

Fact Sheet



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

Permit Number: **R30-10700001-2015**
Application Received: **November 26, 2014**
Plant Identification Number: **03-054-107-00001**
Permittee: **E. I. du Pont de Nemours and Company**
Facility Name: **Washington Works, Specialty Compounding Division (Part 8 of 14)**
Mailing Address: **P.O. Box 2800, Washington, West Virginia 26181-2800**

Physical Location: Washington, Wood County, West Virginia
UTM Coordinates: 422.27 km Easting • 4,346.57 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 resins and their associated feedstock materials. DuPont Washington Works divided the initial Title V Permit Application into fourteen separate business units, each of which received a Title V Permit. This permit is Group 8 of 14, Specialty Compounding Division, which is a segment of DuPont Washington Works that produces polymer blends and mixtures through the use of mixing and extrusion facilities. Specialty Compounding Division takes raw materials, generally in a pellet or powder form, and mixes them together to create high performance plastic blends and polymers for use in automotive, aerospace, and other commercial manufacturing efforts located off-site.

In 2015 several business units of the facility were sold to The Chemours Company FC, LLC (10700182). The Specialty Compounding Division (8 of 14) is still owned by DuPont.

Emissions Summary

Specialty Compounding Division Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2014 Actual Emissions
Carbon Monoxide (CO)	2.78	1.43
Nitrogen Oxides (NO _x) ²	2.53	2.53
Particulate Matter (PM _{2.5}) ¹	2.15	0.27
Particulate Matter (PM ₁₀) ¹	2.4	0.54
Total Particulate Matter (TSP)	12.67	1.39
Sulfur Dioxide (SO ₂)	0.01	0.01
Volatile Organic Compounds (VOC)	5.7	0.82
Hazardous Air Pollutants^{3,4}	Potential Emissions	2014 Actual Emissions
Acrylonitrile	0.05	0.0049
Acetaldehyde	6.33	0.0180
Aniline	6.33	4.98E-06
Benzene	0.08	5.44E-06
Formaldehyde	5.12	0.5368
Styrene	6.33	0.0027
Total HAPs	< 25 TPY	

- PM_{2.5} and PM₁₀ are components of TSP.*
- In the form of NO₂.*
- Some of the HAPs may be counted as PM or VOCs.*
- In addition to the HAPs listed individually in the table above, other HAPs included in "Total HAPs" are acrolein, aniline, antimony compounds, and phenol. No individual HAP has a PTE greater than 10 TPY.*

Title V Program Applicability Basis

Due to the facility-wide potential to emit over 100 TPY of criteria pollutants, over 10 tons per year of an individual HAP, and over 25 TPY of aggregate HAPs, E. I. du Pont de Nemours and Company's 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 Air Pollution from Combustion of Fuel in Indirect Heat Exchangers
	45CSR6	Open burning prohibited.
	45CSR7	Particulate matter and opacity limits for manufacturing sources.
	45CSR11	Standby plans for emergency episodes.
	45CSR13	Construction permit requirements.
	WV Code § 22-5-4 (a) (14)	The Secretary can request any pertinent information such as annual emission inventory reporting.
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for HAPs
	40 C.F.R. Part 61	Asbestos inspection and removal
	40 C.F.R. 63, Subpart DDDDD	National Emission Standards for Hazardous Air Pollutants: Industrial / Commercial / Institutional Boilers and Process Heaters
	40 C.F.R. Part 82, Subpart F	Ozone depleting substances
State Only:	45CSR4	No objectionable odors.
	45CSR21, Section 30	Cold and Solvent Metal Cleaning.
	45CSR27	Best Available Technology (BAT) for Toxic Air Pollutants

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the 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>)
R13-1533K	July 18, 2011	PD14-121 (October 8, 2014) - Replacement of the High Efficiency Paper Filter control device (S293-C-03D) with a wet scrubbing system. PD15-032 (April 7, 2015) - Replacement of a cartridge filter (control device ID S293-C-04B) with a Cyclone Separator.
R13-2617I	December 8, 2014	

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," which may be downloaded from DAQ's website.

Determinations and Justifications

The following modifications were done to the previous Title V renewal permit since it was issued on June 1, 2010:

1. MM01 and MM02 (10/21/2011, based on permits R13-1533J and R13-1533K) - plop buggies were added for dropped strand or feed problems. Emissions from S293-S-10(A-D, F) were rerouted from S293-E-03(A-D, F) to S293-E-04(A-D, F). A baghouse (S-293-C-01F) was replaced. Transfer of acetal resin to Vents 293-S was added.
2. MM03 (12/09/2014, based on PD14-121) - high efficiency dry paper filter particulate control system (HEAF) [S293-C-03D] was replaced with a wet recirculating type scrubber to treat emissions for the extrusion die vent [S293-S-02D]. The new control device kept the same control device ID and emission point ID.
3. AA01 (12/16/2014) - permit R13-2617 version was updated in Table 1.2 from "C" to "I".
4. 45CSR2 "To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers" is applicable to the natural gas fired hot water generators #1 and #2 (Emission Unit IDs S293-S-048 and S293-S-049) because they fit the definition of a fuel burning unit type "b" in 45CSR§2-2.10.b. Since their heat input is under 10 MMBtu/hr each, they are exempt from the requirements of 45CSR§§2-4, 5, 6, 8 and 9, but are subject to visible emissions requirements in 45CSR§2-3. Applicable conditions of the 45CSR2 were added under requirements 6.1.4 and 6.2.1.

Non-Applicability Determinations

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

1. Permit Shield (from requirement 3.7.2):
 - 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 are no petroleum liquid storage tanks in the Specialty Compounding Division.
 - 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 in the Specialty Compounding Division.
 - 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 in the Specialty Compounding Division.
 - d. 40 C.F.R. 60, Subpart VV - "Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry." The Specialty Compounding Division 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." The Specialty Compounding Division 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.” The Specialty Compounding Division does not produce any of the chemicals listed in §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 the Specialty Compounding Division.
- h. 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).
- i. 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 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).
- j. 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 manufacturing process units that do not meet the criteria in 40 C.F.R. §§63.100(b)(1), (b)(2), and (b)(3).
- k. 40 C.F.R. 63, Subpart DD – “National Emission Standards for Hazardous Air Pollutants From Off-Site Waste and Recovery Operations.” The Specialty Compounding Division does not receive off-site materials as specified in paragraph 40 C.F.R. §63.680(b) and the operations are not one of the waste management operations or recovery operations as specified in 40 C.F.R. §§63.680(a)(2)(i) through (a)(2)(vi).
- l. 40 C.F.R. 63, Subpart YY – “National Emission Standards for Hazardous Air Pollutant for Source Categories: Generic Maximum Achievable Control Technology Standards.” The Specialty Compounding Division is not one of the source categories and affected sources specified in 40 C.F.R. §§63.1103(a) through (h).
- m. 40 C.F.R. 63, Subpart JJJ - “National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins.” The Specialty Compounding Division does not produce the materials listed in 40 C.F.R. §63.1310.
- n. 40 C.F.R. 63, Subpart EEEE – “National Emission Standards for Hazardous Air Pollutants: Organic Liquid Distribution (Non-Gasoline).” The Specialty Compounding Division does not operate an organic liquids distribution (OLD) operation or does not handle material organic liquids as defined in §63.2406.
- o. 40 C.F.R. 63, Subpart PPPP – “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products.” The Specialty Compounding Division does not produce an intermediate or final product that meets the definition of a “surface coated” plastic part.
- p. 40 C.F.R. 63, Subpart WWWW - “National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production.” The Specialty Compounding Division 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.
- q. 40 C.F.R. 63, Subpart ZZZZ – “National Emission Standards for Hazardous Air Pollutants: Reciprocating Internal Combustion Engines.” The Specialty Compounding Division does not have a stationary Reciprocating Internal Combustion Engine (RICE) as defined by 40 C.F.R. §63.6675.
 - r. 40 C.F.R. 63, Subpart GGGGG – “National Emission Standards for Hazardous Air Pollutants: Site Remediation.” The Specialty Compounding Division does not conduct site remediation as defined by 40 C.F.R. §63.7957 that meets all three of the conditions specified in 40 C.F.R. §§63.7881(a)(1) through (a)(3).
 - s. 40 C.F.R. 63, Subpart HHHHH – “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing.” The Specialty Compounding Division does not produce, blend, or manufacture coatings as part of the manufacturing process.
 - t. 40 C.F.R. 63, Subpart NNNNN – “National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production.” The Specialty Compounding Division is not an HCl production facility as defined by 40 C.F.R. §63.9075.
 - u. 40 C.F.R. 82, Subpart B - “Protection of Stratospheric Ozone.” Requires recycling of Chlorofluorocarbons (CFCs) from motor vehicles and that technicians servicing equipment need to be licensed. The Specialty Compounding Division does not conduct motor vehicle maintenance involving CFCs on site.
 - v. 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. The Specialty Compounding Division does not use, manufacture, nor distribute these materials.
 - w. 45CSR10 – “To Prevent and Control Air Pollution from the Emission of Sulfur Oxides.” The Specialty Compounding Division does not contain any fuel burning units subject to the sulfur dioxide weight emission standards of 45CSR§10-3. Also, per 45CSR§10-4.1.e, manufacturing process source operations in the Specialty Compounding Division are exempt from the sulfur dioxide concentration limits of 45CSR§10-4.1 because the potential to emit of sulfur dioxide is less than 500 pounds per year.
 - x. 45CSR16 – “Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. 60.” The Specialty Compounding Division is not subject to any requirements under 40 C.F.R. 60.
 - y. 45CSR17 – “To Prevent and Control Particulate Matter Air Pollution from Materials Handling, Preparation, Storage and Other Sources of Fugitive Particulate Matter.” Per 45CSR§17-6.1, the Specialty Compounding Division is not subject to 45CSR17 because it is subject to the fugitive particulate matter emission requirements of 45CSR7.
 - z. 45CSR§21-40 – “Other Facilities that Emit Volatile Organic Compound (VOC).” None of the emission sources in Specialty Compounding Division have maximum theoretical emissions of 6 pounds per hour or more and are not subject to the requirements of this section.
 - aa. 45CSR§27-4.1 – “To Prevent and Control the Emissions of Toxic Air Pollutants: Fugitive Emissions of Toxic Air Pollutants.” The equipment in the Specialty Compounding Division

is not in “toxic air pollutant service” as defined by 45CSR§27-2.11 is not subject to the requirements of 45CSR§27-4.1.

- bb. 40 C.F.R. Part 64 – *Compliance Assurance Monitoring*. None of the emission units listed in the renewal application have pre-control device emissions of a regulated air pollutant greater than the major source threshold for that pollutant; therefore, none of the emission units meet applicability criterion of 40 C.F.R. §64.2(a)(3). Thus CAM is not applicable to any emission unit listed in the renewal application.
- cc. 40 C.F.R. 63, Subpart DDDDD – “National Emission Standards for Hazardous Air Pollutants: Industrial/Commercial/Institutional Boilers and Process Heaters” is not applicable to natural gas fired hot water generators #1 and #2 (Emission Unit IDs S293-S-048 and S293-S-049) per §63.7491(d) and §63.7575. The generators are tankless units used on demand for comfort heating of the living space in the building. They are exempt from the requirements of the subpart because they fit the definition of a “hot water heater” in §63.7575: “Hot water heater also means a tankless unit that provides on demand hot water”.

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: Tuesday, October 6, 2015
Ending Date: Thursday, November 5, 2015

Point of Contact

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

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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.

Response to Comments (Statement of Basis)

On November 10, 2015, comments were received from Paul Wentworth of US EPA Region III. No changes were made to the permit or fact sheet as a result of these comments. EPA’s comments and DAQ’s responses are as follows:

EPA Comment 1:

Fact Sheet, Page 5: It is stated that 40 C.F.R. 63, Subpart H - "National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks" has been determined not to be applicable to the subject facility, however, page 16 (Sub Section 4.2.2.) of **R13-2617I** states that "The permittee shall implement and maintain a LDAR program for the applicable sources and emission points identified in Attachment A of this permit in order to reduce the emissions of TAP in accordance with the requirements of 40CFR63, Subpart H - National Emission Standards for Organic Hazardous Air Pollutants for Equipment Leaks." Please clarify.

DAQ Response 1:

Indeed, the facility is not subject to the LDAR program in 40 C.F.R. 63, Subpart H, but it is subject to the LDAR program per State-Enforceable only rules 45CSR21 and 45CSR27. Subpart H LDAR is used here only to fulfill this requirement.

EPA Comment 2:

The fact sheet needs to include a discussion on the applicability and scope of the LDAR program as contained in the proposed renewal.

DAQ Response 2:

The facility is not subject to the LDAR program in 40 C.F.R. 63, Subpart H, but it is subject to the LDAR program per 45CSR21 and 45CSR27. Therefore, Subpart H LDAR is used here.

EPA Comment 3:

In the permit, pages 24 and 25, the following Federal requirements are listed under the permit shield as being not applicable to this facility and they are also listed on page 17 under subsection 3.2.1 as being applicable as approved procedures: 40CFR60 subpart VV, 40 CFR61 Subpart V, 40CFR63 Subpart F, 40CFR63 Subpart H. Please clarify.

DAQ Response 3:

Indeed, as per Permit Shield (requirement 3.7.2) the facility is not subject to 40 C.F.R. 60 Subpart VV, 40 C.F.R. 61 Subpart V, 40 C.F.R. 63 Subpart F, 40 C.F.R. 63 Subpart H, but procedures in these subparts are approved by the Director in order to maintain LDAR the facility is subject to per 45CSR21.

EPA Comment 4:

The following language on page 20, section 3.2.3, seems to refer to an R13 permit –it does not refer to this permit as an applicable requirement; it's uncertain what the reason was for including it as an applicable requirement in this proposed permit. Please clarify.

DAQ Response 4:

This requirement is based on 45CSR21 and 45CSR27 requirements which are state-enforceable only.

EPA Comment 5:

Page 31 subsection 4.1.11: This applicable requirement excludes (4) control devices from the requirement to install, operate, and maintain these devices in addition to other requirements under this section. Please explain why these devices are excluded from this requirement.

DAQ Response 5:

The Control Devices S293-C-078, S293-C-050, S293-C-03F and S293-C-04F are not included in this R13-based requirement, because they are not covered by the underlying permits (R13-1533K and R13-2617I).

EPA Comment 6:

Page 32 subsection 4.2.1 requires monitoring to be conducted at least once a month with a maximum of 45 days between consecutive readings. This appears to actually stretch the monitoring frequency from the one

month requirement to 1-1/2 months making the one month irrelevant. This requirement appears to be practically unenforceable. Please clarify this requirement.

DAQ Response 6:

The period of “maximum of forty-five (45) days between consecutive readings” was added per company’s request in order to avoid periods that were too long between the readings (like, for example, 60 days). It may seem like the frequency is changed from “monthly” to “once per 1.5 month”, but in reality the readings will be performed once per month as it is stated in the requirement 4.2.1.

EPA Comment 7: There appears to be no monitoring requirements to assure compliance with the HAP limits in the table on page 29. Establish appropriate monitoring requirements for these HAP limits.

DAQ Response 7:

4.4.1 and 4.4.2. are compliance demonstration requirements for the HAPs limits in condition 4.1.1 (page 29). Per these requirements, production is monitored and recorded on a monthly basis, and HAPs are calculated based on this data (see Appendix A).

EPA Comment 8:

There is no specific compliance testing requirement (and frequency) to assure that the opacity monitoring will assure compliance with the numerical limits on particulate emissions contained in the table on page 29. There should be a compliance test on a recurrent basis to verify that the opacity monitoring is assuring compliance with the numerical limits on particulate emissions in the aforementioned table.

DAQ Response 8:

PM limits in the requirement 4.1.1 (page 29) are extremely low, and possibly should never have been included in the Title V permit (the requirement is based on R13-1533 condition). The opacity monitoring for these emission points is addressed in the requirement 4.2.1.