

**COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Piedmont Regional Office**

STATEMENT OF LEGAL AND FACTUAL BASIS

Philip Morris USA, Inc
Richmond, Virginia
Permit No. PRO-50080;50082

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, Philip Morris USA Inc. has applied for a Title V Operating Permit for its Richmond, Virginia facility. The Department has reviewed the application and has prepared a Title V Operating Permit.

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FACILITY INFORMATION

Permittee

Philip Morris USA Inc.

P.O. Box 26603

Richmond, Va. 23261

Facility

Philip Morris USA Inc. – Blended Leaf Complex

2325 Maury Street

Richmond, VA 23234

AFS ID Numbers: 51-760-0052 (Reg. No. 50080) (Blended Leaf Plant)
51-760-0009 (Reg. No. 50082) (Leaf Processing Facility)

Facility Description: NAICS 312229.

The Philip Morris USA, Blended Leaf Complex has four facilities: the Blended Leaf Plant (Reg. No. 50080), the Leaf Processing Facility (LPF, Reg. No. 50082), the Tobacco Quality Assurance Facility (not registered) and the Maury Street Warehouses (not registered). The Blended Leaf Plant (BL) mixes tobacco stems and tobacco dust to make sheets of tobacco that are later shredded for use in cigarettes. The LPF currently houses the Tobacco Flavoring and Packaging Process, and Research & Development Process A. There are three boilers at the Leaf Processing Facility that are subject to 40 CFR 60 Subpart Dc.

The Blended Leaf Complex, which is located in an-attainment area, is a major stationary source because the Complex has the potential to emit more than 100 tons per year of a criteria pollutant. The Complex has six active new source review permits. The Blended Leaf Plant (50080) has a 12/10/09 permit amendment to emit 106.0 tons per year of CO and 169.6 tons per year of VOC. The Leaf Processing Facility (50082) has a November 16, 2007 permit to limit PM to 8.0 tons per year, PM10 to 4.4 tons per year, and VOC to 14.9 tons per year. The Leaf Processing Facility (50082) also has a May 19, 2003 permit to restrict boiler emissions to 240.3 tons per year of SO₂, 67.7 tons per year of NO_x and 51.3 tons per year of CO. The LPF also has a December 1, 1995 permit to restrict the operating hours of two emergency generators to 500 hours per year each. The BL Plant also has a December 1, 1995 permit to restrict the operating hours of two emergency generators to 500 hours per year each.

The Blended Leaf Complex has a February 27, 1996 Consent Agreement that establishes a Reasonably Available Control Technology (RACT) standard for the Blended Leaf Facility (50080) for the control of volatile organic compounds (VOCs). The Consent Agreement in Section D, Number 5 states the 1991 uncontrolled VOC emissions from the facility are 238.4 tons per year. In Section D. Number 6, the Consent Agreement states, “Since it is not cost effective to control VOC emissions from any of the tobacco processing operations at the affected facility, RACT for the entire facility is determined to be no control.”

When most of the new source review permits were issued, the Richmond area was a moderate nonattainment for ozone. After many years as an attainment area for all criteria pollutants, on April 15, 2004 the Richmond area became a nonattainment area for NO_x and VOC and remained an attainment area for CO, PM₁₀ and SO₂. In June 2007, EPA designated the Richmond area as an attainment area for ozone which is its current status.

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.

There are no units subject to Compliance Assurance Monitoring (CAM) at this facility. All controlled units have annual uncontrolled emissions below 100 tons.

EMISSION UNIT IDENTIFICATION

The Emission Units and equipment to be operated consists of:

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*		Control Device (PCD) Desc.	PCD ID	Pollutant Controlled	Applicable Permit Date
Fuel Burning Equipment at LPF (50082)								
BO0401	AE01	Kewanee H3S-400-G02 package boiler (August 8 1996)	16.8 mmBtu/hr		None	None	None	May 19, 2003 (NSPS Dc)
BO0101	AE01	B & W FM 10-52 boiler (August 8 1996)	52.7 mmBtu/hr		None	None	None	May 19, 2003 (NSPS Dc)
BO0201	AE01	B & W FM 10-70 boiler (August 8 1996)	70.0 mmBtu/hr		None	None	None	May 19, 2003 (NSPS Dc)
Additional Equipment at LPF (50082)								
FPP	Fugitive	Flavoring and Packaging Process – Tobacco flavoring, blending, aging, cooling and packaging process equipment (2007)	0.69 LPFP units/hr dry weight basis		None	None	None	November 16, 2007
		Other VOC - aging (2007)	0.13 LPFP units		None	None	None	November 16, 2007
R&D A	AS-R1 AS-R2 AS-R3	Research and Development Process A - Tobacco preparation, storage, processing and packaging. June 28, 2005	1650 lb/hr dry weight basis		Fabric filter Cartridge filter Fabric filter	BHRD01 BHRD02 BHRD03	PM	November 16, 2007
	AE-R4 for non-fugitive VOC							
Equipment at BL – Product forming and drying lines (50080)								
GR0201	AE-47	Tobacco grinder	0.7794 dry BL units/hr		fabric filter	BH0901	PM	March 11, 1996 as amended November 19, 1998, February 23, 2004, April 13, 2004 and December 10, 2009
GR0301	AE-48	Tobacco grinder	1.559 dry BL units/hr		fabric filter	BH0801	PM	March 11, 1996 as amended November 19, 1998, February 23, 2004, April 13, 2004 and December 10, 2009
DT0101	AE-33 AE-24	Main tobacco dryer	29.1 mmBTUs/hr	combined maximum	None	None	None	March 11, 1996 as amended November 19,

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*		Control Device (PCD) Desc.	PCD ID	Pollutant Controlled	Applicable Permit Date
	AE-16 AE-19 AE-23 AE-24			rated throughput capacity of				1998, February 23, 2004, April 13, 2004 and December 10, 2009
DT0201,	AE-09 AE-06 AE-39	"C" dryer	4.4 mm BTUs/hr	0.4507 dry BL units/hr	None	None	None	March 11, 1996 as amended November 19, 1998, February 23, 2004, April 13, 2004 and December 10, 2009

EMISSIONS INVENTORY

A copy of the 2008 annual emission update is available. Emissions are summarized in the following tables.

2008 Actual Emissions

2008 Criteria Pollutant Emission in Tons/Year					
Facility	VOC	CO	SO ₂	PM ₁₀	NO _x
Blended Leaf (50080)	147.7	91.2	0.0	2.0	33.3
Leaf Processing (50082)	2.4	2.1	0.0	0.3	2.8
Total	150.1	93.3	0.04	2.3	36.1

2008 Facility Hazardous Air Pollutant Emissions

Pollutant	Leaf Processing (50082) tons/yr	Blended Leaf (50080) tons/yr
Phosphine	0.0	0.282
Hexane	0.04	0.288
Benzene	0.001	0.002
Formaldehyde	0.002	6.45
Toluene	0.0	0.293
1,2-Dibromo-3-chloropropane	0.0	0.001
Glycol Ethers	0.0	0.007

EMISSION UNIT APPLICABLE REQUIREMENTS -

Fuel Burning Equipment Requirements – the following permit limitations are taken from Conditions 2-15 of a minor NSR permit dated 5/19/2003 for boilers BO0101, BO0201 and BO0401 located at the Leaf Processing Facility 50082 (subject to NSPS Dc).

Limitations

Condition 3 (III.A.1) describes the control method to be used to control emissions from the boilers

Condition 4 (III.A.2) describes the allowed fuel types of distillate oil and natural gas

Condition 5 (III.A.3) limits the throughput of distillate oil and natural gas to the boilers

Condition 6 (III.A.4) describes the fuel specifications (including sulfur content) for the boilers

Condition 7 (III.A.5) requires fuel certification for the boilers (NSPS Dc requirement)

Conditions 8, 9, 10, 11 and 12 (III.A.6, 7, 8, 9 and 10) limit criteria pollutant emissions and visible emissions from the boilers

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-240 et seq. Standards of Performance for Stationary Sources

Monitoring

Condition III.B describes periodic monitoring for visible emissions from the boilers

Recordkeeping and Reporting

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include:

Conditions 14 and 15 (III.C.1 and 2) require records of fuel throughput and certification reports for the boilers

Testing

The permit does not require source tests. The Department and EPA has authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Process Equipment Requirements – the following permit limitations are taken from Conditions 3-19 of a minor NSR permit dated 11/16/2007 for R&D Process A and the FPP located at the Leaf Processing Facility 50082.

Limitations

Condition 3 (IV.A.1) requires particulate matter control for the R&D Process A.
Condition 4 (IV.A.2) describes BACT for VOC from R&D Process A and FPP.
Conditions 8 through 12 (IV.A.3 through 7) limit material throughput and VOC to R&D Process A, FPP and Pilot tobacco Flavoring and Packaging Process.
Condition 14, 15, 16 and 18 (IV.A.8 through 11) limit criteria pollutant emissions from the above processes.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-240 et seq. Standards of Performance for Stationary Sources

Monitoring

Condition IV.B requires periodic monitoring of visible emissions for R&D Process A.

Recordkeeping and Reporting

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include:

Condition 19 (IV.C) requiring permittee to keep annual records of material and VOC throughput for R&D Process A, FPP, and the Pilot Tobacco Flavoring and Packaging Process.

Testing

The permit does not require source tests. The Department and EPA has authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Streamlined Requirements

Conditions 2, 7, 13, 17 and 19a of the NSR permit were not included in the Title V permit as the Central Housekeeping Vacuum System has been removed.

Process Equipment Requirements – the following permit limitations are taken from a minor NSR permit dated 12/10/2009 for GR0201, GR0301, DT0101 and DT0201 located at the Blended Leaf Facility 50080. All previous references to the Line 2 and Line 3 dryers have been removed as those units have been removed or inactivated at the Blended Leaf Plant.

Limitations

Condition 2 (V.A.1) requires particulate matter control for the grinders (GR0201, GR0301).

Condition 4 (V.A.2) lists removed and inactivated equipment

Condition 7 (V.A.3) lists natural gas as the approved fuel for the main dryer and "C" dryer

Condition 8 (V.A.4) limits the throughput of natural gas to the dryers

Conditions 5 and 6 (V.A.5 and 6) limit the processing of tobacco to the dryers and the grinders

Conditions 9, 10 and 12 (V.A.7 through 9) limit the emissions of criteria pollutants and visible emissions.

The following Virginia Administrative Codes that have specific emission requirements have been determined to be applicable:

9 VAC 5-50-240 et seq. Standards of Performance for Stationary Sources

Monitoring

Conditions 3 (V.B.1 and 2) describe monitoring equipment and periodic monitoring at the grinder stacks.

Recordkeeping and Reporting

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include:

Condition 13 (V.C) requiring recordkeeping of throughput of tobacco for the grinders and Dryer Line 1 and fuel for the dryers.

Testing

The permit does not require source tests. The Department and EPA have authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

Facility-Wide Requirements – the following limitations are taken from minor NSR permits dated 11/16/2007 and 12/10/2009 for the Blended Leaf Complex 50080 and 50082.

Condition 11 of the 12/10/09 permit (VI.A.1) limits criteria pollutants from the Blended Leaf Facility

Condition 5 of the 11/16/07 permit (VI.A.2) describes fugitive VOC controls for the facility

Monitoring

Condition VI.B.1 requires continuous monitoring systems to be installed prior to performance evaluations.

Condition VI.B.2 describes federal requirements for continuous monitoring systems.

Recordkeeping and Reporting

The permit includes requirements for maintaining records of all monitoring and testing required by the permit. These records include:

Condition VI.C.1 requiring the permittee to maintain records which demonstrate compliance with the conditions of the permit.

Condition VI.C.2 requiring the permittee to take measures to minimize excess emissions

Testing

The permit does not require source tests. The Department and EPA has authority to require testing not included in this permit if necessary to determine compliance with an emission limit or standard.

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 permit 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

B. Permit Expiration

This condition refers to the Board taking action on a permit application. The Board is the State Air Pollution Control Board. The authority to take action on permit application(s) has been delegated to the Regions as allowed by §2.1-20.01:2 and §10.1-1185 of the *Code of Virginia*, and the “Department of Environmental Quality Agency Policy Statement NO. 3-2001.”

This general condition cites the entire Article that follows:

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

This general condition cites the sections that follow:

9 VAC 5-80-80. “Application”

9 VAC 5-80-150. “Action on Permit Applications”

9 VAC 5-80-140. “Permit Shield”

F. Failure/Malfunction Reporting

Section 9 VAC 5-20-180 requires malfunction and excesses emissions reporting within 4 hours. Section 9 VAC 5-80-250 also requires malfunction reporting; however, reporting is required within 2 days. Section 9 VAC 5-20-180 is from the general regulations. All affected facilities are subject to this section including Title 5 facilities. Section 9 VAC 5-80-250 is from the Title 5 regulations. Title 5 facilities are subject to both Sections. A facility may make a single report that meets the requirements of 9 VAC 5-20-180 and 9 VAC 5-80-250. The report must be made within 4 day time business hours of the malfunction.

J. 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 5-80-1790. 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.

U. Malfunction as an Affirmative Defense

The regulations contain two reporting requirements for malfunctions that coincide. The reporting requirements are listed in section 9 VAC 5-80-250 and 9 VAC 5-20-180. The malfunction requirements are listed in General Condition U and General Condition F. For further explanation see the comments on general condition F.

This general condition cites the sections that follow:

9 VAC 5-80-110. Permit Content

9 VAC 5-20-180. Facility and Control Equipment Maintenance or Malfunction

Y. 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 follow:

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.

STATE ONLY APPLICABLE REQUIREMENTS

The following Virginia Administrative Codes have specific requirements only enforceable by the State and have been identified as applicable by the applicant:

Odor (9 VAC 5 Chapter 40, Article 2)

State toxics rule (9 VAC 5 Chapter 60)

(9 VAC 5-80-110N and 9 VAC 5-80-300)

FUTURE APPLICABLE REQUIREMENTS

The facility does not have any future applicable requirements.

INAPPLICABLE REQUIREMENTS

The facility does not have any inapplicable requirements.

COMPLIANCE PLAN

There is no compliance plan.

INSIGNIFICANT EMISSION 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.

The following emission units at the facility are identified in the application as insignificant emission units under 9 VAC 5-80-720:

Facility	Emission Unit No.	Emission Unit Description	Citation	Pollutant Emitted	Rated Capacity
011	EG-02-01	Emergency Generator (Diesel)	5-80-720 C	NO _x , SO ₂ , VOC, CO, PM, PM ₁₀	75 KW
011	TK-01-01	Diesel Gen. Supply Tank	5-80-720 B	VOC	N/A
017	CN-01-01	Housekeeping Vacuum	5-80-720 B	PM, PM ₁₀	N/A
017	Various	Flavor Tanks	5-80-720 B	VOC, PM, PM ₁₀ , Odor	N/A
017	FS-01-01 to FS-06-01	Blending Dust Collection System	5-80-720 B	PM, PM ₁₀	N/A
017	TK-18-01	Storage Tank	5-80-720 B	VOC	N/A
017	TK-17-01	Storage Tank	5-80-720 B	VOC	N/A
017	TK-20-01	Storage Tank	5-80-720 B	VOC	N/A
017	TK-20-02	Storage Tank	5-80-720 B	VOC	N/A
017	TK-19-01	Storage Tank	5-80-720 B	VOC	N/A
017	TK-16-01	Storage Tank	5-80-720 B	VOC	N/A
017	MT-01-01	Mixing Tank	5-80-720 B	VOC, Odor	N/A
017	TK-10-01, TK-11-01, TK-11-02	Solution Tanks (3)	5-80-720 B	VOC, Odor	N/A
017	MT-03-01, MT-03-02	Mixing Tanks (2)	5-80-720 B	VOC, Odor	N/A
017	TK-12-01 to TK-12-06	Aging Tanks (6)	5-80-720 B	VOC, Odor	N/A
017	TK-13-01, TK-14-01	Surge Tanks (2)	5-80-720 B	VOC, Odor	N/A
017	EG-01-01	Emergency Generator (Diesel)	5-80-720 C	NO _x , SO ₂ , VOC, CO, PM, PM ₁₀	225 KW
017	TK-24-01	Diesel Gen. Supply Tank	5-80-720 B	VOC	N/A
017	TK-29-01	Solution Tank	5-80-720 B	VOC	N/A
017	DC-05-01	Dry Flavor Dumper Feeder	5-80-720 B	PM, PM ₁₀	N/A
017	TP-10-01	Dry Flavor Pneumatic Transfer System	5-80-720 B	PM, PM ₁₀	N/A
017	BX-03-01, FS-09-01	Dry Flavor Hopper & LIW Feeder	5-80-720 B	PM, PM ₁₀	N/A
017	TP-11-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM ₁₀	N/A
017	TK-25-01	Tobacco Surge Tank	5-80-720 B	PM, PM ₁₀	N/A
017	TP-12-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM ₁₀	N/A
017	TK-01-01 to	Tobacco Storage (5) Tanks	5-80-720 B	PM, PM ₁₀	N/A

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Facility	Emission Unit No.	Emission Unit Description	Citation	Pollutant Emitted	Rated Capacity
	TK-01-05				
017	TP-13-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM ₁₀	N/A
017	BX-02-01, FS-08-01	Tobacco Hopper & LIW Feeder	5-80-720 B	PM, PM ₁₀	N/A
017	TP-14-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM ₁₀	N/A
017	TK-27-01	Tobacco Surge Tank	5-80-720 B	PM, PM ₁₀	N/A
017	TP-15-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM ₁₀	N/A
017	TK-04-01 to TK-04-04	Tobacco Storage (4) Tanks	5-80-720 B	PM, PM ₁₀	N/A
017	TP-16-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM ₁₀	N/A
017	BX-01-01 FS-07-01	Tobacco Hopper & LIW Feeder	5-80-720 B	PM, PM ₁₀	N/A
017	TP-17-01	Tobacco Pneumatic Transfer System	5-80-720 B	PM, PM ₁₀	N/A
017	TK-26-01	Tobacco Surge Tank	5-80-720 B	PM, PM ₁₀	N/A
017	PP-01-01, PP-01-02, VC-02-01, CO-01-01	Packing Dust Collection System	5-80-720 B	PM, PM ₁₀	N/A
017	CW-A1-01	Natural Gas Hot Water Cleaning System	5-80-720 C	NO _x , SO ₂ , VOC, CO	300,000 Btu/hr
021	TK-01-01	No.2 Fuel Oil Tank	5-80-720 B	VOC	N/A
021	TK-01-02	No.2 Fuel Oil Tank	5-80-720 B	VOC	N/A
021	EG-01-01	Emergency Generator (Diesel)	5-80-720 C	NO _x , SO ₂ , VOC, CO, PM, PM ₁₀	76.3 KW
021	EG-02-01	Emergency Generator (Diesel)	5-80-720 C	NO _x , SO ₂ , VOC, CO, PM, PM ₁₀	125 KW
021	TK-01-01	Diesel Gen. Storage Tank	5-80-720 B	VOC	N/A
021	TK-05-01	Diesel Gen. Supply Tank	5-80-720 B	VOC	N/A
021	TK-04-01	Diesel Gen. Supply Tank	5-80-720 B	VOC	N/A
104	FU-01-01	Office Furnace (Natural Gas)	5-80-720 C	NO _x , SO ₂ , CO, VOC	140,000 Btu/hr
104	PU-01-01	Emergency Fire Pump (Diesel)	5-80-720 C	NO _x , SO ₂ , VOC, CO, PM, PM ₁₀	87 hp
104	TK-01-01	Diesel Fire Pump Supply Tank	5-80-720 B	VOC	N/A
104	TK-02-01	Gasoline Vehicle Fueling Tank	5-80-720 B	VOC	N/A
104	Various	Tobacco Warehouses	5-80-720 B	HAP	N/A
Various	N/A	Shop Parts Washers	5-80-720 B	VOC	N/A
Various	N/A	Hydraulic Oil Tanks	5-80-720 B	VOC	N/A

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

CONFIDENTIAL INFORMATION

A confidential showing was submitted but the use of surrogate parameters in the permit and calculations assures that the Title V permit does not contain confidential material.

PUBLIC PARTICIPATION

The public notice of the proposed permit was published in Style Weekly on January 27, 2010. The thirty-day comment period (9 VAC 5-80-270) expired on February 25, 2010. This permit was concurrently reviewed by the EPA until March 12, 2010. The Department of Environmental Quality received no comments.