COMMONWEALTH OF VIRGINIA
Department of Environmental Quality
Piedmont Regional Office

STATEMENT OF LEGAL AND FACTUAL BASIS

Honeywell Colonial Heights Site
Chesterfield County, Virginia
Permit No. PRO50831

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, Honeywell International Inc. has applied for a Title V Operating Permit for its Colonial Heights Site in Colonial Heights. The Department has reviewed the application and has issued a Title V Operating Permit.

Engineer/Permit Contact:_____ Date:

Air Permit Manager:_____ Date:

Regional Permit Manager:_____ Date:

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 and 5 are routed to older carbon beds (with 97% efficiency) followed by a Halosorb unit (molecular sieve) for an overall control efficiency of 99%. Chlorinated solvent emissions from Lines 12 and 13 are routed to carbon adsorption units with control efficiencies of at least 99%.

COMPLIANCE STATUS

A full compliance evaluation of this facility, including a site visit, was conducted on August 29, 2006. The source was found to be out of compliance at that time, but has since been put back in compliance. In addition, all reports and other data required by permit conditions or regulations, which are submitted to DEQ, have been evaluated for compliance. Based on these compliance evaluations, the facility has not been found to be in violation of any state or federal applicable requirements at this time.

EMISSION UNIT AND CONTROL DEVICE IDENTIFICATION

The emissions units at this facility consist of the following:

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
				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	Micro Pulsaire 4000 Mist Collector	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 5	13V-4	Polyolefin Fiber Process Line	30.9 fiber units	Oil Mist Collector	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 8	13V-4	Polyolefin Fiber Process Line	30.9 fiber units	Oil Mist Collector	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 12	23V-01	Polyolefin Fiber Process Line	6.6 fiber units	Oil Mist Eliminator	OME-12	PM, VOC	10/29/2007
	23V-02			Carbon Adsorption Bed	CB-4	Chlorinated Solvent	10/29/2007
Line 13	23V-01	Polyolefin Fiber Process Line	6.7 fiber units	Oil Mist Eliminator	OME-13	PM, VOC	10/29/2007
	23V-02			Carbon Adsorption Bed	CB-5	Chlorinated Solvent	10/29/2007
Building 4							
Lindberg Oven		Spinning Equipment Burnoff Oven					10/29/2007
Buildings 2, 3, 4, 6, 14,19, TR19 and TR21: Laboratory Facilities							
		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	75 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
		with the chillers/ODS equipment					
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 type cooling tower used in tandem with the chillers/ODS equipment	1,800 gal/min				10/29/2007
Degreaser – Cold Solvent Cleaner							
		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

EMISSIONS INVENTORY

A copy of the 2006 annual emission update is attached. Emissions are summarized in the following tables. The facility is major for chlorinated solvent, with emissions of **183.3** tons/yr in 2006. Chlorinated solvent is neither a criteria pollutant nor a hazardous air pollutant, but is regulated under Title VI of the Clean Air Act.

2006 Actual Emissions

	2006 Criteria Pollutant Emission in Tons/Year				
Emission Unit	VOC	CO	SO_2	PM_{10}	NO_x
Total	20.20	6.12	0.17	59.66	7.56

2006 Facility Hazardous Air Pollutant Emissions

Pollutant	2006 Hazardous Air Pollutant Emission in Tons/Yr
1,1,2,2-Tetrachloroethane	0.0135
Acetonitrile	0
Acrolein	0
Carbon Tetrachloride	0.0045
Chloroform	0.0510
Ethylene Glycol	0.0020
Formaldehyde	0.0090
n-Hexane	0.1710
Methanol	0.2080
o-Cresol	0.0270
Phenol	0.0320
Toluene	0.0050
m-Xylene	0

EMISSION UNIT APPLICABLE REQUIREMENTS -

The emission unit applicable requirements are embodied in the NSR permit dated October 15, 2004, March 15, 2006 and the SOP dated October 29, 2007.

Emission Limits

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 nor 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
PM-10	0.2 lbs/hr	1.1 tons/yr
Sulfur Dioxide	8.8 lbs/hr	38.3 tons/yr
Nitrogen Oxides (as NO2)	2.5 lbs/hr	10.8 tons/yr
Carbon Monoxide	0.6 lbs/hr	6.1 tons/yr

(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 NO2)	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 41 of 10/29/07 Permit)

7. 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)

8. 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.
(9 VAC 5-40-80 and 9 VAC 5-80-110, and Condition 53 of 10/29/07 Permit)

9. 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)

10. 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)

11. 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

(9 VAC 5-80-110, and Condition 43 of 10/29/07 Permit)

12. 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 30 of 10/29/07 Permit)

13. 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 in which visible emissions shall not exceed 60 percent opacity. (9 VAC 5-40-80, 9 VAC 5-80-110)

14. 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)

15. 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)

16. 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)

17. 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%. 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)

18. 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 99%. 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)

19. 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% and OME-12 shall maintain a removal efficiency of at least 97%. Each mist eliminator shall be provided with adequate access for inspection and shall be in operation when Lines 2, 3, 4, 5, 8, and 12 are operating.
(9 VAC 5-80-110 and Condition 5 of 10/29/07 Permit)

20. 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)

21. 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)

22. 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)

23. 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)

24. 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)

25. 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)

26. 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)

27. 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 4,063.2	lbs/hr 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.1-6 and V.C.

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

28. 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 4,063.2	lbs/hr lbs/day	190.8	tons/yr
Ethylene Glycol (CAS # 107-21-1)	1.8	lbs/hr	1.0	tons/yr

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

29. 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)

30. Combined emissions from the operation of the operation of the laboratory facilities in Buildings 2, 3, 5, 6, and 19 shall not exceed 7.5 tons of VOC per year.

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

31. Chromium shall not be used as a water treatment chemical for the cooling towers.
(9 VAC 5-50-260, 9 VAC 5-80-850 F, and Condition 10 of the 10/29/07 Permit)

32. Combined emissions from the operation of the Marley Induced Draft Cooling Towers, EU ID #TW-3, TW-5, TW-6, TW-7, TW-8, TW-9, TW-10 and TW-11 shall not exceed the limits below:

PM-10	13.6 lbs/hr	59.2 tons/yr

(9 VAC 5-80-850 and Condition 44 of 10/29/07 Permit)

33. Emissions from the operation of the non-contact evaporative type cooling tower (EU ID #TW-11) shall not exceed the emission limits below:

PM-10	2.1 lbs/hr	9.1 tons/yr

(9 VAC 5-80-110, 9 VAC 5-50-260 and Condition 8 of 10/15/04 Permit)

34. Honeywell International, Incorporated Colonial Heights Site 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)

35. 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)

36. 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 8 of 10/15/04 Permit)

37. The 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)

(The Lindberg oven is the sole remaining piece from the SOP's EU list for Building 4)

38. 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)

39. 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)

40. 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)

41. 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)

42. 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)

Recordkeeping & 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 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 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 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)

3. 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)

4. 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)

5. The carbon adsorption bed (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)

6. 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)

7. 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)

8. 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 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.

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. A log of the observations from the adsorber monitoring devices required by Conditions V.B.1 and 2.

h. 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.

Results of all stack tests, visible emission evaluations and performance evaluations.

These records shall be available for inspection by the DEQ and shall be current

for the most recent five years.
(9 VAC 5-80-110)

9. 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)

10. 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 combined yearly throughput of water, calculated monthly as the sum of each consecutive 12-month period, for the Marley Induced Draft Cooling Towers, EU ID #TW-3, TW-5, TW-6, TW-7, TW-8, TW-9, and TW-10.
b. The throughput of water, calculated monthly as the sum of each consecutive 12-month period, for the non-contact evaporative cooling tower (EU ID #TW-11). 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)

12. The permittee shall develop, and submit to the Director, Piedmont Region for review and approval, checklists of the work practices required in Condition IX.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)

13. 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:

Monthly records of daily and annual VOC emissions (solvent loss) from the operation of the cold solvent cleaner.

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)

14. 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 throughput of products through storage tank, #2 Fuel Oil Tank, calculated monthly as the sum of each consecutive 12-month period.
b. 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.

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)

15. 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.

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)

17. 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 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 at the Honeywell International, Inc. Colonial Heights Site. 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.

b. Current Material Safety Data Sheets (MSDS) for all facility-wide operations at the Honeywell International, Inc. Colonial Heights Site. 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.

c. The total of the previous twelve month facility-wide emissions as listed in Condition XI.A.1.

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)

18. 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)

19. 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)

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
SO2	EPA Method 6
CO	EPA Method 10
PM/PM-10	EPA Methods 5, 17
Visible Emission	EPA Method 9

(9 VAC 5-80-110)

GENERAL CONDITIONS

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

FUTURE APPLICABLE REQUIREMENTS

This facility will be required to submit a Compliance Assurance Monitoring (CAM) plan with its initial Title V renewal application.

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.

Insignificant emission units include the following:

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 (Line 5,8)			1000 gal
VT-5307	Slurry Oil(Line 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

CONFIDENTIAL INFORMATION

In order to facilitate a public review, the SPECTRA production limits are listed in a confidential format.

PUBLIC PARTICIPATION

The proposed permit was placed on public notice in the *Progress Index* newspaper of Colonial Heights, VA on June 11, 2008 and also went through a 45-day EPA review. There were no comments in either situation.