

Fact Sheet



*For Final Renewal Permitting Action Under 45CSR30 and
Title V of the Clean Air Act*

Permit Number: **R30-10700001-2009**

Plant Identification Number: **107-00001**

Permittee: **E. I. duPont de Nemours & Company, Inc.**

Facility Name: **Washington Works**

Business Unit: **Facilities, Construction, and Support (FC&S) (Part 12 of 14)**

Mailing Address: **P. O. Box 1217, Washington, WV 26181-1217**

Physical Location: Washington, Wood County, West Virginia
UTM Coordinates: 442.368 km Easting • 4,346.679 km Northing • Zone 17
Directions: Route 68 west from Parkersburg to intersection of Route 862. Continue west on Route 862 with the plant being on the north side about one mile from the intersection of Routes 68 and 862.

Facility Description

Facilities Construction & Support provides specialized maintenance services and construction capabilities to the Manufacturing units at the DuPont Washington Works.

Facilities, Construction, and Support (FC&S) performs operations such as welding, painting, insulation fabrication and installation, and vehicle refueling in support of specific projects and specific maintenance requirements for other business units at the site. Included in this group are contracted services that are brought on-site for specialized activities of short duration, such as large component cleaning, sandblasting and painting.

DuPont Washington Works has divided the Title V Permit Application into the following fourteen separate business units for which each will receive a Title V Permit:

Acrylic Resin Production	Part 1 of 14
Fluoropolymer Production	Part 2 of 14
Acetal Resin Production	Part 3 of 14
Polyvinyl Butyral Production	Part 4 of 14
Nylon Resins Production	Part 5 of 14
Engineering Polymers Compounding Production - East	Part 6 of 14
Engineering Polymers Compounding Production - West	Part 7 of 14
Specialty Compounding Production	Part 8 of 14
Filaments Production	Part 9 of 14
Power and Service Support Facilities	Part 10 of 14
Research and Development (R&D)	Part 11 of 14
Facilities, Construction and Support (FC&S)	Part 12 of 14
Central Laboratory Services	Part 13 of 14
Central Maintenance Services	Part 14 of 14

Emissions Summary

Plantwide Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2007 Actual Emissions
Carbon Monoxide (CO)	0.035	0.004
Nitrogen Oxides (NO _x)	0.087	0.01
Lead (Pb)	0.0	0
Particulate Matter (PM _{2.5}) ¹	3.38	0.0006
Particulate Matter (PM ₁₀) ¹	3.38	0.35
Total Particulate Matter (TSP)	3.42	0.37
Sulfur Dioxide (SO ₂)	0.0071	0.000007
Volatile Organic Compounds (VOC)	45.7	7.29
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants²	Potential Emissions	2007 Actual Emissions
Cumene	0.0015	0.0011
Ethylene Glycol	0.062	0

Glycol Ethers	0.22	0.0224
Toluene	0.25	0.2455
Ethyl Benzene	0.048	0.0118
Xylenes	0.173	0.0979
Methyl Ethyl Ketone	0.589	0.541
Methyl Isobutyl Ketone	0.004	0
Methylene Chloride	0.018	0
Methyl Methacrylate	0.004	0
Chromium	0.006	0.0028
Chromium VI	0.0005	0
Cobalt	0.0009	0
Manganese	0.002	0.0017
Nickel	0.002	0.0006
Benzene	0.0043	0.0008
n-Hexane	0.007	0.0013
Regulated Pollutants other than Criteria and HAP	Potential Emissions	2007 Actual Emissions
Ozone Depleting Compounds (ODC)	0.025	0

¹PM_{2.5} and PM₁₀ are components of TSP.

²For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section

Title V Program Applicability Basis

This facility has the facility-wide potential to emit over 100 tons per year of criteria pollutants (CO, NO_x, PM, SO₂, and VOC), over 10 tons per year of a single Hazardous Air Pollutant (HAP), and over 25 tons per year of aggregated Hazardous Air Pollutants (HAPs). Due to this facility's potential to emit over 100 tons per year of criteria pollutants (CO, NO_x, PM, SO₂, and VOC), over 10 tons per year of a single Hazardous Air Pollutant (HAP), and over 25 tons per year of aggregated Hazardous Air Pollutants (HAPs), DuPont Washington Works is required to have an operating permit pursuant to Title V of the Federal Clean Air Act as amended and 45CSR30.

Legal and Factual Basis for Permit Conditions

The State and Federally-enforceable conditions of the Title V Operating Permits are based upon the requirements of the State of West Virginia Operating Permit Rule 45CSR30 for the purposes of Title V of the Federal Clean Air Act and the underlying applicable requirements in other state and federal rules.

This facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR2	Particulate matter and opacity limits for indirect heat exchangers.
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	45CSR6	Open burning prohibited.
	45CSR7	Particulate matter and opacity limits for manufacturing sources.
	45CSR10	Sulfur dioxide limits.
	45CSR11	Standby plans for emergency episodes.
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR21, Section 23	Control of VOC emissions from gasoline dispensing facility.
	45CSR21, Section 30	Control of VOC emissions from cold and solvent metal cleaning.
	45CSR30	Operating permit requirement.
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.

Each State and Federally-enforceable condition of the draft Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the draft Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the draft Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
None	NA	NA

Conditions from this facility's Rule 13 permit(s) governing construction-related specifications and timing requirements will not be included in the Title V Operating Permit but will remain independently enforceable under the applicable Rule 13 permit(s). All other conditions from this facility's Rule 13 permit(s) governing the source's operation and compliance have been incorporated into this Title V permit in accordance with the "General Requirement Comparison Table B" which may be downloaded from DAQ's website.

Determinations and Justifications

The following paragraphs discuss changes to the most recent version of the permit.

The section 1.1 –Emissions units Table was updated. The majority of the sources which were listed in the initial permit were removed from this permit because of a potential business opportunity that did not materialize. Because it did not materialize, and company has no intention of using these facilities for anything other than support of the normal manufacturing facilities at Washington Works, these listed sources revert to “insignificant sources” under the definition of 45CSR30.

In Emission unit table, there are no emission point IDs, VCS02E and VCS03E. It was described incorrectly in the initial permit. Emission point ID-**VCS01E** is the emission point for the three saws: Radial arm-VCS03, Table saw - VCS05 and Band Saw-VCS04.

Condition 4.1.3 has been removed from the previous permit because these emission sources are not manufacturing processes or storage structures. They are maintenance activities that are now covered as insignificant sources in the Title V permit and subject to 45CSR§7-10.3 under maintenance activities.

Conditions 4.2.1 and 4.4.1 have been replaced with new language per company’s request.

45CSR7 Requirements

45CSR§§7-3.1 and 3.2

Emission points VZIS01E, VMIS01E, and VCS01E were added and are subject to the opacity limits of 45CSR§§7-3.1 and 3.2. Compliance with the opacity limits for the emission points VZIS01E, VMIS01E, and VCS01E will be demonstrated through monitoring and record keeping of the control devices as described below.

45CSR§7-4.1

The insulation exhaust tables and band saws (emission points VZIS01E, and VMIS01E) use filters to control particulate emissions. The band saw units are used to cut insulation and the exhaust tables are used to assemble the cut pieces of insulation. The maximum hourly process weight rates were based on the maximum amount of insulation that can be either cut and/or assembled. The maximum allowable emission limits calculated from 45CSR§7-4.1 for VZIS01E (Exhaust Tables VZIS02 and VZIS03) and Insulation Band Saw VCMB3402) are 0.736 pounds per hour.

Since the Insulation units are rather small, used in a batch mode, and there are filters in place for control of particulate emissions, DuPont proposed work practice standards to demonstrate compliance with both the opacity and the hourly particulate matter emission limitations of 45CSR§§7-3.1 and 4.1. These work practices consist of the following:

- 1) Pre-Operation Checks
 - a. Ensure integrity of flexible fittings.
 - b. Operate Filter Shaker.
 - c. Ensure that filters are engaged.
 - d. Empty collector tray/drum or ensure sufficient capacity remains in the collector tray/drum to allow proper operation of the unit.
- 2) Post-Operation Checks
 - a. Check area around collector/recovery device for indications of leaks.
 - b. If leaks are noted, the sources of those will be repaired prior to the next use of the unit and any free particulate will be swept up and contained for proper disposal.

The permittee will keep records as were proposed in the initial permit and under condition number 4.4.2 of the renewal permit. These records shall be in the form of a log for each unit and shall document that the first operator to use the unit in the calendar day performed the necessary pre-operation/post-operation checks. These records shall also be used to document any problems that were discovered during inspection and the measures taken to correct the problem(s) and prevent the reoccurrence.

The Radial Arm Saw (emission point VCS01E) has a cyclone separator with a particulate collection drum to control particulate emissions. The 45CSR§7-4.1 allowable particulate emission limit of 0.435 pounds per hour was calculated based on the maximum amount of lumber that can be cut in an hour. In order to demonstrate compliance with both the opacity and emission limitations of 45CSR§§7-3.1 and 4.1, the permittee will be required to monitor and implement work practice standards similar to those for the filter units. These work practice standards shall consist of the following:

- 1) Pre-Operation Checks
 - a. Ensure integrity of flexible fittings.
 - b. Operate Cyclone Separator.
 - c. Ensure that Cyclone Separator is engaged.
 - d. Empty collector tray/drum or ensure sufficient capacity remains in the collector tray/drum to allow proper operation of the unit.
- 2) Post-Operation Checks
 - a. Check area around collector/recovery device for indications of leaks.
 - b. If leaks are noted, the sources of those will be repaired prior to the next use of the unit and any free particulate will be swept up and contained for proper disposal.

The permittee will keep records as were proposed in the initial permit and under condition number 4.4.2 of the renewal permit. These records shall be in the form of a log for each unit and shall document that the first operator to use the unit in the calendar day performed the necessary pre-operation/post-operation checks. These records shall also be used to document any problems that were discovered during inspection and the measures taken to correct the problem(s) and prevent the reoccurrence.

40 CFR 64 - Compliance Assurance Monitoring (CAM)

- **VP004C & VP005C** -These are Bead-blast units designed to process metal parts in a batch-wise fashion. The parts are bead blasted using a high pressure air stream and blasting media that is recycled within a system. The estimated total charge of blast media is approximately 80 pounds (1 bag) for the unit. These units are not used 24 hours/day, 7days/week as they are maintenance processes and not manufacturing processes. Nominal use of 1 bag per week (for periods during shutdown operations where the blaster is used significantly) is normal. Assuming that all the consumption of the bag over the week is due to fines generation that is removed downstream of the integral process device, the units have a potential to emit of 4200 pounds. Use of a bag per day - would have a potential to emit of 14.6 tons/year and company cannot sustain operation these units at that level from either a staffing point or from a workload point of view. The Bead-Blast units fail the pre-controlled applicability test of 100 tons/year PTE.
- **VCMDC34C, VTIS01C and VMIS01C** - These are filters that are fed from a pickup point on an insulation bandsaw. The filters are principally installed to control worker exposure to dust from insulation that is being cut. If it is assumed a 0.125 foot per second cutting speed with a 2 inch thick insulation and a 1/16" kerf for the saw blade {density of insulation is 8.5 pounds/ft³}, the filters will have captured emission of 20.4 tons/year of particulate assuming constant 24 hours/day, 7days/week operation of the saw with material present and engaged in the blade 100% of the time. This is a physical impossibility so the amount of pre-control emissions will be less than 20.4 tons/year. The unit fails CAM applicability as it does not have pre-controlled emissions greater than 100 tons/year PTE.
- **VZIS01C** - This is a filter that services two insulation exhaust tables where insulation is cut manually using knives. In terms of particulate generation, cutting with a band saw generates more particulates than manual cutting. Reviewing the generation rates for a band saw, the unit has a maximum pre-control particulate feed rate of 40.8 tons per year. [Two exhaust tables at 20.4 tons/year assuming the generation rate is constant over time and occurs continuously for a year] The CAM rule is not applicable as the control device fails the trigger of a pre-control potential to emit equal to or greater than 100 tons/year of applicable pollutant.
- **VCS01C**-This is a filter that is fed from pickup points on a wood cutting bandsaw, a table saw and a radial arm saw. The filter is principally installed to control worker exposure to dust from the wood that is being cut. If it is assumed a 1 inch per second cutting speed with a 1 inch thick board and a 1/16" kerf for the saw blade {density of wood is 40 pounds/ft³} for each saw at the same time, the company will have captured

emission of 22.82 tons/year of particulate, assuming constant 24 hours/day, 7 days/week operation of the saw with material present 100% of the time. This is a physical impossibility so the total amount of pre-control emissions will be less than 68.44 tons/year. The unit fails CAM Applicability as it does not have pre-controlled emissions greater than 100 tons/year PTE.

Non-Applicability Determinations

The following requirements have been determined not to be applicable to the subject facility due to the following:

- a. 40 C.F.R. 60, Subpart K - "Standards of Performance For Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978." There were no petroleum liquid storage tanks constructed in Facilities, Construction, and Support during these dates.
- b. 40 C.F.R. 60, Subpart Ka - "Standards of Performance for Storage Vessels For Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978, and Prior to July 23, 1984." There are no petroleum liquid storage tanks constructed in Facilities, Construction, and Support during these dates with a capacity greater than 40,000 gallons.
- c. 40 C.F.R. 60, Subpart Kb - "Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984." There are no volatile organic liquid storage tanks constructed in Facilities, Construction, and Support after the effective date with a design capacity greater than 75 m³ (19,812.9 gallons).
- d. 40 C.F.R. 60, Subpart VV - "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry." Facilities, Construction, and Support does not produce as intermediates or final products any of the materials listed in 40 C.F.R. §60.489.
- e. 40 C.F.R. 60, Subpart DDD - "Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry." Facilities, Construction, and Support does not manufacture polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate) for which this rule applies.
- f. 40 C.F.R. 60, Subpart RRR - "Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Reactor Processes. Facilities, Construction, and Support does not produce any of the chemicals listed in 40 C.F.R. §60.707 as a product, co-product, by-product, or intermediate.
- g. 40 C.F.R. 61, Subpart V - "National Emission Standards for Equipment Leaks (Fugitive Emissions Sources)." Applies to sources in VHAP service as defined in 40 C.F.R. §61.241. VHAP service involves chemicals that are not used in a manner that qualifies them under the rule in Facilities, Construction, and Support.
- h. 40 C.F.R. 63, Subpart H - "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks." 40 C.F.R. 63 Subparts F, G, and H do not apply to Facilities, Construction and Support manufacturing process units, as they do not meet the criteria in 40 C.F.R. §§63.100(b)(1), (b)(2), and (b)(3).
- i. 40 C.F.R. 63, Subpart JJJ - "National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins. Facilities, Construction, and Support does not produce the materials listed in 40 C.F.R. §63.1310.

- j. 40 C.F.R.63, Subpart FFFF – “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.” Facilities, Construction, and Support does not manufacture any material or family of materials defined in §63.2435(b)(1)(i) through (v).
- k. 40 C.F.R. 63, Subpart WWWW “National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Productions.” Facilities, Construction, and Support does not engage in reinforced plastics composites production as defined in 40 C.F.R. §63.5785 and does not manufacture composite material as defined in 40 C.F.R. §63.5935.
- l. 40 C.F.R. 63, Subpart PPPP – “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products.” Facilities, Construction, and Support does not produce an intermediate or final product that meets the definition of “surface coated” plastic part.
- m. 40 C.F.R. 63, Subpart IIII – “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Automobiles and Light-Duty Trucks.” Facilities, Construction, and Support does not engage in the surface coating of new automobile or light-duty truck bodies or body parts for new automobiles or light-duty trucks.
- n. 40 C.F.R. 63, Subpart MMMM – “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Miscellaneous Metal Parts and Products.” There are no surface coating activities conducted in Facilities, Construction, and Support subject to the requirements of this rule.
- o. 40 C.F.R. 63, Subpart HHHHH – “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing.” Facilities, Construction, and Support does not produce, blend, or manufacture coatings as part of the manufacturing process.
- p. 40 C.F.R. 82, Subpart C – “Protection of Stratospheric Ozone.” Bans non-essential products containing Class I substances and bans non-essential products containing or manufactured with Class II substances. Facilities, Construction, and Support does not use, manufacture, nor distribute these materials.
- q. 45CSR27 – “To Prevent and Control the Emission of Toxic Air Pollutants.” Facilities, Construction, and Support does not have emission sources of toxic air pollutants as listed in 45CSR27.
- r. 45CSR§21-19 – “Other Facilities that Emit Volatile Organic Compound (VOC).” The operations of Facilities, Construction, and Support are outside of the SIC grouping to which this section of 45CSR21 applies.
- s. 45CSR§21-40 – “Other Facilities that Emit Volatile Organic Compound (VOC).” None of the emission sources in Facilities, Construction, and Support have maximum theoretical emissions of 6 pounds per hour or more and are not subject to the requirements of this section.

Request for Variances or Alternatives

None

Insignificant Activities

Insignificant emission unit(s) and activities are identified in the Title V application.

Comment Period

Beginning Date: September 22, 2009
Ending Date: October 22, 2009

All written comments should be addressed to the following individual and office:

Beena Modi
Title V Permit Writer
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304

Procedure for Requesting Public Hearing

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

Point of Contact

Beena Modi
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1228 • Fax: 304/926-0476

Response to Comments (Statement of Basis)

EPA Region 3 has requested that all annual compliance certifications be submitted electronically (e-mail), so the permit templates have been updated in conditions 3.5.3.and 3.5.5.