

Federal Operating Permit
Article 1

This permit is based upon the requirements of Title V of the Federal Clean Air Act and Chapter 80, Article 1, of the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution. Until such time as this permit is reopened and revised, modified, revoked, terminated or expires, the permittee is authorized to operate in accordance with the terms and conditions contained herein. This permit is issued under the authority of Title 10.1, Chapter 13, §10.1-1322 of the Air Pollution Control Law of Virginia. This permit is issued consistent with the Administrative Process Act, and 9 VAC 5-80-50 through 9 VAC 5-80-300, of the State Air Pollution Control Board Regulations for the Control and Abatement of Air Pollution of the Commonwealth of Virginia.

Authorization to operate a Stationary Source of Air Pollution as described in this permit is hereby granted to:

Permittee Name:	Honeywell International, Inc.
Facility Name:	Colonial Heights Site
Facility Location:	15801 Woods Edge Road Colonial Heights, Virginia
Registration Number:	Registration No. 50831
Permit Number:	PRO50831

August 12, 2008
Effective Date

August 12, 2013
Expiration Date

Deputy Regional Director

August 12, 2008
Signature Date

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I. Facility Information

Permittee

Honeywell International Inc.
15801 Woods Edge Road
Colonial Heights, Virginia 23834

Responsible Official

Mrs. Dorene Billingsley
Site Manager

Facility

Colonial Heights Site
15801 Woods Edge Road
Colonial Heights, VA 23834

Contact Persons

David Gillespie
Health, Safety, and Environmental Leader, Spectra Performance Fibers
(804) 520-3500

County Plant ID Number: 51-670-0053

Facility Description: NAICS Code 325222 and 541712 –

NAICS Code 325222 (organic fibers, non-cellulosic) – The facility manufactures high performance polyolefin fibers (SPECTRA) used in the fabrication of body armor and other performance fiber applications.

NAICS Code 541712 – Research and development in the physical, engineering and life sciences (except for biotechnology).

Built in 1965, the facility has historically served as a research and development center. A boiler was installed in the original facility in 1965 with a second one added in 1969. Recent events have led to an expansion in polyolefin fiber production, from the 2, 3, 4, 5 SPECTRA lines to the addition of Lines 12 and 13. At this time, the plant's focus has shifted from research and development to production due to the high demand for its product. The polyolefin fiber is produced by mixing polyethylene, antioxidant, and walpit oil to form a polymer, which is extruded into fiber. Walpit oil (particulate and VOC) is emitted during the extrusion process, with emissions captured and controlled by an oil mist eliminator. Then, the walpit oil is separated from the fiber using chlorinated solvent as a solvent, and then dried. Chlorinated solvent emissions from the separators and dryers are captured and routed to a carbon absorption unit for emission control. Lines 2, 3, 4, 5a, and 5b are routed to older carbon beds (with 90% efficiency) followed by a Halosorb unit (molecular sieve) for an

overall control efficiency of 95%. Chlorinated solvent emissions from Lines 12 and 13 are routed to carbon adsorption units with control efficiencies of at least 95%.

II. Emission Units

Equipment to be operated 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							
SG-1A	7V-5	Babcock & Wilcox boiler Model #FMD 1205 (Natural Gas)	17.3 MMBtu/hr	--	NA		10/29/2007
SG-1B	7V-5	Babcock & Wilcox boiler Model #FMD 1205 (#2 Fuel Oil)	17.3 MMBtu/hr	--	NA		10/29/2007
SG-2A	7V-5	Bigelow boiler Model #S5488 Serial #HSB12149 (Natural Gas)	22.3 MMBtu/hr	--	NA		10/29/2007
SG-2B	7V-5	Bigelow boiler Model #S5488 Serial #HSB12149 (#2 Fuel Oil)	22.3 MMBtu/hr	--	NA		10/29/2007
CP-99	7V-5	Cummins Diesel Engine (Fire Pump)	0.71 MMBtu/hr	--	NA		10/29/2007
Spectra Lines							
Line 2	13V-15	Polyolefin Fiber Line	46.4 fiber units	Oil Mist Eliminator	OME F-5868	PM, VOC	10/29/2007

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
				Carbon Adsorption Bed/Molecular Sieve	CB/HZ	Chlorinated solvent	10/29/2007
Line 2	13V-50	Polyolefin Fiber Line	61.8 fiber units	Carbon Adsorption Bed/Molecular Sieve	CB/HZ	Chlorinated solvent	10/29/2007
Line 3	13V-15	Polyolefin Fiber Line	61.8 fiber units	Oil Mist Eliminator	OME F-5868	PM, VOC	10/29/2007
				Carbon Adsorption Bed/Molecular Sieve	CB/HZ	Chlorinated solvent	10/29/2007
	13V-50			Carbon Adsorption Bed/Molecular Sieve	CB/HZ	Chlorinated solvent	10/29/2007
Line 4	13V-15	Polyolefin Fiber Line	61.8 fiber units	Oil Mist Eliminator	OME F-5868	PM, VOC	10/29/2007
				Carbon Adsorption Bed/Molecular Sieve	CB/HZ	Chlorinated solvent	10/29/2007
	13V-50			Carbon Adsorption Bed/Molecular Sieve	CB/HZ	Chlorinated solvent	10/29/2007
Line 5	13V-4	Polyolefin Fiber Process Line	30.9 fiber units	Oil Mist Eliminator	OME F-5868	PM, VOC	10/29/2007
				Carbon Adsorption Bed/Molecular Sieve	CB/HZ	Chlorinated solvent	10/29/2007

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
	13V-50			Carbon Adsorption Bed/Molecular Sieve	CB/HZ	Chlorinated solvent	10/29/2007
Line 8	13V-4	Polyolefin Fiber Process Line	30.9 fiber units	Oil Mist Collector	OME F-5868, OME-5,8 (backup)	PM, VOC	10/29/2007
				Carbon Adsorption Bed/Molecular Sieve	CB/HZ	Chlorinated solvent	10/29/2007
	13V-50			Carbon Adsorption Bed/Molecular Sieve	CB/HZ	Chlorinated solvent	10/29/2007
Line 12	23V-01	Polyolefin Fiber Process Line	6.6 fiber units	Oil Mist Eliminator	OME-12	PM, VOC	10/29/2007
Line 12	23V-02	Polyolefin Fiber Process Line	6.6 fiber units	Carbon Adsorption Bed	CB-4	Chlorinated solvent	10/29/2007
Line 13	23V-01	Polyolefin Fiber Process Line	6.67 fiber units	Oil Mist Eliminator	OME-13	PM, VOC	10/29/2007
	23V-02			Carbon Bed Adsorber	CB-5	Chlorinated solvent	10/29/2007
Building 4 Pilot Plant Polymerization							
Lindberg Oven		Spinning Equipment Burnoff Oven					10/29/2007
Buildings 2, 3, 4, 6, 14, 19, TR19 and TR21: Laboratory Facilities							

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
		Laboratory Facilities					10/29/2007
Cooling Towers							
TW-3		Non-contact evaporative type cooling tower used in tandem with the chillers/ODS equipment	120 gal/min				10/29/2007
TW-5		Non-contact evaporative type cooling tower used in tandem with the chillers/ODS equipment	1,800 gal/min				10/29/2007
TW-6		Non-contact evaporative type cooling tower used in tandem with the chillers/ODS equipment	3,550 gal/min				10/29/2007
TW-8		Non-contact evaporative type cooling tower used in tandem with the chillers/ODS equipment	1,682 gal/min				10/29/2007
TW-9		Non-contact evaporative type cooling tower used in tandem with the chillers/ODS equipment	75 gal/min				10/29/2007
TW-10		Non-contact evaporative type cooling tower used in tandem with the chillers/ODS equipment	2,800 gal/min				10/29/2007
TW-11		Non-contact evaporative	1,800 gal/min				10/29/2007

Emission Unit ID	Stack ID	Emission Unit Description	Size/Rated Capacity*	Pollution Control Device (PCD) Description	PCD ID	Pollutant Controlled	Applicable Permit Date
		type cooling tower used in tandem with the chillers/ODS equipment					
Degreaser – Cold Solvent Cleaner							
CSC		Cold Solvent Cleaner	30 gallons				10/29/2007
Tanks							
OWS		Oil Water Separator	1 gallon/hr 7500 gallons/yr				10/29/2007
#2 Fuel Oil Tank		#2 Fuel Oil Tank for heating oil purposes	20,000 gallons				10/29/2007

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

III. Fuel Burning Equipment Requirements – (Emission Unit ID SG-1 and SG-2)

A. Limitations

1. The approved fuels for the Babcock & Wilcox #FMD 1205 boiler (EU ID #SG-1) and the Bigelow Model#S5488 boiler Serial #HSB12149 (EU ID #SG-2) dual fuel-fired boilers are natural gas and distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 “Standard Specification for Fuel Oils.” A change in the fuels may require a permit to modify and operate.

(9 VAC 5-80-110 and Condition 24 of 10/29/07 Permit)

2. The maximum sulfur content of the oil to be burned in the Babcock & Wilcox #FMD 1205 boiler (SG-1) and the Bigelow Model #S5488 boiler Serial #HSB12149 (EU #SG-2) shall not exceed 0.5 percent by weight per shipment.

(9 VAC 5-80-110 and Condition 29 of 10/29/07 Permit)

3. The Babcock & Wilcox #FMD 1205 boiler (SG-1) shall consume no more than 146.3 million cubic feet of natural gas or 1.1 million gallons of distillate oil per year, calculated as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Condition 26 of 10/29/07 Permit)

4. The Bigelow Model #S5488 boiler Serial #HSB12149 (EU ID #SG-2) shall consume no more than 189.2 million cubic feet of natural gas or 1.3 million gallons of distillate oil per year, calculated as the sum of each consecutive twelve (12) month period.

(9 VAC 5-80-110 and Condition 27 of 10/29/07 Permit)

5. Emissions from the operation of the Babcock & Wilcox #FMD 1205 boiler (SG-1) shall not exceed the limits specified below:

Total Suspended Particulate	0.2 lbs/hr	1.1 tons/yr
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PM-10	0.2 lbs/hr	1.1 tons/yr
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Sulfur Dioxide	8.8 lbs/hr	38.3 tons/yr
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Nitrogen Oxides (as NO ₂)	2.5 lbs/hr	10.8 tons/yr
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Carbon Monoxide	0.6 lbs/hr	6.1 tons/yr
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(9 VAC 5-80-110 and Condition 41 of 10/29/07 Permit)

6. Emissions from the operation of the Bigelow Model #S5488 boiler Serial #HSB12149 (EU ID #SG-2) shall not exceed the limits specified below:

Total Suspended Particulate	0.3 lbs/hr	1.3 tons/yr
PM-10	0.3 lbs/hr	1.3 tons/yr
Sulfur Dioxide	10.7 lbs/hr	46.6 tons/yr
Nitrogen Oxides (as NO ₂)	3.0 lbs/hr	13.2 tons/yr
Carbon Monoxide	0.8 lbs/hr	7.9 tons/yr

(9 VAC 5-80-110 and Condition 42 of 10/29/07 Permit)

7. Visible Emissions from the SG-1 and SG-2 boiler stacks shall not exceed 20 percent opacity except during one six-minute period in any one hour in which visible emissions shall not exceed 60 percent opacity, as determined by EPA Method 9 (reference 40 CFR 60 Appendix A).

(9 VAC 5-40-80 and 9 VAC 5-80-110, and Condition 53 of 10/29/07 Permit)

8. Boiler emissions shall be controlled by proper operation and maintenance. Boiler operators shall be trained in the proper operation of all such equipment. Training shall consist of a review and familiarization of the manufacturer's operating instructions, at minimum.

(9 VAC 5-80-110)

9. The distillate oil and natural gas shall meet the specifications:

DISTILLATE OIL which meets ASTM D396-78 specifications for numbers 1 or 2 fuel oil:

Maximum sulfur content per shipment: 0.5%

Natural Gas: Minimum heat content: 1,000 Btu/cf HHV.

(9 VAC 5-80-110 and Condition 13 of 3/15/06 Permit)

B. Monitoring

1. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier,
 - b. The date on which the oil was received,
 - c. The volume of distillate oil delivered in the shipment,

- d. A statement that the oil complies with the American Society for Testing and Materials specifications for fuel oil numbers 1 and 2, and
- e. The sulfur content of the oil.
- f. The method used to determine the sulfur content of the oil.

(9 VAC 5-80-110 and Condition 30 of 10/29/07 Permit)

2. Boilers SG-1 and SG-2 shall be observed visually for a brief period of time at least once a week while oil is being burned or once a month while natural gas is being burned to determine whether the boilers have any visible emissions. For every boiler observed to have visible emissions, the permittee shall either take corrective action expeditiously and record the cause and corrective measures taken or conduct a Method 9 visible emissions evaluation to demonstrate that the opacity does not exceed the limit in Condition III.A.7.

(9 VAC 5-80-110)

C. Recordkeeping

1. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the PRO Regional Director. These records shall include, but are not limited to:
 - a. The monthly and annual throughput of natural gas (in million cubic feet) and distillate oil (in 1000 gallons) for the Babcock & Wilcox Model #FMD 1205 and the Bigelow Model #S5488 Serial #HSB12149 dual fuel-fired boilers, EU ID SG-1 and SG-2, respectively. The annual throughput shall be calculated as the sum of each consecutive twelve (12) month period.
 - b. All fuel supplier certifications.
 - c. A log of the visible emissions observations, visible emissions evaluations and the corrective actions taken as required by Condition III.B.2

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five-year period.

(9 VAC 5-80-110 and Condition 58 of 10/29/07 Permit)

2. The permittee shall maintain records of the required training including a statement of time, place and nature training provided. The permittee shall have available good written operating procedures and a maintenance schedule for the boilers. These procedures shall be based on the manufacturer's recommendations, at minimum. All records required by this condition shall be kept on site and made available for inspection by the DEQ.

(9 VAC 5-80-110)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-80-110)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
NO _x	EPA Method 7
SO ₂	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

IV. Fuel Burning Equipment Requirements – (Emission Unit ID CP-99)

A. Limitations

1. The approved fuel for the Cummins Diesel Reciprocating Engine is distillate oil. Distillate oil is defined as fuel oil that meets the specifications for fuel oil numbers 1 or 2 under the American Society for Testing and Materials, ASTM D396-78 “Standard Specification for Fuel Oils.” A change in the fuels may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 25 of 10/29/07 Permit)
2. The maximum sulfur content of the oil to be burned in the Cummins Diesel Reciprocating Engine (EU ID #CP-99) shall not exceed 0.5 percent by weight per shipment.
(9 VAC 5-80-110 and Condition 29 of 10/29/07 Permit)
3. The Cummins Diesel Reciprocating Engine (EU ID #CP-99) shall consume no more than 2,500 gallons of distillate oil per year, calculated as the sum of each consecutive twelve (12) month period.
(9 VAC 5-80-110 and Condition 28 of 10/29/07 Permit)
4. Emissions from the operation of the Cummins Diesel Reciprocating Engine (EU ID #CP-99) shall not exceed the limits specified below:

Nitrogen Oxides	3.1 lbs/hr	0.8 tons/yr
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(9 VAC 5-80-110 and Condition 43 of 10/29/07 Permit)
5. Visible emissions from the Cummins Diesel Reciprocating Engine (EU ID #CP-99) shall not exceed 20 percent opacity except during one six minute period in any one hour during which visible emissions shall not exceed 60 percent opacity, as determined by EPA Method 9.
(9 VAC 5-40-80 and 9 VAC 5-80-110)

B. Monitoring

1. The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
 - a. The name of the fuel supplier,
 - b. The date on which the oil was received,
 - c. The volume of distillate oil delivered in the shipment,
 - d. A statement that the oil complies with the American Society for Testing and materials specifications for fuel oil numbers 1 and 2, and
 - e. The sulfur content of the oil.

(9 VAC 5-80-110 and Condition 30 of 10/29/07 Permit)
2. The Cummins Diesel Reciprocating Engine (EU ID #CP-99) shall be observed visually for a brief period of time at least once a week while oil is being burned or once a month while natural gas is being burned to determine whether the boilers have any visible emissions. For every boiler observed to have visible emissions, the permittee shall either take corrective action expeditiously and record the cause and corrective measures taken or conduct a Method 9 visible emissions evaluation to demonstrate that the opacity does not exceed the limit in IV.A.5.

(9 VAC 5-40-80, 9 VAC 5-80-110)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Director. These records shall include, but are not limited to:

- a. The monthly and annual throughput of distillate oil (in 1000 gallons) for the Cummins Diesel Reciprocating Engine (EU ID #CP-99). The annual throughput shall be calculated as the sum of each consecutive twelve (12) month period.
- b. All fuel supplier certifications.
- c. A log of the visible emissions observations, visible emissions evaluations and the corrective actions taken as required by Condition IV.B.2

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and Condition 28 of the 10/29/07 Permit)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-40-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
NO _x	EPA Method 7
SO ₂	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

V. Process Equipment Requirements - (Polyolefin fiber production lines, Emission Unit ID Lines 2, 3, 4, 5, 8, 12 and 13)

A. Limitations

1. Chlorinated solvent emissions from the manufacturing of polyolefin fiber, specifically Reference Numbers Lines 2, 3, 4, 5 and 8 shall be controlled by a combination of carbon bed adsorbers and a molecular sieve (Ref. No. CB/HZ). The carbon bed adsorbers and the molecular sieve shall maintain a removal efficiency of at least 99.0%. The carbon bed adsorbers and the molecular sieve shall be provided with adequate access for inspection and shall be in operation when Lines 2, 3, 4, 5 and 8 are operating.
(9 VAC 5-80-110 and Condition 2 of the 10/29/07 Permit)
2. Chlorinated solvent emissions from the manufacturing of polyolefin fiber by Reference Number Line 12 shall be controlled by a carbon bed adsorber (Ref. No. CB-4). The carbon bed adsorber shall maintain an overall removal efficiency of at least 95%. The carbon bed adsorber shall be provided with adequate access for inspection and shall be in operation when Line 12 is operating.
(9 VAC 5-80-110 and Condition 3 of the 10/29/07 Permit)
3. Chlorinated solvent emissions from the manufacturing of polyolefin fiber, specifically Reference Number Line 13, shall be controlled by a carbon bed adsorber, Reference Number CB-5. The carbon bed adsorber shall maintain a removal efficiency of at least 95%. The carbon bed adsorber shall be provided with adequate access for inspection and shall be in operation when Line 13 is operating.
(9 VAC 5-80-110 and Condition 4 of the 10/29/07 Permit)
4. Particulate emissions (PM and PM-10) as walpit oil emissions from the manufacturing of polyolefin fiber from Lines 2, 3, 4, 5, and 8 shall be controlled by one Oil Mist Eliminator (Ref. No. OME F-5868) and emissions from Line 12 shall be controlled by one Oil Mist Eliminator (Ref. No. OME-12). OME F-5868 shall maintain a removal efficiency of at least 97.0% and OME-12 shall maintain a removal efficiency of at least 97.0%. Each mist eliminator shall be provided with adequate access for inspection and shall be in operation when Lines 2, 3, 4, 5, 8, 12 and 13 are operating.
(9 VAC 5-80-110 and Condition 5 of 10/29/07 Permit)

5. The production of polyolefin fiber from polyolefin fiber from all lines (Ref. Nos. Lines 2, 3, 4, 5, 8, 12 and 13) shall not exceed 102.8 fiber units per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 18 of 10/29/07 Permit)
6. Particulate emissions (PM-10) as Walpit oil emissions from the manufacturing of polyolefin fiber from Line 13 shall be controlled by a mist eliminator, Reference No. OME-13. The mist eliminator shall maintain a removal efficiency of at least 97%. The mist eliminator shall be provided with adequate access for inspection.
(9 VAC 5-80-110 and Condition 6 of 10/29/07 Permit)
7. Visible emissions from the polyolefin fiber lines (Ref. Nos. 2, 3, 4, 5, 8, 12 and 13) shall not exceed 5 percent opacity as determined by the EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown, and malfunction.
(VAC 5-50-80, 9 VAC 5-80-110, and Condition 50 of the 10/29/07 Permit)
8. Emissions of chlorinated solvent from Line 12 shall be less than 100 tons per year.
(9 VAC 5-80-110 and Condition 47 of the 10/29/07 Permit)
9. Emissions of chlorinated solvent from Line 13 shall be less than 100 tons per year.
(9 VAC 5-80-110 and Condition 48 of the 10/29/07 Permit)
10. Emissions from the operation of the polyolefin fiber lines (Ref. Nos. 2, 3, 4, 5, 8, 12 and 13) shall not exceed the limits specified below:

Particulate Matter (as walpit oil emissions)	4.4 lbs/hr	19.5 tons/yr
PM-10 (as walpit oil emissions)	4.4 lbs/hr	19.5 tons/yr
Volatile Organic Compounds (as walpit oil emissions)	4.4 lbs/hr	19.5 tons/yr
Chlorinated Solvents	181.3 lbs/hr 4,063.2 lbs/day	190.8 tons/yr

These emissions are derived from the estimated overall emission contribution from operating limits. Exceedance of the operating limits may be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits may be determined as stated in Condition numbers V.A.1, V.A.2., V.A.3.,

V.A.5 and V.C.

(9 VAC 5- 80-110, Condition 46 of the 10/29/07 Permit)

B. Monitoring

1. The chlorinated solvent emission control system (Ref. CB/HZ) for the capture and control of chlorinated solvent emissions from Reference Nos. Lines 2, 3, 4, 5, and 8 shall be equipped with devices to measure gas inlet concentrations of chlorinated solvent to the system and the gas outlet concentration of chlorinated solvent from the system. Each monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the chlorinated solvent emission control system is operating.
(9 VAC 5-50-40, 9 VAC 5-80-110 and Condition 54 of the 10/29/07 Permit)
2. The carbon bed adsorber (Ref. Nos. CB-4 & CB-5) for the capture and control of chlorinated solvent emissions from Reference Nos. Lines 12 & 13 shall be equipped with devices to measure gas inlet and outlet concentrations of chlorinated solvent. The monitoring device shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each monitoring device shall be provided with adequate access for inspection and shall be in operation when the adsorber is operating.
(9 VAC 5-50-40 & 9 VAC 5-80-110 and Condition 55 of the 10/29/07 Permit)
3. The monitoring devices used to measure inlet and outlet chlorinated solvent concentration required by Conditions V.B.1 and 2 shall be observed by the permittee with a frequency of not less than once per day. The permittee shall keep a log of the observations from the adsorber monitoring devices.
(9 VAC 5-50-40 & 9 VAC 5-80-110 and Condition 56 of the 10/29/07 Permit)
4. Polyolefin process Lines 12 and 13 shall each be equipped with devices to measure the flow of chlorinated solvent into the process line and the flow of the chlorinated solvent/oil mixture out of the process line to the solvent recovery system. Each flow meter shall be installed, maintained, calibrated and operated in accordance with approved procedures which shall include, as a minimum, the manufacturer's written requirements or recommendations. Each flow meter shall be provided with adequate access for inspection and shall be in operation when the line is operating. In the event any flow meter fails to operate properly for a period of time, flow into and out of the line shall be computed as the average of an equivalent period of time immediately prior to the failure and an equivalent period of time immediately after the failure.
(9 VAC 5-50-40 & 9 VAC 5-80-110 and Condition 57 of the 10/29/07 Permit)
5. Each polyolefin fiber line shall be observed visually for at least a brief period of time at least once in any calendar quarter in which the line is operated to determine

whether there are any visible emissions (does not include water vapor/steam). If any visible emissions are observed, the permittee shall either take corrective measure expeditiously and record the cause and corrective measures taken or conduct a Method 9 visible emissions evaluation to demonstrate that the opacity does not exceed the limit in Condition V.A.7.

(9 VAC 5-80-110)

C. Recordkeeping

The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Region.

These records shall include, but are not limited to:

- a. Annual consumption of chlorinated solvent, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- b. The inventory records that support the consumption estimates of chlorinated solvent, recorded at the end of each calendar month.
- c. Annual throughput of polyolefin fiber, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- d. Annual throughput of each chemical containing volatile organic compounds and/or hazardous air pollutants as defined by Section 112(b)(1) of the Clean Air Act used in the laboratories at the Technical Center, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- e. Estimated emissions calculations of chlorinated solvent for lines 12 & 13 and also for the entire facility, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
- f. Monitoring records for chlorinated solvent emission controls devices CB/HZ, CB-4 and CB-5.

- g. Results of all stack tests, visible emission evaluations and performance evaluations.
- h. A log of the observations from the adsorber monitoring devices required by Conditions V.B.1 and 2.
- i. A log of the visual observations, Method 9 visible emissions evaluations, and the cause and corrective measures taken as required by Condition V.B.5.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
NO _x	EPA Method 7
SO ₂	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

VI. Process Equipment Requirements – (Buildings 2, 3, 4, 6, 14, 19, TR19 and TR21 Emission Unit ID Laboratory Facilities)

A. Limitations

Combined emissions from the operation of the operation of the laboratory facilities in Buildings 2, 3, 4, 6, and 19 shall not exceed 7.5 tons of VOC per year.

(9 VAC 5-80-110, Condition 45 of the 10/29/07 permit)

B. Recordkeeping

The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Director, Piedmont Region. These records shall include the annual throughput of each chemical containing volatile organic compounds and/or hazardous air pollutants as defined by Section 112(b)(1) of the Clean Air Act used in the laboratories at the Colonial Heights Site, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-80-110 and Condition 58 of the 10/29/07 Permit)

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
PM/PM-10	EPA Method 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

VIII. Process Equipment Requirements – (Cold Solvent Cleaner, Emission Unit ID CSC)

A. Limitations

1. The permittee shall equip the cold solvent cleaner with a control method that will remove, destroy, or prevent the discharge into the atmosphere of at least 85 percent by weight of all volatile organic compound emissions. Compliance with this emission standard will be demonstrated by compliance with the applicable control and operating requirements of 9 VAC 5-40-3290 C.
(9 VAC 5-50-260, 9 VAC 5-80-850 F, and Condition 11 of 10/29/07 Permit)
2. The requirement in Condition VIII.A.1. shall be achieved by using the following methods:
 - a. Reservoirs shall be covered or enclosed. Covers shall be designed so that they can be easily operated with one hand. Enclosed remote reservoirs should be designed such that they provide reduction effectiveness equivalent to that of a cover.
 - b. External or internal drainage facilities shall be provided to collect and return the solvent to a closed container or a solvent cleaning machine. If solvent volatility is greater than 0.6 psi measured at 100° F, then the drainage facilities shall be internal, so that parts are enclosed under the cover while draining. The drainage system may be external for applications where an internal type cannot fit into the cleaning system.
 - c. A permanent label, summarizing the operating procedures listed below, shall be placed in a conspicuous location on or near the cold solvent cleaner.
 - d. If used, the solvent spray should be a solid stream and not a fine, atomized, or shower type spray, and at a pressure that does not cause excessive splashing.
 - e. Waste solvent should not be disposed of or transferred to another party, such that greater than 20% of the waste (by weight) can evaporate into the atmosphere. Store waste solvent only in closed containers.
 - f. The parts washer cover should be closed whenever not handling parts in the cleaner.
 - g. Parts shall drain for at least 15 seconds or until dripping ceases.
 - h. Disposal of waste solvent from solvent metal cleaning operations should be by either reclamation (either by outside services or in house) or incineration.
(9 VAC 5-50-260, VAC 5-80-850 F and 9 VAC 5-40-3290)
3. The cold solvent cleaner (s) shall not use any cleaning solvents which contain methylene chloride, perchloroethylene, trichloroethylene, 1,1,1-trichloroethane, carbon tetrachloride, chloroform, or any combination of these halogenated hazardous air pollutant solvents, in a total concentration that is greater than 5 percent by weight.
(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 13 of 10/29/07 Permit)

B. Recordkeeping

1. The permittee shall develop, and submit to the Director, Piedmont Region for review and approval, checklists of the work practices required in Condition VIII.A.2 for the cold solvent cleaner. These checklists shall be submitted for approval no later than 180 days after the initial issuance of this Title V permit. The permittee shall use these checklists monthly to perform an inspection of the work practices used on the unit. The permittee shall record the time, date, and name of the staff member performing each inspection, as well as the annotated checklist for that inspection. Any deviations from the required work practices shall be corrected as expeditiously as possible and noted on the checklist.
(9 VAC 5-80-110)

2. The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Director. These records shall include, but are not limited to:
 - a. Annual throughput of solvent for the cold solvent cleaner(s), calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
 - b. The type of cleaning solvent used by the cold solvent cleaner(s) and the total concentration by weight of the individual cleaning solvent used or any combination of cleaning solvents used by the cold solvent cleaner(s).

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.
(9 VAC 5-80-110)

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
Volatile Organic Compounds	EPA Method 24

(9 VAC 5-80-110)

IX. Process Equipment Requirements – (Lindberg Oven)

A. Limitations

Annual operating cycles for the Lindberg oven shall not exceed 19,272 periods per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.

(9 VAC 5-50-260, 9 VAC 5-80-850 F and Condition 20 of 10/29/07 Permit)

B. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Director. **These records shall include, but are not limited to** the yearly operating cycles for the Lindberg oven, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months. These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110 and Condition 58 of the 10/29/07 Permit)

C. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
Volatile Organic Compounds	EPA Method 24

(9 VAC 5-80-110)

X. Process Equipment Requirements – (Tanks) Emission Unit ID OWS and #2 Fuel Oil Tank)

A. Limitations

1. Volatile Organic Compound emissions from the Oil/Water Separator (EU ID #OWS) shall be controlled by a sealed cover which shall be maintained in proper working order at all times.
(9 VAC 5-80-110 and Condition 8 of 10/29/07 Permit)
2. The #2 Fuel Oil Tank shall be authorized to store only #2 fuel oil. A change in the material stored may require a permit to modify and operate.
(9 VAC 5-80-110 and Condition 14 of 10/29/07 Permit)
3. The throughput of distillate oil (#2 fuel oil) for the #2 Fuel Oil Tank shall not exceed 7,300,000 gallons per year, calculated monthly as the sum of each consecutive 12-month period. Compliance for the consecutive 12-month period shall be demonstrated monthly by adding the total for the most recently completed calendar month to the individual monthly totals for the preceding 11 months.
(9 VAC 5-80-110 and Condition 14 of 10/29/07 Permit)

B. Monitoring

The permittee shall annually inspect the sealed cover for the oil water separator to ensure that it is in proper working order.

(9 VAC 5-80-110)

C. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such records shall be arranged with the Piedmont Regional Director. These records shall include, but are not limited to:

- a. Records of all products stored in storage tank, #2 Fuel Oil Tank, the period of storage, and the maximum true vapor pressure of the product during the respective storage period.
- b. Records showing the dimensions and capacities of storage tank, #2 Fuel Oil Tank.
- c. Annual throughput of products through #2 Fuel Oil Tank, calculated monthly as the sum of the previous 12-month period.
- d. A log of annual inspections of the Oil/Water Separator sealed cover.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

D. Testing

1. The permitted facility shall be constructed so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.

(9 VAC 5-50-30 and 9 VAC 5-80-110)

2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
Volatile Organic Compounds	EPA Method 24

(9 VAC 5-80-110)

XI. Facility-wide Conditions

A. Limitations

1. Total emissions from the Colonial Heights Site shall not exceed the limits specified below:

Particulate Matter	14.4	lbs/hr	71.0	tons/yr
PM-10	17.6	lbs/hr	83.1	tons/yr
Sulfur Dioxide	19.6	lbs/hr	85.0	tons/yr
Nitrogen Oxides (as NO ₂)	8.6	lbs/hr	24.7	tons/yr
Carbon Monoxide	3.9	lbs/hr	14.3	tons/yr
Volatile Organic Compounds	12.3	lbs/hr	28.2	tons/yr
Chlorinated Solvents	181.3	lbs/hr	190.8	tons/yr
	4,063.2	lbs/day		
Ethylene Glycol (CAS # 107-21-1)	1.8	lbs/hr	1.0	tons/yr

(9 VAC 5-80-850, Condition 46 of 10/29/07 Permit)

2. At all times the disposal of volatile organic compounds shall be accomplished by taking measures, to the extent practicable, consistent with air pollution control practices for minimizing emissions. Volatile organic compounds shall not be intentionally spilled, discarded in sewers which are not connected to a treatment plant, or stored in open containers, or handled in any other manner that would result in evaporation beyond that consistent with air pollution practices for minimizing emissions.
(9 VAC 5-80-110)
3. Hazardous air pollutant (HAP) emissions, as defined by § 112(b) of the Clean Air Act shall not exceed 10 tons per year of any individual HAP or 25 tons per year of any combination, calculated monthly as the sum of each consecutive 12-month period.
(9 VAC 5-80-110)

B. Recordkeeping

The permittee shall maintain records of all emission data and operating parameters necessary to demonstrate compliance with this permit. The content and format of such

records shall be arranged with the Piedmont Regional Director. These records shall include, but are not limited to:

1. The yearly throughput of hazardous air pollutants, as defined by Section 112(b) of the Clean Air Act, calculated monthly as the sum of each consecutive 12-month period, for all facility-wide operations. This recordkeeping is required for those hazardous air pollutants whose actual emissions are greater than 0.05 tons or 100 pounds in the most recent 12-month period.
2. Current Material Safety Data Sheets (MSDS) for all facility-wide operations at the Honeywell International, Inc. Technical Center. As a minimum, these material safety data sheets shall contain the following: each product's VOC content, by weight; density/specific gravity; and hazardous air pollutant content, by weight.
3. The total of the previous twelve month facility-wide emissions as listed in Condition XI.A.1.
4. The results of all stack tests, visible emissions evaluations and performance evaluations.

These records shall be available on site for inspection by the DEQ and shall be current for the most recent five (5) years.

(9 VAC 5-80-110)

C. Testing

1. The permitted facility shall be constructed and maintained so as to allow for emissions testing at any time using appropriate methods. Upon request from the Department, test ports shall be provided at the appropriate locations.
(9 VAC 5-50-30 and 9 VAC 5-80-110)
2. If testing is conducted in addition to the monitoring specified in this permit, the permittee shall use the following test methods in accordance with procedures approved by the DEQ as follows:

Pollutant	Test Method (40 CFR Part 60, Appendix A)
NO _x	EPA Method 7
SO ₂	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Methods 5, 17
Visible Emission	EPA Method 9
Volatile Organic Compounds	EPA Method 24

(9 VAC 5-80-110)

XII. Insignificant Emission Units

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

Emission Unit No.	Emission Unit Description	Citation	Pollutant(s) Emitted (9 VAC 5-80-720 B)	Rated Capacity (9 VAC 5-80-720 C)
HT-19	Dowtherm Relief Storage Tank (pressurized)	9 VAC 5-80-270 B	VOC	100 gallons
HT-21	Gasoline Tank			250 gallons
HT-22	Mobifuel Diesel Fuel Tank			250 gallons
HT-24	Fire Pump Diesel Tank			175 gallons
1HT-5430	White Walpit Oil Horizontal Fixed Roof Tank (pressurized)		VOC	6000 gallons
Liquid Nitrogen	Liquid Nitrogen Storage Tank (pressurized)			9000 gallons
VT-221	White Walpit Oil Vertical Fixed Roof Tank			600 gallons
VT-222	White Walpit Oil Vertical Fixed Roof Tank			600 gallons
VT-301	Recycled Oil Storage Tank			600 gallons
VT-302	Recycled Oil Storage Tank			600 gallons
VT-7061	Aluminum non-HAP VOC Tank			3 gal/min, 480 gallons
VT-01	Walpit Oil			440 gal
HT-5430 A	Walpit Oil			8500 gal
VT-5313	Walpit Oil (Line5/8)	1000 gal		
VT-5307	Slurry Oil(5/8)	240 gal		
HT-5876	Virgin chlorinated solvent	8250 gal		
HT-5880	Used chlorinated solvent	8250 gal		
VT-119	Walpit oil/water/ chlorinated solvent	2000 gal		
VT-100	Walpit Oil	300 gal		
VT-5100	Walpit oil/ chlorinated solvent	700 gal		

VT-5101	Chlorinated solvent			300 gal
VT-322	Walpit oil/ chlorinated solvent - SRU			300 gal
BB 2	Walpit oil/ chlorinated solvent			70 gal
BB 3	Walpit oil/ chlorinated solvent			300 gal
BB4	Walpit oil/ chlorinated solvent			300 gal
VT-2918	Walpit Oil Slurry			79 gal
VT-5784	Walpit Oil Slurry			79 gal
VT-1000	Walpit Oil			517 gal
VT-5413	Walpit oil/ chlorinated solvent			600 gal
D- 5447	Walpit oil/ chlorinated solvent			1000 gal
VT-5829	Walpit oil/water			151 gal
VT-5674	Dirty walpit oil			1043 gal
VT-5678	Clean walpit oil			1580 gal
VT-398	Walpit oil			100 gal
HT-5413	Therminol			30 gal
HT-154	Therminol			49 gal
HT-1012	Therminol			200 gal
HT-5319	Therminol			235 gal
HT-6047	Therminol			150 gal
Used Oil	Used Lube Oil Tank			400 gallons

These emission units are presumed to be in compliance with all requirements of the federal 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.

XIII. Permit Shield & Inapplicable Requirements

Compliance with the provisions of this permit shall be deemed compliance with all applicable requirements in effect as of the permit issuance date as identified in this permit. This permit shield covers only those applicable requirements covered by terms and conditions in this permit and the following requirements which have been specifically identified as being not applicable to this permitted facility:

Citation	Title of Citation	Description of Applicability
None identified		

Nothing in this permit shield shall alter the provisions of §303 of the federal Clean Air Act, including the authority of the administrator under that section, the liability of the owner for any violation of applicable requirements prior to or at the time of permit issuance, or the ability to obtain information by the administrator pursuant to §114 of the federal Clean Air Act, (ii) the Board pursuant to §10.1-1314 or §10.1-1315 of the Virginia Air Pollution Control Law or (iii) the Department pursuant to §10.1-1307.3 of the Virginia Air Pollution Control Law.
(9 VAC 5-80-140)

XIV. General Conditions

A. Federal Enforceability

All terms and conditions in this permit are enforceable by the administrator and citizens under the federal Clean Air Act, except those that have been designated as only state-enforceable.

(9 VAC 5-80-110 N)

B. Permit Expiration

This permit has a fixed term of five years. The expiration date shall be the date five years from the date of issuance. Unless the owner submits a timely and complete application for renewal to the Department consistent with the requirements of 9 VAC 5-80-80, the right of the facility to operate shall be terminated upon permit expiration.

1. The owner shall submit an application for renewal at least six months but no earlier than eighteen months prior to the date of permit expiration.
2. If an applicant submits a timely and complete application for an initial permit or renewal under this section, the failure of the source to have a permit or the operation of the source without a permit shall not be a violation of Article 1, Part II of 9 VAC 5 Chapter 80, until the Board takes final action on the application under 9 VAC 5-80-150.
3. No source shall operate after the time that it is required to submit a timely and complete application under subsections C and D of 9 VAC 5-80-80 for a renewal permit, except in compliance with a permit issued under Article 1, Part II of 9 VAC 5 Chapter 80.
4. If an applicant submits a timely and complete application under section 9 VAC 5-80-80 for a permit renewal but the Board fails to issue or deny the renewal permit before the end of the term of the previous permit, (i) the previous permit shall not expire until the renewal permit has been issued or denied and (ii) all the terms and conditions of the previous permit, including any permit shield granted pursuant to 9 VAC 5-80-140, shall remain in effect from the date the application is determined to be complete until the renewal permit is issued or denied.
5. The protection under subsections F 1 and F 5 (ii) of section 9 VAC 5-80-80 F shall cease to apply if, subsequent to the completeness determination made pursuant section 9 VAC 5-80-80 D, the applicant fails to submit by the deadline specified in writing by the Board any additional information identified as being needed to process the application.

(9 VAC 5-80-80 B, C and F, 9 VAC 5-80-110 D and 9 VAC 5-80-170 B)

C. Recordkeeping and Reporting

1. All records of monitoring information maintained to demonstrate compliance with the terms and conditions of this permit shall contain, where applicable, the following:
 - a. The date, place as defined in the permit, and time of sampling or measurements.
 - b. The date(s) analyses were performed.
 - c. The company or entity that performed the analyses.
 - d. The analytical techniques or methods used.
 - e. The results of such analyses.
 - f. The operating conditions existing at the time of sampling or measurement.

(9 VAC 5-80-110 F)

2. Records of all monitoring data and support information shall be retained for at least five years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.

(9 VAC 5-80-110 F)

3. The permittee shall submit the results of monitoring contained in any applicable requirement to DEQ no later than **March 1** and **September 1** of each calendar year. This report must be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

- a. The time period included in the report. The time periods to be addressed are January 1 to June 30 and July 1 to December 31.
- b. All deviations from permit requirements. For purposes of this permit, deviations include, but are not limited to:

(1) Exceedance of emissions limitations or operational restrictions;

(2) Excursions from control device operating parameter requirements, as documented by continuous emission monitoring, periodic monitoring, or compliance assurance monitoring which indicates an exceedance of emission limitations or operational restrictions; or,

(3) Failure to meet monitoring, recordkeeping, or reporting requirements contained in this permit.

- c. If there were no deviations from permit conditions during the time period, the permittee shall include a statement in the report that “no deviations from permit requirements occurred during this semi-annual reporting period.”

(9 VAC 5-80-110 F)

D. Annual Compliance Certification

Exclusive of any reporting required to assure compliance with the terms and conditions of this permit or as part of a schedule of compliance contained in this permit, the permittee shall submit to EPA and DEQ no later than **March 1** each calendar year a certification of compliance with all terms and conditions of this permit including emission limitation standards or work practices. The compliance certification shall comply with such additional requirements that may be specified pursuant to §114(a)(3) and §504(b) of the federal Clean Air Act. This certification shall be signed by a responsible official, consistent with 9 VAC 5-80-80 G, and shall include:

1. The time period included in the certification. The time period to be addressed is January 1 to December 31.
2. The identification of each term or condition of the permit that is the basis of the certification.
3. The compliance status.
4. Whether compliance was continuous or intermittent, and if not continuous, documentation of each incident of non-compliance.
5. Consistent with subsection 9 VAC 5-80-110 E, the method or methods used for determining the compliance status of the source at the time of certification and over the reporting period.
6. Such other facts as the permit may require to determine the compliance status of the source.

One copy of the annual compliance certification shall be sent to EPA at the following address:

Clean Air Act Title V Compliance Certification (3AP00)
U. S. Environmental Protection Agency, Region III
1650 Arch Street
Philadelphia, PA 19103-2029.

(9 VAC 5-80-110 K.5)

E. Permit Deviation Reporting

1. The permittee shall notify the Director, Piedmont Region, within four daytime business hours of any deviations from permit requirements which may cause excess emissions for more than one hour, including those attributable to upset conditions as may be defined in this permit. In addition, within 14 days of the occurrence, the permittee shall provide a written statement explaining the problem, any corrective actions or preventative measures taken, and the estimated duration of the permit deviation. The occurrence should also be reported in the next semi-annual compliance monitoring report pursuant to General Condition X.C.3. of this permit. (9 VAC 5-80-110 F.2 and 9 VAC 5-80-250)
2. Written reports containing the following information to the CAM plan shall be submitted to the Piedmont Regional Office no later than **March 1** for the reporting period of July 1 through December 31 and **September 1** for the reporting period of January 1 through June 30 of each calendar year. This report shall be signed by a responsible official, consistent with 9 VAC 5-80-80G, and shall include the following:
 - a. A summary of information on the number, duration and cause (including unknown causes if applicable) of excursions and the corrective actions taken;
 - b. A description of actions taken to implement a QIP during the reporting period as specified in 40 CFR 64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the plan has been completed and reduced the likelihood of similar levels of excursions.
(9 VAC 5-80-10 and 40 CFR § 64.9 (a)(2))

F. Failure/Malfunction Reporting

If, for any reason, the affected facilities or related air pollution control equipment fails or malfunctions and may cause excess emissions for more than one hour, the owner shall notify the Director, Piedmont Region, within four (4) daytime business hours of the occurrence. In addition, the owner shall provide a written statement, within 14 days, explaining the problem, corrective action taken, and the estimated duration of the breakdown/shutdown.
(9 VAC 5-80-250)

G. Severability

The terms of this permit are severable. If any condition, requirement or portion of the permit is held invalid or inapplicable under any circumstance, such invalidity or inapplicability shall not affect or impair the remaining conditions, requirements, or portions of the permit.
(9 VAC 5-80-110 G.1)

H. Duty to Comply

The permittee shall comply with all terms and conditions of this permit. Any permit noncompliance constitutes a violation of the federal Clean Air Act or the Virginia Air Pollution Control Law or both and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or, for denial of a permit renewal application.

(9 VAC 5-80-110 G.2)

I. Need to Halt or Reduce Activity not a Defense

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(9 VAC 5-80-110 G.3)

J. Permit Modification

A physical change in, or change in the method of operation of, this stationary source may be subject to permitting under State Regulations 9 VAC 5-80-50, 9 VAC 5-80-1100, 9 VAC 5-80-1790, or 9 VAC 5-80-2000 and may require a permit modification and/or revisions except as may be authorized in any approved alternative operating scenarios.

(9 VAC 5-80-190 and 9 VAC 5-80-260)

K. Property Rights

The permit does not convey any property rights of any sort, or any exclusive privilege.

(9 VAC 5-80-110 G.5)

L. Duty to Submit Information

1. The permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Board copies of records required to be kept by the permit and, for information claimed to be confidential, the permittee shall furnish such records to the Board along with a claim of confidentiality.

(9 VAC 5-80-110 G.6)

2. Any document (including reports) required in a permit condition to be submitted to the Board shall contain a certification by a responsible official that meets the requirements of 9 VAC 5-80-80 G.

(9 VAC 5-80-110 K.1)

M. Duty to Pay Permit Fees

The owner of any source for which a permit under 9 VAC 5-80-50 through 9 VAC 5-80-300 was issued shall pay permit fees consistent with the requirements of 9 VAC 5-80-310 through 9 VAC 5-80-350. The actual emissions covered by the permit program fees for the preceding year shall be calculated by the owner and submitted to the Department by April 15 of each year. The calculations and final amount of emissions are subject to verification and final determination by the Department.
(9 VAC 5-80-110 H and 9 VAC 5-80-340 C)

N. Fugitive Dust Emission Standards

During the operation of a stationary source or any other building, structure, facility, or installation, no owner or other person shall cause or permit any materials or property to be handled, transported, stored, used, constructed, altered, repaired, or demolished without taking reasonable precautions to prevent particulate matter from becoming airborne. Such reasonable precautions may include, but are not limited to, the following:

1. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the grading of roads, or the clearing of land;
2. Application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces which may create airborne dust; the paving of roadways and the maintaining of them in a clean condition;
3. Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty material. Adequate containment methods shall be employed during sandblasting or other similar operations;
4. Open equipment for conveying or transporting material likely to create objectionable air pollution when airborne shall be covered or treated in an equally effective manner at all times when in motion; and;
5. The prompt removal of spilled or tracked dirt or other materials from paved streets and of dried sediments resulting from soil erosion;

(9 VAC 5-40-90 and 9 VAC 5-50-90)

O. Startup, Shutdown, and Malfunction

At all times, including periods of startup, shutdown, soot blowing, and malfunction, owners shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with air pollution control practices for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Board, which may include, but is not limited to, monitoring

results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(9 VAC 5-50-20)

P. Alternative Operating Scenarios

Contemporaneously with making a change between reasonably anticipated operating scenarios identified in this permit, the permittee shall record in a log at the permitted facility a record of the scenario under which it is operating. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions under each such operating scenario. The terms and conditions of each such alternative scenario shall meet all applicable requirements including the requirements of 9 VAC 5 Chapter 80, Article 1. (9 VAC 5-80-110 J)

Q. Inspection and Entry Requirements

The permittee shall allow DEQ, upon presentation of credentials and other documents as may be required by law, to perform the following:

1. Enter upon the premises where the source is located or emissions-related activity is conducted, or where records must be kept under the terms and conditions of the permit.
2. Have access to and copy, at reasonable times, any records that must be kept under the terms and conditions of the permit.
3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit.
4. Sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or applicable requirements.

(9 VAC 5-80-110 K.2)

R. Reopening For Cause

The permit shall be reopened by the Board if additional federal requirements become applicable to a major source with a remaining permit term of three years or more. Such reopening shall be completed no later than 18 months after promulgation of the applicable requirement. No such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended pursuant to 9 VAC 5-80-80 F.

1. The permit shall be reopened if the Board or the administrator determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit.
2. The permit shall be reopened if the administrator or the Board determines that the permit must be revised or revoked to assure compliance with the applicable requirements.
3. The permit shall not be reopened by the Board if additional applicable state requirements become applicable to a major source prior to the expiration date established under 9 VAC 5-80-110 D.

(9 VAC 5-80-110 L)

S. Permit Availability

Within five days after receipt of the issued permit, the permittee shall maintain the permit on the premises for which the permit has been issued and shall make the permit immediately available to DEQ upon request.

(9 VAC 5-80-150 E)

T. Transfer of Permits

1. No person shall transfer a permit from one location to another, unless authorized under 9 VAC 5-80-130, or from one piece of equipment to another.
(9 VAC 5-80-160)
2. In the case of a transfer of ownership of a stationary source, the new owner shall comply with any current permit issued to the previous owner. The new owner shall notify the Board of the change in ownership within 30 days of the transfer and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)
3. In the case of a name change of a stationary source, the owner shall comply with any current permit issued under the previous source name. The owner shall notify the Board of the change in source name within 30 days of the name change and shall comply with the requirements of 9 VAC 5-80-200.
(9 VAC 5-80-160)

U. Malfunction as an Affirmative Defense

1. A malfunction constitutes an affirmative defense to an action brought for noncompliance with technology-based emission limitations if the conditions of paragraph 2 are met.

2. The affirmative defense of malfunction shall be demonstrated by the permittee through properly signed, contemporaneous operating logs, or other relevant evidence that show the following:
 - a. A malfunction occurred and the permittee can identify the cause or causes of the malfunction.
 - b. The permitted facility was at the time being properly operated.
 - c. During the period of the malfunction the permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the permit.
 - d. The permittee notified the Board of the malfunction within two working days following the time when the emission limitations were exceeded due to the malfunction. This notification shall include a description of the malfunction, any steps taken to mitigate emissions, and corrective actions taken. The notification may be delivered either orally or in writing. The notification may be delivered by electronic mail, facsimile transmission, telephone, or any other method that allows the permittee to comply with the deadline. This notification fulfills the requirements of 9 VAC 5-80-110 F.2.b to report promptly deviations from permit requirements. This notification does not release the permittee from the malfunction reporting requirement under 9 VAC 5-20-180 C.
3. In any enforcement proceeding, the permittee seeking to establish the occurrence of a malfunction shall have the burden of proof.
4. The provisions of this section are in addition to any malfunction, emergency or upset provision contained in any applicable requirement.
(9 VAC 5-80-250)

V. Permit Revocation or Termination for Cause

A permit may be revoked or terminated prior to its expiration date if the owner knowingly makes material misstatements in the permit application or any amendments thereto or if the permittee violates, fails, neglects or refuses to comply with the terms or conditions of the permit, any applicable requirements, or the applicable provisions of 9 VAC 5 Chapter 80 Article 1. The Board may suspend, under such conditions and for such period of time as the Board may prescribe any permit for any of the grounds for revocation or termination or for any other violations of these regulations.

(9 VAC 5-80-190 C and 9 VAC 5-80-260)

W. Duty to Supplement or Correct Application

Any applicant who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrections. An applicant shall also provide additional information as necessary to address any

requirements that become applicable to the source after the date a complete application was filed but prior to release of a draft permit.

(9 VAC 5-80-80 E)

X. Stratospheric Ozone Protection

If the permittee handles or emits one or more Class I or II substances subject to a standard promulgated under or established by Title VI (Stratospheric Ozone Protection) of the federal Clean Air Act, the permittee shall comply with all applicable sections of 40 CFR Part 82, Subparts A to F.

(40 CFR Part 82, Subparts A-F)

Y. Accidental Release Prevention

If the permittee has more, or will have more than a threshold quantity of a regulated substance in a process, as determined by 40 CFR 68.115, the permittee shall comply with the requirements of 40 CFR Part 68.

(40 CFR Part 68)

Z. Changes to Permits for Emissions Trading

No permit revision shall be required under any federally approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in this permit.

(9 VAC 5-80-110 I)

AA. Emissions Trading

Where the trading of emissions increases and decreases within the permitted facility is to occur within the context of this permit and to the extent that the regulations provide for trading such increases and decreases without a case-by-case approval of each emissions trade:

1. All terms and conditions required under 9 VAC 5-80-110, except subsection N, shall be included to determine compliance.
2. The permit shield described in 9 VAC 5-80-140 shall extend to all terms and conditions that allow such increases and decreases in emissions.
3. The owner shall meet all applicable requirements including the requirements of 9 VAC 5-80-50 through 9 VAC 5-80-300.

(9 VAC 5-80-110 I)