

Fact Sheet



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

Permit Number: **R30-10700001-2014**
Application Received: **October 24, 2013**
Plant Identification Number: **107-00001**
Permittee: **E. I. du Pont de Nemours and Company**
Facility Name: **Washington Works**
Filaments (Part 9 of 14)
Mailing Address: **P. O. Box 1217, Washington, WV 26181-1217**

Revised: N/A

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

In the Filaments Production Unit (Part 9 of 14), various thermoplastic resins are melted and extruded to form monofilament and layered resin strand for use as thread or bristle. Resin pellets, consisting of any number of resins, are first blended in feed hoppers and/or tote bins to produce a homogeneous feed material. The bin or hopper is then directly placed upon any one of 19 extruders and the material fed directly from the bin to the extruder. The extruder melt-blends the polymers and extrudes the polymer into a long strand. After extrusion the strands are fed to a draw machine (which stretches and decreases the diameter of the strand). Finishing materials and surface additives are placed on the strand and it is fed to a conditioning unit to set the final properties of the strand. The final strand is either wound onto spools, packaged as "hanks" of fiber, or formed into bundles for shipment to off-site customers.

DuPont Washington Works has divided the Title V Permit Application into the following fourteen separate business units for which each has 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 (Permanently Shut down) |
| 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 | Group 9 of 14 Potential Emissions | Facility Wide 2013 Actual Emissions |
| Carbon Monoxide (CO) | 0.54 | 332.94 |
| Nitrogen Oxides (NO _x) | 0.11 | 1,089.11 |
| Particulate Matter (PM _{2.5}) | 0.15 | 183.46 |
| Particulate Matter (PM ₁₀) | 1.31 | 183.46 |
| Total Particulate Matter (TSP) | 6.56 | 183.46 |
| Sulfur Dioxide (SO ₂) | < 0.01 | 2,102.43 |
| Volatile Organic Compounds (VOC) | 2.12 | 330.06 |
| <i>PM₁₀ is a component of TSP.</i> | | |
| Hazardous Air Pollutants | Group 9 of 14 Potential Emissions | Facility Wide 2013 Actual Emissions |
| Total HAPs | 2.10 | 277.19 |

Some of the above HAPs may be counted as PM or VOCs.

Title V Program Applicability Basis

Due to the facility-wide potential to emit over 100 tons per year of criteria pollutants, over 10 tons per year of an individual HAP, and over 25 tons per year 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: | 45CSR6 | Open burning prohibited. |
| | 45CSR7 | Particulate matter and opacity limits for manufacturing sources. |
| | 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. |
| | 45CSR§21-30 | Control of VOC emissions from 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 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> |
|--------------------------------|------------------|--|
| N/A | N/A | |

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

Changes made to the Title V Permit since the last modification are summarized below:

1. Miscellaneous changes have been made to the Permit boilerplate.
2. The Section 1.1 Emission Unit Table has been updated. New Emission Unit ID's have been given to all of the units. The Welding Hood (F07) has been determined to be a repair or maintenance activity which is considered a West Virginia Title V Insignificant Activity. Therefore it has been removed from the permit.
3. The South Melt Grid Burnout (F44) and North Melt Grid Burnout (F45) were already existing units, but have now been added to the Permit. As this production unit stops to switch to different colors, production is stopped and the material left in the lines is heated until it is removed. Some of the material turns to ash and some vents to the indoor vent hoods F44 and F45. As this is a maintenance operation, this practice is exempt from the particulate matter weight emission limits from 45CSR7 Section 4 per 45CSR§7-10.3. Minimal opacity is expected, but since this process is indoors and vents to a vent hood where it is diluted, it is expected that no opacity will vent to atmosphere. Condition 4.1.3 requires the Permittee to conduct maintenance operations for these units in a manner consistent with good air pollution control practice for minimizing emissions. Condition 4.2.4 requires the Permittee to conduct monthly visual inspections of the roof area and take steps to address if accumulation of filaments are present. Condition 4.4.4 requires the Permittee to maintain records of the monthly visual inspections of the roof area and note if any steps were needed to address if accumulation of filaments is present.
4. The Maintenance Blast Unit (F06) has been determined to be a maintenance operation under Rule 7. 45CSR§7-10.3 exempts it from the particulate matter weight emission limit from 45CSR7 Section 4. Therefore the emission limit for this unit has been removed from Condition 4.1.2. The Condition does require that maintenance operations are conducted with good air pollution control practice for minimizing emissions. The Blast Unit recycles the grit used in the cleaning operations, and there is a filter used to remove the majority of particulate matter. If there were a loss or failure of the filter, the particulate matter would be noticeable on the roof. Condition 4.2.3 will require the facility to routinely maintain the filter element in the vent and to conduct monthly inspections of the roof area to show compliance with 45CSR§7-3.1 and 45CSR§7-10.3. Condition 4.4.3 requires the Permittee to maintain records of the maintenance of the filter element and monthly inspections of the roof area.
5. The Rework Blowers #2-#6 (F23-F27) convey coarse fiber filament that use a separation filter to recover any material in the process and recycle it back into the process to become product. To demonstrate compliance with Conditions 4.1.1 and 4.1.2, Condition 4.2.2 requires the Permittee to conduct a monthly visual inspection of the roof area and address if accumulation of filaments is present. Condition 4.4.2 requires the Permittee to maintain records of the monthly inspections of the roof area.
6. Condition 4.2.1 requires visible emission and/or opacity readings to determine compliance with the opacity requirements of Condition 4.1.1. In an attempt to provide consistency throughout all of the Permittee's Title V Permits, this language has been revised to match that of other Permits. The requirement of a maximum of 45 days between observations has been removed.
7. Some of the 45CSR7 Hourly Particulate Emission Limits from Condition 4.1.2 have been corrected. These values are based on design capacity for a Rule 7 Type "a" source.

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 are no storage tanks in the Filaments manufacturing area subject to this requirement.
- 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 storage tanks in the Filaments manufacturing area subject to this requirement.
 - 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 storage tanks in the Filaments manufacturing area subject to this requirement.
 - d. 40 C.F.R. 60, Subpart VV - “Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry.” The Filaments manufacturing area 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 Filaments manufacturing area does not manufacture polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate) for which this rule applies.
 - f. 40 C.F.R. 60, Subpart HHH – “Standards of Performance for Synthetic Fiber Production Facilities.” The Filaments manufacturing area does not produce filaments which are solvent-spun.
 - g. 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.” Filaments manufacturing area does not produce any of the chemicals listed in 40 C.F.R. §60.707 as a product, co-product, by-product, or intermediate.
 - h. 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 Filaments manufacturing area.
 - i. 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 the Filaments manufacturing area, as it does 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 JJJ - “National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins. The Filaments manufacturing area does not produce the materials listed in 40 C.F.R. §63.1310.
 - k. 40 C.F.R.63, Subpart FFFF – “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing.” The Filaments production area does not manufacture any material or family of materials defined in §§63.2435(b)(1)(i) through (v).
 - l. 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 Filaments manufacturing area subject to the requirements of this rule.
 - m. 40 C.F.R. 63, Subpart OOOO – “National Emission Standards for Hazardous Air Pollutants: Printing, Coating, and Dyeing of Fabrics and Other Textiles.” There are no coating and printing,

- slashing, or dyeing and finishing operations conducted in the Filaments manufacturing area that use materials containing organic HAPs as defined by §63.4371.
- n. 40 C.F.R. 63, Subpart PPPP – “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products.” The Filaments manufacturing area does not produce an intermediate or final product that meets the definition of “surface coated” plastic part.
 - o. 40 C.F.R. 63, Subpart WWWW - “National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production.” The Filaments manufacturing area 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.
 - p. 40 C.F.R. 63, Subpart HHHHH – “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing.” The Filaments manufacturing area does not produce, blend, or manufacture coatings as part of the manufacturing process.
 - q. 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 Filaments manufacturing area does not conduct motor vehicle maintenance involving CFCs on site.
 - r. 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 Filaments manufacturing area does not use, manufacture, nor distribute these materials.
 - s. 45CSR2 – “To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.” The Filaments manufacturing area does not contain any fuel burning units.
 - t. 45CSR§7-3.7 – “To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations; Storage Structure Requirements.” The Filaments manufacturing area does not have any storage structures required to be fully enclosed and equipped with a particulate matter control device.
 - u. 45CSR10 – “To Prevent and Control Air Pollution from the Emission of Sulfur Oxides.” The Filaments manufacturing area 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 Filaments manufacturing area 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.
 - v. 45CSR16 – “Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. 60.” Filaments manufacturing area is not subject to any requirements under 40 C.F.R. 60.
 - w. 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 Filaments manufacturing area is not subject to 45CSR17 because it is subject to the fugitive particulate matter emission requirements of 45CSR7.
 - x. 45CSR§21-40 – “Other Facilities that Emit Volatile Organic Compound (VOC).” None of the emission sources in the Filaments manufacturing area have maximum theoretical emissions of 6 pounds per hour or more and are not subject to the requirements of this section.

y. 45CSR27 – “To Prevent and Control the Emission of Toxic Air Pollutants.” The Filaments manufacturing area does not have emission sources of toxic air pollutants as listed in 45CSR27.

z. 45CSR34 – “Emission Standards for Hazardous Air Pollutants for Source Categories Pursuant to 40 C.F.R. 63.” The Filaments manufacturing area is not subject to any requirements under 40 C.F.R. 63.

aa. **40 C.F.R. Part 64 - Compliance Assurance Monitoring (CAM)**

The Filaments Production Business Group 9 of 14 at the facility does not have a pollutant specific emissions unit (PSEU) for any pollutant meeting the applicability requirements of 40 C.F.R. §64.2 and therefore does not need to have a CAM plan in accordance with the CAM rule.

This facility is not subject for the following reason:

40CFR§64.2(a)(2) - The Business Group 9 of 14 Filaments Production at the facility does not use any control devices to meet any emission limitations or standards.

bb. **Greenhouse Gas Tailoring Rule**

This is a renewal Title V Permit and there have been no changes that would have triggered a PSD permit. As such, there are no applicable GHG permitting requirements.

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: July 14, 2014
Ending Date: August 13, 2014

Point of Contact

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

Mike Egnor
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
Phone: 304/926-0499 ext. 1208 • Fax: 304/926-0478
michael.egnor@wv.gov

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)

Not applicable.