



COMMONWEALTH of VIRGINIA

DEPARTMENT OF ENVIRONMENTAL QUALITY

PIEDMONT REGIONAL OFFICE

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STATEMENT OF LEGAL AND FACTUAL BASIS

Colonial Pipeline Company – Mitchell Junction

Cumberland County, Virginia

Permit No. PRO30415

Title V of the 1990 Clean Air Act Amendments required each state to develop a permit program to ensure that certain facilities have federal Air Pollution Operating Permits, called Title V Operating Permits. As required by 40 CFR Part 70 and 9 VAC 5 Chapter 80, Colonial Pipeline Company has applied for a Title V Operating Permit renewal for its Cumberland County facility. The Department has reviewed the application and has prepared a draft Title V Operating Permit.

Engineer/Permit Contact: *Cheyl Mayo*
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Date: 10/10/2017

Air Permit Manager: *James E. Kyle*
James E. Kyle, P.E.

Date: 10/10/2017

Deputy Regional Director: *Kyle Ivar Winter*
Kyle Ivar Winter, P.E.

Date: 10/10/17

FACILITY INFORMATION

Permittee

Colonial Pipeline Company
425 Duncan Store Road, Columbia, Virginia 23038

Facility

Colonial Pipeline Company – Mitchell Junction
425 Duncan Store Road, Columbia, Virginia 23038

County-Plant Identification Number: 51-049-00001

FACILITY DESCRIPTION

NAICS Code: 486910 – Pipeline Transportation of Refined Petroleum Products

Colonial Pipeline Company, Mitchell Junction is a pipeline breakout station. Petroleum products including gasoline and distillate fuels are stored at the facility. Products enter and exit the facility via pipelines (there is no product loading rack).

The facility is a Title V major source of VOC emissions. The source is located in a PSD area (9 VAC 5-20-205) for all pollutants, and is a PSD major source. The NSR permit to construct and operate a 1,825 kW diesel-electric generator issued on April 30, 1997 was rescinded on December 12, 2005 via a permanent shutdown agreement. That generator is no longer in operation at the facility. A fire pump engine was modified (change in the method of operation) in 2009, allowing for the use of the engine during non-emergency circumstances (e.g., tank integrity tests). A NSR permit was issued for this modification on August 25, 2009.

The facility is subject to 40CFR63 Subpart ZZZZ (engines) and Subpart BBBBBB (gasoline distribution).

There have been no permit or equipment changes at the facility since the previous Title V permit was issued on June 14, 2012.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, has been conducted. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, are evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNITS AND CONTROL DEVICE IDENTIFICATION

Equipment to be operated at this facility consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description *	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment							
EG-1	EG-1	Kohler 100 kW Emergency Generator (manufactured 1990)	134 bhp	-	-	-	-
EG-2	EG-2	Kohler 80 kW Emergency Generator (manufactured 8/2006)	134 bhp	-	-	-	-
FWP-1	FWP-1	Caterpillar Model 3208 (manufactured 8/18/1993)	251 bhp	-	-	-	August 25, 2009
FFP-1	FFP-1	Fire Foam Pump (manufactured 1991)	37 bhp	-	-	-	-
Storage Tanks (capacity in gallons)							
900	S900	Red dye storage tank (horizontal)	3,000		-		-
910	S910	Storage tank for gasoline or equivalent material , GATX (1963)	2,814,000	Internal Floating Roof	-	VOC/HAP	-
911	S911	Storage tank for gasoline or equivalent material , GATX (1963)	5,544,000	Internal Floating Roof	-	VOC/HAP	-
912	S912	Storage tank for gasoline or equivalent material , GATX (1963)	1,386,000	Internal Floating Roof	-	VOC/HAP	-
913	S913	Storage tank for gasoline or equivalent material , GATX (1963)	2,268,000	Internal Floating Roof	-	VOC/HAP	-
914	S914	Storage tank for gasoline or equivalent material , GATX (1963)	5,544,000	Internal Floating Roof	-	VOC/HAP	-

915	S915	Storage tank for gasoline or equivalent material , GATX (1963)	3,360,000	Internal Floating Roof	-	VOC/HAP	-
916	S916	Storage tank for gasoline or equivalent material , GATX (1963)	1,806,000	Internal Floating Roof	-	VOC/HAP	-
917	S917	Storage tank for gasoline or equivalent material , GATX (1963)	1,386,000	Internal Floating Roof	-	VOC/HAP	-
918	S918	Storage tank for gasoline or equivalent material , GATX (1963)	2,268,000	Internal Floating Roof	-	VOC/HAP	-
919	S919	Storage tank for gasoline or equivalent material , GATX (1970)	5,040,000	Internal Floating Roof	-	VOC/HAP	-
930	S930	Storage tank for gasoline or equivalent material , GATX (1963)	1,008,000	Internal Floating Roof	-	VOC/HAP	-
931	S931	Storage tank for gasoline or equivalent material , GATX (1963)	2,268,000	Internal Floating Roof	-	VOC/HAP	-
932	S932	Storage tank for gasoline or equivalent material , GATX (1963)	2,268,000	Internal Floating Roof	-	VOC/HAP	-
933	S933	Storage tank for gasoline or equivalent material , GATX (1963)	5,544,000	Internal Floating Roof	-	VOC/HAP	-
934	S934	Storage tank for gasoline or equivalent material , GATX (1963)	5,544,000	Internal Floating Roof	-	VOC/HAP	-
935	S935	Storage tank for gasoline or equivalent material , GATX (1963)	3,360,000	Internal Floating Roof	-	VOC/HAP	-
936	S936	Storage tank for gasoline or equivalent material , GATX (1963)	1,386,000	Internal Floating Roof	-	VOC/HAP	-
937	S937	Storage tank for gasoline or equivalent material , GATX (1963)	3,360,000	Internal Floating Roof	-	VOC/HAP	-
938	S938	Storage tank for gasoline or equivalent material , GATX (1963)	6,300,000	Internal Floating Roof	-	VOC/HAP	-
939	S939	Storage tank for gasoline or equivalent material , GATX (1963)	3,360,000	Internal Floating Roof	-	VOC/HAP	-

950	S950	Storage tank for distillate oil or equivalent material , GATX (constructed: 1963, converted to VFR: 2009)	2,814,000	Internal Floating Roof	-	VOC/HAP	-
951	S951	Storage tank for distillate oil or equivalent material , GATX (construction date: 1963, converted to VFR: 2009)	2,268,000	Vertical Fixed Roof	-	VOC/HAP	-
952	S952	Storage tank for distillate oil or equivalent material , Dorcon (1963)	4,032,000	Vertical Fixed Roof	-	VOC/HAP	-
953	S953	Storage tank for distillate oil or equivalent material , Dorcon (1963)	5,040,000	Vertical Fixed Roof	-	VOC/HAP	-
960	S960	Storage tank for distillate oil or equivalent material , Dorcon (1963)	2,814,000	Vertical Fixed Roof	-	VOC/HAP	-
961	S961	Storage tank for distillate oil or equivalent material , Dorcon (1963)	3,360,000	Vertical Fixed Roof	-	VOC/HAP	-
962	S952	Storage tank for distillate oil or equivalent material , PDM (1963)	4,032,000	Vertical Fixed Roof	-	VOC/HAP	-
970	S970	Storage tank for distillate oil or equivalent material , Dorcon (1963)	4,032,000	Vertical Fixed Roof	-	VOC/HAP	-
971	S971	Storage tank for distillate oil or equivalent material , Dorcon (1963)	1,008,000	Vertical Fixed Roof	-	VOC/HAP	-
972	S972	Storage tank for distillate oil or equivalent material , Dorcon (1963)	1,806,000	Vertical Fixed Roof	-	VOC/HAP	-
973	S973	Storage tank for distillate oil or equivalent material , Dorcon (1963)	2,268,000	Vertical Fixed Roof	-	VOC/HAP	-
974	S974	Storage tank for distillate oil or equivalent material , Dorcon (1963)	2,814,000	Vertical Fixed Roof	-	VOC/HAP	-
975	S975	Storage tank for distillate oil or equivalent material , Dorcon (1963)	3,360,000	Vertical Fixed Roof	-	VOC/HAP	-

976	S976	Storage tank for distillate oil or equivalent material , Dorcon (1963)	3,360,000	Vertical Fixed Roof	-	VOC/HAP	-
977	S977	Storage tank for distillate oil or equivalent material , Dorcon (1963)	2,814,000	Vertical Fixed Roof	-	VOC/HAP	-
978	S978	Storage tank for distillate oil or equivalent material , Dorcon (1963)	2,814,000	Vertical Fixed Roof	-	VOC/HAP	-
Miscellaneous Equipment							
EGS-1	-	Equipment in gasoline service including valves, pumps, seals at the facility	-	-	-	-	-

*The Size/Rated capacity is provided for informational purposes only, and is not an applicable requirement.

EMISSIONS INVENTORY

A copy of the 2016 annual emission update is attached. Emissions are summarized in the following tables.

2016 Actual Emissions

2016 Criteria Pollutant Emissions in Tons/Year					
VOC	CO	SO ₂	PM ₁₀	PM _{2.5}	NO _x
80.9	0.0	0.0	0.0	0.0	0.1

2016 Facility Hazardous Air Pollutant Emissions

Pollutant	2016 Hazardous Air Pollutant Emission in Tons/Yr
2,2,4-Trimethylpentane (Isooctane)	0.50
Benzene	0.23
Cumene	0.01
Ethylbenzene	0.15
Methyl tert-Butyl Ether (MTBE)	0.00
n-Hexane	1.27
Toluene	1.44
Xylenes	1.11

FUEL BURNING EQUIPMENT REQUIREMENTS – Fire Pump Engine (emission unit ID #FWP-1)

Limitations

The requirements from the engine's minor new source review permit (dated 8/25/2009) are included in this section. The facility requested a 1,000 hours of operation limitation during that review. A condition referencing the MACT Subpart ZZZZ requirements is included (Title V Condition 4).

Condition 2 of the 8/25/09 NSR Permit (Title V Condition 1) limits the operation of the fire pump engine to 1,000 hours per year. *This was based on a request from the source—normally emergency/fire pump engines are limited to 500 hours per year. The change from 500 to 1,000 hours of annual operation increased NO_x emissions, and the change was subject to BACT requirements.*

Condition 3 of the 8/25/09 NSR Permit (Title V Condition 2) specifies that the approved fuel for the fire pump engine is diesel. *This Condition makes the following Condition enforceable. If the fire pump burns diesel fuel for 1,000 hours or less, it should stay below the allowable emission rate.*

Condition 4 of the 8/25/09 NSR Permit (Title V Condition 3) limits NO_x emissions from the operation of the fire pump engine. *This is a BACT requirement.*

Monitoring and Recordkeeping

Monitoring consists of records of hours of operation and NOx emissions calculations are required. The engine emission limit (lb/hp-hr) is taken directly from AP-42. Considering the use of AP-42 and the MACT maintenance and operation requirements, the monitoring is sufficient to assure compliance with the limits.

Compliance Assurance Monitoring does not apply to the engine because the engine does not have an uncontrolled PTE greater than 100 tons/yr.

Streamlined Requirements

The O&M requirement in Condition 9 of the 8/25/2009 permit is stream-lined by the MACT O&M requirements.

FUEL BURNING EQUIPMENT REQUIREMENTS – Emergency Engine (emission unit ID #EG-2)

Limitations

The emergency engine requirements from NSPS IIII (diesel fuel, emergency operation, non-resettable hour meter installation, and engine certification) are included in this section.

Monitoring and Recordkeeping

The installation of a non-resettable hour meter prior to the startup of the engine and records that the purchased engine was certified to meet the emission standards contained in Table 1 to Subpart IIII of Part 60.

Streamlined Requirements

None

PROCESS EQUIPMENT REQUIREMENTS – Storage Tanks (emission unit ID #900, 910-919, 930-939, 950-953, 960-962, 970-978)

Limitations

The permittee's Title V renewal application voluntarily requests to limit annual product throughput. The requested limits are included in the permit (Title V Conditions 13-16). Title V Condition 17 also references additional requirements contained in the MACT Subpart BBBBBB section for tanks in gasoline service.

Monitoring and Recordkeeping

The monitoring requirements consist of keeping records of throughput to demonstrate compliance with each limitation. Records to calculate emissions are also required even though the permit contains no emission limits. The current recordkeeping requirements are federally enforceable and sufficient to assure compliance with the permitted throughput limits.

Compliance Assurance Monitoring does not apply to any of the tanks because no tank has an uncontrolled PTE greater than 100 tons/yr.

Streamlined Requirements

9 VAC 5 Chapter 40, Article 4-37: Emission Standards for Petroleum Liquid Storage and Transfer Operations would be applicable to the gasoline storage tanks, with vapor pressure greater than 1.5 psia. However, 40 CFR 63, Subpart BBBBBB is also applicable and its requirements are more stringent than the existing source rule.

Facility-Wide Requirements

Limitations

The engine fuel is defined as diesel and supplier certifications are required. No sulfur content included (except in the case of EG-2, which is subject to the standards of NSPS Subpart IIII) because there is no underlying regulatory basis for such a requirement. The diesel engines are all post-1976 units and are subject to the visible emissions standard in 9 VAC 5-50-80 included in the permit.

Monitoring and Recordkeeping

Fuel certifications for the engines are required. An annual visible emissions evaluation is required for each engine because a properly operated and maintained diesel engine is not expected to exceed the 20% opacity limitation. Based on the low hours of operation (1,000 hours for FWP-1 and 500 hours for emergency) and the MACT maintenance and operation requirements, the monitoring is sufficient to assure compliance with the limits.

The facility does not have any emission units that are subject to Compliance Assurance Monitoring because there are no control devices.

Streamlined Requirements

None.

40 CFR 63, SUBPART ZZZZ (FWP-1, EG-1, EG-2, FFP-1)

The requirements for emergency and non-emergency engines are included. The 80 kW emergency engine (emission unit ID #EG-2) complies with the MACT via compliance with NSPS IIII. Maintenance and

operation, including emergency operation and non-resettable hour meter installation, requirements are contained in this section. The monitoring required by the rule is sufficient to assure compliance with the limits.

40 CFR 63, SUBPART BBBBBB (910-919, 930-939, EGS-1)

The rule requires inspections for both gasoline storage tanks and equipment in gasoline service. The rule requires log books and reports regarding the inspections and the results. Transmix tanks/sumps (Ref ID: 03 Sump and 04 Sump) and oil/water separator (Ref ID: OWS-1) at the facility are not considered gasoline storage tanks. The monitoring required by the rule is sufficient to assure compliance with the limits.

INSIGNIFICANT EMISSIONS UNITS

The insignificant emission units are presumed to be in compliance with all requirements of the Clean Air Act as may apply. Based on this presumption, no monitoring, recordkeeping or reporting shall be required for these emission units in accordance with 9 VAC 5-80-110.

Insignificant emission units include the following:

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720B)	Rated Capacity (9 VAC 5-80-720C)
OWS-1	Oil/Water Separator	9 VAC 5-80-720 B.2	VOC	-
03 Sump	Transmix Sump	9 VAC 5-80-720 B.2	VOC	-
04 Sump	Transmix Sump	9 VAC 5-80-720 B.2	VOC	-
Tk-990	Stingwater Tank	9 VAC 5-80-720 B.2	VOC	-
DRA Tank	Drag Reducing Agent storage tank	9 VAC 5-80-720 B.2	VOC	-
-	Tank Cleaning	9 VAC 5-80-720 B.2	VOC	-

- ¹The citation criteria for insignificant activities are as follows:
 9 VAC 5-80-720 A - Listed Insignificant Activity, Not Included in Permit Application
 9 VAC 5-80-720 B - Insignificant due to emission levels
 9 VAC 5-80-720 C - Insignificant due to size or production rate

COMPLIANCE PLAN

None

INAPPLICABLE REQUIREMENTS

The following inapplicable requirements were not included in the Form 805 for the Title V renewal. However, they were included in the previous Title V permit.

Citation	Title of Citation	Description of Applicability
40 CFR 60 (NSPS) Subpart K	Standards of Performance for Storage Vessels for Petroleum Liquids	Each storage vessel was constructed before June 11, 1973.
40 CFR 60 (NSPS) Subpart Ka	Standards of Performance for Storage Vessels for Petroleum Liquids	Each storage vessel was constructed before May 18, 1978.
40 CFR 60 (NSPS) Subpart Kb	Standards of Performance for Volatile Organic Liquid Storage Vessels (including Petroleum Liquid Storage Vessels)	Each storage vessel was constructed before July 23, 1984.
40 CFR 60 (NSPS) Subpart XX	Standards of Performance for Bulk Gasoline Terminals	No loading racks at this facility
40 CFR 63 (MACT) Subpart R	National Emissions Standards for Gasoline Distribution Facilities (Bulk Gasoline Terminals and Pipeline Breakout Stations)	This facility is not a major source.
40 CFR 68	Chemical Accident Prevention Provisions	Stationary Source having more than a threshold quantity of a reg. substance.

GENERAL CONDITIONS

The permit contains general conditions required by 40 CFR Part 70 and 9 VAC 5-80-110 that apply to all Federal-operating permitted sources. These include requirements for submitting semi-annual monitoring reports and an annual compliance certification report. The permit also requires notification of deviations from permit requirements or any excess emissions.

Comments on General Conditions

Federal Enforceability

Article 1 (9 VAC 5-80-110 N) states that all terms and conditions in the Title V permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

Permit Expiration

This condition refers to the Board taking action on a permit application. The “Board” refers to the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.2-604 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement No. 2-09”.

This general condition cite(s) the Article(s) that follow(s):

(For TV): Article 1 (9 VAC 5-80-50 et seq.), Part II of 9 VAC 5 Chapter 80. Federal Operating Permits for Stationary Sources

This general condition cites the sections that follow:

- 9 VAC 5-80-80. Application
- 9 VAC 5-80-140. Permit Shield
- 9 VAC 5-80-150. Action on Permit Applications

Failure / Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excess emission reporting within four hours of discovery. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to section 9 VAC 5-20-180 including Title V facilities. A facility may make a single report that meets the requirements of 9 VAC 5-20-180. The report must be made within four daytime business hours of discovery of the malfunction.

In order for emission units to be relieved from the requirement to make a written report in 14 days the emission units must have continuous monitors meeting the requirements of 9 VAC 5-50-410 or 9 VAC 5-40-41.

This general condition cites the sections that follow:

- 9 VAC 5-40-41. Emissions Monitoring Procedures for Existing Sources
- 9 VAC 5-40-50. Notification, Records and Reporting
- 9 VAC 5-50-50. Notification, Records and Reporting]

This general condition contains a citation from the Code of Federal Regulations as follows:
40 CFR 60.13 (h). Monitoring Requirements.

Permit Modification

This general condition cites the sections that follow:

- 9 VAC 5-80-50. Applicability, Federal Operating Permit for Stationary Sources
- 9 VAC 5-80-190. Changes to Permits
- 9 VAC 5-80-260. Enforcement
- 9 VAC 5-80-1100. Applicability, Permits For New and Modified Stationary Sources
- 9 VAC 5-80-1605. Applicability, Permits For Major Stationary Sources and Modifications Located in Prevention of Significant Deterioration Areas
- 9 VAC 5-80-2000. Applicability, Permits for Major Stationary Sources and Major Modifications Locating in Nonattainment Areas

Asbestos Requirements

The Virginia Department of Labor and Industry under Section 40.1-51.20 of the Code of Virginia also holds authority to enforce 40 CFR 61 Subpart M, National Emission Standards for Asbestos.

This general condition contains a citation from the Code of Federal Regulations that follows:

40 CFR 61.145, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to demolition and renovation.

40 CFR 61.148, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to insulating materials.

40 CFR 61.150, NESHAP Subpart M. National Emissions Standards for Asbestos as it applies to waste disposal.

This general condition cites the regulatory sections that follow:

9 VAC 5-60-70. Designated Emissions Standards

9 VAC 5-80-110. Permit Content

STATE ONLY APPLICABLE REQUIREMENTS

None

FUTURE APPLICABLE REQUIREMENTS

None

CONFIDENTIAL INFORMATION

The permittee did not submit a request for confidentiality. All portions of the Title V application are suitable for public review.

PUBLIC PARTICIPATION

The proposed permit was placed on public notice in the Farmville Herald on August 25, 2017. The public comment period ran from August 25, 2017 to September 25, 2017, and the concurrent 45-day EPA review period ran from August 25, 2017 to October 9, 2017. No comments were received.