
			<i>kg/hr/source</i>	<i>lb/hr/source</i>	<i>lb/hr</i>	<i>tpy</i>
Valves	Light Liquid	7,920	4.30E-05	9.48E-05	0.751	3.29
Pump seals	Light Liquid	330	5.40E-04	1.19E-03	0.393	1.72
Fittings (connectors and flanges)	Light Liquid	14,700	8.00E-06	1.76E-05	0.259	1.14
Others (compressors, etc..)	Light Liquid	1,030	1.30E-04	2.87E-04	0.295	1.29
TOTAL					1.70	7.44

Notes:

1. Emission Factors provided by EPA's *Protocol For Equipment Leak Emission Estimates (EPA-453-R-95-017)* , November 1995, Table 2-3 Marketing Terminal Average Emission Factors.
2. Equipment count based on *Model Plant (MP2) Gasoline Distribution Industry (Stage I) Background Information for Promulgated Standards, Appendix C, Table C-6 (EPA-453/R-94-002b)*.

Sting Water Emissions (2022)

Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

2022 Evaporative Loss Estimates for Dorsey Junction Tank Farm

Sting Water Air stripper Permit Number 06-9-0083 N

VOC Concentration	Days Operated	Total Processed	Average	Conversion Factors			Emissions		
(ug/l)	(days)	(gal)	(gal/day)	l/gal	g/ug	lbs/g	lbs/day	lbs/yr	ton/yr
24,318	36	37,128	1,031	3.78	0.000001	0.002	0.209	7.51	0.004

TOSD 2022 Evaporative Loss Estimates (April - Sept) for Dorsey Junction Tank Farm

Sting Water Air stripper Permit Number 06-9-0083 N

VOC Concentration	Days Operated	Total Processed	Average	Conversion Factors			Emissions		
(ug/l)	(days)	(gal)	(gal/day)	l/gal	g/ug	lbs/g	lbs/day	lbs/yr	ton/yr
24,318	18	25,620	1,423	3.78	0.000001	0.002	0.288	5.18	0.003

Ground Water Emissions (2022)

Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

2022 Evaporative Loss Estimates for Dorsey Junction Tank Farm

Ground Water Air stripper (No permit associated)

VOC Concentration	Days Operated	Total Processed	Average	Conversion Factors			Emissions		
(ug/l)	(days)	(gal)	(gal/day)	l/gal	g/ug	lbs/g	lbs/day	lbs/yr	ton/yr
6,300	365	947,749	2,597	3.78	0.000001	0.002	0.136	49.7	0.025

TOSD 2022 Evaporative Loss Estimates (April - Sept) for Dorsey Junction Tank Farm

Ground Water Air stripper (No permit associated)

VOC Concentration	Days Operated	Total Processed	Average	Conversion Factors			Emissions		
(ug/l)	(days)	(gal)	(gal/day)	l/gal	g/ug	lbs/g	lbs/day	lbs/yr	ton/yr
6,300	183	451,382	2,467	3.78	0.000001	0.002	0.129	23.6	0.012

Oil Water Separation Emissions (2022)

Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

	Benzene	Ethylbenzene	Naphthalene	Toluene	Xylene	Total HAPs	Total VOCs
	tons per year						
OWS #1	0.002	0.001	0.003	0.006	0.005	0.017	0.017
OWS #2	8.13E-05	4.76E-05	2.25E-04	3.03E-04	2.33E-04	0.001	0.001
OWS #3	0.002	0.001	0.003	0.006	0.005	0.017	0.017
Batch Tank	1.88E-05	7.63E-06	1.76E-04	5.04E-05	1.36E-05	2.66E-04	2.66E-04
TOTAL	0.003	0.002	0.006	0.012	0.011	0.035	0.035

Notes:

1. Oil water separator emissions are based on PTE and determined using Water9v2 modeling software.

Fuel Combustion Emissions (2022)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Year:	2022						
Generator Hours of operation (2022):	23.0	iDOT Generator Hours of operation (2022):	61.7	Fire Water Pump Engine 1 Hours of operation (2022):	6.5	Fire Water Pump Engine 2 Hours of operation (2022):	6.5
Generator Hours of operation (TOSD):	12.5	iDOT Generator Hours of operation (TOSD):	52.7	Fire Water Pump Engine 1 Hours of operation (TOSD):	3.0	Fire Water Pump Engine 2 Hours of operation (TOSD):	3.0
Generator Days of operation (2022):	52	iDOT Generator Days of operation (2022):	52	Fire Water Pump Engine 1 Days of operation (2022):	13	Fire Water Pump Engine 2 Days of operation (2022):	13
Generator Days of operation (TOSD):	27	iDOT Generator Days of operation (TOSD):	27	Fire Water Pump Engine 1 Days of operation (TOSD):	6	Fire Water Pump Engine 2 Days of operation (TOSD):	6

CRITERIA POLLUTANTS																												
Pollutant	EMERGENCY GENERATOR							iDOT GENERATOR							FIRE WATER PUMP ENGINE 1							FIRE WATER PUMP ENGINE 2						
	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions			
	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr
NO _x	3.10E-02			116	5.02	2.22	0.058	6.17E-03			49.9	0.809	0.960	0.025	5.75E-03			14.9	2.30	1.15	0.007	5.75E-03			14.9	2.30	1.15	0.007
VOC _s	2.47E-03			9.20	0.400	0.177	0.005	2.47E-03			20.0	0.324	0.384	0.010	2.17E-04			0.562	0.086	0.043	2.81E-04	2.17E-04			0.562	0.086	0.043	2.81E-04
VOC _f	4.41E-05			0.164	0.007	0.003	8.22E-05	4.41E-05			0.356	0.006	0.007	1.78E-04	3.87E-06			0.010	0.002	0.001	5.01E-06	3.87E-06			0.010	0.002	0.001	5.01E-06
VOC	2.51E-03			9.37	0.407	0.180	0.005	2.51E-03			20.3	0.329	0.391	0.010	2.20E-04			0.572	0.088	0.044	2.86E-04	2.20E-04			0.572	0.088	0.044	2.86E-04
CO	6.68E-03	162	23.0	24.9	1.08	0.479	0.012	1.54E-03	131	61.7	12.5	0.202	0.240	0.006	1.76E-03	399	6.5	4.57	0.704	0.352	0.002	1.76E-03	399	6.5	4.57	0.704	0.352	0.002
SO _x	2.05E-03			7.64	0.332	0.147	0.004	2.05E-03			16.6	0.269	0.319	0.008	2.05E-03			5.32	0.818	0.409	0.003	2.05E-03			5.32	0.818	0.409	0.003
PM	2.20E-03			8.20	0.356	0.158	0.004	2.65E-04			2.14	0.035	0.041	1.07E-03	2.20E-04			0.572	0.088	0.044	2.86E-04	2.20E-04			0.572	0.088	0.044	2.86E-04
PM ₁₀	2.20E-03			8.20	0.356	0.158	0.004	2.65E-04			2.14	0.035	0.041	1.07E-03	2.20E-04			0.572	0.088	0.044	2.86E-04	2.20E-04			0.572	0.088	0.044	2.86E-04
PM _{2.5}	2.20E-03			8.20	0.356	0.158	0.004	2.65E-04			2.14	0.035	0.041	1.07E-03	2.20E-04			0.572	0.088	0.044	2.86E-04	2.20E-04			0.572	0.088	0.044	2.86E-04

CRITERIA POLLUTANTS - TOSD (4/1 - 9/30)																												
Pollutant	EMERGENCY GENERATOR							iDOT GENERATOR							FIRE WATER PUMP ENGINE 1							FIRE WATER PUMP ENGINE 2						
	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions			
	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr
NO _x	3.10E-02			62.8	5.02	2.33	0.031	6.17E-03			42.6	0.809	1.58	0.021	5.75E-03			6.89	2.30	1.15	0.003	5.75E-03			6.89	2.30	1.15	0.003
VOC _s	2.47E-03			5.00	0.400	0.185	0.003	2.47E-03			17.1	0.324	0.632	0.009	2.17E-04			0.259	0.086	0.043	1.30E-04	2.17E-04			0.259	0.086	0.043	1.30E-04
VOC _f	4.41E-05			0.089	0.007	0.003	4.47E-05	4.41E-05		52.7	0.304	0.006	0.011	1.52E-04	3.87E-06			0.005	0.002	0.001	2.31E-06	3.87E-06			0.005	0.002	0.001	2.31E-06
VOC	2.51E-03			5.09	0.407	0.189	0.003	2.51E-03			17.4	0.329	0.643	0.009	2.20E-04			0.264	0.088	0.044	1.32E-04	2.20E-04			0.264	0.088	0.044	1.32E-04

GREENHOUSE GAS POLLUTANTS																												
Pollutant	EMERGENCY GENERATOR							iDOT GENERATOR							FIRE WATER PUMP ENGINE 1							FIRE WATER PUMP ENGINE 2						
	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions			
	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr
CO ₂	1.15E+00			4,285	186	82.4	2.14	1.15E+00			9,295	151	179	4.65	1.15E+00			2,983	459	229	1.49	1.15E+00			2,983	459	229	1.49
CH ₄	2.51E-03	162	23.0	9.37	0.407	0.180	0.005	2.51E-03	131	61.7	20.3	0.329	0.391	0.010	2.20E-04	399	6.5	0.572	0.088	0.044	2.86E-04	2.20E-04	399	6.5	0.572	0.088	0.044	2.86E-04

HAZARDOUS AIR POLLUTANTS																																
Pollutant	EMERGENCY GENERATOR										iDOT GENERATOR										FIRE WATER PUMP ENGINE 1						FIRE WATER PUMP ENGINE 2					
	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions							
	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr				
Benzene	6.53E-06			2.43E-02	1.06E-03	4.68E-04	1.22E-05	6.53E-06			5.28E-02	8.56E-04	1.02E-03	2.64E-05	6.53E-06			1.69E-02	2.61E-03	1.30E-03	8.47E-06	6.53E-06			1.69E-02	2.61E-03	1.30E-03	8.47E-06				
Toluene	2.86E-06			1.07E-02	4.64E-04	2.05E-04	5.33E-06	2.86E-06			2.31E-02	3.75E-04	4.45E-04	1.16E-05	2.86E-06			7.43E-03	1.14E-03	5.71E-04	3.71E-06	2.86E-06			7.43E-03	1.14E-03	5.71E-04	3.71E-06				
Xylenes	2.00E-06			7.43E-03	3.23E-04	1.43E-04	3.72E-06	2.00E-06			1.61E-02	2.61E-04	3.10E-04	8.06E-06	2.00E-06			5.17E-03	7.96E-04	3.98E-04	2.59E-06	2.00E-06			5.17E-03	7.96E-04	3.98E-04	2.59E-06				
1,3-Butadiene	2.74E-07			1.02E-03	4.43E-05	1.96E-05	5.10E-07	2.74E-07			2.21E-03	3.59E-05	4.25E-05	1.11E-06	2.74E-07			7.10E-04	1.09E-04	5.46E-05	3.55E-07	2.74E-07			7.10E-04	1.09E-04	5.46E-05	3.55E-07				
Formaldehyde	8.26E-06			3.08E-02	1.34E-03	5.92E-04	1.54E-05	8.26E-06			6.68E-02	1.08E-03	1.28E-03	3.34E-05	8.26E-06			2.14E-02	3.30E-03	1.65E-03	1.07E-05	8.26E-06			2.14E-02	3.30E-03	1.65E-03	1.07E-05				
Acetaldehyde	5.37E-06			2.00E-02	8.70E-04	3.85E-04	1.00E-05	5.37E-06			4.34E-02	7.03E-04	8.35E-04	2.17E-05	5.37E-06			1.39E-02	2.14E-03	1.07E-03	6.96E-06	5.37E-06			1.39E-02	2.14E-03	1.07E-03	6.96E-06				
Acrolein	6.48E-07			2.41E-03	1.05E-04	4.64E-05	1.21E-06	6.48E-07			5.23E-03	8.48E-05	1.01E-04	2.62E-06	6.48E-07			1.68E-03	2.58E-04	1.29E-04	8.40E-07	6.48E-07			1.68E-03	2.58E-04	1.29E-04	8.40E-07				
Naphthalene	5.94E-07			2.21E-03	9.62E-05	4.25E-05	1.11E-06	5.94E-07			4.80E-03	7.78E-05	9.23E-05	2.40E-06	5.94E-07			1.54E-03	2.37E-04	1.18E-04	7.70E-07	5.94E-07			1.54E-03	2.37E-04	1.18E-04	7.70E-07				
Acenaphthylene	3.54E-08			1.32E-04	5.74E-06	2.54E-06	6.60E-08	3.54E-08			2.86E-04	4.64E-06	5.51E-06	1.43E-07	3.54E-08			9.19E-05	1.41E-05	7.07E-06	4.59E-08	3.54E-08			9.19E-05	1.41E-05	7.07E-06	4.59E-08				
Acenaphthene	9.94E-09			3.70E-05	1.61E-06	7.12E-07	1.85E-08	9.94E-09			8.03E-05	1.30E-06	1.55E-06	4.02E-08	9.94E-09			2.58E-05	3.97E-06	1.98E-06	1.29E-08	9.94E-09			2.58E-05	3.97E-06	1.98E-06	1.29E-08				
Fluorene	2.04E-07			7.62E-04	3.31E-05	1.46E-05	3.81E-07	2.04E-07			1.65E-03	2.68E-05	3.18E-05	8.26E-07	2.04E-07			5.30E-04	8.16E-05	4.08E-05	2.65E-07	2.04E-07			5.30E-04	8.16E-05	4.08E-05	2.65E-07				
Phenanthrene	2.06E-07	162	23	7.67E-04	3.33E-05	1.47E-05	3.85E-07	2.06E-07			1.66E-03	2.70E-05	3.20E-05	8.32E-07	2.06E-07		399	5.34E-04	8.21E-05	4.11E-05	2.67E-07	2.06E-07		399	5.34E-04	8.21E-05	4.11E-05	2.67E-07				
Anthracene	1.31E-08			4.88E-05	2.12E-06	9.38E-07	2.44E-08	1.31E-08	131	61.7	1.06E-04	1.71E-06	2.03E-06	5.29E-08	1.31E-08			3.39E-05	5.22E-06	2.61E-06	1.70E-08	1.31E-08			3.39E-05	5.22E-06	2.61E-06	1.70E-08				
Fluoranthene	5.33E-08			1.98E-04	8.63E-06	3.82E-06	9.92E-08	5.33E-08			4.31E-04	6.98E-06	8.28E-06	2.15E-07	5.33E-08			1.38E-04	2.13E-06	1.06E-06	6.91E-08	5.33E-08			1.38E-04	2.13E-06	1.06E-06	6.91E-08				
Pyrene	3.35E-08			1.25E-04	5.42E-06	2.40E-06	6.23E-08	3.35E-08			2.70E-04	4.38E-06	5.20E-06	1.35E-07	3.35E-08			8.88E-05	1.34E-06	6.68E-06	4.34E-08	3.35E-08			8.88E-05	1.34E-06	6.68E-06	4.34E-08				
Benzo(a)anthracene	1.18E-08			4.38E-05	1.91E-06	7.19E-07	1.85E-08	1.18E-08			9.51E-05	1.54E-06	1.83E-06	4.75E-08	1.18E-08			3.05E-05	4.69E-06	2.35E-06	1.52E-08	1.18E-08			3.05E-05	4.69E-06	2.35E-06	1.52E-08				
Chrysene	2.47E-09			9.21E-06	4.00E-07	1.77E-07	4.60E-09	2.47E-09			2.00E-05	3.24E-07	3.84E-07	9.99E-09	2.47E-09			6.41E-06	9.86E-07	4.93E-07	3.20E-09	2.47E-09			6.41E-06	9.86E-07	4.93E-07	3.20E-09				
Benzo(b)fluoranthene	6.94E-10			2.58E-06	1.12E-07	4.97E-08	1.29E-09	6.94E-10			5.61E-06	9.09E-08	1.08E-07	2.80E-09	6.94E-10			1.80E-06	2.77E-07	1.38E-07	9.00E-10	6.94E-10			1.80E-06	2.77E-07	1.38E-07	9.00E-10				
Benzo(k)fluoranthene	1.09E-09			4.04E-06	1.76E-07	7.77E-08	2.02E-09	1.09E-09			8.77E-06	1.42E-07	1.69E-07	4.38E-09	1.09E-09			2.81E-06	4.33E-07	2.16E-07	1.41E-09	1.09E-09			2.81E-06	4.33E-07	2.16E-07	1.41E-09				
Benzo(a)pyrene	1.32E-09			4.90E-06	2.13E-07	9.43E-08	2.45E-09	1.32E-09			1.06E-05	1.72E-07	2.05E-07	5.32E-09	1.32E-09			3.41E-06	5.25E-07	2.63E-07	1.71E-09	1.32E-09			3.41E-06	5.25E-07	2.63E-07	1.71E-09				
Indeno(1,2,3-c)pyrene	2.63E-09			9.78E-06	4.25E-07	1.88E-07	4.89E-09	2.63E-09			2.12E-05	3.44E-07	4.08E-07	1.05E-08	2.63E-09			6.81E-06	1.05E-06	5.24E-07	3.40E-09	2.63E-09			6.81E-06	1.05E-06	5.24E-07	3.40E-09				
Benzo(a)anthracene	4.08E-09			1.52E-05	6.61E-07	2.92E-07	7.60E-09	4.08E-09			3.20E-05	5.33E-07	6.34E-07	1.65E-08	4.08E-09			1.08E-05	1.63E-06	8.57E-07	5.29E-09	4.08E-09			1.08E-05	1.63E-06	8.57E-07	5.29E-09				
Benzo(g,h,i)perylene	3.42E-09			1.28E-05	5.55E-07	2.45E-07	6.38E-09	3.42E-09			2.77E-05	4.48E-07	5.32E-07	1.38E-08	3.42E-09			8.88E-06	1.37E-06	6.83E-07	4.44E-09	3.42E-09			8.88E-06	1.37E-06	6.83E-07	4.44E-09				
Total PAH	1.18E-06			4.38E-03	1.91E-04	8.45E-05	2.19E-06	1.18E-06			9.51E-05	1.54E-06	1.83E-06	4.75E-06	1.18E-06			3.05E-05	4.69E-06	2.35E-06	1.52E-06	1.18E-06			3.05E-05	4.69E-06	2.35E-06	1.52E-06				

Fire Water Pump Engine 3 Hours of operation (2022):	6.5	Temporary Generator 1 Hours of operation (2022):	37	Temporary Generator 2 Hours of operation (2022):	37	Temporary Generator 3 Hours of operation (2022):	37
Fire Water Pump Engine 3 Hours of operation (TOSD):	3.0	Temporary Generator 1 Hours of operation (TOSD):	37	Temporary Generator 2 Hours of operation (TOSD):	37	Temporary Generator 3 Hours of operation (TOSD):	37
Fire Water Pump Engine 3 Days of operation (2022):	13	Temporary Generator 1 Days of operation (2022):	2	Temporary Generator 2 Days of operation (2022):	2	Temporary Generator 3 Days of operation (2022):	2
Fire Water Pump Engine 3 Days of operation (TOSD):	6	Temporary Generator 1 Days of operation (TOSD):	2	Temporary Generator 2 Days of operation (TOSD):	2	Temporary Generator 3 Days of operation (TOSD):	2

Pollutant	FIRE WATER PUMP ENGINE 3								TEMPORARY GENERATOR 1 (May)								TEMPORARY GENERATOR 2 (May)								TEMPORARY GENERATOR 3 (May)							
	Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions				
	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr		lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr		lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr		lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	
NO _x	5.75E-03			14.9	2.30	1.15	0.007		2.40E-02			596	16.1	298	0.298		3.10E-02			461	12.5	231	0.231		3.10E-02			270	7.29	135	0.135	
VOC _S	2.17E-04			0.562	0.086	0.043	2.81E-04		6.93E-04			17.2	0.465	8.60	0.009		2.47E-03			36.7	0.993	18.4	0.018		2.47E-03			21.5	0.580	10.7	0.011	
VOC _F	3.87E-06			0.010	0.002	0.001	5.01E-06		1.24E-05			0.307	0.008	0.154	1.54E-04		4.41E-05			0.656	0.018	0.328	3.28E-04		4.41E-05			0.383	0.010	0.192	1.92E-04	
VOC	2.20E-04			0.572	0.088	0.044	2.86E-04		7.05E-04			17.5	0.473	8.75	0.009		2.51E-03			37.4	1.01	18.7	0.019		2.51E-03			21.9	0.591	10.9	0.011	
CO	1.76E-03	399	6.5	4.57	0.704	0.352	0.002		5.50E-03	671	37.0	137	3.69	68.3	0.068		6.68E-03	402	37.0	99.4	2.69	49.7	0.050		6.68E-03	235	37	58.1	1.57	29.0	0.029	
SO _x	2.05E-03			5.32	0.818	0.409	0.003		1.21E-05			0.301	0.008	0.151	1.51E-04		2.05E-03			30.5	0.824	15.2	0.015		2.05E-03			17.8	0.482	8.91	0.009	
PM	2.20E-04			0.572	0.088	0.044	2.86E-04		4.88E-04			12.1	0.327	6.06	0.006		2.20E-03			32.7	0.884	16.4	0.016		2.20E-03			19.1	0.517	9.56	0.010	
PM ₁₀	2.20E-04			0.572	0.088	0.044	2.86E-04		4.01E-04			10.0	0.269	4.98	0.005		2.20E-03			32.7	0.884	16.4	0.016		2.20E-03			19.1	0.517	9.56	0.010	
PM _{2.5}	2.20E-04			0.572	0.088	0.044	2.86E-04		3.89E-04			9.66	0.261	4.83	0.005		2.20E-03			32.7	0.884	16.4	0.016		2.20E-03			19.1	0.517	9.56	0.010	

CRITERIA POLLUTANTS - TOSD (4/1 - 9/30)

Pollutant	FIRE WATER PUMP ENGINE 3								TEMPORARY GENERATOR 1								TEMPORARY GENERATOR 2								TEMPORARY GENERATOR 3							
	Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions				
	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr		lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr		lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr		lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	
NO _x	5.75E-03			6.89	2.30	1.15	0.003		2.40E-02			596	16.1	298	0.298		3.10E-02			461	12.5	231	0.231		3.10E-02			270	7.29	135	0.135	
VOC _S	2.17E-04			0.259	0.086	0.0432	1.30E-04		6.93E-04	671	37.0	17.2	0.465	8.60	0.009		2.47E-03			36.7	0.993	18.4	0.018		2.47E-03	235	37	21.5	0.580	10.7	0.011	
VOC _F	3.87E-06			0.005	0.002	0.001	2.31E-06		1.24E-05			0.307	0.008	0.154	1.54E-04		4.41E-05			0.656	0.018	0.328	0.000		4.41E-05			0.383	0.010	0.192	0.000	
VOC	2.20E-04			0.264	0.088	0.044	1.32E-04		7.05E-04			17.5	0.473	8.75	0.009		2.51E-03			37.4	1.01	18.7	0.019		2.51E-03			21.9	0.591	10.9	0.011	

GREENHOUSE GAS POLLUTANTS

Pollutant	FIRE WATER PUMP ENGINE 3								TEMPORARY GENERATOR 1								TEMPORARY GENERATOR 2								TEMPORARY GENERATOR 3							
	Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions				
	lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr		lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr		lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr		lb/hp-hr	hp	hrs/yr	lb/yr	lb/hr	lb/day	tons/yr	
CO ₂	1.15E+00			2.983	459	229	1.49		1.16E+00			28,799	778	14,400	14.4		1.15E+00			17,105	462	8,553	8.55		1.15E+00			9,999	270	5,000	5.00	
CH ₄	2.20E-04	399	6.5	0.572	0.088	0.044	2.86E-04		7.05E-04	671	37.0	17.5	0.473	8.75	0.009		2.51E-03	402	37.0	37.4	1.01	18.7	0.019		2.51E-03	235	37	21.8	0.590	10.9	0.011	

HAZARDOUS AIR POLLUTANTS

Pollutant	FIRE WATER PUMP ENGINE 3								TEMPORARY GENERATOR 1								TEMPORARY GENERATOR 2								TEMPORARY GENERATOR 3														
	Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions					Emission Factor	Power Output	Operating Time	Equipment Emissions											
				lb/hr	lb/hr	lb/day	tons/yr					lb/hr	lb/hr	lb/day	tons/yr					lb/hr	lb/hr	lb/day	tons/yr					lb/hr	lb/hr	lb/day	tons/yr	lb/hr	lb/hr	lb/day	tons/yr	lb/hr	lb/hr	lb/day	tons/yr
Benzene	6.53E-06			1.69E-02	2.61E-03	1.30E-03	8.47E-06		5.43E-06			1.35E-01	3.64E-03	6.74E-02	6.74E-05		6.53E-06			9.71E-02	2.63E-03	1.48E-02	1.48E-05		6.53E-06			5.68E-02	1.53E-03	2.84E-02	2.84E-05								
Toluene	2.86E-06			7.43E-03	1.14E-03	5.71E-04	3.71E-06		1.97E-06			4.88E-02	1.32E-03	2.44E-02	2.44E-05		2.86E-06			4.26E-02	1.15E-03	2.13E-02	2.13E-05		2.86E-06			2.49E-02	6.73E-04	1.24E-02	1.24E-05								
Xylenes	2.00E-06			5.17E-03	7.96E-04	3.98E-04	2.59E-06		1.35E-06			3.35E-02	9.07E-04	1.68E-02	1.68E-05		2.00E-06			2.97E-02	8.02E-04	1.48E-02	1.48E-05		2.00E-06			1.73E-02	4.69E-04	8.67E-03	8.67E-06								
1,3-Butadiene	2.74E-07			7.10E-04	1.09E-04	5.46E-05	3.55E-07		0.00E+00			0.00E+00	0.00E+00	0.00E+00	0.00E+00		2.74E-07			4.07E-03	1.10E-04	2.04E-03	2.04E-06		2.74E-07			2.38E-03	6.43E-05	1.19E-03	1.19E-06								
Formaldehyde	8.26E-06			2.14E-02	3.30E-03	1.65E-03	1.07E-05		5.52E-07			1.37E-02	3.71E-04	6.86E-03	6.86E-06		8.26E-06			1.23E-01	3.32E-03	6.14E-02	6.14E-05		8.26E-06			7.18E-02	1.94E-03	3.59E-02	3.59E-05								
Acetaldehyde	5.37E-06			1.39E-02	2.14E-03	1.07E-03	6.96E-06		1.76E-07			4.38E-03	1.18E-04	2.19E-03	2.19E-06		5.37E-06			7.99E-02	2.16E-03	3.99E-02	3.99E-05		5.37E-06			4.67E-02	1.26E-03	2.33E-02	2.33E-05								
Acrolein	6.48E-07			1.68E-03	2.58E-04	1.29E-04	8.40E-07		5.52E-08			1.37E-03	3.70E-05	6.85E-04	6.85E-07		6.48E-07			9.63E-03	2.60E-04	4.82E-03	4.82E-06		6.48E-07			5.63E-03	1.52E-04	2.82E-03	2.82E-06								
Naphthalene	5.94E-07			1.54E-03	2.37E-04	1.18E-04	7.70E-07		9.10E-07			2.26E-02	6.11E-04	1.13E-02	1.13E-05		5.94E-07			8.83E-03	2.39E-04	4.41E-03	4.41E-06		5.94E-07			5.16E-03	1.39E-04	2.58E-03	2.58E-06								
Acenaphthylene	3.54E-08			9.19E-05	1.41E-05	7.07E-06	4.59E-08		6.46E-08			1.60E-03	4.34E-05	8.02E-04	8.02E-07		3.54E-08			5.27E-04	1.42E-05	2.63E-04	2.63E-07		3.54E-08			3.08E-04	8.32E-06	1.54E-04	1.54E-07								
Acenaphthene	9.94E-09			2.58E-05	3.97E-06	1.98E-06	1.29E-08		3.28E-08			8.13E-04	2.20E-05	4.07E-04	4.07E-07		9.94E-09			1.48E-04	4.00E-06	7.39E-05	7.39E-08		9.94E-09			8.64E-05	2.34E-06	4.32E-05	4.32E-08								
Fluorene	2.04E-07			5.30E-04	8.16E-05	4.08E-05	2.65E-07		8.96E-08			2.22E-03	6.01E-05	1.11E-03	1.11E-06		2.04E-07			3.04E-03	8.22E-05	1.52E-03	1.52E-06		2.04E-07			1.78E-03	4.80E-05	8.89E-04	8.89E-07								
Phenanthrene	2.06E-07			5.34E-04	8.21E-05	4.11E-05	2.67E-07		2.86E-07			7.09E-03	1.92E-04	3.55E-03	3.55E-06		2.06E-07			3.06E-03	8.27E-05	1.53E-03	1.53E-06		2.06E-07			1.79E-03	4.84E-05	8.95E-04	8.95E-07								
Anthracene	1.31E-08	399	6.5	3.39E-05	5.22E-06	2.61E-06	1.70E-08		8.61E-09	671	37.0	2.14E-04	5.78E-06	1.07E-04	1.07E-07		1.31E-08	402	37.0	1.93E-04	5.26E-06	9.74E-05	9.74E-08	235	1.31E-08			1.14E-04	3.08E-06	5.69E-05	5.69E-08								
Fluoranthene	5.33E-08			1.38E-04	2.13E-05	1.06E-05	6.91E-08		2.82E-08			7.00E-04	1.89E-05	3.50E-04	3.50E-07		5.33E-08			7.92E-04	2.14E-05	3.96E-04	3.96E-07		5.33E-08			4.63E-04	1.25E-05	2.32E-05	2.32E-07								
Pyrene	3.35E-08			8.68E-05	1.34E-05	6.68E-06	4.34E-08		2.60E-08			6.45E-04	1.74E-05	3.22E-04	3.22E-07		3.35E-08			4.98E-04	1.35E-05	2.49E-04	2.49E-07		3.35E-08			2.91E-04	7.86E-06	1.45E-04	1.45E-07								
Benzo(a)anthracene	1.73E-08			4.35E-05	6.69E-06	3.35E-06	2.15E-08		1.18E-08			1.18E-04	3.02E-06	5.40E-06	5.40E-09		1.73E-08			1.75E-04	4.73E-06	8.61E-05	8.61E-08		1.73E-08			1.02E-04	2.74E-06	5.11E-05	5.11E-08								
Chrysene	2.47E-09			6.41E-06	9.86E-07	4.93E-07	3.20E-09		1.07E-08			2.66E-04	7.19E-05	1.33E-04	1.33E-07		2.47E-09			3.68E-05	9.93E-07	1.84E-05	1.84E-08		2.47E-09			2.15E-05	5.81E-07	1.07E-05	1.07E-08								
Benzo(b)fluoranthene	6.94E-10			1.80E-06	2.77E-07	1.38E-07	9.00E-10		7.77E-09			1.93E-04	5.21E-06	9.65E-05	9.65E-08		6.94E-10			1.03E-05	2.79E-07	5.16E-06	5.16E-09		6.94E-10			6.03E-06	1.63E-07	3.02E-06	3.02E-09								
Benzo(k)fluoranthene	1.09E-09			2.73E-07	4.33E-07	2.16E-07	1.41E-09		1.53E-09			3.79E-05	1.02E-06	1.89E-05	1.89E-08		1.09E-09			1.61E-05	4.36E-07	8.07E-06	8.07E-09		1.09E-09			9.35E-06	2.55E-07	4.72E-06	4.72E-09								
Benzo(a)pyrene	1.52E-09			3.41E-06	5.25E-07	2.63E-07	1.71E-09		1.80E-09			4.74E-05	1.21E-06	2.23E-05	2.23E-08		1.52E-09			1.96E-05	5.29E-07	9.79E-06	9.79E-09		1.52E-09			1.24E-05	3.09E-07	5.72E-06	5.72E-09								
Indeno(1,2,3-cd)pyrene	2.63E-09			6.81E-06	1.05E-06	5.24E-07	3.40E-09		2.90E-09			7.19E-05	1.94E-06	3.60E-05	3.60E-08		2.63E-09			3.90E-05	1.06E-06	1.95E-05	1.95E-08		2.63E-09			2.18E-05	6.17E-07	1.14E-05	1.14E-08								
Dibenz(a,h)anthracene	1.06E-09			1.63E-06	2.43E-07	1.25E-07	8.19E-09		1.08E-09			1.63E-05	4.33E-06	3.01E-05	3.01E-08		1.06E-09			4.07E-06	1.04E-06	1.94E-05	1.94E-08		1.06E-09			3.55E-06	9.59E-07	1.77E-06	1.77E-09								
Benzo(g,h,i)perylene	3.42E-09			8.88E-06	1.37E-06	6.83E-07	4.44E-09		3.89E-09			9.66E-05	2.61E-06	4.83E-05	4.83E-08		3.42E-09			5.09E-05	1.38E-06	2.55E-05	2.55E-08		3.42E-09			2.98E-05	8.04E-07	1.49E-05	1.49E-08								
Total PAH	1.18E-06			3.05E-03	4.69E-04	2.35E-04	1.52E-06		1.48E-06			3.68E-02	9.96E-04	1.84E-02	1.84E-05		1.18E-06			1.75E-02	4.73E-04	8.75E-03	8.75E-06		1.18E-06			1.02E-02	2.76E-04	5.11E-05	5.11E-08								

CRITERIA POLLUTANTS																		
Pollutant	TEMPORARY GENERATOR 4 (Cummins C100D2RE)								TEMPORARY PUMP (HL150M Dri-Prime Pump)								TOTAL FUEL COMBUSTION EMISSIONS	
	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions							
				lb/hp-hr	hp	hr/day	lb/hr				lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hr/day	lb/hr	lb/hr
NO _x	3.10E-02			1.734	4.15	96.3	0.867		3.10E-02			1.486	6.98	82.5	0.743	59.7	54.9	2.38
VOC ₁	2.47E-03			138	0.331	7.68	0.069		2.47E-03			118	0.556	6.58	0.059	39.1	82.6	0.181
VOC ₂	4.41E-05			2.47	0.006	0.137	0.001		4.41E-05			2.11	0.010	0.117	0.001	0.070	0.940	0.003
VOC	2.51E-03			141	0.337	7.81	0.070		2.51E-03			120	0.566	6.69	0.060	3.98	53.6	0.185
CO	6.68E-03	134	417	374	0.895	20.8	0.187		6.68E-03	225	213	320	1.50	17.8	0.160	13.7	18.7	0.519
SO _x	2.05E-03			115	0.275	6.37	0.057		2.05E-03			98.2	0.461	5.46	0.049	5.10	37.8	0.151
PM	2.20E-03			123	0.295	6.84	0.062		2.20E-03			105	0.495	5.86	0.053	3.17	45.0	0.152
PM ₁₀	2.20E-03			123	0.295	6.84	0.062		2.20E-03			105	0.495	5.86	0.053	3.12	43.9	0.151
PM _{2.5}	2.20E-03			123	0.295	6.84	0.062		2.20E-03			105	0.495	5.86	0.053	3.11	43.8	0.151
CRITERIA POLLUTANTS - TOSD (4/1 - 9/30)																		
Pollutant	TEMPORARY GENERATOR 4 (Cummins C100D2RE)								TEMPORARY PUMP (HL150M Dri-Prime Pump)								TOTAL FUEL COMBUSTION EMISSIONS	
	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions							
				lb/hp-hr	hp	hr/day	lb/hr				lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hr/day	lb/hr	lb/hr
NO _x	3.10E-02			0.00	0.00	0.00	0.000		3.10E-02			0.00	0.00	0.00	0.000	48.6	671	0.726
VOC ₁	2.47E-03	134	0	0.00	0.00	0.00	0.000		2.47E-03	225	0	0.00	0.00	0.00	0.000	3.02	38.7	0.049
VOC ₂	4.41E-05			0.00	0.00	0.00	0.000		4.41E-05			0.00	0.00	0.00	0.000	0.054	0.690	0.001
VOC	2.51E-03			0.00	0.00	0.00	0.000		2.51E-03			0.00	0.00	0.00	0.000	3.08	39.3	0.050
GREENHOUSE GAS POLLUTANTS																		
Pollutant	TEMPORARY GENERATOR 4 (Cummins C100D2RE)								TEMPORARY PUMP (HL150M Dri-Prime Pump)								TOTAL FUEL COMBUSTION EMISSIONS	
	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions							
				lb/hp-hr	hp	hr/day	lb/hr				lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hr/day	lb/hr	lb/hr
CO ₂	1.15E+00			64.321	154	3,573	32.2		1.15E+00			55.114	259	3,062	27.6	3,637	35,337	98.9
CH ₄	2.51E-03	134	417	140	0.336	7.80	0.070		2.51E-03	225	213	120	0.565	6.68	0.060	3.98	53.5	0.184
HAZARDOUS AIR POLLUTANTS																		
Pollutant	TEMPORARY GENERATOR 4 (Cummins C100D2RE)								TEMPORARY PUMP (HL150M Dri-Prime Pump)								TOTAL FUEL COMBUSTION EMISSIONS	
	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions							
				lb/hp-hr	hp	hr/day	lb/hr				lb/hr	lb/day	tons/yr	lb/hp-hr	hp	hr/day	lb/hr	lb/hr
Benzene	6.53E-06			3.65E-01	8.75E-04	2.03E-02	1.83E-04		6.53E-06			3.13E-01	1.47E-03	1.74E-02	1.56E-05	1.99E-02	1.87E-01	5.48E-04
Toluene	2.86E-06			1.60E-01	3.84E-04	8.90E-03	8.01E-05		2.86E-06			1.37E-01	6.44E-04	7.62E-03	6.86E-05	8.44E-03	7.70E-02	2.35E-04
Xylenes	2.08E-06			1.12E-01	2.67E-04	6.20E-03	5.58E-05		2.08E-06			9.56E-02	4.49E-04	5.31E-03	4.78E-05	5.87E-03	5.34E-02	1.63E-04
1,3-Butadiene	2.74E-07			1.53E-02	3.67E-05	8.50E-04	7.65E-06		2.74E-07			1.31E-02	1.61E-05	7.29E-04	6.55E-06	6.80E-04	5.90E-03	2.01E-05
Formaldehyde	8.26E-06			4.12E-01	1.11E-03	2.57E-02	2.31E-04		8.26E-06			3.96E-01	1.86E-03	2.20E-02	1.98E-04	2.49E-02	1.59E-01	6.14E-05
Acetaldehyde	5.37E-06			3.30E-01	7.19E-04	1.67E-02	1.50E-04		5.37E-06			2.57E-01	1.21E-03	1.43E-02	1.29E-04	1.35E-02	1.01E-01	3.97E-04
Acrolein	6.48E-07			3.62E-02	8.68E-05	2.01E-03	1.81E-05		6.48E-07			3.10E-02	1.46E-04	1.72E-03	1.55E-05	1.65E-03	1.26E-02	4.83E-05
Naphthalene	5.94E-07			3.52E-02	7.95E-05	1.84E-03	1.66E-05		5.94E-07			2.84E-02	1.34E-04	1.58E-03	1.43E-05	2.09E-03	2.22E-02	5.49E-05
Aceanthephylene	3.54E-08			1.98E-03	4.75E-06	1.10E-04	9.91E-07		3.54E-08			1.70E-02	7.97E-06	9.43E-05	8.49E-07	1.31E-04	1.45E-03	3.41E-06
Aceanthephene	9.94E-09			5.36E-04	1.33E-06	3.05E-05	2.78E-07		9.94E-09			4.76E-04	2.24E-06	2.65E-05	2.38E-07	4.67E-05	5.89E-04	1.14E-06
Fluorene	2.04E-07			1.14E-02	2.74E-05	6.35E-04	5.72E-06		2.04E-07			9.80E-03	4.60E-05	5.44E-04	4.90E-06	5.68E-04	4.87E-03	1.61E-05
Phenanthrene	2.06E-07			1.15E-02	2.76E-05	6.39E-04	5.76E-06		2.06E-07	225	213	9.86E-03	1.63E-05	5.48E-04	4.93E-06	7.03E-04	7.33E-03	1.87E-05
Anthracene	1.31E-08			7.32E-04	1.75E-06	4.07E-05	3.66E-07		1.31E-08			6.27E-04	2.95E-06	3.49E-05	3.14E-07	3.83E-05	4.47E-04	1.07E-06
Fluoranthene	5.33E-08			2.98E-03	7.14E-06	1.66E-04	1.49E-06		5.33E-08			2.55E-02	1.20E-05	1.42E-04	1.28E-06	1.51E-04	1.33E-03	4.27E-06
Pyrene	3.35E-08			1.87E-03	4.48E-06	1.04E-04	9.34E-07		3.35E-08			1.60E-03	7.53E-06	8.91E-05	8.02E-07	1.01E-04	9.37E-04	2.78E-06
Benz(o,a)anthracene	1.18E-08			6.58E-04	1.58E-06	3.65E-05	3.29E-07		1.18E-08			5.64E-04	2.65E-06	3.13E-05	2.82E-07	3.22E-05	2.70E-04	9.18E-07
Chrysene	2.47E-09			1.38E-04	3.31E-07	7.68E-06	6.91E-08		2.47E-09			1.18E-04	5.56E-07	6.58E-06	5.92E-08	1.33E-05	1.78E-04	3.15E-07
Benz(o,b)fluoranthene	6.94E-10			3.88E-05	9.30E-08	2.16E-06	1.94E-08		6.94E-10			3.32E-05	1.56E-07	1.85E-06	1.66E-08	6.94E-06	1.09E-05	1.47E-07
Benz(o,k)fluoranthene	1.09E-09			5.85E-05	1.45E-07	3.37E-06	3.03E-08		1.09E-09			5.20E-05	2.44E-07	2.89E-06	2.60E-08	3.72E-06	3.89E-05	9.87E-08
Benz(o,l)pyrene	1.32E-09			7.36E-05	1.76E-07	4.09E-06	3.68E-08		1.32E-09			6.31E-05	2.96E-07	3.50E-06	3.15E-08	4.48E-06	4.65E-05	1.19E-07
Benzo(1,2,3-cd)pyrene	2.63E-09			1.47E-04	3.52E-07	8.16E-06	7.34E-08		2.63E-09			1.26E-04	5.91E-07	6.99E-06	6.29E-08	8.47E-06	8.42E-05	2.29E-07
Dibenzo(a,h)anthracene	4.08E-09			2.28E-04	5.47E-07	1.27E-05	1.14E-07		4.08E-09			1.96E-04	9.18E-07	1.09E-05	9.78E-08	1.18E-05	1.05E-04	3.30E-07
Benz(o,g,h,i)perylene	3.42E-09			1.91E-04	4.59E-07	1.06E-05	9.57E-08		3.42E-09			1.64E-04	7.70E-07	9.11E-06	8.20E-08	1.11E-05	1.11E-04	3.00E-07
Total PAH	1.18E-06			6.58E-02	1.58E-04	3.65E-03	3.29E-05		1.18E-06			5.64E-02	2.65E-04	3.13E-03	2.82E-05	3.92E-03	4.00E-02	1.05E-07

Maintenance Operations (2022)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

	Emissions (tpy)				HAP Emissions (lb/yr)				
	VOC	PM	PM-10	PM-2.5	Cr	Cr(VI)	Co	Mn	Ni
Launching/Receiving Scrapers	0.010	-	-	-	-	-	-	-	-
Remove/Replace Valves	0.165	-	-	-	-	-	-	-	-
Pump Repair	0.172	-	-	-	-	-	-	-	-
Filter/Strainer Cleaning	0.003	-	-	-	-	-	-	-	-
Prover/Meter Maintenance	6.70E-04	-	-	-	-	-	-	-	-
Check vent on cone roof tanks	0.012	-	-	-	-	-	-	-	-
Tank Gauging	1.34E-04	-	-	-	-	-	-	-	-
Seal Replacement on Pumps	0.173	-	-	-	-	-	-	-	-
Pig Sig Repairs	4.59E-05	-	-	-	-	-	-	-	-
Tank Sampling	0.055	-	-	-	-	-	-	-	-
N2 Displacement Purges	0.002	-	-	-	-	-	-	-	-
Drain-ups for Pipe Replacement	6.18E-04	-	-	-	-	-	-	-	-
Sample Houses	0.012	-	-	-	-	-	-	-	-
Instrument Maintenance	0.003	-	-	-	-	-	-	-	-
Vacuum Truck Events	0.287	-	-	-	-	-	-	-	-
Laboratory	0.012	-	-	-	-	-	-	-	-
Painting	0.964	-	-	-	-	-	-	-	-
Abrasive Blasting	0	3.95	0.934	0.093	-	-	-	-	-
Welding	-	2.56E-04	2.56E-04	-	0.001	2.00E-04	2.00E-04	0.206	4.00E-04
Total =	1.87	3.95	0.934	0.093	0.001	2.00E-04	2.00E-04	0.206	0.0004

Notes:

1. Maintenance activities are not tracked throughout the year. Therefore, actual emissions from these events are assumed equal to the worst case PTE.
2. For Welding, Total PM assumed to be less than 10 ppm but greater than 2.5 ppm.

Pipeline HAP Emissions (2022)

Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

		Pollutant/CAS No. (Emissions - tpy)											
Tank No.	Product Stored	Benzene 71-43-2	Cumene 98-82-8	Ethylbenzene 100-41-4	Hexane 110-54-3	Isooctane 540-84-1	Toluene 108-88-3	Xylenes 1330-20-7	Naphthalene 91-20-3	Total HAPs (tpy)	Total VOCs (tpy)		
1010	Gasoline	7.57E-03	3.36E-04	1.49E-03	5.05E-02	2.10E-02	3.92E-02	1.57E-02	7.57E-06	0.136	2.80		
1011	Gasoline	1.84E-02	8.20E-04	3.62E-03	1.23E-01	5.12E-02	9.56E-02	3.83E-02	1.84E-05	0.331	6.83		
1012	Gasoline	4.85E-03	2.15E-04	9.51E-04	3.23E-02	1.35E-02	2.51E-02	1.01E-02	4.85E-06	0.087	1.79		
1013	Gasoline / Distillate	4.99E-03	2.22E-04	5.72E-03	3.32E-02	1.38E-02	4.36E-02	1.07E-01	4.99E-06	0.208	1.85		
1014	Gasoline / Distillate	5.63E-03	2.50E-04	6.47E-03	3.76E-02	1.56E-02	4.92E-02	1.20E-01	5.63E-06	0.235	2.09		
1015	Gasoline	6.65E-03	2.96E-04	1.31E-03	4.43E-02	1.85E-02	3.45E-02	1.38E-02	6.65E-06	0.119	2.46		
1016	Gasoline	3.22E-03	1.43E-04	6.31E-04	2.14E-02	8.93E-03	1.67E-02	6.67E-03	3.22E-06	0.058	1.19		
1030	Gasoline	5.47E-03	2.43E-04	1.07E-03	3.64E-02	1.52E-02	2.83E-02	1.13E-02	5.47E-06	0.098	2.02		
1031	Gasoline	4.33E-03	1.92E-04	8.50E-04	2.89E-02	1.20E-02	2.24E-02	8.98E-03	4.33E-06	0.078	1.60		
1032	Gasoline	1.59E-02	7.07E-04	3.12E-03	1.06E-01	4.42E-02	8.25E-02	3.30E-02	1.59E-05	0.285	5.89		
1033	Gasoline	1.17E-02	5.20E-04	2.30E-03	7.80E-02	3.25E-02	6.07E-02	2.43E-02	1.17E-05	0.210	4.34		
1034	Gasoline / Distillate	7.59E-03	3.37E-04	8.71E-03	5.06E-02	2.11E-02	6.63E-02	1.62E-01	7.59E-06	0.317	2.81		
1040	Gasoline	6.74E-03	3.00E-04	1.32E-03	4.50E-02	1.87E-02	3.50E-02	1.40E-02	6.74E-06	0.121	2.50		
1041	Gasoline	6.69E-03	2.97E-04	1.31E-03	4.46E-02	1.86E-02	3.47E-02	1.39E-02	6.69E-06	0.120	2.48		
1050	Kerosene	7.34E-03	0.00E+00	2.12E-02	1.52E-02	0.00E+00	6.84E-02	4.30E-02	0.00E+00	0.155	1.06		
1051	Kerosene	6.78E-03	0.00E+00	1.96E-02	1.40E-02	0.00E+00	6.32E-02	3.97E-02	0.00E+00	0.143	0.982		
1052	Kerosene	7.84E-03	0.00E+00	2.26E-02	1.62E-02	0.00E+00	7.30E-02	4.59E-02	0.00E+00	0.166	1.14		
1060	Gasoline	6.08E-03	2.70E-04	1.19E-03	4.05E-02	1.69E-02	3.15E-02	1.26E-02	6.08E-06	0.109	2.25		
1061	Gasoline	3.25E-03	1.44E-04	6.37E-04	2.16E-02	9.02E-03	1.68E-02	6.73E-03	3.25E-06	0.058	1.20		
1070	Distillate	7.20E-03	0.00E+00	1.06E-02	1.37E-03	0.00E+00	8.09E-02	1.98E-01	0.00E+00	0.298	3.43		
1071	Kerosene	7.55E-03	0.00E+00	2.18E-02	1.56E-02	0.00E+00	7.03E-02	4.42E-02	0.00E+00	0.159	1.09		
1072	Distillate	1.04E-03	0.00E+00	1.53E-03	1.98E-04	0.00E+00	1.17E-02	2.86E-02	0.00E+00	0.043	0.495		
1073	Distillate	3.84E-03	0.00E+00	5.67E-03	7.31E-04	0.00E+00	4.31E-02	1.05E-01	0.00E+00	0.159	1.83		
1074	Kerosene / Distillate	7.68E-04	0.00E+00	2.21E-03	1.59E-03	0.00E+00	7.16E-03	6.42E-03	0.00E+00	0.018	0.111		
1075	Distillate	1.75E-05	0.00E+00	2.58E-05	3.33E-06	0.00E+00	1.96E-04	4.80E-04	0.00E+00	0.001	0.008		
1076	Distillate	1.05E-03	0.00E+00	1.55E-03	2.00E-04	0.00E+00	1.18E-02	2.89E-02	0.00E+00	0.044	0.501		
1077	Kerosene	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00		
1080	Distillate	4.03E-04	0.00E+00	5.95E-04	7.68E-05	0.00E+00	4.53E-03	1.11E-02	0.00E+00	0.017	0.192		
1081	Distillate	3.83E-04	0.00E+00	5.66E-04	7.30E-05	0.00E+00	4.31E-03	1.05E-02	0.00E+00	0.016	0.183		
5200	Gasoline	4.35E-04	1.93E-05	8.54E-05	2.90E-03	1.21E-03	2.26E-03	9.02E-04	4.35E-07	0.008	0.161		
Emergency Generator	Distillate	3.72E-07	0.00E+00	5.49E-07	7.08E-08	0.00E+00	4.18E-06	1.02E-05	0.00E+00	1.54E-05	1.77E-04		
Sump 03	Gasoline	2.59E-03	1.15E-04	5.09E-04	1.73E-02	7.20E-03	1.34E-02	5.37E-03	2.59E-06	0.047	0.960		
Sump 04	Gasoline	2.59E-03	1.15E-04	5.09E-04	1.73E-02	7.20E-03	1.34E-02	5.37E-03	2.59E-06	0.047	0.960		
DRA Tank	DRA	2.40E-06	0.00E+00	3.55E-06	4.58E-07	0.00E+00	2.70E-05	6.60E-05	0.00E+00	9.95E-05	0.001		
iDOT Generator	Distillate	1.08E-07	0.00E+00	1.59E-07	2.05E-08	0.00E+00	1.21E-06	2.96E-06	0.00E+00	4.46E-06	5.13E-05		
D1000	Red Dye	0.00E+00	0.00E+00	6.24E-05	0.00E+00	0.00E+00	0.00E+00	3.13E-04	0.00E+00	3.75E-04	4.71E-04		
Fire Water Tank 1	Distillate	1.33E-06	0.00E+00	1.97E-06	2.54E-07	0.00E+00	1.50E-05	3.66E-05	0.00E+00	5.51E-05	6.35E-04		
Fire Water Tank 2	Distillate	1.33E-06	0.00E+00	1.97E-06	2.54E-07	0.00E+00	1.50E-05	3.66E-05	0.00E+00	5.51E-05	6.35E-04		
Fire Water Tank 3	Distillate	1.33E-06	0.00E+00	1.97E-06	2.54E-07	0.00E+00	1.50E-05	3.66E-05	0.00E+00	5.51E-05	6.35E-04		
OWS #1	Water	1.59E-03	0.00E+00	9.64E-04	0.00E+00	0.00E+00	6.00E-03	5.19E-03	2.91E-03	0.017	0.017		
OWS #2	Water	8.13E-05	0.00E+00	4.76E-05	0.00E+00	0.00E+00	3.03E-04	2.33E-04	2.25E-04	0.001	0.001		
OWS #3	Water	1.62E-03	0.00E+00	9.84E-04	0.00E+00	0.00E+00	6.12E-03	5.32E-03	2.93E-03	0.017	0.017		
Batch Tank	Water	1.88E-05	0.00E+00	7.63E-06	0.00E+00	0.00E+00	5.04E-05	1.36E-05	1.76E-04	2.66E-04	2.66E-04		
Tanks Subtotal		0.172	0.006	0.152	0.897	0.346	1.16	1.18	0.006	3.92	57.2		
Sting Water Air Stripper		1.01E-05	4.51E-07	1.99E-06	6.76E-05	2.82E-05	5.26E-05	2.10E-05	1.01E-08	1.82E-04	0.004		
Ground Water Air Stripper		6.70E-05	2.98E-06	1.32E-05	4.47E-04	1.86E-04	3.48E-04	1.39E-04	6.70E-08	0.001	0.025		
Fugitive Emissions		2.01E-02	8.93E-04	3.94E-03	1.34E-01	5.58E-02	1.04E-01	4.17E-02	2.01E-05	0.360	7.44		
Fuel Combustion		5.48E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.35E-04	1.63E-04	5.49E-05	2.23E-03	0.185		
Maintenance Activities		5.06E-03	2.25E-04	9.92E-04	3.37E-02	1.40E-02	2.62E-02	1.05E-02	5.06E-06	0.091	1.87		
Pipeline Total		0.198	0.007	0.157	1.06	0.416	1.29	1.24	0.006	4.38	66.8		

Notes:

1. Fugitive emissions speciation assumed to be equal to Gasoline HAP speciation as Gasoline is a "Light Liquid".
2. Sting Water, Ground Water, and Maintenance Activity speciation assumed to be equal to Gasoline.
3. Total HAPs = (Total VOCs) x (HAP Speciation Vapor Weight Percent).
4. Total Fuel Combustion HAPs inclusive off all HAPs. Additional individual HAPs included on Fuel Combustion spreadsheets.

HAPs Reporting Determination (2022)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Pollutant	Total Pipeline HAP Emissions				Reporting Requirements	
	lb/hr	tons/yr	lb/hr	tons/yr	Report?	Source
Benzene	0.076	0.198	0.01	0.1	YES	Tanks, fugitives, maintenance, fuel combustion
Cumene	0.002	0.007	1	10	NO	Tanks, fugitives, maintenance
Ethylbenzene	0.046	0.157	1	10	NO	Tanks, fugitives, maintenance
Hexane	0.303	1.06	1	10	NO	Tanks, fugitives, maintenance
Isooctane	0.118	0.416	0.1	1	YES	Tanks, fugitives, maintenance
MTBE	0	0	1	10	NO	Tanks, fugitives, maintenance
Toluene	0.382	1.29	1	10	NO	Tanks, fugitives, maintenance, fuel combustion
Xylenes	0.369	1.24	1	10	NO	Tanks, fugitives, maintenance, fuel combustion
Naphthalene	0.004	0.006	0.1	1	NO	Tanks, fugitives, maintenance, fuel combustion
1,3-Butadiene	6.80E-04	2.01E-05	0.01	0.001	NO	fuel combustion
Formaldehyde	0.021	6.14E-04	0.001	0.01	YES	fuel combustion
Acetaldehyde	0.013	3.97E-04	0.1	0.1	NO	fuel combustion
Acrolein	1.65E-03	4.83E-05	0.001	0.01	YES	fuel combustion
Acenaphthylene	1.31E-04	3.41E-06	0.01	0.1	NO	fuel combustion
Acenaphthene	4.67E-05	1.14E-06	0.001	0.01	NO	fuel combustion
Fluorene	5.68E-04	1.61E-05	0.001	0.01	NO	fuel combustion
Phenanthrene	7.03E-04	1.87E-05	0.01	0.01	NO	fuel combustion
Anthracene	3.83E-05	1.07E-06	0.001	0.01	NO	fuel combustion
Fluoranthene	1.51E-04	4.27E-06	0.1	0.1	NO	fuel combustion
Pyrene	1.01E-04	2.78E-06	0.001	0.01	NO	fuel combustion
Benzo(a)anthracene	3.22E-05	9.18E-07	0.001	0.001	NO	fuel combustion
Chrysene	1.33E-05	3.15E-07	0.001	0.01	NO	fuel combustion
Benzo(b)fluoranthene	6.94E-06	1.47E-07	0.1	0.001	NO	fuel combustion
Benzo(k)fluoranthene	3.72E-06	9.87E-08	0.01	0.01	NO	fuel combustion
Benzo(a)pyrene	4.48E-06	1.19E-07	0.001	0.0001	NO	fuel combustion
Indeno(1,2,3-cd)pyrene	8.47E-06	2.29E-07	0.001	0.001	NO	fuel combustion
Dibenz(a,h)anthracene	1.18E-05	3.30E-07	0.0001	0.0001	NO	fuel combustion
Benzo(g,h,i)perylene	1.11E-05	3.00E-07	0.001	0.01	NO	fuel combustion
Chromium	1.37E-07	6.00E-07	0.001	0.01	NO	welding
Chromium VI	2.28E-08	1.00E-07	0.001	0.00001	NO	welding
Cobalt	2.28E-08	1.00E-07	0.0001	0.001	NO	welding
Manganese	2.35E-05	1.03E-04	0.001	0.01	NO	welding
Nickel	4.57E-08	2.00E-07	0.001	0.001	NO	welding

Notes:

1. Fuel burning equipment previously exempt from TAPs reporting under COMAR 26.11.15.03 now reported per MDE notification letter sent February 8, 2011.
2. No hazardous air pollutants above are among the 11 billable TAPs reported under Form 5.

HAPs Speciation (2022)

***Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland***

HAP Speciation by Service Type						
HAP	CAS #	Vapor Weight Percent				
		Automate Red B D50 ⁵	Distillate fuel oil no. 2 ³	Gasoline ¹	Jet kerosene ⁴	Transmix
Benzene	71-43-2		0.21%	0.27%	0.69%	0.27%
Cumene	98-82-8			0.012%		0.012%
Ethylbenzene	100-41-4	13.25%	0.31%	0.053%	1.99%	0.053%
Hexane	110-54-3		0.04%	1.80%	1.43%	1.80%
Isooctane	540-84-1			0.75%		0.75%
MTBE ²	1634-04-4					
Toluene	108-88-3		2.36%	1.40%	6.43%	1.40%
Xylenes	1330-20-7	66.34%	5.77%	0.56%	4.04%	0.56%
Naphthalene	91-20-3			0.00027%		0.00027%
Total		79.59%	8.69%	4.85%	14.58%	4.85%

Notes:

1. All speciation data, except MTBE, from "Current Data Review" column of "Table 1: Summary of HAP Data, Weight % in Vapor" in Hester, Charles, MACTEC, Inc., Memorandum from Charles Hester, MACTEC, Inc., to Stephen Shedd, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Emission Standards Division, "Review of data on HAP Content in Gasoline," May 18, 2006.

2. MTBE Limit removed based on revisions to remove MTBE from Colonial Pipeline Company speciation limits effective 1/20/14.

3. HAP Speciation Profile for Distillate Fuel Oil No. 2 from EPA Tanks Version 4.09d, October 3, 2005. Removed 1,2,4 Tri-methyl benzene because it is not a list HAP under NESHAP.

4. HAP Speciation Profile for Jet Kerosene from EPA Tanks Version 4.09d, October 3, 2005.

5. HAP Speciation Profile based on MSDS sheet for dye with xylene as carrier.

Appendix D
Compliance Certification Report
(2022)

TITLE V COMPLIANCE REPORT

*Colonial Pipeline Company –
Dorsey Junction*
2022 Annual Title V Compliance
Certification

March 2023

Work Order No.: 0676049

Environmental Resources Management
180 Admiral Cochrane Drive, Suite 400
Annapolis, MD 21401
www.erm.com



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 OfficialName: (Last) Garvey (First) Tyson (MI) Title Operations ManagerStreet or P.O. Box 929 Hoods Mill RoadCity Woodbine State MD ZIP 21797 - Telephone (410) 970 - 2148 Ext. Facsimile () - **B. Certification of Truth, Accuracy and Completeness** (to be signed by the responsible official)

*To comply with the requirements of the Part 70 Permit, the following certification includes additional text consistent with Section III, Condition 10 of the Permit. ****

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.

****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.*

Name (signed) Name (typed) Tyson Garvey Date: / /



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

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

A. GENERAL INFORMATION

Permit No. 24-013-0056

Reporting Period: Beg. 01 / 01 / 2022 End. 12 / 31 / 2022

Source / Company Name Colonial Pipeline Company – Dorsey Junction

Mailing Address: Street or P.O. Box 929 Hoods Mill Road

City Woodbine State MD ZIP 21797 -

Contact person Tyson Garvey Title Operations Manager

Telephone (410) 970 - 2148 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.

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

Entire Facility

Permit Term (Describe requirements and cross-reference)

SECTION II, GENERAL CONDITIONS #1 - 29

Most of the general conditions do not require specific actions by the Permittee (i.e., Condition 1 is a list of definitions). Some general conditions outline what should be done in case of some event (i.e., Condition 23 requires the Permittee to submit information, if requested by MDE).

Only the following require action by the Permittee:

- #5 – Submit a completed application for a Title V renewal at least 12 months before the expiration;
- #8 – Maintain the Title V permit in the vicinity of the facility;
- #10 – Shall not transfer the Title V permit, except as provided in COMAR 26.11.03.15;
- #11-#16 – Changes to the Title V permit;
- #17 – Submit fees; and,
- #18 – Apply for and receive a permit to construct (PTC), if a source is to be constructed or modified.

Compliance Methods for the Above (Description and Citation):

Colonial is aware of the requirements in the General conditions and takes required action, as needed. The Title V permit effective during this reporting period was issued on July 1, 2019, expires on June 30, 2024, and is maintained on site. The Title V renewal application was not due during this reporting period. The Title V permit was not transferred. No revisions were made to the Title V Permit during this reporting period. Fees are submitted to MDE in accordance with the instructions on the bill. No Permit to Construct applications were submitted during this reporting period.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

EMISSION GROUP 1

Gasoline Breakout Tanks - Emission Units EU-1010, 1011, 1012, 1013, 1014, 1015, 1016, 1030, 1031, 1032, 1033, 1034, 1040, and 1041

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-1, CONDITION A

Applicable Regulations/Limits:

1. COMAR 26.11.13.03A(1) (a) and (b) which requires the Permittee to meet the following equipment requirements:
 - (a) Each tank's gauging and sampling devices shall be gas tight except when in use.
 - (b) Each tank shall 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. The Permittee shall comply with the following additional roof and seal requirements for each gasoline storage tank:
 - (a) The IFR shall reset or float on the liquid surface (but not necessarily in complete contact with it) inside the tank with a fixed roof. The IFR shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the tank 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.
[Authority: 40 CFR 60.112b(a)(1)(i) and 63.11087(a)]
 - (b) Each opening in a noncontact IFR except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
[Authority: 40 CFR 60.112b(a)(1)(iii) and 63.11087(a)]
4. The Permittee shall comply with the following additional roof and seal requirements for Tank 1040 and Tank 1041:
 - (a) Each opening in the IFR except for leg sleeves, automatic bleeder vents, rim space vents, columns 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.

- (b) 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.
- (c) Rim space vents shall be equipped with a gasket and are to be set to open only when the IFR is not floating or at the manufacturer's recommended setting.
- (d) Each penetration of the IFR 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.
- (e) Each penetration of the IFR that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- (f) Each penetration of the IFR that allows for passage of a ladder shall have a gasketed sliding cover.

[Authority: 40 CFR 60.112b(a)(1)(iv) through (ix)]

Tanks 1040 and 1041 are subject to and in compliance with the control requirements of 40 CFR 60, Subpart Kb and are deemed in compliance with the gasoline storage tank requirement under 40 CFR 63, Subpart BBBBBB. [Authority: 40 CFR 63.11087(f)]

Testing Requirements – Section 1.2

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)]

Monitoring Requirements – Section 1.3

1. The Permittee shall perform an annual visual inspection of each tank's gauging and sampling devices. If the visual inspection shows non-compliance with the gas-tight requirement, the Permittee shall make repairs to return the gauging and sampling devices to a gas tight condition.

If the tank is not in compliance with the gas-tight requirement, the Permittee shall repair the device 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 will assure that the device will be repaired or the tank will be emptied as soon as possible. [Authority: COMAR 26.11.03.06C]

2. The Permittee shall comply with the following inspection requirements for each gasoline storage tank:

- (a) The Permittee shall visually inspect the IFR 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 IFR is not resting on the surface of the gasoline 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 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 will assure that the control equipment will be repaired or the tank will be emptied as soon as possible. [Authority: COMAR 26.11.03.06C, COMAR 26.11.13.03A(3)(a) and (b), 40 CFR 60.113b(a)(2) and (a)(3)(ii), 40 CFR 63.11087(c) and 40 CFR 63.11092(e)(1)]
- (b) 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 specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraph (a) of this section except as allowed by the Alternate Monitoring Plan described in paragraph (c) of this section. [Authority: 40 CFR 63.11092(e)(1) and 40 CFR 60.113b(a)(4)]

- (c) For gasoline breakout tanks for which an Alternate Monitoring Plan is approved under 40 CFR Part 63 Subpart A or 40 CFR 60 Subpart A, and in the absence of an independent need to conduct an out of service internal inspection within the interval specified in paragraph (b) of this section, the Permittee may comply with the requirements of paragraph (b) of this section, the Permittee may comply with the requirements of paragraph (b) of this section by conducting an in-service internal inspection of each tank's IFR and its seals in accordance with the following requirements:

- (i) While performing an in-service internal inspection, the Permittee shall also measure seal gaps and document the location and dimensions of any seal gaps in both the primary and secondary seals that are greater than 1/8 inch in width (gap between the seal and the tank wall); and document the location and dimension of any holes, tears, or other openings in the seal fabric of either the primary or secondary seals.

Any of the following conditions constitute inspection failure under a top-side in-service internal inspection: stored liquid on the floating roof; holes or tears in the primary or secondary seal; equipment not operating or functioning as designed to comply with COMAR 26.11.13.03, 40 CFR 60, Subpart Kb and 40 CFR 63, Subpart BBBBBB as applicable; and gaps of more than 1/8 inch between any deck fitting gasket, seal, or wiper and any surface that it is intended to seal. If a failure is detected during an inspection, 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 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 will assure that the control equipment will be repaired or the tank will be emptied as soon as possible.

- (ii) Notwithstanding paragraph (i) above, whenever a tank is emptied and degassed for maintenance purposes or integrity assessments, the Permittee shall conduct a full top-side and bottom-side internal inspection of the tank's IFR and its seals in accordance with 40 CFR 60.112b(a)(4) and 40 CFR 63.11092(e)(1) and paragraph (b) of this section.

[Authority: U.S. EPA approved alternative monitoring plan as allowed under 40 CFR 60.13 and 63.8. The alternative monitoring plan satisfies the internal inspection requirements specified under COMAR 26.11.13.03A(3)(c), 40 CFR 60.113b(a)(4), 40 CFR 63.11087(c) and 40 CFR 63.11092(e)(1)]

Record Keeping Requirements – Section 1.4

The Permittee shall keep the following records on-site for at least five (5) years (unless otherwise specified below):

1. Records of each visual inspection of a tank's gauging and sampling devices including the date of the inspection, the results of each inspection, and any repairs made. The records shall be kept on-site for at least five (5) years. [Authority: COMAR 26.11.03.06C]
2. Records of each external and internal (top-side in-service and full out of service) tank inspection including identification of the tank on which the inspection was performed, the date the tank was inspected, the observed condition of each component of the control equipment (seals, IFR, and fittings), and records of

all repairs and replacements of seals, including the date and the action taken. [Authority: COMAR 26.11.13.03C(1) and (2), 40 CFR 60.115b(a)(2) and (4), 40 CFR 63.11087(e), and 40 CFR 63.11094(a)]

3. Records of the average monthly storage temperature and throughput. [Authority: COMAR 26.11.13.03C(3)]
4. For Tanks 1040 and 1041 only, readily accessible records kept for the life of the tank showing the dimension of the tank and an analysis showing the capacity of the tank. [Authority: 40 CFR 60.116b(a) and (b)]
5. For Tanks 1040 and 1041 only, records of the volatile organic liquid stored, the period of storage and the maximum true vapor pressure of that volatile organic liquid during the respective storage period. [Authority: 40 CFR 60.116b(c)]

Reporting Requirements – Section 1.5

1. The Permittee shall notify the Department in writing at least 15 days prior to an internal inspection of each tank (top-side in-service and full out of service) and at least 30 days prior to the filling or refilling of each gasoline storage tank and at least 15 days prior to an internal inspection of each transmix storage tank to afford the Department an opportunity to have an observer present.

If the inspection is not planned and the Permittee could not have known about the inspection 30 days in advance of refilling the gasoline storage tank, the Permittee shall notify the Department at least 7 days prior to refilling the tank. 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 7 days prior to the refilling. [Authority: COMAR 26.11.03.06C, COMAR 26.11.13.03A(3)(d), 40 CFR 60.113b(a)(5), 40 CFR 63.11087(c), and 40 CFR 63.11092(e)]

2. The Permittee shall submit a report to the Department within 30 days after each inspection of Tank 1040 or Tank 1041 that finds holes or tears in the seal or seal fabric, or defects in the IFR, or other control equipment defects listed in 40 CFR 60.113b(a)(3)(ii). The report shall identify the tank and the reason it did not meet the specifications of 40 CFR 60.112b(a)(1) or 40 CFR 60.113b(a)(3) and list each repair made. [Authority: 40 CFR 60.115b(a)(4)]
3. The Permittee shall submit a semiannual compliance report to the Department. The semiannual compliance report shall include the information specified in 40 CFR 60.115b(a) for all gasoline storage tanks. [Authority: 40 CFR 63.11087(e) and 63.11095(a)(1)]

Compliance Methods for the Above (Description and Citation):

Visual inspections of each tank's gauging and sampling devices are performed annually. In the event of a non-compliant condition, repairs are commenced to return the gauging and/or sampling devices to a gas-tight condition within 45 days or the tank is emptied and taken out of service within 45 days. Each storage tank subject to this requirement is equipped with an emission control system (e.g., an internal floating roof) that meets the above requirements. Records of the inspections and the repairs made, including the date and the action taken, are retained on site for at least five years.

Visual inspections of each tank's internal floating roof and seals are performed annually from the roof hatch. If a tank's visual inspection shows non-compliance with the seal requirements, an internal inspection of that tank is performed. Internal inspections are conducted within 10 years from the date of the last internal inspection. The Department is notified of an intended internal tank inspection at least 15 days before the proposed inspection date. Records of the inspection, repairs or replacements made (including the date and the action taken), and average monthly storage temperature and throughput are retained on site for at least five years. All emissions units subject to this rule maintained continuous compliance with the gas-tight requirements during the reporting period.

The internal floating roof, the primary seal, and the secondary seal are all inspected prior to filling or refilling the storage vessels. 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 items are repaired before filling or refilling the storage

vessel. The storage vessel is inspected through the manholes and roof hatches at least once every 12 months after the initial fill. The internal floating roof, the primary seal, and the secondary seal are inspected each time the storage vessel is emptied or degassed at a frequency no greater than 10 years. If the internal floating roof is not resting on the surface of the liquid, liquid is accumulated on the internal floating roof, the seal is detached, or there are holes or tears in the seal fabric, the items are repaired or the storage vessel is emptied and removed from service within 45 days.

A record of each inspection performed is kept as required above. Each record identifies the storage vessel on which the inspection was performed and contains the date the vessel was inspected and the observed condition of each component of the control equipment. All repairs or replacement of the seals, including the date and the action taken are recorded and kept on site for at least five years.

For tanks EU-1040 & 1041 only, records showing the dimensions of the storage tank and analysis showing the capacity of the storage tanks are kept on site for the life of the storage vessels. Records of the VOL stored, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period are maintained. The maximum true vapor pressure is determined using the procedures listed in 40 CFR 60.116b(e). Records of VOL stored and the maximum true vapor pressure are kept on site for at least five years.

Colonial submits to the Department a GD GACT semi-annual compliance and excess emissions report. The semi-annual report for the July – December 2021 reporting period was submitted on January 27, 2022. The semi-annual report for the January – June 2022 reporting period was submitted on July 29, 2022. The facility has complied with all the applicable requirements during this reporting period.

The Administrator is notified in writing at least 30 days prior to the filling or refilling of the storage vessel for which an inspection is required. If the inspection is not known more than 30 days in advance, the Administrator is notified at least seven days prior to refilling the storage vessel. Notification is immediately made by telephone and followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification, including the written documentation, is made in writing and sent by express mail so that the Administrator receives it at least seven days prior to the refilling. After each inspection that finds holes or tears in the seals or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in the above-mentioned regulations, the Administrator is furnished with the report within 30 days of the inspection. The report identifies the storage vessel and the reason it did not meet the regulatory specifications and lists each repair made.

Tank 1012 was taken out of service during this reporting period on December 16, 2022 in preparation for an internal inspection. The 15-day prior-to internal inspection notification was submitted to MDE on November 1, 2022. The internal inspection was completed during this reporting period on December 21, 2022. No non-compliance items were identified during the inspection. The 30-day prior-to refilling notification was submitted to MDE on November 1, 2022, and Tank 1012 was returned to service during this reporting period on December 27, 2022.

Tank 1016 was taken out of service prior to this reporting period on October 4, 2021 in preparation for an internal inspection. MDE was properly notified of the inspection (i.e. at least 15 days prior to inspection) of Tank 1016. The internal inspection was completed prior to this reporting period on October 8, 2021. During the inspection, four gaps were identified in the primary seal. After the repairs, a full inspection of the IFR, seals, and gaskets was completed during this reporting period on September 13, 2022 and confirmed compliance. The 30-day prior-to refilling notification was submitted to MDE on September 19, 2022, and Tank 1016 was returned to service during this reporting period on November 12, 2022.

A 10-year top-side in-service inspection was performed on Tank 1034 during this reporting period on May 27, 2022. The 15-day prior-to internal inspection notification was provided to MDE on April 29, 2022. No non-compliance items were identified during the inspection. Tank 1034 was subsequently taken out of service during this reporting period on November 14, 2022 in preparation for an internal inspection. The 15-day prior-to internal inspection notification was submitted to MDE on October 7, 2022. The internal inspection was completed during this reporting period on December 8-9, 2022. No non-compliance items were identified during the inspection. Tank 1034 was not returned to service during this reporting period. The prior-to refilling notification will be submitted at least 30 days prior to the tank being refilled.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

Gasoline/Transmix Phase Separation Tank – EU-5200

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-2, CONDITION A

Applicable Regulations/Limits:

40 CFR 60.112b(a)(1) which requires the Permittee to equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the following specifications:

1. The tank shall be equipped with a fixed roof in combination with an IFR. The IFR shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside the tank with a fixed roof. The IFR shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the tank 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.

2. The tank shall be equipped with an IFR with two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the tank and the edge of the IFR. The lower seal may be vapor-mounted, but both must be continuous.
3. Each opening in a noncontact IFR except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
4. Each opening in the IFR 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.
5. 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.
6. Rim space vents shall be equipped with a gasket and are to be set to open only when the IFR is not floating or at the manufacturer's recommended setting.
7. Each penetration of the IFR 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.
8. Each penetration of the IFR that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
9. Each penetration of the IFR that allows for passage of a ladder shall have a gasketed sliding cover.

[Authority: 40 CFR 60.112b(a)(1)(i) through (ix)]

Testing Requirements – Section 2.2

See Monitoring, Record Keeping, and Reporting Requirements

Monitoring Requirements – Section 2.3

The Permittee shall meet the following monitoring requirements:

1. The Permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal, prior to filling or refilling the storage vessel with gasoline. 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)]
2. The Permittee shall also visually inspect the storage vessel in accordance with the following specifications:
 - (a) The Permittee shall visually inspect the IFR 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 IFR is not resting on the surface of the gasoline 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 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 will assure that the control equipment will be repaired or the tank will be emptied as soon as possible. [Authority: 40 CFR 60.113b(a)(2) and (a)(3)(ii)]
 - (b) 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 specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraph (a) of this section. [Authority: 40 CFR 60.113b(a)(4)]

Record Keeping Requirements – Section 2.4

The Permittee shall create, maintain, and retain the following:

1. A record of each inspection performed as required by 40 CFR 60.113b(a). 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). The Permittee shall also record all repairs or replacements of the seals, including the date and the action taken. These records shall be kept on-site for at least five years. [Authority: 40 CFR 60.115b(a)(2)]
2. Records of the dimensions of each storage vessel and an analysis of showing the capacity of the storage vessel. Records shall be kept on-site for the life of the storage vessel. [Authority: 40 CFR 60.116b(a) and (b)]
3. Records of the Volatile Organic Liquid (VOL) stored, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period. The maximum true vapor pressure shall be determined using the procedures listed in 40 CFR 60.116b(e). All records shall be kept on-site for at least five (5) years. [Authority: 40 CFR 60.116b(c) and (e)]

Reporting Requirements – Section 2.5

The Permittee shall meet the following reporting requirements:

1. The Permittee shall notify the Department in writing at least 30 (thirty) days prior to the filling or refilling of the storage vessel for which an inspection is required. If the inspection is not planned and the Permittee could not have known about the inspection 30 (thirty) 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 7 (seven) days prior to the refilling. [Authority: 40 CFR 60.113b(a)(5)]

2. 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 the Department with a report within 30 (thirty) 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 40 CFR 60.113b(a)(3) and list each repair made. [Authority: 40 CFR 60.115b(a)(4)]

Compliance Methods for the Above (Description and Citation):

The internal floating roof, the primary seal, and the secondary seal are all inspected prior to filling or refilling the storage vessel. 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 items are repaired before filling or refilling the storage vessel. The storage vessel is inspected through the manholes and roof hatches at least once every 12 months after the initial fill. The internal floating roof, the primary seal, and the secondary seal are inspected each time the storage vessel is emptied or degassed at a frequency no greater than 10 years. If the internal floating roof is not resting on the surface of the liquid, liquid is accumulated on the internal floating roof, the seal is detached, or there are holes or tears in the seal fabric, the items are repaired or the storage vessel is emptied and removed from service within 45 days.

A record of each inspection performed is kept as required above. Each record identifies the storage vessel on which the inspection was performed and contains the date the vessel was inspected and the observed condition of each component of the control equipment. All repairs or replacement of the seals, including the date and the action taken are recorded and kept on site for at least five years.

Records showing the dimensions of the storage tank and analysis showing the capacity of the storage tanks are kept on site for the life of the storage vessels. Records of the VOL stored, the period of storage, and the maximum true vapor pressure of the VOL during the respective storage period are maintained. The maximum true vapor pressure is determined using the procedures listed in 40 CFR 60.116b(e). Records of VOL stored and the maximum true vapor pressure are kept on site for at least five years.

The Administrator is notified in writing at least 30 days prior to the filling or refilling of the storage vessel for which an inspection is required. If the inspection is not known more than 30 days in advance, the Administrator is notified at least seven days prior to refilling the storage vessel. Notification is immediately made by telephone and followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification, including the written documentation, is made in writing and sent by express mail so that the Administrator receives it at least seven days prior to the refilling. After each inspection that finds holes or tears in the seals or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in the above-mention regulations, the Administrator is furnished with the report within 30 days of the inspection. The report identifies the storage vessel and the reason it did not meet the regulatory specifications and lists each repair made. No Tank 5200 inspection or tank refilling notifications were required during this reporting period.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

Gasoline/Transmix Phase Separation Tank – EU-5200

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-2, CONDITION B

Applicable Regulations/Limits:

The Permittee shall apply for and obtain a permit to construct from the Department prior to storing gasoline in Tank 5200 [Authority: ARA premises wide Permit to Construct issued on February 23, 2016]

Testing Requirements – Section 2.2

See Record Keeping and Reporting Requirements

Monitoring Requirements – Section 2.3

See Record Keeping and Reporting Requirements

Record Keeping Requirements – Section 2.4

The Permittee shall keep records and make them available to the Department upon request of the amounts, types, and composition of all materials stored in the tank. [Authority: COMAR 26.11.03.06C]

Reporting Requirements – Section 2.5

The Permittee shall submit material storage records to the Department upon request. [Authority: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

Records of the amounts, types, and composition of all materials loaded into the tank are maintained on site and made available to the Department upon request.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

Transmix Breakout Tanks – EU-1060 & EU-1061

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-3, CONDITION A

Applicable Regulations/Limits:

1. COMAR 26.11.13.03A(1) (a) and (b) which requires the Permittee to meet the following equipment requirements:
 - (a) Each tank's gauging and sampling devices shall be gas tight except when in use.
 - (b) Each tank shall 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 liquid 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 these 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, gauging and sampling devices) that are greater than 1/8 inch in width may not exceed 1.0 square inch per foot of tank diameter.

Testing Requirements – Section 3.2

The Permittee shall determine the total seal gap during an internal inspection of a tank 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)]

Monitoring Requirements – Section 3.3

1. The Permittee shall perform an annual visual inspection of each tank's gauging and sampling devices. If the visual inspection shows non-compliance with the gas-tight requirement, the Permittee shall make repairs to return the gauging and sampling devices to a gas tight condition.

If the tank is not in compliance with the gas-tight requirement, the Permittee shall repair the device 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 will assure that the device will be repaired or the tank will be emptied as soon as possible. [Authority: COMAR 26.11.03.06C]
2. The Permittee shall comply with the following inspection requirements for each transmix storage tank:
 - (a) The Permittee shall perform an annual visual inspection of each tank's IFR and seals from the roof hatch. If the visual inspection shows non-compliance with the seal requirements listed in Table IV-3, 3.1A.2(a) and (b), or liquid product on the roof, the Permittee shall perform an internal

inspection of the IFR and seals. At a minimum frequency, the Permittee shall perform an internal inspection of each tank and its seals within 10 years from the date of the last internal inspection. [Authority: COMAR 26.11.03.06C and COMAR 26.11.13.03A(3)(a),(b) and (c)]

- (b) For transmix storage tanks for which the Department has approved an Alternate Monitoring Plan developed in accordance with 40 CFR Part 63 Subpart A or 40 CFR Part 60 Subpart A, and in the absence of an independent need to conduct an out of service internal inspection within the 10-year interval specified in paragraph (a) of this section, the Permittee may comply with the requirements of paragraph (a) of this section by conducting an in-service internal inspection of each tank's IFR and its seals in accordance with the following requirements:
- i. While performing an in-service internal inspection, the Permittee shall also measure seal gaps and document the location and dimensions of any seal gaps in both the primary and secondary seals that are greater than 1/8 inch in width (gap between the seal and the tank wall); and document the location and dimension of any holes, tears, or other openings in the seal fabric of either the primary or secondary seals.
- Any of the following conditions constitute inspection failure under a top-side in-service internal inspection: stored liquid on the floating roof; holes or tears in the primary or secondary seal; equipment not operating or functioning as designed to comply with COMAR 26.11.13.03; and gaps of more than 1/8 inch between any deck fitting gasket, seal, or wiper and any surface that it is intended to seal. If a failure is detected during an inspection, 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 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 will assure that the control equipment will be repaired or the tank will be emptied as soon as possible.
- ii. Notwithstanding paragraph (i) above, whenever a tank is emptied and degassed for maintenance purposes or integrity assessments, the Permittee shall conduct a full top-side and bottom-side internal inspection of the tank's IFR and its seals.

[Authority: COMAR 26.11.03.06C; U.S. EPA approved alternative monitoring plan as allowed under 40 CFR 60.13 and 40 CFR 63.8 and approved by the Department to satisfy the internal inspection requirements specified under COMAR 26.11.13.03A(3)(c)]

Record Keeping Requirements – Section 3.4

The Permittee shall keep the following records on-site for at least five years (unless otherwise specified below):

1. Record of each visual inspection of a tank's gauging and sampling devices including the date of the inspection, the results of each inspection, and any repairs made. The records shall be kept on-site for at least five years. [Authority: COMAR 26.11.03.06C]
2. Records of each external and internal (top-side in-service and full out of service) tank inspection including identification of the tank on which the inspection was performed, the date the tank was inspected, the observed condition of each component of the control equipment (seals, IFR, and fittings), and records of all repairs and replacements of seals, including the date and the action taken. [Authority: COMAR 26.11.13.03C(1) and (2)]
3. Records of the average monthly storage temperature and throughput. [Authority: COMAR 26.11.13.03C(3)]

Reporting Requirements – Section 3.5

The Permittee shall notify the Department in writing at least 15 days prior to an internal inspection of each transmix storage tank. [Authority: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

Visual inspections of each tank's gauging and sampling devices are performed annually. In the event of a non-compliant condition, repairs are commenced to return the gauging and/or sampling devices to a gas-tight condition within 45 days or the tank is emptied and taken out of service within 45 days. Each storage tank subject to this requirement is equipped with an emission control system (e.g., an internal floating roof) that meets the above requirements. Records of the inspections and the repairs made, including the date and the action taken, are retained on site for at least five years.

Visual inspections of each tank's internal floating roof and seals are performed annually from the roof hatch. If a tank's visual inspection shows non-compliance with the seal requirements, an internal inspection of that tank is performed. Internal inspections are conducted within 10 years from the date of the last internal inspection. The Department is notified of an intended internal tank inspection at least 15 days before the proposed inspection date. Records of the inspection, repairs or replacements made (including the date and the action taken), and average monthly storage temperature and throughput are retained on site for at least five years. All emissions units subject to this rule maintained continuous compliance with the gas-tight requirements during this reporting period.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

Transmix Breakout Tank – EU-1060 & EU-1061

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-3, CONDITION B

Applicable Regulations/Limits:

The Permittee shall apply for and obtain a permit to construct from the Department prior to storing gasoline in Tank 1060 or Tank 1061. [Authority: ARA premises wide Permit to Construct issued on February 23, 2016]

Testing Requirements – Section 3.2

See Record Keeping and Reporting Requirements

Monitoring Requirements – Section 3.3

See Record Keeping and Reporting Requirements

Record Keeping Requirements – Section 3.4

The Permittee shall keep records and make them available to the Department upon request of the amounts, types, and composition of all materials stored in each tank. [Authority: COMAR 26.11.03.06C]

Reporting Requirements – Section 3.5

The Permittee shall submit material storage records to the Department upon request. [Authority: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

Records of the amounts, types, and composition of all materials loaded into the tank are maintained on site and made available to the Department upon request.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

EMISSION GROUP 4

Additive Storage Tank – Emission Unit EU-D1000

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-4

Applicable Regulations/Limits:

COMAR 26.11.06.06 requires that the Permittee limit emissions of VOC to not more than 20 pounds per day unless VOC emissions are reduced by 85 percent or more overall.

Testing Requirements – Section 4.2

See Record Keeping and Reporting Requirements

Monitoring Requirements – Section 4.3

See Record Keeping and Reporting Requirements

Record Keeping Requirements – Section 4.4

The Permittee shall keep records and make them available to the Department upon request of the amounts, types, and composition of all materials loaded into the tank to support calculations demonstrating that emissions of VOC are less than 20 pounds per day or that the VOC emissions from the tank are reduced by 85 percent or more overall. [Authority: ARA premises wide Permit to Construct Issued on February 23, 2016]

Reporting Requirements – Section 4.5

The Permittee shall report emissions from the tank as part of the Emissions Certification Report required in Section III, Condition 8 of this permit. [Authority: COMAR 26.11.02.19C and D]

Compliance Methods for the Above (Description and Citation):

Records of the amounts, types, and composition of all materials loaded into the tank are kept and made available to the Department upon request. The VOC emissions from EU-D1000 are less than 20 pounds per day.

The Annual Emissions Certification Report for calendar year 2021 was submitted on March 30, 2022.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

Portable Emergency Diesel Generators – EG-1-8

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-5 Condition A

Applicable Regulations/Limits:

1. COMAR 26.11.09.05E(2), which states that “a person may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.”
2. COMAR 26.11.09.05E(3), which states that “a person may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.”

Exceptions. COMAR 26.11.09.05E(4) established the following:

- (a) Section E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of clearing the exhaust system.
- (b) Section E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods: (i) Engines that are idled continuously when not in service: 30 minutes; and (ii) All other engines: 15 minutes.
- (c) Section E(2) and (3) do not apply while maintenance, repair, or testing is being performed by qualified mechanics.

Testing Requirements – Section 5.2

See Monitoring, Record Keeping, and Reporting Requirements

Monitoring Requirements – Section 5.3

The Permittee shall operate and maintain the stationary internal combustion engine in a manner to prevent visible emissions. [Authority: COMAR 26.11.03.06C]

Record Keeping Requirements – Section 5.4

The Permittee shall maintain records of all maintenance/repairs performed and make them available to the Department upon request. The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations.” [Authority: COMAR 26.11.03.06C]

Reporting Requirements – Section 5.5

The Permittee shall report incidents of visible emissions in accordance with permit condition 4, Section III, Plant Wide Conditions, “Report of Excess Emissions and Deviations.” [Authority: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

Records of all maintenance and repairs performed onsite on the generators are maintained and are made available to the Department upon request. Incidents of visible emissions are reported to the Department.

The portable emergency generators were not located at the facility during this reporting period.

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

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

Portable Emergency Diesel Generators – EG-1-8

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-5 Condition B

Applicable Regulations/Limits:

COMAR 26.11.09.07A(2)(b) which states that the Permittee shall not burn any distillate fuel oil with a sulfur content by weight greater than 0.3%.

Testing Requirements – Section 5.2

See Monitoring, Record Keeping, and Reporting Requirements

Monitoring Requirements – Section 5.3

The Permittee shall obtain a certification from the fuel supplier indicating that the oil complies with the sulfur content requirement for the fuel oil. [Authority: COMAR 26.11.03.06C]

Record Keeping Requirements – Section 5.4

The Permittee shall retain fuel supplier certifications at the premises stating that the fuel is in compliance with the sulfur content requirement for the fuel oil. [Authority: COMAR 26.11.03.06C]

Reporting Requirements – Section 5.5

The Permittee shall report fuel supplier certification records to the Department upon request. [Authority: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

When the generators are utilized on site, certifications indicating that the fuel oil sulfur content is within the requirement are obtained from the fuel supplier and retained on site. The certifications are made available to the Department upon request.

The portable emergency generators were not located at the facility during this reporting period.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

Portable Emergency Diesel Generators – EG-1-8

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-5 Condition C

Applicable Regulations/Limits:

The emergency generators shall meet the following requirements for nonroad engines:

- (a) Each engine must be portable or transportable, meaning designed to be and capable of being carried or moved from one location to another. Indicia of transportability include, but are not limited to, wheels, skids, carrying handles, dolly, trailer, or platform.

- (b) Each engine may not remain on-site for more than 12 consecutive months.

[Authority: 40 CFR 1068.30 and ARA premises wide Permit to Construct issued on February 23, 2016]

Testing Requirements – Section 5.2

See Record Keeping, and Reporting Requirements

Monitoring Requirements – Section 5.3

See Record Keeping and Reporting Requirements

Record Keeping Requirements – Section 5.4

For each of the eight (8) temporary, portable diesel emergency generators, the Permittee shall keep records of the following information on-site for at least 5 years:

- (a) The beginning and end dates of each period that the engine is brought on-site for operation; and
- (b) The hours of operation of the engine during each period that the engine is brought on-site, including the date and time of operation, the reason the engine was in operation during that time, and documentation demonstrating that the operation was for an emergency, emergency demand response, maintenance or testing purposed only.

[Authority: ARA premises wide Permit to Construct issued on February 23, 2016]

Reporting Requirements – Section 5.5

Operating records shall be made available to the Department upon request. [Authority: COMAR 26.11.03.06C]

Compliance Methods for the Above (Description and Citation):

Records of the dates engines are brought on site, hours of operation, and documentation demonstrating the operations was for an emergency are kept and made available to the Department upon request.

The portable emergency generators were not located at the facility during this reporting period.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

EMISSION GROUP 5
Entire Facility

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-6, CONDITIONS A

Applicable Regulations/Limits:

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.

Testing Requirements – Section 6.2

See Monitoring, Record Keeping, and Reporting Requirements

Monitoring Requirements – Section 6.3

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, recorded in a form suitable and readily available for expeditious inspection and review, 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 within 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)]

Record Keeping Requirements – Section 6.4

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, recorded in a form suitable and readily available for expeditious inspection and review 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)]

Reporting Requirements – Section 6.5

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:

- 1. 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)]
- 2. For equipment leak inspections, the following information:
 - (a) The number of equipment leaks not repaired within 15 days after detection. [Authority: 40 CFR 63.11095(a)(3)]
 - (b) 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:
 - (i) The date on which the leak was detected;
 - (ii) The date of each attempt to repair the leak;
 - (iii) The reasons for the delay of repair; and

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

Compliance Methods for the Above (Description and Citation):

Colonial operates and maintains the bulk gasoline terminal, including associated air pollution control equipment and monitoring equipment in a manner consistent with safety and good air pollution control practices for minimizing emissions. Records of operation and maintenance, monitoring results, and access to the premises are made available to the Department upon request. Records of the occurrence, duration, and actions taken during each malfunction of process equipment, air pollution control equipment, and monitoring equipment are also maintained.

Colonial performs monthly visual inspections of all equipment in gasoline service. During each inspection, a log book is used that includes the description and location of the equipment in gasoline service. In the event a vapor or liquid leak is detected, the detection is recorded. The record includes the equipment type, ID number, type of leak, the method of detection, the date the leak was detected, the dates repairs were attempted, the type of repair methods applied, and the date of successful repair. If the leak is not corrected within 15 days, the log book will also note "Repair Delayed" with the reason why the delay was not feasible and the expected date of successful repair. An attempt to repair the leak is made within at least 5 days of discovery. If feasible, the leak is repaired within at least 15 days. Colonial maintained compliance with the leak detection and repair requirements during this reporting period.

Colonial submits to the Department a GD GACT semi-annual compliance and excess emissions report. The semi-annual report for the July – December 2021 reporting period was submitted on January 27, 2022. The semi-annual report was submitted on July 29, 2022 for the reporting period of January – June 2022. Any exceptions to compliance are identified during this submittal. The semi-annual report includes: the number of leaks not repaired within 15 days and an excess emissions report detailing incidents where repairs were not attempted within 5 days or repaired within 15 days. Excess emissions reports will include the date of leak detection, dates repairs were attempted, reasons for the delay, and the date of successful repair. The facility has complied with all applicable requirements during the reporting period.

According to 40 CFR §63.11089, Colonial Pipeline is required to perform a monthly leak inspection of all equipment in gasoline service. Monthly is defined as "once per calendar month at regular intervals of no less than 28 days and no more than 35 days." Colonial conducts inspections at the beginning of each month, on a regular schedule that meets these requirements.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

EMISSION GROUP 5
Entire Facility

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-6 Condition B

Applicable Regulations/Limits:

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) 2,562,840,000 gallons of gasoline (refers to gasoline grades that include conventional, re-formulated and blend stock gasoline, and gasoline-distillate mixtures (e.g., transmix)); and
 - (a) 3,055,297,000 gallons of distillates (includes fuel oils and kerosenes); and
 - (b) 104,000 gallons of additives.

Testing Requirements – Section 6.2

See Record Keeping, and Reporting Requirements

Monitoring Requirements – Section 6.3

See Record Keeping and Reporting Requirements

Record Keeping Requirements – Section 6.4

The Permittee shall maintain the following records:

1. Premises wide estimated emissions of each individual HAP in tons per month and total tons per rolling 12-month period.
2. Premises wide estimated emissions of total HAP in tons per month and total tons per rolling 12-month period.
3. Total premises wide gasoline throughput in gallons per month and total gallons per rolling 12-month period.
4. Total premises wide distillate throughput in gallons per month and total gallons per rolling 12-month period.
5. Total premises wide additives throughput in gallons per month and total gallons per rolling 12-month period.

[Authority: COMAR 26.11.03.06C]

Reporting Requirements – Section 6.5

The Permittee shall submit records of premises wide HAP emissions and gasoline, distillate and additive throughput to the Department as part of the required annual emission certification. [Authority: COMAR 26.11.02.19C and D]

Compliance Methods for the Above (Description and Citation):

Records to support the calculation of HAPs on a 12-month rolling basis including facility-wide monthly throughputs for gasoline, distillate, and additives are recorded and kept on site for at least five years. Facility-wide HAP emissions and throughputs of gasoline, distillate, and additives did not exceed the permitted limits during any rolling 12 months. The facility wide HAP emissions and the annual throughput totals of gasoline, distillate, and additives are annually submitted to the Department as part of the Annual Emissions Certification. The Annual Emissions Certification Report for calendar year 2021 was submitted to MDE on March 30, 2022.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

EMISSION GROUP 5
Entire Facility

Permit Term (Describe requirements and cross-reference)

SECTION IV, TABLE IV-6 Condition C

Applicable Regulations/Limits:

Premises wide NO_x emissions shall be less than 25 tons in any rolling 12 month period. [Authority: ARA premises wide Permit to Construct issued on February 23, 2016]

Testing Requirements – Section 6.2

See Record Keeping and Reporting Requirements

Monitoring Requirements – Section 6.3

See Record Keeping and Reporting Requirements

Record Keeping Requirements – Section 6.4

The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:

Monthly records of estimated premises wide NO_x emissions and individual and total HAP emissions. Monthly records of premises wide NO_x emissions are required beginning with the first month that any of the fuel combustion equipment registered under ARA registration NO. -013-0056-9-0202 operates at the premises. [Authority: ARA premises wide Permit to Construct issued February 23, 2016]

Reporting Requirements – Section 6.5

The Permittee shall submit records of premises wide NO_x emissions to the Department as part of the required annual emission certification. [Authority: COMAR 26.11.02.19C and D]

Compliance Methods for the Above (Description and Citation):

Records to support the calculation of NO_x emissions on a monthly and 12-month rolling basis are recorded and kept on site for at least five years. Facility wide NO_x emissions did not exceed the permit limits during any rolling 12 months during this reporting period. Records are made available to the Department upon request. The facility wide NO_x emissions are annually submitted to the Department as part of the Annual Emissions Certification. The Annual Emissions Certification Report for calendar year 2021 was submitted to MDE on March 30, 2022.

Status (Check one): ☐ Intermittent Compliance ☒ Continuous Compliance

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

INSIGNIFICANT ACTIVITIES – Five stationary internal combustion engines with an output less than 500 brake horsepower and which are not used to generate electricity for sale or for peak or load shaving. The 162 hp ICE (electricity generator), the 132 hp ICE (emergency generator), and three (3) 399 hp ICE (emergency fire pump engines)

Permit Term (Describe requirements and cross-reference)

SECTION V – INSIGNIFICANT ACTIVITIES LIST FOR ABOVE-REFERENCED ENGINES

The one (1) 162 hp emergency generator, one (1) 132 hp emergency generator, and three (3) 399 hp emergency fire pump engines are subject to the following requirements:

- (A) COMAR 26.11.09.05E(2) Emissions During Idle Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at idle, greater than 10 percent opacity.
- (B) COMAR 26.11.09.05E(3) Emissions During Operating Mode: The Permittee may not cause or permit the discharge of emissions from any engine, operating at other than idle conditions, greater than 40 percent opacity.
- (C) Exceptions:
 - (i) COMAR 26.11.09.05E(2) does not apply for a period of 2 consecutive minutes after a period of idling of 15 consecutive minutes for the purpose of cleaning the exhaust system
 - (ii) COMAR 26.11.09.05E(2) does not apply to emissions resulting directly from cold engine start-up and warm-up for the following maximum periods:
 - (a) Engines that are idled continuously when not in service: 30 minutes;
 - (b) All other engines: 15 minutes.
 - (iii) COMAR 26.11.09.05E(2) & (3) do not apply while maintenance, repair, or testing is being performed by qualified mechanics.
- (D) For the 162 hp emergency generator, 40 CFR 63, Subpart ZZZZ which states that the Permittee must:
 - (i) Change oil and filter every 500 hours of operation or annually, whichever comes first;
 - (ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
 - (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary;
 - (iv) Operate and maintain the engine and keep records as specified in Subpart ZZZZ; and
 - (v) Keep records of the hours of operation of the engine as recorded through a non-resettable hour meter.
- (E) For one (1) 132 hp emergency generator, and three (3) 399 hp emergency fire pump engines, 40 CFR 60, Subpart IIII which states that the Permittee must:
 - (i) Purchase an engine certified to the emission standards in 40 CFR 60.4205(b) and (c) for the same model year and maximum engine power;
 - (ii) Install and configure the engine according to the manufacturer's emission-related specifications;

- (iii) Operate and maintain the diesel engine that achieves the emissions standards as required by 40 CFR 60.4205 for emergency engines according to the manufacturer's emissions related written instructions over the entire life of the engine;
- (iv) Change those settings that are permitted by the manufacturer;
- (v) Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as applicable;
- (vi) Use diesel fuel in the engine that meets the requirements of 40 CFR 80.510(b); and
- (vii) Meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII.

Compliance Methods for the Above (Description and Citation):

Preventive maintenance is performed to ensure that opacity from the stationary engines is minimal and in compliance with the above limits. Operators make observations and record opacity results for the emergency generator engines via a log book on a weekly basis.

For the 162-hp emergency generator, Colonial implemented the monitoring, work practices, and record keeping systems for compliance with applicable 40 CFR, Part 63, Subpart ZZZZ requirements by the May 3, 2013 and October 19, 2013 compliance dates. Colonial did not conform to the applicable requirements under 40 CFR, Part 63, Subpart ZZZZ for the 162-hp emergency generator, as annual maintenance in accordance with the regulation was not performed for this generator during calendar year 2022. Colonial reestablished compliance by performing preventive maintenance for the generator in accordance with 40 CFR, Part 63, Subpart ZZZZ outside of this reporting period in 2023.

For the 132-hp emergency generator, Colonial implemented the monitoring, work practices, and record keeping systems for compliance with applicable 40 CFR, Part 60, Subpart IIII requirements. Colonial did not conform to the applicable requirements under 40 CFR, Part 60, Subpart IIII for the 132-hp emergency generator, as annual maintenance in accordance with the manufacturer's instructions was not performed for this generator during calendar year 2022. Colonial reestablished compliance by performing preventive maintenance for the generator in accordance with the manufacturer's instructions outside of this reporting period in 2023.

For the three 399-hp emergency fire pump engines, Colonial implemented the monitoring, work practices, and record keeping systems for compliance with applicable 40 CFR, Part 60, Subpart IIII requirements.

Status (Check one): ☒ **Intermittent Compliance** ☐ **Continuous Compliance**

This condition is for the reporting period 1/1/2022 to 12/31/2022

Emission Unit ID(s):

EMISSION GROUP 5
Entire Facility

Permit Term (Describe requirements and cross-reference)

SECTION VI, STATE-ONLY ENFORCEABLE CONDITIONS

1. *Applicable Regulations/Limits:*

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

- (A) COMAR 26.11.06.08 and COMAR 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. *Reporting Requirements*

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):

The facility does not discharge emissions beyond the property line in such a manner that a nuisance or air pollution is created. The facility does not discharge toxic air pollutants to the extent that the emissions will unreasonably endanger human health. As part of the Title V Permit renewal application submitted prior to this reporting period on June 22, 2018, Colonial provided an updated compliance demonstration in accordance with COMAR 26.11.15 and 16. The Annual Emissions Certification Report for 2021, which was submitted on March 30, 2022, provided a statement that the previous toxic air pollutant demonstration remained valid.

Status (Check one): ☐ Intermittent Compliance ☒ 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 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:

SECTION V, INSIGNIFICANT ACTIVITIES

(D) For the 162 hp emergency generator, 40 CFR 63, Subpart ZZZZ which state the Permittee must:

- (i) Change oil and filter every 500 hours of operation or annually, whichever comes first;
- (ii) Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary;
- (iii) Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary;
- (iv) Operate and maintain the engine and keep records as specified in Subpart ZZZZ; and
- (v) Keep records of the hours of operation of the engine as recorded through a non-resettable hour meter.

Emission Units (unit IDs):

INSIGNIFICANT ACTIVITIES

One (1) 162 hp ICE (emergency generator)

Probable Cause of Deviation:

Under 40 CFR, Part 63, Subpart ZZZZ, Colonial Pipeline is required to change the oil and filter and inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, as well as inspect the air cleaner every 1,000 hours of operation or annually, whichever comes first, for the 162-hp emergency generator. As the generator did not operate more than 500 hours during calendar year 2022, the maintenance activities under 40 CFR, Part 63, Subpart ZZZZ were required to be performed annually. However, annual preventive maintenance in accordance with the regulation was not performed for the 162-hp emergency generator during calendar year 2022. As of 12/26/2022, the generator had operated for 36.9 hours since the previous annual maintenance had been performed.

Corrective Actions or Preventative Measures Taken:

Colonial reestablished compliance by performing preventive maintenance for the 162-hp emergency generator in accordance with 40 CFR, Part 63, Subpart ZZZZ outside of this reporting period on February 28, 2023. Colonial has re-emphasized the annual maintenance requirements with operations personnel responsible for scheduling the engine maintenance contractor.

Deviation Start: 12/31/2022 23:59 **End:** 12/31/2022 23:59

Date Written Report Submitted 01/27/2023

Permit Term (for Which There was a Deviation):

SECTION V, INSIGNIFICANT ACTIVITIES

(E) For one (1) 132 hp emergency generator, and three (3) 399 hp emergency fire pump engines, 40 CFR 60, Subpart IIII which states that the Permittee must:

- (i) Purchase an engine certified to the emission standards in 40 CFR 60.4205(b) and (c) for the same model year and maximum engine power;
- (ii) Install and configure the engine according to the manufacturer's emissions-related specifications;
- (iii) Operate and maintain the diesel engine that achieves the emissions standards as required by 40 CFR 60.4205 for emergency engines according to the manufacturer's emissions related written instructions over the entire life of the engine;
- (iv) Change those settings that are permitted by the manufacturer;
- (v) Meet the requirements of 40 CFR Parts 89, 94 and/or 1068, as applicable;
- (vi) Use diesel fuel in the engine that meets the requirements of 40 CFR 80.510(b); and
- (vii) Meet the requirements of 40 CFR 63, Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII.

Emission Units (unit IDs):

INSIGNIFICANT ACTIVITIES

One (1) 132 hp ICE (emergency generator)

Probable Cause of Deviation:

Under 40 CFR, Part 60, Subpart IIII, Colonial Pipeline is required to perform preventive maintenance for the 132-hp emergency generator in accordance with the manufacturer's emissions related written instructions, which specify annual preventive maintenance. However, annual preventive maintenance in accordance with the manufacturer's instructions was not performed for the 132-hp emergency generator during calendar year 2022. As of 12/26/2022, the generator had operated for 63.2 hours since the previous annual maintenance had been performed.

Corrective Actions or Preventative Measures Taken:

Colonial reestablished compliance by performing preventive maintenance for the 132-hp emergency generator in accordance with the manufacturer's instructions outside of this reporting period on February 28, 2023. Colonial has re-emphasized the annual maintenance requirements with operations personnel responsible for scheduling the engine maintenance contractor.

Deviation Start: 12/31/2022 23:59 End: 12/31/2022 23:59

Date Written Report Submitted 01/27/2023

CERTIFICATION OF PLANT-WIDE CONDITIONS (SECTION III OF PART 70 OPERATING PERMIT)

Indicate compliance with the following requirements of Section III of your Part 70 Operating Permit in the space provided below:

1. Particulate Matter from Construction and Demolition

No building construction or demolition projects were performed during this reporting period. Colonial Pipeline Company's Dorsey Junction facility (Dorsey Junction) has demonstrated continuous compliance with the requirements set forth in this item.

2. Open Burning

Dorsey Junction has not caused or permitted an open fire during this compliance period. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

3. Air Pollution Episode (N/A)

The Department has made no requests to Dorsey Junction regarding the preparation in writing of standby emissions reduction plans. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

4. Report of Excess Emissions and Deviations

(All deviations from permit requirements should be clearly identified in quarterly monitoring reports.)

Dorsey Junction had no excess emissions or deviations that would endanger human health or the environment. All deviations were submitted in the semi-annual monitoring reports. No quarterly reports are required in the Part 70 Permit. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

5. Accidental Release Provisions (if applicable)

The requirements set forth in this item do not apply to Dorsey Junction's storage incident to transportation. The relevant exclusion for the facility in the part 68 definition of a stationary source is: "The term stationary source does not apply to transportation, including storage incident to transportation, of any regulated substance or any other extremely hazardous substance under the provisions of this part." For storage not incident to transportation, Dorsey Junction does not store any listed chemicals above the required thresholds.

6. General Testing Requirements

The Department has made no requests to Dorsey Junction regarding testing to determine compliance with the Part 70 permit during this compliance period. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

7. Emissions Test Methods

Dorsey Junction has not conducted any tests out of compliance with test method parameters of the Department. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

8. Emission Certification Report

The Annual Emissions Certification Report for 2021 was submitted to MDE on March 30, 2022. Dorsey Junction has submitted the Emissions Certification Report on time and following all proper directions. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

9. Compliance Certification Report

The Annual Compliance Certification Report for 2021 was submitted to MDE and EPA on March 30, 2022. Dorsey Junction has submitted the Annual Compliance Certification Report on time and following all proper directions. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

10. Certification by Responsible Official

Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item. All submittals have been certified by a responsible official with the required language of COMAR 26.11.02.02F and the Part 70 Permit.

11. Sampling and Emissions Testing Record Keeping

When Dorsey Junction conducts sampling or testing for compliance demonstration, the required information is maintained in accordance with Condition 11. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

12. General Record Keeping

All records supportive to the compliance certification have been maintained on site for a period of five years and all record keeping has included the required information. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

13. General Conformity (N/A except for federal facilities)

Dorsey Junction is a private company and is therefore exempt from the requirements of 40 CFR 93, Subpart B and COMAR 26.11.26.09. The requirements set forth in this item do not apply to Dorsey Junction.

14. Asbestos Provisions (if applicable)

No renovation or demolition activities involving asbestos have occurred on site during this compliance period. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

15. Ozone Depleting Regulations (if applicable)

Dorsey Junction does not have air conditioning or refrigeration equipment containing a refrigerant charge of greater than 50 pounds or commercial or industrial process refrigeration equipment. Dorsey Junction has complied with all maintenance, service, repair, and disposal requirements as defined in 40 CFR 82. Dorsey Junction has demonstrated continuous compliance with the requirements set forth in this item.

16. Acid Rain Permit (if applicable)

Dorsey Junction is not a significant source of sulfur dioxide emissions and, therefore, is not subject to the Acid Rain Program (Title IV of the Clean Air Act Amendments). The item is listed as not applicable on the Dorsey Junction Part 70 Operating Permit. The requirements set forth in this item do not apply to Dorsey Junction.

Appendix E
Facility Potential to Emit
Calculations

Total Facility-wide VOC Emissions

Colonial Pipeline Company - Dorsey Junction Facility

Woodbine, Maryland

	Tank Emissions	Landing Losses	Cleaning Losses	Fugitives (tons/yr)	Fuel Combustion	Air Stripping	Maintenance Activities	Total
Facility Emissions	56.0	165	5.33	7.44	3.31	0.371	1.87	240

Throughput Limit Evaluation

**Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland**

Tank No.	Product Stored	Tank Type	Date of Installation	Capacity		Turnovers per Year	Annual Throughp
				(bbls)	(Mgals)		(Mgals)
D1000	Automate Red B D50	Horizontal Tank	1966	95	4	26	104
RED DYE TOTAL							104
Tank No.	Product Stored	Tank Type	Date of Installation	Capacity		Turnovers per Year	Annual Throughp
				(bbls)	(Mgals)		(Mgals)
1010	Gasoline	Internal Floating Roof Tank	1963	54,000	2,268	72	163,296
1011	Gasoline	Internal Floating Roof Tank	1963	132,000	5,544	72	399,168
1012	Gasoline	Internal Floating Roof Tank	1963	33,000	1,386	72	99,792
1013	Gasoline	Internal Floating Roof Tank	1963	33,000	1,386	72	99,792
1014	Gasoline	Internal Floating Roof Tank	1963	24,000	1,008	72	72,576
1015	Gasoline	Internal Floating Roof Tank	1963	33,000	1,386	72	99,792
1016	Gasoline	Internal Floating Roof Tank	1969	54,000	2,268	72	163,296
1030	Gasoline	Internal Floating Roof Tank	1963	33,000	1,386	72	99,792
1031	Gasoline	Internal Floating Roof Tank	1963	43,000	1,806	72	130,032
1032	Gasoline	Internal Floating Roof Tank	1963	150,000	6,300	72	453,600

1033	Gasoline	Internal Floating Roof Tank	1963	80,000	3,360	72	241,920
1034	Gasoline	Internal Floating Roof Tank	1963	43,000	1,806	72	130,032
1040	Gasoline	Internal Floating Roof Tank	1997	24,000	1,008	72	72,576
1041	Gasoline	Internal Floating Roof Tank	1997	24,000	1,008	72	72,576
GASOLINE SUBTOTAL							2,298,240
Tank No.	Product Stored	Tank Type	Date of Installation	Capacity		Turnovers per Year	Annual Throughp
				(bbls)	(Mgals)		(Mgals)
1060	Transmix	Internal Floating Roof Tank	1963	54,000	2,268	72	163,296
1061	Transmix	Internal Floating Roof Tank	1963	33,000	1,386	72	99,792
5200	Transmix	Internal Floating Roof Tank	2004	500	21	72	1,512
TRANSMIX SUBTOTAL							264,600
PROPOSED "GASOLINE PRODUCTS" THROUGHPUT¹							2,562,840
Tank No.	Product Stored	Tank Type	Date of Installation	Capacity		Turnovers per Year	Annual Throughp
				(bbls)	(Mgals)		(Mgals)
1050	Jet kerosene	Vertical Fixed Roof Tank	1963	54,000	2,268	72	163,296
1051	Jet kerosene	Vertical Fixed Roof Tank	1963	54,000	2,268	72	163,296
1052	Jet kerosene	Vertical Fixed Roof Tank	1963	67,000	2,814	72	202,608
1074	Jet kerosene	Vertical Fixed Roof Tank	1963	43,000	1,806	72	130,032
1075	Jet kerosene	Vertical Fixed Roof Tank	1963	54,000	2,268	72	163,296
1076	Jet kerosene	Vertical Fixed Roof Tank	1963	96,000	4,032	72	290,304
JET KEROSENE SUBTOTAL							1,112,832

Tank No.	Product Stored	Tank Type	Date of Installation	Capacity		Turnovers per Year	Annual Throughp
				(bbls)	(Mgals)		(Mgals)
1070	Distillate fuel oil no. 2	Vertical Fixed Roof Tank	1963	218,000	9,156	72	659,232
1071	Distillate fuel oil no. 2	Vertical Fixed Roof Tank	1963	120,000	5,040	72	362,880
1072	Distillate fuel oil no. 2	Vertical Fixed Roof Tank	1963	80,000	3,360	72	241,920
1073	Distillate fuel oil no. 2	Vertical Fixed Roof Tank	1963	96,000	4,032	72	290,304
1077	Distillate fuel oil no. 2	Vertical Fixed Roof Tank	1963	80,000	3,360	72	241,920
1080	Distillate fuel oil no. 2	Vertical Fixed Roof Tank	1997	24,175	1,015	72	73,104
1081	Distillate fuel oil no. 2	Vertical Fixed Roof Tank	1997	24,175	1,015	72	73,104
No. 2 FUEL OIL SUBTOTAL							1,942,465
PROPOSED "DISTILLATE PRODUCTS" THROUGHPUT²							3,055,297

Notes:

1. "Gasoline Products" include both Gasoline and Transmix.
2. "Distillate Products" include both No. 2 Fuel Oil and Jet kerosene.
3. 72 turnovers based on 5-day cycle over 360 days per year.
4. Distillate/kerosene tanks can store diesel, kerosene, or a mixture of distillate products. Total throughput from all tanks will not exceed the proposed throughput limits.
5. Although the actual number of turnovers can vary from year to year, total throughput from all tanks will not exceed the proposed throughput limits.

Facility-wide VOC Potential Emissions Summary
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Tank No.	Product Stored	Tank Type	Capacity		Diameter (ft)	Annual Thruput		Number of Turnovers	Tank Emissions based on 365 days		Standing/Breathing Losses (365 days) (tpy)	Adjusted Emissions to # of operating days (tpy)	Landing Loss (tpy)	Cleaning Loss (tpy)	Adjusted TOSD (lbs/period)	Adjusted TOSD (lbs/day)	Total Emissions		
			(bbls)	(Mgals)		(bbls)	(Mgals)		(lbs/yr)	(tpy)							(tpy)	(lbs/yr)	(lbs/day)
1010	Gasoline	Internal Floating Roof Tank	54,000	2,268	90	3,888,000	163,296	72.0	3,914	1.96	1.79	1.96	10.5	0	12,484	68.2	12.4	24,899	68.2
1011	Gasoline	Internal Floating Roof Tank	132,000	5,544	140	9,504,000	399,168	72.0	8,374	4.19	3.92	4.19	27.7	1.93	33,919	185.3	33.8	67,653	185
1012	Gasoline	Internal Floating Roof Tank	33,000	1,386	70	2,376,000	99,792	72.0	2,623	1.31	1.18	1.31	3.81	0	5,133	28.1	5.12	10,238	28.1
1013	Gasoline	Internal Floating Roof Tank	33,000	1,386	70	2,376,000	99,792	72.0	2,623	1.31	1.18	1.31	4.81	0	6,140	33.5	6.12	12,246	33.5
1014	Gasoline	Internal Floating Roof Tank	24,000	1,008	60	1,728,000	72,576	72.0	2,079	1.04	0.925	1.04	4.74	0	5,791	31.64	5.78	11,550	31.6
1015	Gasoline	Internal Floating Roof Tank	33,000	1,386	70	2,376,000	99,792	72.0	2,623	1.31	1.18	1.31	6.50	0	7,828	42.8	7.81	15,614	42.8
1016	Gasoline	Internal Floating Roof Tank	54,000	2,268	90	3,888,000	163,296	72.0	3,914	1.96	1.79	1.96	10.9	0	12,921	70.6	12.9	25,772	70.6
1030	Gasoline	Internal Floating Roof Tank	33,000	1,386	70	2,376,000	99,792	72.0	2,623	1.31	1.18	1.31	4.32	0	5,652	30.9	5.64	11,273	30.9
1031	Gasoline	Internal Floating Roof Tank	43,000	1,806	80	3,096,000	130,032	72.0	3,235	1.62	1.46	1.62	8.16	0	9,801	53.6	9.77	19,549	53.6
1032	Gasoline	Internal Floating Roof Tank	150,000	6,300	150	10,800,000	453,600	72.0	9,469	4.73	4.45	4.73	30.0	2.22	37,012	202.3	36.9	73,822	202
1033	Gasoline	Internal Floating Roof Tank	80,000	3,360	110	5,760,000	241,920	72.0	5,483	2.74	2.53	2.74	15.0	1.18	19,008	103.9	19.0	37,912	104
1034	Gasoline	Internal Floating Roof Tank	43,000	1,806	80	3,096,000	130,032	72.0	3,235	1.62	1.46	1.62	8.18	0	9,827	53.7	9.80	19,601	53.7
1040	Gasoline	Internal Floating Roof Tank	24,000	1,008	60	1,728,000	72,576	72.0	1,924	0.962	0.848	0.962	6.29	0	7,276	39.8	7.26	14,512	39.8
1041	Gasoline	Internal Floating Roof Tank	24,000	1,008	60	1,728,000	72,576	72.0	1,911	0.955	0.841	0.955	6.45	0	7,427	40.6	7.41	14,813	40.6
1050	Kerosene	Vertical Fixed Roof Tank	54,000	2,268	90	3,888,000	163,296	72.0	2,740	1.37	0.164	1.37	--	0	1,374	7.51	1.37	2,740	7.51
1051	Kerosene	Vertical Fixed Roof Tank	54,000	2,268	90	3,888,000	163,296	72.0	2,740	1.37	0.164	1.37	--	0	1,373.63	7.51	1.37	2,740	7.51
1052	Kerosene	Vertical Fixed Roof Tank	67,000	2,814	100	4,824,000	202,608	72.0	3,398	1.70	0.203	1.70	--	0	1,704	9.31	1.70	3,398	9.31
1060	Gasoline	Internal Floating Roof Tank	54,000	2,268	90	3,888,000	163,296	72.0	5,835	2.92	2.75	2.92	11.2	0	14,173	77.4	14.1	28,269	77.4
1061	Gasoline	Internal Floating Roof Tank	33,000	1,386	70	2,376,000	99,792	72.0	2,902	1.45	1.31	1.45	6.66	0	8,130	44.42	8.11	16,215	44.4
1070	Distillate	Vertical Fixed Roof Tank	218,000	9,156	180	15,696,000	659,232	72.0	8,913	4.46	0.541	4.46	--	0	4,469	24.4	4.46	8,913	24.4
1071	Distillate	Vertical Fixed Roof Tank	120,000	5,040	134	8,640,000	362,880	72.0	4,904	2.45	0.297	2.45	--	0	2,459	13	2.45	4,904	13.4
1072	Distillate	Vertical Fixed Roof Tank	80,000	3,360	110	5,760,000	241,920	72.0	3,272	1.64	0.199	1.64	--	0	1,640	8.96	1.64	3,272	8.96
1073	Distillate	Vertical Fixed Roof Tank	96,000	4,032	120	6,912,000	290,304	72.0	3,923	1.96	0.238	1.96	--	0	1,967	10.7	1.96	3,923	10.7
1074	Kerosene	Vertical Fixed Roof Tank	43,000	1,806	80	3,096,000	130,032	72.0	2,179	1.09	0.130	1.09	--	0	1,093	5.97	1.09	2,179	5.97
1075	Kerosene	Vertical Fixed Roof Tank	54,000	2,268	90	3,888,000	163,296	72.0	2,740	1.37	0.164	1.37	--	0	1,374	7.51	1.37	2,740	7.51
1076	Kerosene	Vertical Fixed Roof Tank	96,000	4,032	120	6,912,000	290,304	72.0	4,874	2.44	0.294	2.44	--	0	2,444	13.35	2.44	4,874	13.4
1077	Distillate	Vertical Fixed Roof Tank	80,000	3,360	110	5,760,000	241,920	72.0	3,272	1.64	0.199	1.64	--	0	1,640	8.96	1.64	3,272	8.96
1080	Distillate	Vertical Fixed Roof Tank	24,175	1,015	60	1,740,579	73,104	72.0	986	0.493	0.059	0.493	--	0	494	2.70	0.493	986	2.70
1081	Distillate	Vertical Fixed Roof Tank	24,175	1,015	60	1,740,579	73,104	72.0	986	0.493	0.059	0.493	--	0	494	2.70	0.493	986	2.70
5200	Gasoline	Internal Floating Roof Tank	500	21.0	15	36,000	1,512	72.0	337	0.169	0.159	0.169	0.167	0	336	1.836	0.335	670	1.84
Generator	Distillate	Horizontal Tank	11.9	0.500	3.5	179	7.50	15.0	0.354	1.77E-04	8.24E-05	1.77E-04	--	0	0.177	0.001	0.0002	0.354	0.001
Sump 03	Gasoline	Vertical Fixed Roof Tank	100	4.20	8.0	10,000	420.0	100	1,919	0.960	0.380	0.960	--	0	962	5.26	0.960	1,919	5.26
Sump 04	Gasoline	Vertical Fixed Roof Tank	100	4.20	8.0	10,000	420.0	100	1,919	0.960	0.380	0.960	--	0	962	5.26	0.960	1,919	5.26
DRA Tank	DRA	Vertical Fixed Roof Tank	29	1.20	6.0	743	31.2	26.0	2.29	0.001	3.48E-04	0.001	--	0	1.15	0.006	0.001	2.29	0.006
IDOT Generator	Distillate	Horizontal Tank	5	0.19	3.0	15.0	0.629	3.3	0.103	5.13E-05	4.33E-05	5.13E-05	--	0	0.051	2.81E-04	5.13E-05	0.103	2.81E-04

Port EG 1	Distillate	Horizontal Tank	67	2.80	6.6	379	15.9	5.7	1.04	5.22E-04	3.34E-04	5.22E-04	--	0	0.00E+00	0.00E+00	5.22E-04	1.04	0.003
Port EG 2	Distillate	Horizontal Tank	67	2.80	6.6	379	15.9	5.7	1.04	5.22E-04	3.34E-04	5.22E-04	--	0	0.00E+00	0.00E+00	5.22E-04	1.04	0.003
Port EG 3	Distillate	Horizontal Tank	67	2.80	6.6	379	15.9	5.7	1.04	5.22E-04	3.34E-04	5.22E-04	--	0	0.00E+00	0.00E+00	5.22E-04	1.04	0.003
Port EG 4	Distillate	Horizontal Tank	67	2.80	6.6	379	15.9	5.7	1.04	5.22E-04	3.34E-04	5.22E-04	--	0	0.00E+00	0.00E+00	5.22E-04	1.04	0.003
Port EG 5	Distillate	Horizontal Tank	67	2.80	6.6	379	15.9	5.7	1.04	5.22E-04	3.34E-04	5.22E-04	--	0	0.00E+00	0.00E+00	5.22E-04	1.04	0.003
Port EG 6	Distillate	Horizontal Tank	67	2.80	6.6	379	15.9	5.7	1.04	5.22E-04	3.34E-04	5.22E-04	--	0	0.00E+00	0.00E+00	5.22E-04	1.04	0.003
Port EG 7	Distillate	Horizontal Tank	67	2.80	6.6	379	15.9	5.7	1.04	5.22E-04	3.34E-04	5.22E-04	--	0	0.00E+00	0.00E+00	5.22E-04	1.04	0.003
Port EG 8	Distillate	Horizontal Tank	67	2.80	6.6	379	15.9	5.7	1.04	5.22E-04	3.34E-04	5.22E-04	--	0	0.00E+00	0.00E+00	5.22E-04	1.04	0.003
Fire Pump 1	Distillate	Horizontal Tank	20	0.85	5.4	1,637	68.8	81.0	1.27	6.35E-04	1.69E-04	6.35E-04	--	0	0.00E+00	0.00E+00	6.35E-04	1.27	0.003
Fire Pump 2	Distillate	Horizontal Tank	20	0.85	5.4	1,637	68.8	81.0	1.27	6.35E-04	1.69E-04	6.35E-04	--	0	0.00E+00	0.00E+00	6.35E-04	1.27	0.003
Fire Pump 3	Distillate	Horizontal Tank	20	0.85	5.4	1,637	68.8	81.0	1.27	6.35E-04	1.69E-04	6.35E-04	--	0	0.00E+00	0.00E+00	6.35E-04	1.27	0.003
D1000	Red Dye	Horizontal Tank	95.2	4.00	8.4	2,476	104	26.0	4.54	0.002	4.71E-04	0.002	--	0	2.27	0.012	0.002	4.5	0.012
OWS #1	Water	OWS	62.0	2.61		6,202	261	100	33.3	0.017	0.00E+00	0.017	--	0	16.7	0.091	0.017	33.3	0.091
OWS #2	Water	OWS	23.8	1.00		2,381	100	100	1.78	0.001	0.00E+00	0.001	--	0	0.892	0.005	0.001	1.78	0.005
OWS #3	Water	OWS	63.1	2.65		6,312	265	100	33.9	0.017	0.00E+00	0.017	--	0	17.0	0.093	0.017	33.9	0.093
Batch Tank	Water	Horizontal Tank	23.8	1.00		2,381	100	100	0.533	2.66E-04	0.00E+00	2.66E-04	--	0	0.267	0.001	2.66E-04	0.533	0.001
Tanks Total			1,858,956	78,076		133,813,794	5,620,179		111,955	56.0	32.4	56.0	165	5.33	227,345	1,242	227	453,461	1,242
Sting Water																	0.027	53.6	0.147
Ground Water																	0.344	688	1.89
Fugitives																	7.44	14,878	40.8
Generator																	0.020	40.7	9.77
IDOT Generator																	0.017	33.2	7.96
Port EG 1-8																	3.26	6,520	1,565
Fire Pumps 1-3																	0.013	26.4	6.33
Maintenance																	1.87	3,745	10.3
VOC Totals																	240	479,446	2,884

Notes:

1. When the tanks are empty, no standing or breathing losses occur; however, the TANKS program assumes that standing/breathing losses occur continuously (i.e., each day of the year).
2. Although the actual number of turnovers can vary from year to year, total throughput from all tanks will not exceed the permitted throughput limits.

EM Tanks Emissions (PTE)
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Tank	Components	Type	Losses (lbs/yr)				Adjustments	Totals	
			Withdrawal	Standing	Working	Breathing		(lbs/yr)	(tpy)
1010	Gasoline	IFR	342	3,571	--	--	0	3,914	1.96
1011	Gasoline	IFR	538	7,836	--	--	0	8,374	4.19
1012	Gasoline	IFR	269	2,354	--	--	0	2,623	1.31
1013	Gasoline	IFR	269	2,354	--	--	0	2,623	1.31
1014	Gasoline	IFR	228	1,851	--	--	0	2,079	1.04
1015	Gasoline	IFR	269	2,354	--	--	0	2,623	1.31
1016	Gasoline	IFR	342	3,571	--	--	0	3,914	1.96
1030	Gasoline	IFR	269	2,354	--	--	0	2,623	1.31
1031	Gasoline	IFR	307	2,928	--	--	0	3,235	1.62
1032	Gasoline	IFR	570	8,898	--	--	0	9,469	4.73
1033	Gasoline	IFR	415	5,068	--	--	0	5,483	2.74
1034	Gasoline	IFR	307	2,928	--	--	0	3,235	1.62
1040	Gasoline	IFR	228	1,696	--	--	0	1,924	0.962
1041	Gasoline	IFR	228	1,683	--	--	0	1,911	0.955
1050	Kerosene	VFR	--	--	2,411	329	0	2,740	1.37
1051	Kerosene	VFR	--	--	2,411	329	0	2,740	1.37
1052	Kerosene	VFR	--	--	2,991	407	0	3,398	1.70
1060	Gasoline	IFR	342	5,492	--	--	0	5,835	2.92
1061	Gasoline	IFR	273	2,629	--	--	0	2,902	1.45
1070	Distillate	VFR	--	--	7,830	1,083	0	8,913	4.46
1071	Distillate	VFR	--	--	4,310	594	0	4,904	2.45
1072	Distillate	VFR	--	--	2,873	398	0	3,272	1.64
1073	Distillate	VFR	--	--	3,448	475	0	3,923	1.96
1074	Kerosene	VFR	--	--	1,920	259	0	2,179	1.09
1075	Kerosene	VFR	--	--	2,411	329	0	2,740	1.37
1076	Kerosene	VFR	--	--	4,286	588	0	4,874	2.44
1077	Distillate	VFR	--	--	2,873	398	0	3,272	1.64
1080	Distillate	VFR	--	--	868	117	0	986	0.493
1081	Distillate	VFR	--	--	868	117	0	986	0.493
5200	Gasoline	IFR	19.0	318	--	--	0	337	0.169
Generator	Distillate	Horizontal	--	--	0.189	0.165	0	0.354	1.77E-04
Sump 03	Gasoline	VFR	--	--	1,919	759	-759	1,919	0.960
Sump 04	Gasoline	VFR	--	--	1,919	759	-759	1,919	0.960
DRA Tank	DRA	VFR	--	--	1.59	0.695	0	2.29	1.14E-03
iDOT Generator	Distillate	Horizontal	--	--	0.016	0.087	0	0.103	5.13E-05
Port EG 1	Distillate	Horizontal	--	--	0.376	0.667	0	1.04	5.22E-04

Port EG 2	Distillate	Horizontal	--	--	0.376	0.667	0	1.04	5.22E-04
Port EG 3	Distillate	Horizontal	--	--	0.376	0.667	0	1.04	5.22E-04
Port EG 4	Distillate	Horizontal	--	--	0.376	0.667	0	1.04	5.22E-04
Port EG 5	Distillate	Horizontal	--	--	0.376	0.667	0	1.04	5.22E-04
Port EG 6	Distillate	Horizontal	--	--	0.376	0.667	0	1.04	5.22E-04
Port EG 7	Distillate	Horizontal	--	--	0.376	0.667	0	1.04	5.22E-04
Port EG 8	Distillate	Horizontal	--	--	0.376	0.667	0	1.04	5.22E-04
Fire Pump 1	Distillate	Horizontal	--	--	0.931	0.339	0	1.27	6.35E-04
Fire Pump 2	Distillate	Horizontal	--	--	0.931	0.339	0	1.27	6.35E-04
Fire Pump 3	Distillate	Horizontal	--	--	0.931	0.339	0	1.27	6.35E-04
D1000	Red Dye	Horizontal	--	--	3.59	0.942	0	4.54	2.27E-03
Totals			5,214	57,887	43,352	6,950	-1,518	111,885	55.9

Notes:

1. Emissions were calculated using the Mitchell Scientific Emission Master (EM) Tanks software (version 8.4.5.10).
2. For gasoline and transmix tanks, emissions are calculated assuming product RVP reflects seasonal RVP of historic product movement.

Adjustments:

1. Sumps are underground and therefore breathing losses are treated as negligible. Per Tanks FAQ: "since the surrounding earth limits the diurnal temperature change, the model assumes that there are no breathing losses from the tank (breathing losses from atmospheric pressure fluctuations are assumed to be negligible)."

Drain Dry Low Leg Landing Loss - Potential Emissions
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Facility	Month	Tank No	Product	Total Number of Drain Dry Landings	L _{SL}			L _{FL}	L _{TL}		
					L _{SL}	L _{SL} Max	L _{SL} equation	L _{FL}	L _{TL}	L _{TL}	L _{TL}
					Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Filling Landing Losses	Total Landing Losses	Total Landing Losses	Total Landing Losses
					lb/event	lb/event	lb/event	lb/event	lb/event	lb/year	tons/year
Dorsey	TOTAL	1010	GASOLINE	72	2,692	3,223	2,692	806	3,498	20,986	10.5
Dorsey	TOTAL	1011	GASOLINE	72	6,514	10,893	6,514	2,723	9,237	55,422	27.7
Dorsey	TOTAL	1012	GASOLINE	72	1,628	1,015	1,015	254	1,269	7,615	3.81
Dorsey	TOTAL	1013	GASOLINE	72	1,628	1,283	1,283	321	1,604	9,622	4.81
Dorsey	TOTAL	1014	GASOLINE	72	1,196	1,529	1,196	382	1,579	9,471	4.74
Dorsey	TOTAL	1015	GASOLINE	72	1,628	2,147	1,628	537	2,165	12,991	6.50
Dorsey	TOTAL	1016	GASOLINE	72	2,692	3,805	2,692	951	3,643	21,859	10.9
Dorsey	TOTAL	1030	GASOLINE	72	1,628	1,153	1,153	288	1,442	8,650	4.32
Dorsey	TOTAL	1031	GASOLINE	72	2,127	2,414	2,116	604	2,719	16,314	8.16
Dorsey	TOTAL	1032	GASOLINE	72	7,478	10,026	7,478	2,507	9,984	59,905	30.0
Dorsey	TOTAL	1033	GASOLINE	72	4,021	4,321	3,933	1,080	5,013	30,079	15.0
Dorsey	TOTAL	1034	GASOLINE	72	2,127	2,436	2,119	609	2,728	16,366	8.18
Dorsey	TOTAL	1040	GASOLINE	72	1,196	3,606	1,196	902	2,098	12,588	6.29
Dorsey	TOTAL	1041	GASOLINE	72	1,196	3,816	1,196	954	2,150	12,902	6.45
Dorsey	TOTAL	1060	GASOLINE	72	2,692	4,188	2,692	1,047	3,739	22,434	11.2
Dorsey	TOTAL	1061	GASOLINE	72	1,628	2,362	1,628	590	2,219	13,313	6.66
Dorsey	TOTAL	5200	GASOLINE	72	74.8	47.9	47.9	12.0	59.9	360	0.180
TOTALS				1,224	42,149	58,264	40,580	14,566	55,146	330,877	165

List of Assumptions for Landing Loss Calculations

1. Landing Loss equations can be found in AP-42 Chapter 7.1-Organic Liquid Storage Tanks.
2. Standing and filling emissions assumed to be based on month tank was landed.

Drain Dry Low Leg Landing Loss - Potential Emissions
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Facility	Month	Tank No	Product	Total Number of Drain Dry Landings	L _{SL}			L _{FL}	L _{TL}		
					L _{SL}	L _{SL} Max	L _{SL} equation	L _{FL}	L _{TL}	L _{TL}	L _{TL}
					Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Standing Idle (Clingage) Landing Losses	Filling Landing Losses	Total Landing Losses	Total Landing Losses	Total Landing Losses
					lb/event	lb/event	lb/event	lb/event	lb/event	lb/year	tons/year

3. The stock liquid density and vapor molecular weight were obtained from Table 7.1-2 in AP-42.

4. Vapor space volume from actual tank strapping data information provided by Colonial Pipeline.

5. The ambient temperatures were obtained from Table 7.1-7 in AP-42 and true vapor pressure values were based on the EM Tanks database for Baltimore, MD based on specific months.

Landing Loss Formulas

$$L_{TL} = L_{SL} + L_{FL} \quad (\text{equation 3-1})$$

Standing Idle Losses (one time event for drain dry tanks)

$$L_{SL} = 0.0063 \cdot W_L \cdot \text{Tank Area} \quad (\text{equation 3-13; where 0.0063 derives from a constant value of 0.042 multiplied by a clingage factor of 0.15})$$

$$L_{SL \text{ max}} = (P \cdot V_V / R \cdot T) \cdot M_V \cdot S \quad (\text{equation 3-14; where } S = 0.6 \text{ consistent with equation 3-14 of AP-42 Chapter 7})$$

Filling Losses (one time event for drain dry tanks)

$$L_{FL} = (P \cdot V_V / R \cdot T) \cdot M_V \cdot S \cdot C_{sf} \quad (\text{equation 3-18; where the filling saturation correction factor for wind } (C_{sf}) \text{ is assumed to be 1.0 and the saturation factor } (S) \text{ is assumed to be 0.15 for drain dry tanks as per AP-42 Section 7.1.3.3.2})$$

Internal Floating Roof Cleaning Loss - Potential Emissions
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Tank No.	Tank Contents	Tank Type	Month	D	W _l	M _v	h _l	s	h _v	Actual h _v	V _v	P	R	T	T	Q _v	m _{ss}	L _{1,net}	L _{1,subsequent}	C _v	C _{1,max}	C _{1,actual}	d ₁	E ₁	S	L ₁			L ₂	L _{2a}			L _{2b}			L _{2c}			L _{2d}			L _{2e}			L _{2f}			L _{2g}			L _{2h}			L _{2i}			L _{2j}			L _{2k}			L _{2l}			L _{2m}			L _{2n}			L _{2o}			L _{2p}			L _{2q}			L _{2r}			L _{2s}			L _{2t}			L _{2u}			L _{2v}			L _{2w}			L _{2x}			L _{2y}			L _{2z}			L _{2aa}			L _{2ab}			L _{2ac}			L _{2ad}			L _{2ae}			L _{2af}			L _{2ag}			L _{2ah}			L _{2ai}			L _{2aj}			L _{2ak}			L _{2al}			L _{2am}			L _{2an}			L _{2ao}			L _{2ap}			L _{2aq}			L _{2ar}			L _{2as}			L _{2at}			L _{2au}			L _{2av}			L _{2aw}			L _{2ax}			L _{2ay}			L _{2az}			L _{2ba}			L _{2bb}			L _{2bc}			L _{2bd}			L _{2be}			L _{2bf}			L _{2bg}			L _{2bh}			L _{2bi}			L _{2bj}			L _{2bk}			L _{2bl}			L _{2bm}			L _{2bn}			L _{2bo}			L _{2bp}			L _{2bq}			L _{2br}			L _{2bs}			L _{2bt}			L _{2bu}			L _{2bv}			L _{2bw}			L _{2bx}			L _{2by}			L _{2bz}			L _{2ca}			L _{2cb}			L _{2cc}			L _{2cd}			L _{2ce}			L _{2cf}			L _{2cg}			L _{2ch}			L _{2ci}			L _{2cj}			L _{2ck}			L _{2cl}			L _{2cm}			L _{2cn}			L _{2co}			L _{2cp}			L _{2cq}			L _{2cr}			L _{2cs}			L _{2ct}			L _{2cu}			L _{2cv}			L _{2cw}			L _{2cx}			L _{2cy}			L _{2cz}			L _{2da}			L _{2db}			L _{2dc}			L _{2dd}			L _{2de}			L _{2df}			L _{2dg}			L _{2dh}			L _{2di}			L _{2dj}			L _{2dk}			L _{2dl}			L _{2dm}			L _{2dn}			L _{2do}			L _{2dp}			L _{2dq}			L _{2dr}			L _{2ds}			L _{2dt}			L _{2du}			L _{2dv}			L _{2dw}			L _{2dx}			L _{2dy}			L _{2dz}			L _{2ea}			L _{2eb}			L _{2ec}			L _{2ed}			L _{2ee}			L _{2ef}			L _{2eg}			L _{2eh}			L _{2ei}			L _{2ej}			L _{2ek}			L _{2el}			L _{2em}			L _{2en}			L _{2eo}			L _{2ep}			L _{2eq}			L _{2er}			L _{2es}			L _{2et}			L _{2eu}			L _{2ev}			L _{2ew}			L _{2ex}			L _{2ey}			L _{2ez}			L _{2fa}			L _{2fb}			L _{2fc}			L _{2fd}			L _{2fe}			L _{2ff}			L _{2fg}			L _{2fh}			L _{2fi}			L _{2fj}			L _{2fk}			L _{2fl}			L _{2fm}			L _{2fn}			L _{2fo}			L _{2fp}			L _{2fq}			L _{2fr}			L _{2fs}			L _{2ft}			L _{2fu}			L _{2fv}			L _{2fw}			L _{2fx}			L _{2fy}			L _{2fz}			L _{2ga}			L _{2gb}			L _{2gc}			L _{2gd}			L _{2ge}			L _{2gf}			L _{2gg}			L _{2gh}			L _{2gi}			L _{2gj}			L _{2gk}			L _{2gl}			L _{2gm}			L _{2gn}			L _{2go}			L _{2gp}			L _{2gq}			L _{2gr}			L _{2gs}			L _{2gt}			L _{2gu}			L _{2gv}			L _{2gw}			L _{2gx}			L _{2gy}			L _{2gz}			L _{2ha}			L _{2hb}			L _{2hc}			L _{2hd}			L _{2he}			L _{2hf}			L _{2hg}			L _{2hi}			L _{2hj}			L _{2hk}			L _{2hl}			L _{2hm}			L _{2hn}			L _{2ho}			L _{2hp}			L _{2hq}			L _{2hr}			L _{2hs}			L _{2ht}			L _{2hu}			L _{2hv}			L _{2hw}			L _{2hx}			L _{2hy}			L _{2hz}			L _{2ia}			L _{2ib}			L _{2ic}			L _{2id}			L _{2ie}			L _{2if}			L _{2ig}			L _{2ih}			L _{2ii}			L _{2ij}			L _{2ik}			L _{2il}			L _{2im}			L _{2in}			L _{2io}			L _{2ip}			L _{2iq}			L _{2ir}			L _{2is}			L _{2it}			L _{2iu}			L _{2iv}			L _{2iw}			L _{2ix}			L _{2iy}			L _{2iz}			L _{2ja}			L _{2jb}			L _{2jc}			L _{2jd}			L _{2je}			L _{2jf}			L _{2jg}			L _{2jh}			L _{2ji}			L _{2jj}			L _{2jk}			L _{2jl}			L _{2jm}			L _{2jn}			L _{2jo}			L _{2jp}			L _{2jq}			L _{2jr}			L _{2js}			L _{2jt}			L _{2ju}			L _{2jv}			L _{2jw}			L _{2jx}			L _{2jy}			L _{2jz}			L _{2ka}			L _{2kb}			L _{2kc}			L _{2kd}			L _{2ke}			L _{2kf}			L _{2kg}			L _{2kh}			L _{2ki}			L _{2kj}			L _{2kl}			L _{2km}			L _{2kn}			L _{2ko}			L _{2kp}			L _{2kq}			L _{2kr}			L _{2ks}			L _{2kt}			L _{2ku}			L _{2kv}			L _{2kw}			L _{2kx}			L _{2ky}			L _{2kz}			L _{2la}			L _{2lb}			L _{2lc}			L _{2ld}			L _{2le}			L _{2lf}			L _{2lg}			L _{2lh}			L _{2li}			L _{2lj}			L _{2lk}			L _{2ll}			L _{2lm}			L _{2ln}			L _{2lo}			L _{2lp}			L _{2lq}			L _{2lr}			L _{2ls}			L _{2lt}			L _{2lu}			L _{2lv}			L _{2lw}			L _{2lx}			L _{2ly}			L _{2lz}			L _{2ma}			L _{2mb}			L _{2mc}			L _{2md}			L _{2me}			L _{2mf}			L _{2mg}			L _{2mh}			L _{2mi}			L _{2mj}			L _{2mk}			L _{2ml}			L _{2mm}			L _{2mn}			L _{2mo}			L _{2mp}			L _{2mq}			L _{2mr}			L _{2ms}			L _{2mt}			L _{2mu}			L _{2mv}			L _{2mw}			L _{2mx}			L _{2my}			L _{2mz}			L _{2na}			L _{2nb}			L _{2nc}			L _{2nd}			L _{2ne}			L _{2nf}			L _{2ng}			L _{2nh}			L _{2ni}			L _{2nj}			L _{2nk}			L _{2nl}			L _{2nm}			L _{2nn}			L _{2no}			L _{2np}			L _{2nq}			L _{2nr}			L _{2ns}			L _{2nt}			L _{2nu}			L _{2nv}			L _{2nw}			L _{2nx}			L _{2ny}			L _{2nz}			L _{2oa}			L _{2ob}			L _{2oc}			L _{2od}			L _{2oe}			L _{2of}			L _{2og}			L _{2oh}			L _{2oi}			L _{2oj}			L _{2ok}			L _{2ol}			L _{2om}			L _{2on}			L _{2oo}			L _{2op}			L _{2oq}			L _{2or}			L _{2os}			L _{2ot}			L _{2ou}			L _{2ov}			L _{2ow}			L _{2ox}			L _{2oy}			L _{2oz}			L _{2pa}			L _{2pb}			L _{2pc}			L _{2pd}			L _{2pe}			L _{2pf}			L _{2pg}			L _{2ph}			L _{2pi}			L _{2pj}			L _{2pk}			L _{2pl}			L _{2pm}			L _{2pn}			L _{2po}			L _{2pp}			L _{2pq}			L _{2pr}			L _{2ps}			L _{2pt}			L _{2pu}			L _{2pv}			L _{2pw}			L _{2px}			L _{2py}			L _{2pz}			L _{2qa}			L _{2qb}			L _{2qc}			L _{2qd}			L _{2qe}			L _{2qf}			L _{2qg}			L _{2qh}			L _{2qi}			L _{2qj}			L _{2qk}			L _{2ql}			L _{2qm}			L _{2qn}			L _{2qo}			L _{2qp}			L _{2qq}			L _{2qr}			L _{2qs}			L _{2qt}			L _{2qu}			L _{2qv}			L _{2qw}			L _{2qx}			L _{2qy}			L _{2qz}			L _{2ra}			L _{2rb}			L _{2rc}			L _{2rd}			L _{2re}			L _{2rf}			L _{2rg}			L _{2rh}			L _{2ri}			L _{2rj}			L _{2rk}			L _{2rl}			L _{2rm}			L _{2rn}			L _{2ro}			L _{2rp}			L _{2rq}			L _{2rr}			L _{2rs}			L _{2rt}			L _{2ru}			L _{2rv}			L _{2rw}			L _{2rx}			L _{2ry}			L _{2rz}			L _{2sa}			L _{2sb}			L _{2sc}			L _{2sd}			L _{2se}			L _{2sf}			L _{2sg}			L _{2sh}			L _{2si}			L _{2sj}			L _{2sk}			L _{2sl}			L _{2sm}			L _{2sn}			L _{2so}			L _{2sp}			L _{2sq}			L _{2sr}			L _{2ss}			L _{2st}			L _{2su}			L _{2sv}			L _{2sw}			L _{2sx}			L _{2sy}			L _{2sz}			L _{2ta}			L _{2tb}			L _{2tc}			L _{2td}			L _{2te}			L _{2tf}			L _{2tg}			L _{2th}			L _{2ti}			L _{2tj}			L _{2tk}			L _{2tl}			L _{2tm}			L _{2tn}			L _{2to}			L _{2tp}			L _{2tq}			L _{2tr}			L _{2ts}			L _{2tt}			L _{2tu}			L _{2tv}			L _{2tw}			L _{2tx}			L _{2ty}			L _{2tz}			L _{2ua}			L _{2ub}			L _{2uc}			L _{2ud}			L _{2ue}			L _{2uf}			L _{2ug}			L _{2uh}			L _{2ui}			L _{2uj}			L _{2uk}			L _{2ul}			L _{2um}			L _{2un}			L _{2uo}			L _{2up}			L _{2uq}			L _{2ur}			L _{2us}			L _{2ut}			L _{2uu}			L _{2uv}			L _{2uw}			L _{2ux}			L _{2uy}			L _{2uz}			L _{2va}			L _{2vb}			L _{2vc}			L _{2vd}			L _{2ve}			L _{2vf}			L _{2vg}			L _{2vh}			L _{2vi}			L _{2vj}			L _{2vk}			L _{2vl}			L _{2vm}			L _{2vn}			L _{2vo}			L _{2vp}			L _{2vq}			L _{2vr}			L _{2vs}			L _{2vt}			L _{2vu}			L _{2vv}			L _{2vw}			L _{2vx}			L _{2vy}			L _{2vz}			L _{2wa}			L _{2wb}			L _{2wc}			L _{2wd}			L _{2we}			L _{2wf}			L _{2wg}			L _{2wh}			L _{2wi}			L _{2wj}			L _{2wk}			L _{2wl}			L _{2wm}			L _{2wn}			L _{2wo}			L _{2wp}			L _{2wq}			L _{2wr}			L _{2ws}			L _{2wt}			L _{2wu}			L _{2wv}			L _{2ww}			L _{2wx}			L _{2wy}			L _{2wz}			L _{2xa}			L _{2xb}			L _{2xc}			L _{2xd}			L _{2xe}			L _{2xf}			L _{2xg}			L _{2xh}			L _{2xi}			L _{2xj}			L _{2xk}			L _{2xl}			L _{2xm}			L _{2xn}			L _{2xo}			L _{2xp}			L _{2xq}			L _{2xr}			L _{2xs}			L _{2xt}			L _{2xu}			L _{2xv}			L _{2xw}			L _{2xx}			L _{2xy}			L _{2xz}			L _{2ya}			L _{2yb}			L _{2yc}			L _{2yd}			L _{2ye}			L _{2yf}			L _{2yg}			L _{2yh}			L _{2yi}			L _{2yj}			L _{2yk}			L _{2yl}			L _{2ym}			L _{2yn}			L _{2yo}			L _{2yp}			L _{2yq}			L _{2yr}			L _{2ys}			L _{2yt}			L _{2yu}			L _{2yv}			L _{2yw}			L _{2yx}			L _{2yy}			L _{2yz}			L _{2za}			L _{2zb}			L _{2zc}			L _{2zd}			L _{2ze}			L _{2zf}			L _{2zg}			L _{2zh}			L _{2zi}			L _{2zj}			L _{2zk}			L _{2zl}			L _{2zm}			L _{2zn}			L _{2zo}			L _{2zp}			L _{2zq}			L _{2zr}			L _{2zs}			L _{2zt}			L _{2zu}			L _{2zv}			L _{2zw}			L _{2zx}			L _{2zy}			L _{2zz}			L _{2aa}			L _{2ab}			L _{2ac}			L _{2ad}			L _{2ae}			L _{2af}			L _{2ag}			L _{2ah}			L _{2ai}			L _{2aj}			L _{2ak}			L _{2al}			L _{2am}			L _{2an}			L _{2ao}			L _{2ap}			L _{2aq}			L _{2ar}			L _{2as}			L _{2at}			L _{2au}			L _{2av}			L _{2aw}			L _{2ax}			L _{2ay}			L _{2az}			L _{2ba}			L _{2bb}			L _{2bc}			L _{2bd}			L _{2be}			L _{2bf}			L _{2bg}			L _{2bh}			L _{2bi}			L _{2bj}			L _{2bk}			L _{2bl}			L _{2bm}			L _{2bn}			L _{2bo}			L _{2bp}			L _{2bq}			L _{2br}			L _{2bs}			L _{2bt}			L _{2bu}			L _{2bv}			L _{2bw}			L _{2bx}			L _{2by}			L _{2bz}			L _{2ca}			L _{2cb}		
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Vertical Fixed Roof Cleaning Loss - Potential Emissions
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Tank No.	Tank Contents	Tank Type	D	W _L	M _V	L _{SR}				L _P		L _C		
			Tank Diameter	Liquid density	Stock vapor molecular weight	L _{SR,Day1}	L _{SR,Subsequent}	L _{SR Max}	L _{SR Selected}	L _{P,Day1}	L _{P,Subsequent}	L _C	L _C	L _C
						Sludge Removal Emissions	Sludge Removal Emissions	Sludge Removal Emissions	Sludge Removal Emissions	Vapor space purge (0 for drain dry tanks)	Vapor space purge during cleaning cycle	Total Tank Cleaning Losses	Total Tank Cleaning Losses	Cleaning Loss per Hour
			ft	lb/gal	lb/lb-mol	lb/event	lb/event	lb/event	lb/event	lb/event	lb/event	lb/event	ton/event	lb/hr
1070	Distillate	Vertical Fixed Roof	180	7.10	130	623	0	135,264	623	87.4	87.4	798	0.399	11.1
1071	Distillate	Vertical Fixed Roof	134	7.10	130	623	0	74,963	623	48.0	48.0	719	0.360	9.99
1073	Distillate	Vertical Fixed Roof	120	7.10	130	623	0	60,117	623	38.3	38.3	700	0.350	9.72
1076	Jet Kerosene	Vertical Fixed Roof	120	7.00	130	623	0	59,270	623	46.2	46.2	716	0.358	9.94
1072	Distillate	Vertical Fixed Roof	110	7.10	130	623	0	50,515	623	32.2	32.2	688	0.344	9.55
1077	Distillate	Vertical Fixed Roof	110	7.10	130	623	0	50,515	623	32.2	32.2	688	0.344	9.55
1052	Jet Kerosene	Vertical Fixed Roof	100	7.00	130	623	0	41,160	623	32.0	32.0	687	0.344	9.54
1050	Jet Kerosene	Vertical Fixed Roof	90	7.00	130	623	0	33,340	623	25.8	25.8	675	0.337	9.37
1051	Jet Kerosene	Vertical Fixed Roof	90	7.00	130	623	0	33,340	623	25.8	25.8	675	0.337	9.37
1075	Jet Kerosene	Vertical Fixed Roof	90	7.00	130	623	0	33,340	623	25.8	25.8	675	0.337	9.37
1074	Jet Kerosene	Vertical Fixed Roof	80	7.00	130	623	0	26,342	623	20.4	20.4	664	0.332	9.22
1080	Distillate	Vertical Fixed Roof	60	7.10	130	623	0	15,029	623	9.47	9.47	642	0.321	8.92
1081	Distillate	Vertical Fixed Roof	60	7.10	130	623	0	15,029	623	9.47	9.47	642	0.321	8.92
D1000	Automated Red Dye	Horizontal Tank	8.4	8.33	106.17	509	0	346	346	1.21	1.21	348	0.174	4.83
FIXED ROOF CLEANING TOTAL												9,316	4.66	129

List of Assumptions for Internal Floating Roof Calculations:

1. All of the tanks are cone-bottom, drain dry tanks. As such, the emission estimating methodology that was used to estimate VOC emissions from cleaning events was for drain dry tanks and can be found in Technical Report 2568, Evaporative Loss from the Cleaning of Storage Tanks, American Petroleum Institute, November 2007.
2. See Vertical Fixed Roof example sheet for how vertical fixed roof calculations are completed.

Lp,total= 175 pounds/event
Lp, total = 0.087 tons/event

Sludge Removal

Day 3 -- Active Ventilation

$$\begin{aligned} QV &= 11200 \text{ ft}^3/\text{minute fan rating} \\ nSR &= 1 \text{ Days} \\ tv &= 4.00 \text{ hours (per day)} \\ \text{LEL of Cal. Gas} &= 10.00 \% \\ \text{Avg. LEL Reading} &= 0.70 \% \\ CV &= 0.0007 \quad Cv = \text{Actual LEL} \% * \text{LEL of calibration gas} * Rf \\ Cv, \text{max} &= 0.0008314 \text{ P/Pa} \\ Cv, \text{selected} &= 0.0007 \\ ds &= 6 \text{ depth of sludge, inches} \\ LSR &= 623 \quad LSR = 60 \times Qv \times nSR \times tv \times CV \times Pa \times Mv / (R \times T) \\ &\quad \text{Maximum sludge removal emission rate;} \\ LsR \text{ max} &= 135,264 \quad LSR, \text{max} = 0.49 \times Fe \times D2 \times ds \times Wl; Fe=0.2 \text{ if unknown} \\ LSR &= 623 \text{ lb/event} \\ LSR &= 0.312 \text{ tons/event} \end{aligned}$$

Total Cleaning Emissions

$Lc = 0.399 \text{ tons/event}$

Notes:

1. The emission estimating methodology that was used to estimate VOC emissions from cleaning events can be found in Technical Report 2568, *Evaporative Loss from the Cleaning of Storage Tanks*, American Petroleum Institute, November 2007.
2. The stock liquid density and vapor molecular weight were obtained from EM Tanks database based on seasonal RVP.
3. The ambient temperature and true vapor pressure values are based on the EM Tanks database for Baltimore, MD based on specific months.
4. Average vapor concentration is determined based on 10% LEL of calibration gas and an LEL for jet Kerosene of 0.7% volume in air multiplied by a Response Factor of 1.0 (1.0 recommended factor to use if factor unknown).
5. It was assumed that the cleaning occurred in July, which had the worst case emissions.

Ls (standing idle) = 0 for fixed roof tanks

Lf (refilling) = 0 for fixed roof tanks (accounted for in working losses)

Fugitive Potential Emissions
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Equipment Type	Service	Equipment Count	VOC EF <i>kg/hr/source</i>	VOC EF <i>lb/hr/source</i>	VOC Emissions <i>lb/hr</i> <i>tpy</i>	
Valves	Light Liquid	7,920	4.30E-05	9.48E-05	0.751	3.29
Pump seals	Light Liquid	330	5.40E-04	1.19E-03	0.393	1.72
Fittings (connectors and flanges)	Light Liquid	14,700	8.00E-06	1.76E-05	0.259	1.14
Others (compressors, etc..)	Light Liquid	1,030	1.30E-04	2.87E-04	0.295	1.29
TOTAL					1.70	7.44

Notes:

1. Emission Factors provided by EPA's *Protocol For Equipment Leak Emission Estimates (EPA-453-R-95-017)* , November 1995, Table 2-3 Marketing Terminal Average Emission Factors.
2. Equipment count based on *Model Plant (MP2) Gasoline Distribution Industry (Stage I) Background Information for Promulgated Standards, Appendix C, Table C-6 (EPA-453/R-94-002b)*.

Sting Water Potential Emissions

Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Evaporative Loss Estimates for Dorsey Junction Tank Farm **Sting Water Air Stripper (ARA Registration Number 56-9-0083 N)**

VOC Concentration	Days Operated	Total Processed	Average	Conversion Factors			Emissions		
(ug/l)	(days)	(gal)	(gal/day)	l/gal	g/ug	lbs/g	lbs/day	lbs/yr	ton/yr
24,318	365	265,100	726	3.78	1.00E-06	0.002	0.147	53.6	0.027

Ground Water Potential Emissions

Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Evaporative Loss Estimates for Dorsey Junction Tank Farm **Ground Water Air Stripper (No permit associated)**

VOC Concentration	Days Operated	Total Processed	Average	Conversion Factors			Emissions		
(ug/l)	(days)	(gal)	(gal/day)	l/gal	g/ug	lbs/g	lbs/day	lbs/yr	ton/yr
6,300	365	13,140,000	36,000	3.78	1.00E-06	0.002	1.89	688	0.344

Oil Water Separation Potential Emissions

Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

	Benzene	Ethylbenzene	Naphthalene	Toluene	Xylene	Total HAPs	Total VOCs
	tons per year						
OWS #1	0.002	0.001	0.003	0.006	0.005	0.017	0.017
OWS #2	8.13E-05	4.76E-05	2.25E-04	3.03E-04	2.33E-04	0.001	0.001
OWS #3	0.002	0.001	0.003	0.006	0.005	0.017	0.017
Batch Tank	1.88E-05	7.63E-06	1.76E-04	5.04E-05	1.36E-05	2.66E-04	2.66E-04
TOTAL	0.003	0.002	0.006	0.012	0.011	0.035	0.035

Notes:

1. Sting water gallon throughput based on 100 turnovers of the sting water OWS.
2. Waste water gallon throughput based on a pump rate of 25 gpm and max concentration for waste water.
3. Oil water separator emissions are determined using Water9v2 modeling software.

Maintenance Operations Potential Emissions
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

	Emissions (tpy)				HAP Emissions (lb/yr)							Reason
	VOC	PM	PM-10	PM-2.5	Cr	Cr(VI)	Co	Mn	Ni	Pb		
Launching/Receiving Scrapers	0.010	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Remove/Replace Valves	0.165	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Pump Repair	0.172	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Filter/Strainer Cleaning	0.003	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Prover/Meter Maintenance	6.70E-04	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Check vent on cone roof tanks	0.012	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Tank Gauging	1.34E-04	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Seal Replacement on Pumps	0.173	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Pig Sig Repairs	4.59E-05	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Tank Sampling	0.055	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
N2 Displacement Purges	0.002	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Drain-ups for Pipe Replacement	6.18E-04	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Sample Houses	0.012	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Instrument Maintenance	0.003	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Vacuum Truck Events	0.287	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - Exempt activity - Vacuum cleaning systems used exclusively for industrial, commercial, or residential house-keeping purposes
Laboratory	0.012	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Painting	0.964	-	-	-	-	-	-	-	-	-	Yes	26.11.02.10 - uncontrolled emissions are less than 1 ton per calendar year.
Abrasive Blasting	0.00E+00	3.95	0.934	0.093	-	-	-	-	-	-	Yes	26.11.02.10 - Exempt activity - Blast equipment using a suspension of abrasive in water
Welding	-	2.56E-04	2.56E-04	-	0.001	2.00E-04	2.00E-04	0.206	4.00E-04	0.00E+00	Yes	26.11.02.10 - Exempt activity - Portable brazing, soldering, or welding equipment
Total =	1.87	3.95	0.934	0.093	0.001	2.00E-04	2.00E-04	0.206	4.00E-04	0.00E+00		

Notes:

1. For Welding, Total PM assumed to be less than 10 ppm but greater than 2.5 ppm.

Fuel Combustion Potential Emissions
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

CRITERIA POLLUTANTS														
Fire Pumps 1, 2, and 3 (Diesel, Emergency)								Portable EG 1 - EG 8 (Diesel, Emergency)						
Pollutant	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Firing Rate	Operating Time	Equipment Emissions			
	lb/hp-hr	hp	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr	lb/MMBtu	MMBtu/hr	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr
NO _x	5.75E-03			689	6.89	165	0.34	1.07E+00			19,369	194	4,649	9.68
VOC	2.20E-04			26	0.26	6.33	0.01	3.60E-01			6,520	65.2	1,565	3.26
CO	1.76E-03			211	2.11	50.7	0.11	5.85E-01			10,592	106	2,542	5.30
SO _x	2.05E-03	399	100	245	2.45	58.9	0.12	1.52E-03	22.6	100	27.4	0.274	6.59	0.014
PM	2.20E-04			26	0.26	6.33	0.01	3.34E-02			605	6.05	145	0.302
PM ₁₀	2.20E-04			26	0.26	6.33	0.01	3.34E-02			605	6.05	145	0.302
PM _{2.5}	2.20E-04			26	0.26	6.33	0.01	3.34E-02			605	6.05	145	0.302
GREENHOUSE GAS POLLUTANTS														
Fire Pumps 1, 2, and 3 (Diesel, Emergency)								Portable EG 1 - EG 8 (Diesel, Emergency)						
Pollutant	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Firing Rate	Operating Time	Equipment Emissions			
	lb/hp-hr	hp	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr	lb/MMBtu	MMBtu/hr	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr
CO ₂	1.15			137655	1377	33037	69	1.65E+02			2,988,480	29,885	717,235	1,494
CH ₄	2.20E-04	399	100	26	0.26	6.3	0.01	8.10E-03			147	1.47	35.2	0.07
HAZARDOUS AIR POLLUTANTS														
Fire Pumps 1, 2, and 3 (Diesel, Emergency)								Portable EG 1 - EG 8 (Diesel, Emergency)						
Pollutant	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Firing Rate	Operating Time	Equipment Emissions			
	lb/hp-hr	hp	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr	lb/MMBtu	MMBtu/hr	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr
Benzene	6.53E-06			7.82E-01	7.82E-03	1.88E-01	3.91E-04	7.76E-04			1.41E+01	1.41E-01	3.37E+00	7.03E-03
Toluene	2.86E-06			3.43E-01	3.43E-03	8.22E-02	1.71E-04	2.81E-04			5.09E+00	5.09E-02	1.22E+00	2.54E-03
Xylenes	2.00E-06			2.39E-01	2.39E-03	5.73E-02	1.19E-04	1.93E-04			3.50E+00	3.50E-02	8.39E-01	1.75E-03
1,3-Butadiene	2.74E-07			3.28E-02	3.28E-04	7.86E-03	1.64E-05	NA			0.00E+00	0.00E+00	0.00E+00	0.00E+00
Formaldehyde	8.26E-06			9.89E-01	9.89E-03	2.37E-01	4.94E-04	7.89E-05			1.43E+00	1.43E-02	3.43E-01	7.15E-04
Acetaldehyde	5.37E-06			6.43E-01	6.43E-03	1.54E-01	3.21E-04	2.52E-05			4.56E-01	4.56E-03	1.10E-01	2.28E-04
Acrolein	6.48E-07			7.75E-02	7.75E-04	1.86E-02	3.88E-05	7.88E-06			1.43E-01	1.43E-03	3.43E-02	7.14E-05
Naphthalene	5.94E-07			7.11E-02	7.11E-04	1.71E-02	3.55E-05	1.30E-04			2.35E+00	2.35E-02	5.65E-01	1.18E-03
Acenaphthylene	3.54E-08			4.24E-03	4.24E-05	1.02E-03	2.12E-06	9.23E-06			1.67E-01	1.67E-03	4.01E-02	8.36E-05
Acenaphthene	9.94E-09			1.19E-03	1.19E-05	2.86E-04	5.95E-07	4.68E-06			8.48E-02	8.48E-04	2.03E-02	4.24E-05
Fluorene	2.04E-07			2.45E-02	2.45E-04	5.87E-03	1.22E-05	1.28E-05			2.32E-01	2.32E-03	5.56E-02	1.16E-04
Phenanthrene	2.06E-07	399	100	2.46E-02	2.46E-04	5.91E-03	1.23E-05	4.08E-05	22.6	100	7.39E-01	7.39E-03	1.77E-01	3.69E-04
Anthracene	1.31E-08			1.57E-03	1.57E-05	3.76E-04	7.83E-07	1.23E-06			2.23E-02	2.23E-04	5.35E-03	1.11E-05
Fluoranthene	5.33E-08			6.38E-03	6.38E-05	1.53E-03	3.19E-06	4.03E-06			7.30E-02	7.30E-04	1.75E-02	3.65E-05
Pyrene	3.35E-08			4.01E-03	4.01E-05	9.61E-04	2.00E-06	3.71E-06			6.72E-02	6.72E-04	1.61E-02	3.36E-05
Benzo(a)anthracene	1.18E-08			1.41E-03	1.41E-05	3.38E-04	7.04E-07	6.22E-07			1.13E-02	1.13E-04	2.70E-03	5.63E-06
Chrysene	2.47E-09			2.96E-04	2.96E-06	7.10E-05	1.48E-07	1.53E-06			2.77E-02	2.77E-04	6.65E-03	1.39E-05
Benzo(b)fluoranthene	6.94E-10			8.30E-05	8.30E-07	1.99E-05	4.15E-08	1.11E-06			2.01E-02	2.01E-04	4.83E-03	1.01E-05
Benzo(k)fluoranthene	1.09E-09			1.30E-04	1.30E-06	3.12E-05	6.49E-08	2.18E-07			3.95E-03	3.95E-05	9.48E-04	1.97E-06
Benzo(a)pyrene	1.32E-09			1.58E-04	1.58E-06	3.78E-05	7.88E-08	2.57E-07			4.65E-03	4.65E-05	1.12E-03	2.33E-06
Indeno(1,2,3-cd)pyrene	2.63E-09			3.14E-04	3.14E-06	7.54E-05	1.57E-07	4.14E-07			7.50E-03	7.50E-05	1.80E-03	3.75E-06
Dibenz(a,h)anthracene	4.08E-09			4.88E-04	4.88E-06	1.17E-04	2.44E-07	3.46E-07			6.27E-03	6.27E-05	1.50E-03	3.13E-06
Benzo(g,h,i)perylene	3.42E-09			4.10E-04	4.10E-06	9.83E-05	2.05E-07	5.56E-07			1.01E-02	1.01E-04	2.42E-03	5.04E-06
Total PAH	1.18E-06			1.41E-01	1.41E-03	3.38E-02	7.04E-05	2.12E-04			3.84E+00	3.84E-02	9.22E-01	1.92E-03

	CRITERIA POLLUTANTS																
Diesel Emergency Generator (Diesel, Emergency)								iDOT Generator (Diesel, Emergency)									
Pollutant	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				TOTAL FUEL COMBUSTION EMISSIONS		
	lb/hp-hr	hp	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr	lb/hp-hr	hp	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr	lb/yr	lb/day	tons/yr
NO _x	3.10E-02	162	100	502	5.02	121	0.251	6.17E-03	132	100	81.5	0.815	19.6	0.041	206	4,954	10.3
VOC	2.51E-03			40.7	0.407	9.77	0.020	2.51E-03			33.2	0.332	7.96	0.017	66.2	1.589	3.31
CO	6.68E-03			108	1.08	26.0	0.054	1.54E-03			20.4	0.204	4.89	0.010	109	2,624	5.47
SO _x	2.05E-03			33.2	0.332	7.97	0.017	2.05E-03			27.1	0.271	6.49	0.014	33.3	80	0.167
PM	2.20E-03			35.6	0.356	8.55	0.018	2.65E-04			3.49	0.035	0.838	0.0017	6.70	161	0.335
PM ₁₀	2.20E-03			35.6	0.356	8.55	0.018	2.65E-04			3.49	0.035	0.838	0.0017	6.70	161	0.335
PM _{2.5}	2.20E-03			35.6	0.356	8.55	0.018	2.65E-04			3.49	0.035	0.838	0.0017	6.70	161	0.335
	GREENHOUSE GAS POLLUTANTS																
Diesel Emergency Generator (Diesel, Emergency)								iDOT Generator (Diesel, Emergency)							TOTAL FUEL COMBUSTION EMISSIONS		
Pollutant	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				lb/yr	lb/day	tons/yr
	lb/hp-hr	hp	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr	lb/hp-hr	hp	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr	lb/yr	lb/day	tons/yr
CO ₂	1.15E+00	162	100	18,630	186	4,471	9.32	1.15E+00	132	100	15,180	152	3,643	7.59	31,599	758,387	1,580
CH ₄	2.51E-03			40.7	0.407	9.77	0.020	2.51E-03			33.2	0.332	7.96	0.017	2.47	59	0.12
	HAZARDOUS AIR POLLUTANTS																
Diesel Emergency Generator (Diesel, Emergency)								iDOT Generator (Diesel, Emergency)							TOTAL FUEL COMBUSTION EMISSIONS		
Pollutant	Emission Factor	Power Output	Operating Time	Equipment Emissions				Emission Factor	Power Output	Operating Time	Equipment Emissions				lb/yr	lb/day	tons/yr
	lb/hp-hr	hp	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr	lb/hp-hr	hp	hrs/yr	lbs/yr	lb/hr	lbs/day	tons/yr	lb/yr	lb/day	tons/yr
Benzene	6.53E-06	162	100	1.06E-01	1.06E-03	2.54E-02	5.29E-05	6.53E-06	132	100	8.62E-02	8.62E-04	2.07E-02	4.31E-05	1.50E-01	3.61	7.51E-03
Toluene	2.86E-06			4.64E-02	4.64E-04	1.11E-02	2.32E-05	2.86E-06			3.78E-02	3.78E-04	9.07E-03	1.89E-05	5.52E-02	1.32	2.76E-03
Xylenes	2.00E-06			3.23E-02	3.23E-04	7.76E-03	1.62E-05	2.00E-06			2.63E-02	2.63E-04	6.32E-03	1.32E-05	3.79E-02	0.910	1.90E-03
1,3-Butadiene	2.74E-07			4.43E-03	4.43E-05	1.06E-03	2.22E-06	2.74E-07			3.61E-03	3.61E-05	8.67E-04	1.81E-06	4.08E-04	0.010	2.04E-05
Formaldehyde	8.26E-06			1.34E-01	1.34E-03	3.21E-02	6.69E-05	8.26E-06			1.09E-01	1.09E-03	2.62E-02	5.45E-05	2.66E-02	0.639	1.33E-03
Acetaldehyde	5.37E-06			8.70E-02	8.70E-04	2.09E-02	4.35E-05	5.37E-06			7.09E-02	7.09E-04	1.70E-02	3.54E-05	1.26E-02	0.302	6.28E-04
Acrolein	6.48E-07			1.05E-02	1.05E-04	2.52E-03	5.24E-06	6.48E-07			8.55E-03	8.55E-05	2.05E-03	4.27E-06	2.39E-03	0.057	1.20E-04
Naphthalene	5.94E-07			9.62E-03	9.62E-05	2.31E-03	4.81E-06	5.94E-07			7.84E-03	7.84E-05	1.88E-03	3.92E-06	2.44E-02	0.586	1.22E-03
Acenaphthylene	3.54E-08			5.74E-04	5.74E-06	1.38E-04	2.87E-07	3.54E-08			4.68E-04	4.68E-06	1.12E-04	2.34E-07	1.72E-03	0.041	8.62E-05
Acenaphthene	9.94E-09			1.61E-04	1.61E-06	3.86E-05	8.05E-08	9.94E-09			1.31E-04	1.31E-06	3.15E-05	6.56E-08	8.62E-04	0.021	4.31E-05
Fluorene	2.04E-07			3.31E-03	3.31E-05	7.95E-04	1.66E-06	2.04E-07			2.70E-03	2.70E-05	6.48E-04	1.35E-06	2.62E-03	0.063	1.31E-04
Phenanthrene	2.06E-07			3.33E-03	3.33E-05	8.00E-04	1.67E-06	2.06E-07			2.72E-03	2.72E-05	6.52E-04	1.36E-06	2.70E-03	0.185	3.85E-04
Anthracene	1.31E-08			2.12E-04	2.12E-06	5.09E-05	1.06E-07	1.31E-08			1.73E-04	1.73E-06	4.15E-05	8.64E-08	2.42E-04	0.006	1.21E-05
Fluoranthene	5.33E-08			8.63E-04	8.63E-06	2.07E-04	4.31E-07	5.33E-08			7.03E-04	7.03E-06	1.69E-04	3.52E-07	8.09E-04	0.019	4.05E-05
Pyrene	3.35E-08			5.42E-04	5.42E-06	1.30E-04	2.71E-07	3.35E-08			4.42E-04	4.42E-06	1.06E-04	2.21E-07	7.22E-04	0.017	3.61E-05
Benzo(a)anthracene	1.18E-08			1.91E-04	1.91E-06	4.57E-05	9.53E-08	1.18E-08			1.55E-04	1.55E-06	3.73E-05	7.76E-08	1.30E-04	0.003	6.51E-06
Chrysene	2.47E-09			4.00E-05	4.00E-07	9.61E-06	2.00E-08	2.47E-09			3.26E-05	3.26E-07	7.83E-06	1.63E-08	2.81E-04	0.007	1.40E-05
Benzo(b)fluoranthene	6.94E-10			1.12E-05	1.12E-07	2.70E-06	5.62E-09	6.94E-10			9.16E-06	9.16E-08	2.20E-06	4.58E-09	2.02E-04	0.005	1.01E-05
Benzo(k)fluoranthene	1.09E-09			1.76E-05	1.76E-07	4.22E-06	8.79E-09	1.09E-09			1.43E-05	1.43E-07	3.44E-06	7.16E-09	4.11E-05	0.001	2.06E-06
Benzo(a)pyrene	1.32E-09			2.13E-05	2.13E-07	5.12E-06	1.07E-08	1.32E-09			1.74E-05	1.74E-07	4.17E-06	8.69E-09	4.85E-05	0.001	2.43E-06
Indeno(1,2,3-cd)pyrene	2.63E-09			4.25E-05	4.25E-07	1.02E-05	2.13E-08	2.63E-09			3.47E-05	3.47E-07	8.32E-06	1.73E-08	7.89E-05	0.002	3.94E-06
Dibenz(a,h)anthracene	4.08E-09			6.61E-05	6.61E-07	1.59E-05	3.31E-08	4.08E-09			5.39E-05	5.39E-07	1.29E-05	2.69E-08	6.88E-05	0.002	3.44E-06
Bezo(g,h,i)perylene	3.42E-09			5.55E-05	5.55E-07	1.33E-05	2.77E-08	3.42E-09			4.52E-05	4.52E-07	1.08E-05	2.26E-08	1.06E-04	0.003	5.29E-06
Total PAH	1.18E-06			1.91E-02	1.91E-04	4.57E-03	9.53E-06	1.18E-06			1.55E-02	1.55E-04	3.73E-03	7.76E-06	4.02E-02	0.964	2.01E-02

Notes:

- Engine hp and operational data obtained from Colonial Pipeline Company and engine manufacturer specification sheets.
- The Emission Factors for CO, NO_x, PM, PM₁₀, and PM_{2.5} for the iDOT Generator and for CO, NO_x, VOC, CH₄, PM, PM₁₀, and PM_{2.5} for the 3 New Fire Pumps are from the manufacturer's exhaust emissions data.
- The Emission Factors for NO_x, CO, and PM for the 8 Portable Emergency Generators are based on EPA NSPS IIII Tier II Certified Limits, kW>900.
- Except as otherwise specified, Emission Factors for Small Engines (<600 hp) based on EPA-42 Chapter 3.3, 1996.
- Except as otherwise specified, Emission Factors for Large Engines (>600 hp) are based on EPA AP-42 Chapter 3.4, 1996.
- For Small Engines, Methane and Nonmethane breakdown of Total Organic Compound (TOC) or Total Hydrocarbon (HC) emission factors not provided. VOC and CH₄ emission factors assume 100% TOC or HC.
- For Small Engines, all PM is less than 1 micron, therefore PM=PM₁₀=PM_{2.5} on a filterable basis. For reporting, 10% assumed to be condensable based on approximate ratio of emission factors in AP-42 Chapter 3.4.
- For Large Engines, sulfur content of fuel oil assumed to be 15 ppm.
- HAP emission factors converted to lb/hp-hr using 7,000 BTU/hp-hr per AP-42.
- All nitrogen formed assumed to be NO_x; N₂O assumed to be zero.

HAPs Speciation

*Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland*

HAP Speciation by Service Type						
HAP	CAS #	Vapor Weight Percent				
		Automate Red B D50 ⁴	Distillate fuel oil no. 2 ⁴	Gasoline ¹	Jet kerosene ³	Transmix
Benzene	71-43-2		0.21 %	0.27%	0.69%	0.27%
Cumene	98-82-8			0.012%		0.012%
Ethylbenzene	100-41-4	13.25%	0.31 %	0.053%	1.99%	0.053%
Hexane	110-54-3		0.04%	1.80%	1.43%	1.80%
Isooctane	540-84-1			0.75%		0.75%
Toluene	108-88-3		2.36%	1.40%	6.43%	1.40%
Xylenes	1330-20-7	66.34%	5.77%	0.56%	4.04%	0.56%
Naphthalene	91-20-3			0.00027%		0.00027%
Total		79.59%	8.69%	4.85%	14.58%	4.85%

Notes:

1. All speciation data, except MTBE, from "Current Data Review" column of "Table 1: Summary of HAP Data, Weight % in Vapor" in Hester, Charles, MACTEC, Inc., Memorandum from Charles Hester, MACTEC, Inc., to Stephen Shedd, U.S. Environmental Protection Agency, Office of Air Quality Planning and Standards, Emission Standards Division, "Review of data on HAP Content in Gasoline," May 18, 2006. MTBE Limit removed based on revisions to remove MTBE from Colonial Pipeline Company speciation limits effective 1/20/14.
2. HAP Speciation Profile for Distillate Fuel Oil No. 2 from EPA Tanks Version 4.09d, October 3, 2005. Removed 1,2,4 Trimethyl benzene because it is not a list HAP under NESHAP.
3. HAP Speciation Profile for Jet Kerosene from EPA Tanks Version 4.09d, October 3, 2005.
4. HAP Speciation Profile based on MSDS sheet for dye with xylene as carrier.

Pipeline HAP Potential Emissions
Colonial Pipeline Company - Dorsey Junction Facility
Woodbine, Maryland

Tank No.	Product Stored	Benzene 71-43-2	Cumene 98-82-8	Ethylbenzene 100-41-4	Hexane 110-54-3	Isooctane 540-84-1	MTBE 1634-04-4	Toluene 108-88-3	Xylenes 1330-20-7	Naphthalene 91-20-3	Total HAPs (tpy)	Total VOCs (tpy)
1010	Gasoline	3.36E-02	1.49E-03	6.60E-03	2.24E-01	9.34E-02	0.00E+00	1.74E-01	6.97E-02	3.36E-05	0.603	12.4
1011	Gasoline	9.13E-02	4.06E-03	1.79E-02	6.09E-01	2.54E-01	0.00E+00	4.74E-01	1.89E-01	9.13E-05	1.64	33.8
1012	Gasoline	1.38E-02	6.14E-04	2.71E-03	9.21E-02	3.84E-02	0.00E+00	7.17E-02	2.87E-02	1.38E-05	0.248	5.12
1013	Gasoline	1.65E-02	7.35E-04	3.25E-03	1.10E-01	4.59E-02	0.00E+00	8.57E-02	3.43E-02	1.65E-05	0.297	6.12
1014	Gasoline	1.56E-02	6.93E-04	3.06E-03	1.04E-01	4.33E-02	0.00E+00	8.09E-02	3.23E-02	1.56E-05	0.280	5.78
1015	Gasoline	2.11E-02	9.37E-04	4.14E-03	1.41E-01	5.86E-02	0.00E+00	1.09E-01	4.37E-02	2.11E-05	0.378	7.81
1016	Gasoline	3.48E-02	1.55E-03	6.83E-03	2.32E-01	9.66E-02	0.00E+00	1.80E-01	7.22E-02	3.48E-05	0.624	12.9
1030	Gasoline	1.52E-02	6.76E-04	2.99E-03	1.01E-01	4.23E-02	0.00E+00	7.89E-02	3.16E-02	1.52E-05	0.273	5.64
1031	Gasoline	2.64E-02	1.17E-03	5.18E-03	1.76E-01	7.33E-02	0.00E+00	1.37E-01	5.47E-02	2.64E-05	0.474	9.77
1032	Gasoline	0.100	4.43E-03	1.96E-02	6.64E-01	2.77E-01	0.00E+00	5.17E-01	2.07E-01	9.97E-05	1.79	36.9
1033	Gasoline	5.12E-02	2.27E-03	1.00E-02	3.41E-01	1.42E-01	0.00E+00	2.65E-01	1.06E-01	5.12E-05	0.918	19.0
1034	Gasoline	2.65E-02	1.18E-03	5.19E-03	1.76E-01	7.35E-02	0.00E+00	1.37E-01	5.49E-02	2.65E-05	0.475	9.80
1040	Gasoline	1.96E-02	8.71E-04	3.85E-03	1.31E-01	5.44E-02	0.00E+00	1.02E-01	4.06E-02	1.96E-05	0.352	7.26
1041	Gasoline	2.00E-02	8.89E-04	3.93E-03	1.33E-01	5.55E-02	0.00E+00	1.04E-01	4.15E-02	2.00E-05	0.359	7.41
1050	Kerosene	9.45E-03	0.00E+00	2.73E-02	1.96E-02	0.00E+00	0.00E+00	8.81E-02	5.53E-02	0.00E+00	0.200	1.37
1051	Kerosene	9.45E-03	0.00E+00	2.73E-02	1.96E-02	0.00E+00	0.00E+00	8.81E-02	5.53E-02	0.00E+00	0.200	1.37
1052	Kerosene	1.17E-02	0.00E+00	3.38E-02	2.43E-02	0.00E+00	0.00E+00	1.09E-01	6.86E-02	0.00E+00	0.248	1.70
1060	Gasoline	3.82E-02	1.70E-03	7.49E-03	2.54E-01	1.06E-01	0.00E+00	1.98E-01	7.92E-02	3.82E-05	0.685	14.1
1061	Gasoline	2.19E-02	9.73E-04	4.30E-03	1.46E-01	6.08E-02	0.00E+00	1.14E-01	4.54E-02	2.19E-05	0.393	8.11
1070	Distillate	9.36E-03	0.00E+00	1.38E-02	1.78E-03	0.00E+00	0.00E+00	1.05E-01	2.57E-01	0.00E+00	0.387	4.46
1071	Distillate	5.15E-03	0.00E+00	7.60E-03	9.81E-04	0.00E+00	0.00E+00	5.79E-02	1.41E-01	0.00E+00	0.213	2.45
1072	Distillate	3.44E-03	0.00E+00	5.07E-03	6.54E-04	0.00E+00	0.00E+00	3.86E-02	9.44E-02	0.00E+00	0.142	1.64
1073	Distillate	4.12E-03	0.00E+00	6.08E-03	7.85E-04	0.00E+00	0.00E+00	4.63E-02	1.13E-01	0.00E+00	0.170	1.96
1074	Kerosene	7.52E-03	0.00E+00	2.17E-02	1.56E-02	0.00E+00	0.00E+00	7.01E-02	4.40E-02	0.00E+00	0.159	1.09
1075	Kerosene	9.45E-03	0.00E+00	2.73E-02	1.96E-02	0.00E+00	0.00E+00	8.81E-02	5.53E-02	0.00E+00	0.200	1.37
1076	Kerosene	1.68E-02	0.00E+00	4.85E-02	3.49E-02	0.00E+00	0.00E+00	1.57E-01	9.85E-02	0.00E+00	0.355	2.44
1077	Distillate	3.44E-03	0.00E+00	5.07E-03	6.54E-04	0.00E+00	0.00E+00	3.86E-02	9.44E-02	0.00E+00	0.142	1.64
1080	Distillate	1.03E-03	0.00E+00	1.53E-03	1.97E-04	0.00E+00	0.00E+00	1.16E-02	2.84E-02	0.00E+00	0.043	0.493
1081	Distillate	1.03E-03	0.00E+00	1.53E-03	1.97E-04	0.00E+00	0.00E+00	1.16E-02	2.84E-02	0.00E+00	0.043	0.493
5200	Gasoline	9.05E-04	4.02E-05	1.78E-04	6.03E-03	2.51E-03	0.00E+00	4.69E-03	1.88E-03	9.05E-07	0.016	0.335
Generator	Distillate	3.72E-07	0.00E+00	5.49E-07	7.08E-08	0.00E+00	0.00E+00	4.18E-06	1.02E-05	0.00E+00	1.54E-05	1.77E-04
Sump 03	Gasoline	2.59E-03	1.15E-04	5.09E-04	1.73E-02	7.20E-03	0.00E+00	1.34E-02	5.37E-03	2.59E-06	0.047	0.960
Sump 04	Gasoline	2.59E-03	1.15E-04	5.09E-04	1.73E-02	7.20E-03	0.00E+00	1.34E-02	5.37E-03	2.59E-06	0.047	0.960
DRA Tank	DRA	2.40E-06	0.00E+00	3.55E-06	4.58E-07	0.00E+00	0.00E+00	2.70E-05	6.61E-05	0.00E+00	9.95E-05	1.14E-03

iDOT Generator	Distillate	1.08E-07	0.00E+00	1.59E-07	2.05E-08	0.00E+00	0.00E+00	1.21E-06	2.96E-06	0.00E+00	4.46E-06	5.13E-05
Port EG 1	Distillate	1.10E-06	0.00E+00	1.62E-06	2.09E-07	0.00E+00	0.00E+00	1.23E-05	3.01E-05	0.00E+00	4.53E-05	5.22E-04
Port EG 2	Distillate	1.10E-06	0.00E+00	1.62E-06	2.09E-07	0.00E+00	0.00E+00	1.23E-05	3.01E-05	0.00E+00	4.53E-05	5.22E-04
Port EG 3	Distillate	1.10E-06	0.00E+00	1.62E-06	2.09E-07	0.00E+00	0.00E+00	1.23E-05	3.01E-05	0.00E+00	4.53E-05	5.22E-04
Port EG 4	Distillate	1.10E-06	0.00E+00	1.62E-06	2.09E-07	0.00E+00	0.00E+00	1.23E-05	3.01E-05	0.00E+00	4.53E-05	5.22E-04
Port EG 5	Distillate	1.10E-06	0.00E+00	1.62E-06	2.09E-07	0.00E+00	0.00E+00	1.23E-05	3.01E-05	0.00E+00	4.53E-05	5.22E-04
Port EG 6	Distillate	1.10E-06	0.00E+00	1.62E-06	2.09E-07	0.00E+00	0.00E+00	1.23E-05	3.01E-05	0.00E+00	4.53E-05	5.22E-04
Port EG 7	Distillate	1.10E-06	0.00E+00	1.62E-06	2.09E-07	0.00E+00	0.00E+00	1.23E-05	3.01E-05	0.00E+00	4.53E-05	5.22E-04
Port EG 8	Distillate	1.10E-06	0.00E+00	1.62E-06	2.09E-07	0.00E+00	0.00E+00	1.23E-05	3.01E-05	0.00E+00	4.53E-05	5.22E-04
Fire Pump 1	Distillate	1.33E-06	0.00E+00	1.97E-06	2.54E-07	0.00E+00	0.00E+00	1.50E-05	3.66E-05	0.00E+00	5.51E-05	6.35E-04
Fire Pump 2	Distillate	1.33E-06	0.00E+00	1.97E-06	2.54E-07	0.00E+00	0.00E+00	1.50E-05	3.66E-05	0.00E+00	5.51E-05	6.35E-04
Fire Pump 3	Distillate	1.33E-06	0.00E+00	1.97E-06	2.54E-07	0.00E+00	0.00E+00	1.50E-05	3.66E-05	0.00E+00	5.51E-05	6.35E-04
D1000	Red Dye	0.00E+00	0.00E+00	3.01E-04	0.00E+00	0.00E+00	0.00E+00	0.00E+00	1.50E-03	0.00E+00	0.002	0.002
OWS #1	Water	1.59E-03	0.00E+00	9.64E-04	0.00E+00	0.00E+00	0.00E+00	6.00E-03	5.19E-03	2.91E-03	0.017	0.017
OWS #2	Water	8.13E-05	0.00E+00	4.76E-05	0.00E+00	0.00E+00	0.00E+00	3.03E-04	2.33E-04	2.25E-04	0.001	0.001
OWS #3	Water	1.62E-03	0.00E+00	9.84E-04	0.00E+00	0.00E+00	0.00E+00	6.12E-03	5.32E-03	2.93E-03	0.017	0.017
Batch Tank	Water	1.88E-05	0.00E+00	7.63E-06	0.00E+00	0.00E+00	0.00E+00	5.04E-05	1.36E-05	1.76E-04	2.66E-04	2.66E-04
Tanks Subtotal		6.47E-01	2.45E-02	3.37E-01	3.81E+00	1.53E+00	0.00E+00	3.78E+00	2.29E+00	6.79E-03	12.4	227
Sting Water Air Stripper		7.24E-05	3.22E-06	1.42E-05	4.82E-04	2.01E-04	0.00E+00	3.75E-04	1.50E-04	7.24E-08	0.001	0.027
Ground Water Air Stripper		9.29E-04	4.13E-05	1.82E-04	6.20E-03	2.58E-03	0.00E+00	4.82E-03	1.93E-03	9.29E-07	0.017	0.344
Fugitive Emissions		2.01E-02	8.93E-04	3.94E-03	1.34E-01	5.58E-02	0.00E+00	1.04E-01	4.17E-02	2.01E-05	0.360	7.44
Fuel Combustion		7.51E-03	0.00E+00	0.00E+00	0.00E+00	0.00E+00	0.00E+00	2.76E-03	1.90E-03	1.22E-03	0.016	3.31
Maintenance Activities		5.06E-03	2.25E-04	9.92E-04	3.37E-02	1.40E-02	0.00E+00	2.62E-02	1.05E-02	5.06E-06	0.091	1.87
Cleaning Emissions		1.44E-02	6.39E-04	2.82E-03	9.59E-02	4.00E-02	0.00E+00	7.46E-02	2.98E-02	1.44E-05	0.258	5.33
Pipeline Total		6.80E-01	2.57E-02	3.42E-01	3.99E+00	1.60E+00	0.00E+00	3.92E+00	2.35E+00	8.03E-03	12.9	240

Notes:

1. Fugitive emissions speciation assumed to be equal to Gasoline HAP speciation as Gasoline is a "Light Liquid".
2. Sting Water speciation assumed to be equal to Gasoline.
3. Total HAPs = (Total VOCs) x (HAP Speciation Vapor Weight Percent).
4. Total Fuel Combustion HAPs inclusive off all HAPs; Additional individual HAPs included on Fuel Combustion spreadsheet.

Facility Toxic Air Pollutant Screening (2023 PTE Basis)
Colonial Pipeline - Dorsey Junction Facility
Woodbine, Maryland

Pollutant	CAS Number	Emissions ⁽¹⁾			Screening Levels (ug/m ³) ⁽²⁾			Small Emitter Exempt? ⁽³⁾	26.11.16.02 Allowable ⁽⁴⁾			Below 26.11.16.02?	Ambient Concentrations (ug/m ³) ⁽⁵⁾			Below 26.11.16.02?
		lb/hr (1-hr)	lb/hr (Annual)	tpy	1 hour	8 hour	Annual		1 hour (lb/hr)	8 hour (lb/hr)	Annual (tpy)		1 hour ⁽⁶⁾	8 hour ⁽⁷⁾	Annual ⁽⁸⁾	
Benzene	71-43-2	0.350	0.154	0.673	79.9	16.0	0.130	No	0.286	0.057	0.024	No	4.20	2.94	0.061	Yes
Cumene	98-82-8	0.015	0.006	0.026	--	2,458	--	Yes	--	8.80	--		--	4.08	--	
Ethylbenzene	100-41-4	0.117	0.078	0.342	--	868	--	No	--	3.11	--	Yes	--	32.6	--	
Hexane	110-54-3	2.22	0.911	3.99	--	1,762	--	No	--	6.31	--	Yes	--	621	--	
Isooctane ⁽⁹⁾	540-84-1	0.913	0.366	1.60	--	14,025	--	No	--	50.2	--	Yes	--	255	--	
Toluene	108-88-3	1.92	0.894	3.92	--	754	--	No	--	2.70	--	Yes	--	535	--	
Xylenes	1330-20-7	0.944	0.535	2.35	6,513	4,342	--	No	23.3	15.5	--	Yes	264	264	--	
Naphthalene	91-20-3	0.002	0.002	0.007	786	524	--	Yes	2.82	1.88	--		0.489	0.489	--	

- (1) - See HAPs summary for breakdown of emissions of tpy emissions; breakdown of lb/hr emissions discussed below:
1-hr basis lb/hr emissions are based on TANKS, Landings, and Fugitives over 8,760 hrs/yr plus the worst single cleaning event over the designated amount of time for the event (e.g., Tank 1032 for 2.5 days);
Annual basis lb/hr emissions are based on total emissions (tpy value) from all sources across 8,760 hrs/yr; and
Fuel combustion equipment is exempt from the TAPs screening analysis per COMAR 26.11.15.03B(2)(a).
- (2) - Screening levels were taken from MDE's 2012 screening level database with exception of Isooctane, which was determined using available ACGIH TLV exposure limit.
- (3) - Small quantity emitter exemption must have: short term rate < 0.5 lbs/hr; annual rate < 350 lb/hr; short term screening level > 200 ug/m³; and annual screening level > 1 ug/m³.
- (4) - Allowable Emissions were calculated using the 1-hr and 8-hr screening levels multiplied by 0.00358 and Annual levels multiplied by 365.
- (5) - Ambient concentration calculations:
For compounds passing by the allowable rate, concentrations are determined by multiplying the screening value concentration by the ratio of the actual to allowable emission rate.
For compounds not passing by the allowable rate, modeling results are included as Appendix G.
- (6) - For compounds not passing by the allowable rate, 1-hr concentration for benzene determined using the SCREEN3.
- (7) - For compounds not passing by the allowable rate, 8-hr concentration of benzene calculated using SCREEN3 (based on 1-hr lb/hr). SCREEN3 results multiplied by 0.7 to convert to 8-hr.
- (8) - Benzene did not pass the allowable annual emission rate. As benzene emissions have changed by less than 1% since the previous Title V renewal application was submitted using AERMOD to calculate the annual ambient concentration, and the modeling results are significantly below the screening level, it is assumed that the AERMOD results from the previous application remain valid.
- (9) - Pollutant is not on TAPs list under 26.11.06.07 for existing sources; emissions are conservatively estimated using facility-wide emissions; however, only new sources (constructed after 7/1/88) are required to be included in this analysis under 26.11.15.06A(2).

Sample Calculation for Isooctane Screening Level:

ACGIH TLV-TWA	300
convert to mg/m3 by multiplying by	4.67
convert to ug/m3 by multiplying by	1000
ACGIH TLV-TWA	1402454
convert to screening level by multiplying by	0.01
Screening Level	14024.54

Appendix F
Premises Wide Permit to
Construct for Internal Floating
Roof Updates

Tank 1031



Maryland
Department of
the Environment

Larry Hogan, Governor
Boyd K. Rutherford, Lt. Governor
Ben Grumbles, Secretary
Horacio Tablada, Deputy Secretary

Mr. Robert Shenk, Environmental Specialist
Colonial Pipeline Company - Dorsey Junction
929 Hoods Mill Rd
Woodbine, MD 21797

Dear Mr. Shenk:

Enclosed please find your Permit to Construct for the installation of one (1) replacement internal floating roof on Tank 1031 at Colonial Pipeline – Dorsey Junction to be located at 929 Hoods Mill Rd Woodbine, MD 21797. The permit contains both general conditions, which apply to all air quality permit holders in Maryland, and specific conditions, which apply to the installation that you have installed.

The addition of one (1) replacement internal floating roof on Tank 1031 qualifies as an “On-Permit” change to the facility’s Title V - Part 70 Operating Permit. The Department recognizes the permit to construct application as written notification of the proposed change. Please include the one (1) replacement internal floating roof on Tank 1031 in the application for the next renewal of the Title V - Part 70 Operating Permit.

If you have any questions regarding this permit, please contact Matt Hafner of my staff at (410) 537-3293.

Sincerely,

Suna Yi Sariscak, Manager
Air Quality Permits Program
Air & Radiation Administration

SYS/jm

Enclosure

Larry Hogan
Governor

Ben Grumbles
Secretary

Air and Radiation Administration
1800 Washington Boulevard, Suite 720
Baltimore, MD 21230

☒ Construction Permit

☐ Operating Permit

PERMIT NO. 013-0056-9-0132

DATE ISSUED See email for issue date.

PERMIT FEE \$500.00 (PAID)

EXPIRATION DATE In accordance with
COMAR 26.11.02.04B

LEGAL OWNER & ADDRESS

Colonial Pipeline Company - Dorsey Junction
929 Hoods Mill Rd.
Woodbine, MD 21797
Attn: Mr. Robert Shenk
Environmental Specialist

SITE

Colonial Pipeline Company - Dorsey Junction
929 Hoods Mill Rd.
Woodbine, MD 21797
Premises # 013-0056
AI #76

SOURCE DESCRIPTION

Pipeline Breakout Facility. This permit authorizes the installation of a replacement internal floating roof (IFR) to replace the existing IFR for Tank 1031 (ARA Registration No. 013-0056-9-0132).

This permit is issued in conjunction with all valid permits to construct issued to ARA Registration No. 013-0056-9-0132.

This source is subject to the conditions described on the attached pages.

See email for approval.

Program Manager

See email for approval.

Director, Air and Radiation Administration

**COLONIAL PIPELINE – DORSEY JUNCTION
PERMIT-TO-CONSTRUCT CONDITIONS
PERMIT No. 013-0056-9-0132**

INDEX

Part A – General Provisions
Part B – Applicable Regulations
Part C – Construction Conditions
Part D – Operating Conditions
Part E – Testing and Monitoring
Part F – Notifications, Record Keeping, and Reporting

Part A – General Provisions

- (1) The following Air and Radiation Administration (ARA) permit-to-construct applications and supplemental information are incorporated into this permit by reference:
- (a) Application for Gas Cleaning or Emission Control Equipment (Form 6) for a replacement internal floating roof (IFR) on Tank 1031 received September 22, 2020.
 - (b) Supplemental Information: Site Map, IFR specifications, and Emissions Calculations received September 22, 2020.

If there are any conflicts between representations in this permit and representations in the applications, the representations in the permit shall govern. Estimates of dimensions, volumes, emissions rates, operating rates, feed rates and hours of operation included in the applications do not constitute enforceable numeric limits beyond the extent necessary for compliance with applicable requirements.

- (2) Upon presentation of credentials, representatives of the Maryland Department of the Environment (“MDE” or the “Department”) and the Carroll County Health Department shall at any reasonable time be granted, without delay and without prior notification, access to the Permittee’s property and permitted to:
- (a) inspect any construction authorized by this permit;
 - (b) sample, as necessary to determine compliance with requirements of this permit, any materials stored or processed on-site, any waste materials, and any discharge into the environment;
 - (c) inspect any monitoring equipment required by this permit;

**COLONIAL PIPELINE – DORSEY JUNCTION
PERMIT-TO-CONSTRUCT CONDITIONS
PERMIT No. 013-0056-9-0132**

- (d) review and copy any records, including all documents required to be maintained by this permit, relevant to a determination of compliance with requirements of this permit; and
 - (e) obtain any photographic documentation or evidence necessary to determine compliance with the requirements of this permit.
- (3) The Permittee shall notify the Department prior to increasing quantities and/or changing the types of any materials referenced in the application or limited by this permit. If the Department determines that such increases or changes constitute a modification, the Permittee shall obtain a permit-to-construct prior to implementing the modification.
- (4) Nothing in this permit authorizes the violation of any rule or regulation or the creation of a nuisance or air pollution.
- (5) If any provision of this permit is declared by proper authority to be invalid, the remaining provisions of the permit shall remain in effect.
- (6) This permit is issued in conjunction with all other valid permits to construct issued to ARA Registration No. 013-0056-9-0132.
- (7) Subsequent to issuance of this permit, the Department may impose additional and modified requirements that are incorporated into a Title V – Part 70 Operating Permit issued pursuant to COMAR 26.11.03.

Part B – Applicable Regulations

- (1) This source is subject to all applicable federal air pollution control requirements including, but not limited to, the following:

All applicable terms, provisions, emissions standards, testing, monitoring, record keeping, and reporting requirements included in the National Emissions Standards for Hazardous Air Pollutants (NESHAP) promulgated under 40 CFR 63, Subparts A and BBBB for Gasoline Distribution Bulk Terminals, Bulk Plants and Pipeline Facilities.

All notifications required under 40 CFR 63, Subparts A and BBBB shall be submitted to both of the following:

**COLONIAL PIPELINE – DORSEY JUNCTION
PERMIT-TO-CONSTRUCT CONDITIONS
PERMIT No. 013-0056-9-0132**

The Administrator
Compliance Program
Maryland Department of the Environment
Air and Radiation Administration
1800 Washington Boulevard, STE 715
Baltimore MD 21230

and

Director, Air Protection Division
U.S. EPA – Region 3
Mail Code 3AP00
1650 Arch Street
Philadelphia, PA 19103-2029

- (2) This source is subject to all applicable federally enforceable State air pollution control requirements including, but not limited to, the following regulations:
- (a) COMAR 26.11.01.05 – 1, which requires that the Permittee submit an annual certification of emissions for volatile organic compounds (VOC) and nitrogen oxides (NO_x).
 - (b) COMAR 26.11.01.07C, which requires that the Permittee report to the Department occurrences of excess emissions.
 - (c) COMAR 26.11.02.04B, which states that a permit to construct or an approval expires if, as determined by the Department:
 - (i) Substantial construction or modification is not commenced within 18 months after the date of issuance of the permit or approval, unless the Department specifies a longer period in the permit or approval;
 - (ii) Construction or modification is substantially discontinued for a period of 18 months after the construction or modification has commenced; or
 - (iii) The source for which the permit or approval was issued is not completed within a reasonable period after the date of issuance of the permit or approval.

**COLONIAL PIPELINE – DORSEY JUNCTION
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- (d) COMAR 26.11.02.09A, which requires that the Permittee obtain a permit-to-construct if an installation is to be modified in a manner that would cause changes in the quantity, nature, or characteristics of emissions from the installation as referenced in this permit.
 - (e) COMAR 26.11.02.19C & D, which require that the Permittee submit to the Department annual certifications of emissions, and that the Permittee maintain sufficient records to support the emissions information presented in such submittals.
 - (f) COMAR 26.11.13.03A, which requires the Permittee to control emissions of VOC from storage vessels with a capacity of 40,000 gallons or greater storing gasoline or VOC with a true vapor pressure between 1.5 psia and 11 psia, inclusive.
- (3) This source is subject to all applicable State-only enforceable air pollution control requirements including, but not limited to, the following 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 would unreasonably endanger human health.

Part C – Construction Conditions

- (1) Except as otherwise provided in this part, the replacement IFR on an existing bulk storage tank (Tank 1031) shall be constructed in accordance with specifications included in the incorporated applications.
- (2) The Permittee shall modify Tank 1031 such that the tank is equipped with an IFR equipped with a mechanical shoe primary seal and a mechanical shoe secondary seal.

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Part D – Operating Conditions

- (1) Except as otherwise provided in this part, Tank 1031 shall be operated in accordance with specifications included in the application and any operating procedures recommended by equipment vendors unless the Permittee obtains from the Department written authorization for alternative operating procedures.
- (2) The gauging and sampling devices in the tank shall be gas tight except when in use. **[Reference: COMAR 26.11.13.03A(1)(a)]**
- (3) The primary and secondary seal for the internal floating roof must be properly installed, operated, and well-maintained.
- (4) The Permittee must meet the following seal requirements:
 - (a) There shall be no visible holes, tears, or other openings in a seal or seal fabric. **[Reference: COMAR 26.11.13.03A(2)(a)]**
 - (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. **[Reference: COMAR 26.11.13.03A(2)(b)]**
 - (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. **[Reference: COMAR 26.11.13.03A(2)(c)]**
- (5) The Permittee shall equip the storage vessel with a fixed roof in combination with an internal floating roof meeting the specifications listed in 40 CFR §60.112b(a)(1)(i), §60.112b(a)(1)(ii)(A), §60.112b(a)(1)(ii)(C), and §60.112b(a)(1)(iii). This also satisfies the requirements of COMAR 26.11.13.03A(1)(b). **[Reference: 40 CFR §60.112b(a)(1), §63.11087(a), and Table 1 to 40 CFR, Part 63, Subpart BBBBBB, requirement 2(b)]**
- (6) The internal floating roof shall be floating on the liquid surface (but not necessarily in complete contact with it) inside the storage vessel 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. **[Reference: 40 CFR §60.112b(a)(1)(i), §63.11087(a), and Table 1 to 40 CFR, Part 63, Subpart BBBBBB, requirement 2(b)]**
[Note: These requirements also satisfy the requirements of COMAR 26.11.13.03A(1)(b) and COMAR 26.11.13.03A(2).]

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Part E – Testing and Monitoring

- (1) During all internal tank inspections, the Permittee shall determine the total seal gap by summing the areas of the individual gaps. The lengths and widths of the gaps shall be 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). **[Reference: COMAR 26.11.13.03A(4)]**
- (2) The Permittee shall perform an annual visual inspection the tank's gauging and sampling devices. If a failure of a gauging or sampling device is detected during a required visual inspection, the Permittee shall repair the device 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 will assure that the device will be repaired or the tank will be emptied as soon as possible. **[Reference: COMAR 26.11.02.02H]**
- (3) The Permittee shall visually inspect the internal floating roof, the primary seal, and the secondary seal, 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. **[Reference: 40 CFR §60.113b(a)(1), §63.11087(c), and §63.11092(e)(1)]**
- (4) The Permittee shall visually inspect the internal floating roof and the primary seal or the secondary seal through manholes and roof hatches on the fixed roof at least once every twelve (12) months after initial fill. If the internal floating roof is not resting on the surface of the volatile organic liquid inside the storage vessel, 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 storage vessel from service within 45 days, and perform an internal inspection of the floating roof and seals. If a failure that is detected during inspections cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Department in the inspection report required by 40 CFR §60.115b(a)(3).

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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 vessel will be emptied as soon as possible. **[Reference: COMAR 26.11.13.03A(3)(a), COMAR 26.11.13.03A(3)(b), 40 CFR §60.113b(a)(2), §60.113b(a)(3)(ii), §63.11087(c), and §63.11092(e)(1)]** Note: the annual inspection requirements of 40 CFR, Part 60, Subpart Kb §60.113b(a)(2) and (a)(3)(ii) satisfy the annual inspection requirements of COMAR 26.11.13.03A(3)(a) and (b).

- (5) The Permittee shall visually inspect the internal floating roof, the primary seal, the secondary seal, 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 specified in this paragraph exist before refilling the storage vessel with volatile organic liquid. The storage vessel shall be emptied, degassed, and inspected in accordance with the specifications of this paragraph at a frequency of no less than once every ten (10) years. **[Reference: COMAR 26.11.13.03A(3)(c), 40 CFR §60.113b(a)(3)(i), §60.113b(a)(4), §63.11087(c), and §63.11092(e)(1)]** Note: the internal inspection requirements of 40 CFR, Part 60, Subpart Kb §60.113b(a)(3)(i) and (a)(4) satisfy the internal inspection requirements of COMAR 26.11.13.03A(3)(c).
- (6) For gasoline breakout tanks for which an Alternate Monitoring Plan is approved under 40 CFR Part 63 Subpart A or 40 CFR Part 60 Subpart A, and in the absence of an independent need to conduct an out of service internal inspection within the interval specified in paragraph (b) of this section, the Permittee may comply with the requirements of paragraph (b) of this section by conducting an in-service internal inspection of each tank's IFR and its seals in accordance with the following requirements:
- (a) While performing an in-service internal inspection, the Permittee shall also measure seal gaps and document the location and dimensions of any seal gaps in both the primary and secondary seals that are greater than 1/8 inch in width (gap between the seal and the tank wall); and document the location and dimension of any holes, tears, or other openings in the seal fabric of either the primary or secondary seals.

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Any of the following conditions constitute inspection failure under a top-side in-service internal inspection: stored liquid on the floating roof; holes or tears in the primary or secondary seal; equipment not operating or functioning as designed to comply with COMAR 26.11.13.03, 40 CFR 60, Subpart Kb and 40 CFR 63, Subpart BBBB as applicable; and gaps of more than 1/8 inch between any deck fitting gasket, seal, or wiper and any surface that it is intended to seal. If a failure is detected during an inspection, 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 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 will assure that the control equipment will be repaired or the tank will be emptied as soon as possible.

- (b) Notwithstanding paragraph (a) above, whenever a tank is emptied and degassed for maintenance purposes or integrity assessments, the Permittee shall conduct a full top-side and bottom-side internal inspection of the tank's IFR and its seals in accordance with 40 CFR 60.112b(a)(4) and 40 CFR 63.11092(e)(1) and paragraph (b) of this section.

[Authority: U.S. EPA approved alternative monitoring plan as allowed under 40 CFR §60.13 and §63.8. The alternative monitoring plan satisfies the internal inspection requirements specified under COMAR 26.11.13.03A(3)(c), 40 CFR §60.113b(a)(4), §63.11087(c) and §63.11092(e)(1)]

Part F – Notifications, Record Keeping, and Reporting

- (1) The Permittee shall notify the Department in writing at least 15 days prior to an internal inspection of each tank (top-side in-service and full out of service) and at least 30 days prior to the filling or refilling of each gasoline storage tank and at least 15 days prior to an internal inspection of each transmix storage tank to afford the Department an opportunity to have an observer present.

If the inspection is not planned and the Permittee could not have known about the inspection 30 days in advance of refilling the gasoline storage tank, the Permittee shall notify the Department at least 7 days prior to refilling the tank. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned.

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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 7 days prior to the refilling. **[Authority: COMAR 26.11.03.06C, COMAR 26.11.13.03A(3)(d), §63.11087(c), and §63.11092(e)]**

- (2) The Permittee shall maintain for at least five (5) years, and shall make available to the Department upon request, records of the following information:
- (a) The Permittee shall record the results of all visual inspections of the tank's gauging and sampling devices. The Permittee shall also record all repairs or replacements including the date and the action taken.
 - (b) 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 the 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). This information shall also be included in the semiannual compliance report required by 40 CFR §63.11095(a). **[Reference: COMAR 26.11.13.03C(1), 40 CFR §60.115b(a)(2), §63.11087(e), §63.11094(a), and §63.11095(a)(1)]**
 - (c) All repairs or replacement of the seals, including the date and the action taken for the storage tank. **[Reference: COMAR 26.11.13.03C(2)]**
 - (d) The average monthly storage temperature and throughput for the storage tank. **[Reference: COMAR 26.11.13.03C(3)]**
 - (e) The Permittee shall submit to the Department semiannual compliance reports that include the following information:
 - (i) Records of each inspection performed for the storage tank as required by 40 CFR §60.113b(a)(1), (a)(2), (a)(3), (a)(4), and COMAR 26.11.13.03A(3). **[Reference: 40 CFR §60.115b(a)(2), §63.11087(e), and §63.11095(a)(1)]**
 - (ii) Reports of the storage tank having defects described in 40 CFR §60.113b(a)(2) that are detected during the annual visual inspection required by 40 CFR §60.113b(a)(2). **[Reference: 40 CFR §60.115b(a)(3), §63.11087(e), and §63.11095(a)(1)]**

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- (f) Reports that find the storage tank not meeting the specifications of 40 CFR §60.112b(a)(1) or §60.113b(a)(3) during inspections required by 40 CFR §60.113b(a)(3). **[Reference: 40 CFR §60.115b(a)(4), §63.11087(e), and §63.11095(a)(1)]**
- (3) The Permittee shall maintain at the facility for at least five (5) years, and shall make available to the Department upon request, records necessary to support annual certifications of emissions and demonstrations of compliance for toxic air pollutants. Such records shall include, if applicable, the following:
 - (a) mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each registered source of emissions;
 - (b) accounts of the methods and assumptions used to quantify emissions;
 - (c) all operating data, including operating schedules and production data, that were used in determinations of emissions;
 - (d) amounts, types, and analyses of all fuels used;
 - (e) any records, the maintenance of which is required by this permit or by State or federal regulations, that pertain to the operation and maintenance of continuous emissions monitors, including:
 - (i) all emissions data generated by such monitors;
 - (ii) all monitor calibration data;
 - (iii) information regarding the percentage of time each monitor was available for service; and
 - (iv) information concerning any equipment malfunctions.
 - (f) information concerning operation, maintenance, and performance of air pollution control equipment and compliance monitoring equipment, including:
 - (i) identifications and descriptions of all such equipment;
 - (ii) operating schedules for each item of such equipment;
 - (iii) accounts of any significant maintenance performed;

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- (iv) accounts of all malfunctions and outages; and
 - (v) accounts of any episodes of reduced efficiency.
 - (g) limitations on source operation or any work practice standards that significantly affect emissions; and
 - (h) other relevant information as required by the Department.
- (4) The Permittee shall submit to the Department by April 1 of each year a certification of emissions for the previous calendar year. The certifications shall be prepared in accordance with requirements, as applicable, adopted under COMAR 26.11.01.05 – 1 and COMAR 26.11.02.19D.
- (a) Certifications of emissions shall be submitted on forms obtained from the Department.
 - (b) A certification of emissions shall include mass emissions rates for each regulated pollutant, and the total mass emissions rate for all regulated pollutants for each of the facility's registered sources of emissions.
 - (c) The person responsible for a certification of emissions shall certify the submittal to the Department in the following manner:

“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.”
- (5) The Permittee shall submit to the Department by April 1 of each year 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. Such analysis shall include either:

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- (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.
- (6) The Permittee shall report, in accordance with requirements under COMAR 26.11.01.07, occurrences of excess emissions to the Compliance Program of the Air and Radiation Administration.

Appendix G
Toxic Air Pollutant Compliance
Demonstration Files

SCREEN3

06/12/23
13:39:48

*** SCREEN3 MODEL RUN ***
*** VERSION DATED 13043 ***

Benzene

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = AREA
EMISSION RATE (G/(S-M**2)) = 0.297000E-06
SOURCE HEIGHT (M) = 15.5000
LENGTH OF LARGER SIDE (M) = 487.7000
LENGTH OF SMALLER SIDE (M) = 304.8000
RECEPTOR HEIGHT (M) = 0.0000
URBAN/RURAL OPTION = RURAL

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

MODEL ESTIMATES DIRECTION TO MAX CONCENTRATION

BUOY. FLUX = 0.000 M**4/S**3; MOM. FLUX = 0.000 M**4/S**2.

*** FULL METEOROLOGY ***

*** SCREEN AUTOMATED DISTANCES ***

*** TERRAIN HEIGHT OF 0. M ABOVE STACK BASE USED FOR FOLLOWING DISTANCES ***

DIST (M)	CONC (UG/M**3)	STAB	U10M (M/S)	USTK (M/S)	MIX HT (M)	PLUME HT (M)	MAX DIR (DEG)
1.	1.547	2	1.0	1.0	320.0	15.50	23.
100.	2.149	2	1.0	1.0	320.0	15.50	19.
200.	2.729	3	1.0	1.0	320.0	15.50	6.
300.	3.334	3	1.0	1.0	320.0	15.50	30.
400.	3.852	4	1.0	1.1	320.0	15.50	28.
500.	4.194	4	1.0	1.1	320.0	15.50	28.
600.	4.070	4	1.0	1.1	320.0	15.50	27.
700.	4.020	5	1.0	1.2	10000.0	15.50	27.
800.	3.947	5	1.0	1.2	10000.0	15.50	26.
900.	3.812	5	1.0	1.2	10000.0	15.50	25.
1000.	3.716	6	1.0	1.3	10000.0	15.50	27.
1100.	3.745	6	1.0	1.3	10000.0	15.50	26.
1200.	3.735	6	1.0	1.3	10000.0	15.50	26.
1300.	3.700	6	1.0	1.3	10000.0	15.50	25.
1400.	3.648	6	1.0	1.3	10000.0	15.50	24.
1500.	3.585	6	1.0	1.3	10000.0	15.50	22.

1600.	3.517	6	1.0	1.3	10000.0	15.50	22.
1700.	3.443	6	1.0	1.3	10000.0	15.50	21.
1800.	3.368	6	1.0	1.3	10000.0	15.50	19.
1900.	3.293	6	1.0	1.3	10000.0	15.50	18.
2000.	3.218	6	1.0	1.3	10000.0	15.50	14.
2100.	3.148	6	1.0	1.3	10000.0	15.50	14.
2200.	3.072	6	1.0	1.3	10000.0	15.50	0.
2300.	3.011	6	1.0	1.3	10000.0	15.50	0.
2400.	2.949	6	1.0	1.3	10000.0	15.50	0.
2500.	2.886	6	1.0	1.3	10000.0	15.50	0.
2600.	2.823	6	1.0	1.3	10000.0	15.50	0.
2700.	2.761	6	1.0	1.3	10000.0	15.50	0.
2800.	2.699	6	1.0	1.3	10000.0	15.50	0.
2900.	2.638	6	1.0	1.3	10000.0	15.50	0.
3000.	2.579	6	1.0	1.3	10000.0	15.50	1.
3500.	2.311	6	1.0	1.3	10000.0	15.50	0.
4000.	2.074	6	1.0	1.3	10000.0	15.50	1.
4500.	1.867	6	1.0	1.3	10000.0	15.50	0.
5000.	1.688	6	1.0	1.3	10000.0	15.50	0.
5500.	1.533	6	1.0	1.3	10000.0	15.50	0.
6000.	1.399	6	1.0	1.3	10000.0	15.50	0.
6500.	1.282	6	1.0	1.3	10000.0	15.50	0.
7000.	1.181	6	1.0	1.3	10000.0	15.50	0.
7500.	1.095	6	1.0	1.3	10000.0	15.50	0.
8000.	1.019	6	1.0	1.3	10000.0	15.50	0.
8500.	0.9514	6	1.0	1.3	10000.0	15.50	0.
9000.	0.8917	6	1.0	1.3	10000.0	15.50	0.
9500.	0.8380	6	1.0	1.3	10000.0	15.50	0.
10000.	0.7888	6	1.0	1.3	10000.0	15.50	0.
15000.	0.4856	6	1.0	1.3	10000.0	15.50	0.
20000.	0.3483	6	1.0	1.3	10000.0	15.50	0.
25000.	0.2683	6	1.0	1.3	10000.0	15.50	0.
30000.	0.2169	6	1.0	1.3	10000.0	15.50	0.
40000.	0.1568	6	1.0	1.3	10000.0	15.50	0.
50000.	0.1219	6	1.0	1.3	10000.0	15.50	0.

MAXIMUM 1-HR CONCENTRATION AT OR BEYOND 1. M:
 510. 4.196 4 1.0 1.1 320.0 15.50 28.

 *** SUMMARY OF SCREEN MODEL RESULTS ***

CALCULATION PROCEDURE	MAX CONC (UG/M*3)	DIST TO MAX (M)	TERRAIN HT (M)
SIMPLE TERRAIN	4.196	510.	0.

** REMEMBER TO INCLUDE BACKGROUND CONCENTRATIONS **
