

Fact Sheet



For Draft/Proposed Renewal Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Number: **R30-10700001-2010**
Application Received: **November 23, 2009**
Plant Identification Number: **10700001**
Permittee: **E.I. du Pont de Nemours and Company**
Facility Name: **Washington Works**
Business Unit: **Power and Service Support (Part 10 of 14)**
Mailing Address: **P. O. Box 1217, Washington, WV 26181-1217**

Revised (Date of Revision)

Physical Location: Washington, Wood County, West Virginia
UTM Coordinates: 442.3767 km Easting • 4,346.8331 km Northing • Zone 17
Directions: Route 68 west from Parkersburg to intersection of Route 892. Continue west on Route 892 with the plant being on the north side about one mile from the intersection of Routes 68 and 892.

Facility Description

DuPont Washington Works is a multiple business, multiple product line facility that produces plastic and resins and their associated feedstock materials. Power and Services manages and operates the plant infrastructure to support the operating business units. As part of these operations Power and Services operates both gas and coal fired boilers to produce steam for on-site use. Power and Services personnel also operate an industrial wastewater treatment facility, a sanitary wastewater treatment facility, an air compressor system to supply plant air, and a water treatment facility to supply treated water for both process uses and sanitary uses on-site.

Emissions Summary

Power and Services Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2009 Actual Emissions
Carbon Monoxide (CO)	742	319
Nitrogen Oxides (NO _x)	1568.63	685
Lead (Pb)	0.06	0.03
Particulate Matter (PM _{2.5}) ¹	33.59	11.6
Particulate Matter (PM ₁₀) ¹	88.75	46.1
Total Particulate Matter (TSP)	450	79.4
Sulfur Dioxide (SO ₂)	10448	3162
Volatile Organic Compounds (VOC)	668.05	67.7

PM₁₀ is a component of TSP.

Hazardous Air Pollutants²	Potential Emissions	2009 Actual Emissions
Combined Total of all HAPs with potential emissions of <1TPY	15.97609	6.070811
Formaldehyde	25.03	0.657
Hydrogen Chloride	161.76	74.0
Hydrogen Fluoride	20.22	9.25
Methanol	112.13	17.8
Toluene	17	6.67
Regulated Pollutants other than Criteria and HAP	Potential Emissions	2009 Actual Emissions
Sulfuric Acid Mist	120	34
Ammonia	7.5	0.08

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

²*For 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

With the proposed changes associated with this modification, this facility maintains the potential to emit over 100 tons per year of criteria pollutants, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate HAPs. Due to this facility's potential to emit over 100 tons per year of criteria pollutant, over 10 tons per year of a single HAP, and over 25 tons per year of aggregate 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.
45CSR6	Open burning prohibited.
45CSR7	Particulate matter and opacity limits for manufacturing sources.
45CSR10	Sulfur dioxide limits.
45CSR11	Standby plans for emergency episodes.
45CSR14	Permits for construction and major modification of major stationary sources of air pollution for the Prevention of Significant Deterioration.
45CSR13	
WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
45CSR16	Standards of Performance for New Stationary Sources pursuant to 40 C.F.R. Part 60.
45CSR21, Section 30	Solvent Metal Cleaning.
45CSR30	Operating permit requirement.
45CSR34	Emission Standards for Hazardous Air Pollutants Pursuant to 40 C.F.R. Part 63
40 C.F.R. Part 60, Subpart Db	Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.
40 C.F.R. Part 61	Asbestos inspection and removal
40 C.F.R. Part 63, Subpart DDDDD	Process Heaters and Boilers MACT
40 C.F.R. Part 82, Subpart F	Ozone depleting substances

State Only:	45CSR4	No objectionable odors.
	45CSR27	Best Available Technology (BAT) for Toxic Air Pollutants
	45CSR42	Greenhouse Gas Emissions Inventory Program

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 (NPS), 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>)
R14-14	01/02/2002	PD09-045
R13-2617D	7/27/2010	
R13-2654	01/30/2007	
R13-2838	(out to notice)	

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

Since the most recent version of this permit, the following changes/additions have been made:

- The boilers and process heaters at DuPont Washington Works facility are subject to Section 112(j) of the Clean Air Act. They are subject because they are located at a major source of HAPs and are part of a source category for which USEPA has not promulgated emissions standards by the section 112(j) deadline. Section 112(j) requires a case by case MACT determination. The purpose of permit R13-2838 is to comprehensively review the boilers and process heaters subject to 112(j) and to create federally enforceable limits via the "equivalent emission limitation by permit" process. There is no new equipment associated with this permit.
- Boiler No. 1 [P01] has been removed from Emission unit table. This boiler will be placed in an extended idle condition on the effective date of the permit and shall not be operated without being in compliance with all applicable requirements.

- Since boiler No. 1 has been removed, particulate matter emissions limit in condition 4.1.2 has been changed from 69.25 lb/hr to 63.47lb/hr.
- Since boiler No. 1 has been removed, sulfur dioxide emissions limit in condition 4.1.5 has been changed from 2,385.14 lb/hr to 2186.12 lb/hr.
- Conditions 4.1.11 to 4.1.42, 4.2.5 to 4.2.32, 4.3.5 to 4.3.22, 4.4.7 to 4.4.24 and 4.5.3 to 4.5.23 have been added in section-4.0 for case- by- case boiler MACT requirements from R13-2838 for coal fired boilers P02, P03, P04, P05, and P06.
- Condition 4.5.24 has been added as a Title V reporting requirement in a section 4. This requirement is from 40CFR63.7550(f) which is a part of subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.
- Conditions 5.1.10, 5.1.11, 5.2.4 to 5.2.6, 5.4.6 to 5.4.13 and 5.5.3 to 5.5.14 have been added to section -5 for case –by-case boiler MACT requirements from R13-2838 for the natural gas-fired Boiler No. 8 [P31].
- Section 9 has been added to this permit for case - by- case boiler MACT requirements from R13-2838 for other equipment located at different parts of DuPont’s facility and will later be removed from this permit, once such requirements are placed in each respective equipments’ permit.
- Emission Unit ID, P999 (Ash storage Pile) has been added to Emission Unit Table 1.1. As stated in PD09-045, it has been determined that a permit will not be required under 45CSR13 for a proposed construction of P999, Ash storage Pile. This determination is based on information included with permit determination form sent by company on July 10, 2009, which indicates that the increase in emissions will not exceed two (2) lbs/hr or five (5) tons/year of total Hazardous Air Pollutants (HAPs); six (6) lbs/ hour and ten (10) TPY of any regulated pollutant; or trigger a substantive requirement of any State or Federal air quality regulation. This ash storage pile is subject to a minimization of particulate matter requirement from 45CSR§2-5.1, which is found in condition 4.1.3.
- **45CSR42 – Greenhouse Gas Emissions Inventory Program.**
This facility is subject to 45CSR42. Refer to permit conditions 3.1.14 and 3.5.10. for the requirements pursuant to this rule. The language of the condition 3.5.10 is substantially that which is at 45CSR§42-4, with only revisions to referencing language and the word “Secretary” changed to “Director”.
- The Title V permit boilerplate has been revised such that a new Section 1.2 Table has been added which lists all the active R13, R14, and/or R19 permits and their date(s) of issuance. Also, the underlying authority for any conditions from the R13, R14, and/or R19 permits has been changed to cite the original permit number in the Title V permit. These changes will eliminate the need to go through the entire Title V permit to change the R13, R14, and/or R19 permit numbers each time an R13, R14, and/or R19 permit is modified. The only required change will be to the Section 1.2 Table
- 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.
- Emission unit IDs-P213, P216, P216-2, P216-3, P216-4, P216-6, P217, P224, P230, P401, P402, P403-1, P403-2, P404, P405, P406, P407, P408, P221, P802, P807, P809, P828, P405, P806, P808, P811, P813, P501, P502, P604, P830, P831, P832, P840, P841, P842, P901-1, P901-2, P902-1, P902-2, P904-1, P904-2, P906-1, P906-2 are insignificant sources and have been removed from emission unit table.
- The Emission unit IDs-P203, P204, P223, P222, P608, P304 are not in service. Therefore, they have been removed from the emission unit table.
- The Emission unit IDs-P701, P701-1, P701-2, P701-3, P701-4, P843 are not in use anymore. Therefore, they have been removed from the emission unit table.

- Since Emission unit IDs P203 and P204 are not in service, they have been removed from conditions 8.1.2 and 8.4.2 of this permit.
- The Emission unit ID P223 is not in service therefore, it has been removed from conditions 6.1.2 and 6.4.2 of this permit.
- Condition 6.5.1 has been removed from this permit because Emission unit ID P223 is no longer in service.

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 D – “Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971.” This subpart applies to each steam generating unit that commences construction or modification after August 17, 1971 and has a heat input capacity of more than 250 MMBtu/hr. The boilers in the Power and Service Support Area are less than 250 MMBTU/hr and Nos. 1, 2, 3, 4, 5, and 6 Boilers were constructed prior to August 17, 1971.
- b. 40 C.F.R. 60, Subpart Da – “Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After September 18, 1978.” This subpart applies to each steam generating unit that commences construction or modification after September 18, 1978 and has a heat input capacity of more than 250 MMBtu/hr. The boilers in the Power and Service Support Area are less than 250 MMBTU/hr and Nos. 1, 2, 3, 4, 5, and 6 Boilers were constructed prior to September 18, 1978.
- c. 40 C.F.R. 60, Subpart Db – “Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units.” This subpart applies to each steam generating unit that commences construction, modification, or reconstruction after June 19, 1984 and has a heat input capacity of greater than 100 MMBtu/hr. No. 8 Boiler is subject to this rule, but Nos. 1, 2, 3, 4, 5, and 6 Boilers were constructed prior to the June 19, 1984 applicability date and Nos. 1, 2, and 3 Boilers also have a heat input capacity of less than 100 MMBtu/hr.
- d. 40 C.F.R. 60, Subpart Dc – “Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units.” This subpart applies to each steam generating unit that commences construction, modification, or reconstruction after June 9, 1989 and has a maximum design heat input capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr. All the boilers in the Power and Service Support Area with a design heat input greater than or equal to 10 MMBtu/hr, but less than 100 MMBtu/hr were constructed prior to the June 9, 1989 applicability date.
- e. 40 C.F.R. 60, Subpart E – “Standards of Performance for Incinerators.” The Power and Support Services Area does not operate any equipment which meets the definition of an incinerator as specified in 40 C.F.R. §60.51.
- f. 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 are no petroleum liquid storage tanks in the Power and Service Support Area with a storage capacity greater than 151,412 liters, constructed, reconstructed, or modified after June 11, 1973 and prior to May 19, 1978.

- g. 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 in the Power and Service Support Area with a storage capacity greater than 151,416 liters for which construction, reconstruction, or modification commenced after May 18, 1978 and prior to July 23, 1984.
- h. 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 in the Power and Service Support Area with a storage capacity greater than or equal to 75 m³ for which construction, reconstruction, or modification commenced after July 23, 1984.
- i. 40 C.F.R. 60, Subpart O – “Standards of Performance for Sewage Treatment Plants.” The Power and Service Support Area does not operate an incineration unit or boiler to burn sludge from a municipal sewage treatment plant.
- j. 40 C.F.R. 60, Subpart Y – “Standards of Performance for Coal Preparation Plants.” This subpart applies to any facility that commences construction or modification after October 24, 1974. There are no coal handling facilities in the Power and Service Support Area that were constructed, modified, or reconstructed after the October 24, 1974 applicability date.
- k. 40 C.F.R. 60, Subpart VV - “Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry.” The Power and Service Support Area does not produce as intermediates or final products any of the materials listed in 40 C.F.R. §60.489.
- l. 40 C.F.R. 60, Subpart DDD - “Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry.” The Power and Service Support Area does not manufacture polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate) for which this rule applies.
- m. 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.” The Power and Service Support Area does not produce any of the chemicals listed in §60.707 as a product, co-product, by-product, or intermediate.
- n. 40 C.F.R. 60, Subpart CCCC – “Standards of Performance for Commercial and Industrial Solid Waste Incineration units for Which Construction is Commenced after November 30, 1999 or for Which Modification or Reconstruction is Commenced on or After June 1, 2001.” The Power and Service Support Area does not operate a commercial and industrial solid waste incineration (CISWI) unit as defined by 40 C.F.R. §60.2265.
- o. 40 C.F.R. 60, Subpart DDDD – “Emissions Guidelines and Compliance Times for Commercial and Industrial Solid Waste Incineration Units that Commenced Construction on or Before November 30, 1999.” The Power and Service Support Area does not operate a commercial and industrial solid waste incineration (CISWI) unit as defined by 40 C.F.R. §60.2875.
- p. 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 the Power and Service Support Area.

- q. 40 C.F.R. 61, Subpart FF – “National Emission Standard for Benzene Waste Operations.” The Power and Service Support Area, specifically the Wastewater Treatment Plant, is not subject to this subpart other than the requirements of 40 C.F.R. §61.342(a) to perform an annual assessment of applicability and the record keeping requirements of 40 C.F.R. §§61.356(a) and 61.356(b).
- r. 40 C.F.R. 63, Subpart F – “National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry.” 40 C.F.R. 63 Subparts F, G, and H do not apply to manufacturing process units that do not meet the criteria in 40 C.F.R. §§63.100(b)(1), (b)(2), and (b)(3).
- s. 40 C.F.R. 63, Subpart G – “National Emission Standards for Organic Hazardous Air Pollutants From the Synthetic Organic Chemical Manufacturing Industry for Process Vents, Storage Vessels, Transfer Operations, and Wastewater.” 40 C.F.R. 63, Subpart G does not apply to the Power and Service Support Area because they do not handle or treat a Group 1 wastewater stream. Applicable recordkeeping and reporting requirements for Group 2 wastewater streams are the responsibility of the producing area subject to the MACT standard and not the wastewater treatment area.
- t. 40 C.F.R. 63, Subpart H - “National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks.” 40 C.F.R. 63 Subpart H does not apply to manufacturing process units that do not meet the criteria in 40 C.F.R. §§63.100(b)(1), (b)(2), and (b)(3).
- u. 40 C.F.R. 63, Subpart Q – “National Emission Standards for Hazardous Air Pollutants for Industrial Process Cooling Towers.” The Power and Service Support Area does not operate any cooling towers using chromium based treatment chemicals.
- v. 40 C.F.R. 63, Subpart T – “National Emission Standards for Halogenated Solvent Cleaning.” The Power and Service Support Area does not operate any solvent cleaning machines containing the halogenated cleaning solvents specified in 40 C.F.R. §63.460(a).
- w. 40 C.F.R. 63, Subpart DD – “National Emission Standards for Hazardous Air Pollutants from Off-Site Waste and Recovery Operations.” This subpart applies to units that receive waste/wastewater from off-site operations for treatment or recovery and the off-site waste contains hazardous air pollutants. This subpart does not apply to the Wastewater Treatment Plant at DuPont Washington Works because the treatment of off-site wastewater is not the predominate activity performed at the Washington Works facility as required in 40 C.F.R. §63.680(a)(2)(iii)(B).
- x. 40 C.F.R. 63, Subpart EEE – “National Emission Standards for Hazardous Air Pollutants from Hazardous Waste Combustors.” The Power and Service Support Area does not operate any equipment meeting the definition of a hazardous waste combustor as specified in 40 C.F.R. §63.1201(a).
- y. 40 C.F.R. 63, Subpart JJJ - “National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins.” The Power and Service Support Area does not produce the materials listed in 40 C.F.R. §63.1310.
- z. 40 C.F.R. 63, Subpart ZZZZ – “National Emission Standards for Hazardous Air Pollutants: Reciprocating Internal Combustion Engines.” The Power and Service Support Area does not

operate a stationary Reciprocating Internal Combustion Engine (RICE) that has a brake horsepower greater than or equal to 500 bhp as specified in 40 C.F.R. §63.6590(a).

- aa. 40 C.F.R. 82, Subpart B - "Protection of Stratospheric Ozone." This subpart requires recycling of Chlorofluorocarbons (CFCs) from motor vehicles and that technicians servicing the equipment need to be licensed. The Power and Service Support Area does not conduct motor vehicle maintenance involving CFCs on site.
- bb. 40 C.F.R. 82, Subpart C - "Protection of Stratospheric Ozone." This subpart bans non-essential products containing Class I substances and bans non-essential products containing or manufactured with Class II substances. The Power and Service Support Area does not use, manufacture, nor distribute these materials.
- cc. 45CSR5 - "To Prevent and Control Air Pollution from the Operation of Coal Preparation Plants, Coal Handling Operations and Coal Refuse Disposal Areas. The Power and Service Support Area operates the coal storage and handling facilities under the requirements of 45CSR2 and does not operate a separate coal preparation plant or a coal refuse disposal area that would be subject to 45CSR5.
- dd. 45CSR6 - "To Prevent and Control Air Pollution from Combustion of Refuse." The Power and Service Support Area does not engage in the combustion of refuse in any installation or equipment.
- ee. 45CSR18 - "To Prevent and Control Emissions from Commercial and Industrial Solid Waste Incineration Units." The Power and Service Support Area does not operate any equipment defined by 45CSR§18-2.3 as a commercial and industrial solid waste incineration (CISWI) unit.
- ff. 45CSR§21-40 - "Other Facilities that Emit Volatile Organic Compound (VOC)." None of the emission sources in the Power and Service Support Area have maximum theoretical emissions of 6 pounds per hour or more and are subject to the requirements of this section. The wastewater treatment facilities are specifically exempted from applicability for 45 CSR 21.
- gg. 40 C.F.R. 63, Subpart EEEE - "National Emission Standards for Hazardous Air Pollutants: Organic Liquid Distribution (Non-Gasoline)." The Power and Service Support Area does not operate an organic liquids distribution (OLD) operation or does not handle material organic liquids as defined in §63.2406.

Request for Variances or Alternatives

(Description of any requests for variances, etc. If none, write "None.")

Insignificant Activities

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

Comment Period

Beginning Date:	November 9, 2010
Ending Date:	December 9, 2010

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: 304/926-0478

Response to Comments (Statement of Basis)

Describe response to comments that are received and/or document any changes to the final permit from the draft/proposed permit.