

Fact Sheet



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

Permit Number: **R30-10700001-2011**
Application Received: **August 16, 2010**
Plant Identification Number: **10700001**
Permittee: **E. I. du Pont de Nemours and Company**
Facility Name: **Washington Works**
Business Unit: **Research and Development (Part 11 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: From I-77, take the Route 50 Bypass around Parkersburg toward Ohio. Take the last exit prior to the bridge exit from the Route 50 Bypass onto DuPont Road. At the light turn left onto DuPont road. The facility is on the right approximately ½ miles from the turn.

Facility Description

In the Research and Development (R&D) area, there are various pieces of small-scale process equipment, laboratories, and maintenance facilities. The majority of the laboratories conduct research or development work. However, the semi-works & PPL areas manufacture commercial product on a small scale. This permit only covers the portions of the Research and Development (R&D) Area which manufacture commercial product and does not include activities that are defined as research and development and are exempt from permitting under 45CSR30.

In the commercial production area, polymer resins and ingredients are melt compounded into a final pelletized product through an extrusion/cutting operation. The raw materials are received in individual packaging or in bulk, and the final product is shipped in bags, boxes, drums or bulk containers.

Emissions Summary

Research and Development Emissions Summary [Tons per Year]		
Regulated Pollutants	Potential Emissions	2009 Actual Emissions
Carbon Monoxide (CO)	0.9	0
Nitrogen Oxides (NO _x)	0	0
Particulate Matter (PM _{2.5})	10.95	0.32
Particulate Matter (PM ₁₀)	10.95	0.32
Total Particulate Matter (TSP)	10.95	0.32
Sulfur Dioxide (SO ₂)	0.01	0
Volatile Organic Compounds (VOC)	34.21	0.63
<i>PM₁₀ is a component of TSP.</i>		
Hazardous Air Pollutants	Potential Emissions	2009 Actual Emissions
Formaldehyde	0.62	0.1
Methylene Chloride	0.05	0.03
Acetaldehyde	5.59	0.002
Acetonitrile		
Epichlorohydrin		
Ethylene Glycol		
Hydrogen Chloride		
Hydrogen Fluoride		
Maleic Anhydride		
Methanol		
Methyl Methacrylate		
Phenol		
Titanium Tetrachloride		
Sodium Antimonate		
Toluene		
Trichloroethylene		
Vinyl Acetate		
Regulated Pollutants other than Criteria and HAP	Potential Emissions	2009 Actual Emissions
Ammonium Perfluorooctanoate (APFO)	0.0063	0.0033

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.
	45CSR13	Preconstruction permits for minor sources.
	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 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
	45CSR§21-40	Control of VOC emissions
	45CSR27	Best Available Technology (BAT) for HAPs
	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 (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>)
R13-2330E	April 18, 2011	NA
R13-2617E	November 30, 2010	NA
R13-2654	January 30, 2007	NA
R13-2692	April 30, 2007	NA
CO GWR-2001-019	November 15, 2001	R13-2692

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**Changes to the Title V Permit**

The following is a listing of the changes which have been incorporated into this Title V permit renewal.

- 1) **Removal of equipment from the Emission Units Table in Section 1.1.** Extruder R217S-004 was removed from the Title V Emission Units Table in Section 1.1 because it is no longer in service.
- 2) **Addition of equipment to the Emission Units Table in Section 1.1 and addition of applicable requirements for that equipment.** Burn Out Oven (R031S904), Burn Out Oven (22-S-215), and Berringer Burn Out Ovens #1 and #2 (22-S-216A and 22-S-216B) were added to the Title V Emission Units Table in Section 1.1. These ovens, installed in 1987 and 2002, were not included in the initial Title V permit. Berringer Burn Out Oven #3 (22-S-216C) was included in the Emission Units Table in the initial Title V permit as Mini-cleaning Oven (22-S-215), but there were no applicable requirements included for it in the Title V permit. These ovens are subject to the particulate matter opacity limits of 45CSR§§7-3.1 and 3.2 and their emission points have been added to the list of sources subject to these requirements in Conditions 4.1.9 and 4.1.0. They are not subject the hourly particulate matter emission limits of 45CSR§7-4.1 because 45CSR§7-10.3 exempts maintenance operations from the provisions of 45CSR§7-4. They must, however, conduct maintenance operations in a manner consistent with good air pollution control practice for minimizing emissions. The requirement to minimize emissions in accordance with 45CSR§7-10.3 was added to the Title V permit as Condition 4.1.17. To demonstrate compliance with the opacity limits of 45CSR§§7-3.1 and 3.2, the permittee will be required to conduct visual emissions monitoring as specified in Condition 4.2.1 and to maintain records of this monitoring per Condition 4.4.4.
- 3) **Included 45CSR21 and 45CSR27 requirements from the most recent version of R13-2617.** R30-10700001-2003 (Part 11 of 14) (MM02) included the requirements from R13-2617C, so the Title V permit renewal was updated to include requirements from the most recent version of this permit, R13-2617E, issued on November 30, 2010. Also, the initial Title V permit only included the 45CSR27 requirements since the equipment included in the Title V permit at that time was only subject to 45CSR27. Since R13-2654 and R13-2692 included equipment subject to both 45CSR21 and 45CSR27, the R13-2617E requirements for 45CSR21 were added to the Title V permit renewal.

- 4) **Added Greenhouse Gas Reporting Requirements.** DuPont is subject to the new greenhouse gas reporting requirements of 45CSR42. These requirements were added as conditions 3.1.9 and 3.5.10.
- 5) **Removed 40 C.F.R. 63, Subpart FFFF Requirements.** The emission units included in the Research and Development Area are not subject to 40 C.F.R. 63, Subpart FFFF – “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Organic Chemical Manufacturing,” therefore, the placeholder language included in the initial Title V permit as Conditions 3.1.10 and 3.1.11 was removed.
- 6) **R13-2330E.** R13-2330E is a Class I administrative update, approved on April 18, 2011, to correct the emission point ID number for the A10 Die (22-S-A10-002) and to correct the vent routing for the A10/A11 Surface Coater (22-S-A11-007). The changes incorporated in the Title V permit as a result of the issuance of R13-2330E are as follows:
- a) **Changes to the Emission Units Table in Section 1.1.** The Emission Units Table was revised as follows:

Emission Unit ID	Emission Point ID	Emission Unit Description	Year Installed	Design Capacity	Control Device
22-S-A10-002	22-E-A10-002 22-E-A11-002	A10 Die	200	3 PU ¹	22-C-A10-002
22-S-A11-007	22-E-A11-007	A10/A11 Surface Coater	2000	2 3 PU ¹	22-C-001 Fabric Filter 22-C-A11-007 Cyclone
22-S-A11-007	22-E-001	A10/A11 Surface Coater	2000	3 PU ¹	22-C-001 Bag Filter
22-S-A6-006	22-E-A6-002	Product Bin/ Box	1988	3 PU ¹	None
22-S-A8-006	22-E-A8-002	Product Bin/ Box	1988	1 PU ¹	None
22-S-A11-006	22-E-A8-002	Product Bin/ Box	2000	2 PU ¹	None
22-S-A10-006	22-E-A10-002	Product Bin/ Box	2000	3 PU ¹	None
22-S-A10-007	22-E-A10-002	Sparge Bin Box/ Bin Sparge Station	2000	3 PU ¹	None

The change to the emission point ID number for the A10 Die (22-S-A10-002) corrected a typographical error. In the Emission Points Data Sheet and in the emission calculations submitted with the previous 45CSR13 permit application (R13-2330D); the emission point ID for this source was listed as 22-E-A11-002. Since the emissions from the A10 Die were already included in 22-E-A11-002, this change only affected the Emission Units Table in Section 1.1 and did not have an effect on emission limits within the permit.

The change to the design capacity for the A10/A11 Surface Coater (22-S-A11-007) from 2 PU to 3 PU did not impact emission limits, it only affected the Emission Units Table in Section 1.1. A check of the emission calculations submitted for the previous 45CSR13 permit application (R13-2330D) revealed that the production rate used to calculate emissions for the surface coater was 3 PU.

Adding the A10/A11 Surface Coater (22-S-A11-007) to emission point ID number 22-E-001 had no effect on the emission limits for 22-E-001 already established in R13-2330D. The Emission Points Data Sheet and emission calculations submitted with the previous 45CSR13 permit application (R13-2330D) already included a surface coater with the same design capacity for emission point 22-E-001.

The other minor changes were to the emission unit descriptions and had no effect on emissions or applicable requirements.

b) **Revision to Condition 4.1.8 to account for two emission points for the A10/A11 Surface Coater (22-S-A11-007).**

Condition 4.1.8 had the correct emission unit ID number for the surface coater, and while emissions are routed through an integral cyclone and then through collector 22-C-001, they would then be emitted through 22-E-001, instead of 22-E-A11-007. This condition also did not identify that there are two emission points for the A10/A11 Surface Coater (22-S-A11-007). This surface coater vents through 22-E-001 during pellet conveying, and its cooler/screener section vents through 22-E-A11-007.

Condition 4.1.8 was changed as follows to allow for the two emission points for 22-S-A11-007:

~~Emissions from the surface coater, source 22-S-A11-007, shall be routed through an integral cyclone, and then through collector 22-C-001 before being released to the atmosphere through emission point 22-E-A11-007.~~ The A10/A11 Surface Coater (22-S-A11-007) has two emission points. Emissions from pellets being conveyed to the surface coater shall be routed through an integral cyclone, and then through a bag filter (22-C-001) before being released to the atmosphere through emission point 22-E-001. Emissions from the cooler/screener section of the surface coater shall be routed through a cyclone (22-C-A11-007) before being released to the atmosphere through emission point 22-E-A11-007. The pollution control equipment (22-C-001 and 22-C-A11-007) shall be operated at all times during surface coating operations. The integral devices and control equipment shall be maintained and operated per manufacturer's specifications as well as the specifications described in permit application R13-2330B and any subsequent amendments thereto.

Although emission point 22-E-A11-007 was included in the Emission Units Table for R13-2330D and was also mentioned in Condition 4.1.8, R13-2330D did not establish numerical emission limits for 22-E-A11-007. Uncontrolled particulate emissions from 22-E-A11-007 are 0.0026 lb/hr and 0.0112 tpy; and controlled particulate emissions are 0.0001 lb/hr and 0.0006 tpy. DuPont requested that a limit not be added to R13-2330E for 22-E-A11-007 due to the low amounts of particulate emitted from this point. Based on the DAQ's "Policy for Permitting Low Emitting Sources," the emission limits for 22-E-A11-007 would have been rounded up to 0.01 lb/hr and 0.01 tpy of particulate matter, which is higher than the hourly uncontrolled particulate emission rate and the same as the annual uncontrolled particulate emission rate for 22-E-A11-007. It was therefore deemed unnecessary to set particulate matter emission limits for 22-E-A11-007 in R13-2330E. 22-E-A11-007 is still subject to the requirements of 45CSR§§7-3.1, 3.2 and 4.1 as specified in Conditions 4.1.9, 4.1.10, and 4.1.14 of the Title V permit. Please note that the 45CSR§7-4.1 hourly particulate matter emission limit of 1.2 lb/hr specified in Condition 4.1.14 is much higher than the hourly uncontrolled particulate matter emission rate of 0.0026 lb/hr.

7) Revised the following sentence in the 2nd paragraph of Condition 4.2.1 as follows:

"These checks shall be performed during periods of ~~normal~~ operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission."

Although this sentence came directly from Condition 4.2.1 of R13-2330E, EPA has commented on past Title V permits with similar visible emissions monitoring requirements and has requested that we remove the term normal because it wasn't defined.

8) Revised the following sentence in the 2nd paragraph of Condition 7.2.1 as follows:

“These checks shall be performed during periods of ~~normal~~ commercial operation of emission sources that vent from the referenced emission points for a sufficient time interval to determine if there is a visible emission.”

Although this sentence came directly from Condition 4.2.1 of R13-2692, EPA has commented on past Title V permits with similar visible emissions monitoring requirements and has requested that we remove the term normal because it wasn't defined.

- 9) Conditions of the Title V permit have been added, removed, revised or renumbered as follows:

Condition Number in R30-10700001-2003 (11 of 14) (MM02)	Condition Number in R30-10700001-2011 (11 of 14)	Explanation, if needed.
3.1.10	---	Removed
3.1.11	---	Removed
---	3.1.9	New greenhouse gas reporting requirements were added.
3.1.12	3.1.10	NA
---	3.1.11	Included 45CSR21 Requirements from R13-2617E.
3.1.13	3.1.12	NA
3.1.14	3.1.13	NA
3.1.15	3.1.14	NA
---	3.2.1	Included 45CSR21 Requirements from R13-2617E.
3.2.1	3.2.2	NA
---	3.2.3	Included 45CSR21 Requirements from R13-2617E.
---	3.3.2	Included 45CSR21 Requirements from R13-2617E.
3.3.2	3.3.3	NA
---	3.4.4	Added general R13 maintenance recordkeeping requirements to Section 3.0 for R13-2617E, R13-2330D, R13-2654, and R13-2692.
3.4.4	3.4.5	NA
---	3.4.6	Included 45CSR21 Requirements from R13-2617E.
3.4.5	3.4.7	NA
---	3.5.10	New greenhouse gas reporting requirements were added.
---	3.5.11	Included 45CSR21 Requirements from R13-2617E.
4.1.13	---	“Reserved” was removed and conditions were renumbered.
4.1.14	4.1.13	NA
4.1.15	3.1.14	Combined similar requirements from R13-2617E, R13-2330D, R13-2654, and R13-2692.
4.1.16	4.1.14	NA
4.1.17	4.1.15	NA
4.1.18	4.1.16	NA

Condition Number in R30-10700001-2003 (11 of 14) (MM02)	Condition Number in R30-10700001-2011 (11 of 14)	Explanation, if needed.
---	4.1.17	Added 45CSR§7-10.3 requirement which applies to maintenance operations.
4.2.1	4.2.1	Deleted “normal” from the 2 nd paragraph.
4.4.1	3.4.4	Combined similar requirements from R13-2617E, R13-2330D, R13-2654, and R13-2692.
4.4.2	---	“Reserved” was removed and conditions were renumbered.
4.4.3	4.4.1	NA
4.4.4	4.4.2	NA
4.4.5	4.4.3	NA
4.4.6	4.4.4	NA
4.4.7	4.4.5	NA
4.4.8	4.4.6	NA
4.4.9	4.4.7	NA
4.4.10	4.4.8	NA
4.4.11	4.4.9	NA
6.1.3	3.1.10, 3.1.11, 3.2.1, 3.2.3, 3.3.2, 3.3.3, 3.4.6, 3.5.11	Added as a citation to 45CSR21 requirements in Section 3.0.
6.1.4	3.1.12, 3.1.13, 3.2.2, 3.2.3, 3.4.7	Added as a citation to 45CSR27 requirements in Section 3.0.
7.1.8	3.1.10, 3.1.11, 3.2.1, 3.2.3, 3.3.2, 3.3.3, 3.4.6, 3.5.11	Added as a citation to 45CSR21 requirements in Section 3.0.
7.1.9	7.1.8	NA
7.1.10	7.1.9	NA
7.1.11	7.1.10	NA
7.1.12	3.1.14	Combined similar requirements from R13-2617E, R13-2330D, R13-2654, and R13-2692.
---	7.1.11	Added 45CSR§7-5.2
---	7.1.12	Added 45CSR§7-9.1
---	7.3.3	Added 45CSR§7-8.1
7.2.1	7.2.1	Deleted “normal” from the 2 nd paragraph.
7.4.1	3.4.4	Combined similar requirements from R13-2617E, R13-2330D, R13-2654, and R13-2692.
7.4.2	3.4.5	Combined similar requirements from R13-2617E, R13-2330D, R13-2654, and R13-2692.
7.4.3	7.4.1	NA
7.4.4	7.4.2	NA
7.4.5	7.4.3	NA
7.4.6	7.4.4	NA

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

According to 40 C.F.R. §64.2(a), CAM applies to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria: 1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant (or a surrogate thereof), other than an emission limitation or standard that is exempt under 40 C.F.R. §64.2(b)(1); 2) The unit uses a control device to achieve compliance with any such emission limitation or standard; and 3) The unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount, in tons per year, required for a source to be classified as a major source. 40 C.F.R. §64.2(b)(1)(i) exempts emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act; and 40 C.F.R. §64.2(b)(1)(vi) exempts emission limitations or standards for which a part 70 or 71 permit specifies a continuous compliance determination method.

DuPont Washington Works conducted a review of their applicability to 40 C.F.R. 64 – “Compliance Assurance Monitoring” (CAM) for Research and Development. Based on the information submitted, DuPont determined that none of their emission units and control devices are subject to CAM.

The A10/A11 Surface Coater (22-S-A11-007) has two emission points. Emissions from pellets being conveyed to the surface coater are routed through an integral cyclone, and then through a bag filter (22-C-001), before being emitted through 22-E-001. Emissions from the cooler/screener section of the surface coater are controlled by a cyclone (22-C-A11-007) and emitted through 22-E-A11-007. Bag filter 22-C-001 has a control device efficiency of 99% for particulate matter and is also used to control emissions from the area hoods (22-S-001) in addition to those from the surface coater (22-S-A11-007). Cyclone 22-C-A11-007 has a control device efficiency of 95% for particulate matter. Since the total pre-control device particulate emissions from the surface coater and area hoods are less than 100 tons per year (16 tpy for 22-E-001 based on the R13 allowable emission limits and a 99% control device efficiency; and 0.0112 tpy for 22-E-A11-007), the A10/A11 Surface Coater (22-S-A11-007) and area hoods (22-S-001) are not subject to CAM.

Emissions from the A10 Die (22-S-A10-002) and the A11 Die (22-S-A11-002) are controlled by venturi scrubbers (22-C-A10-002 and 22-C-A11-002) and vented through emission point 22-E-A11-002. According to the permit application, each scrubber has a control efficiency of 95% for particulate matter, 95% for VOC, and 95% for total HAPs. Based on the control device efficiency and the R13 allowable emission limits for particulate matter (2.41 tpy), VOC (0.17 tpy), total HAPs (0.41 tpy), and formaldehyde (0.02 tpy) from emission point 22-E-A11-002, the A10 Die (22-S-A10-002) and A11 Die (22-S-A11-002) are not subject to the requirements under the CAM rule because the potential pre-control device emissions of particulate matter and VOC are less than 100 TPY, total HAPs are less than 25 tons per year, and formaldehyde is less than 10 tons per year.

Emissions from the Double Cone Fluorinator (R029S230) and the Vibrating Bed Fluorinator (R029S231) are controlled by a spray tower (R029C229) with a 90% control efficiency for hydrogen fluoride, fluorine, and fluorides. Since the pre-control device emissions for fluorides and total HAPs from these emission sources (based on the R13 allowable emission limits of 0.01 tpy for fluorides and 0.01 tpy for total HAPs; and a control device efficiency of 90%) are less than 10 tons per year of a single HAP and less than 25 tons per year of combined HAPs, they are not subject to CAM.

Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule. Since DuPont Washington Works has not made any changes that trigger a PSD modification, the requirements of the Greenhouse Gas Tailoring Rule do not apply.

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 Research and Development.
- 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 Research and Development.
- 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 Research and Development.
- d. 40 C.F.R. 60, Subpart VV - “Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry.” Research and Development 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.” Research and Development 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.” Research and Development 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 Research and Development.
- 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 Research and Development, as it does 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 T - “National Emission Standards for Halogenated Solvent Cleaning.” There are no solvent cleaning units in Research and Development using halogenated solvents as listed in §63.460(a).
- j. 40 C.F.R. 63, Subpart DD – “National Emission Standards for Hazardous Air Pollutants From Off-Site Waste and Recovery Operations.” The Research and Development Area 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).
- k. 40 C.F.R. 63, Subpart JJJ - “National Emission Standards for Hazardous Air Pollutant Emissions: Group IV Polymers and Resins. Research and Development does not produce the materials listed in 40 C.F.R. §63.1310.

- l. 40 C.F.R. 63, Subpart EEEE – “National Emission Standards for Hazardous Air Pollutants: Organic Liquid Distribution (Non-Gasoline).” The Research and Development Area does not operate an organic liquids distribution (OLD) operation and does not handle material organic liquids as defined in §63.2406.
- m. 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 Research and Development subject to the requirements of this rule.
- n. 40 C.F.R. 63, Subpart PPPP – “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Plastic Parts and Products.” The Research and Development 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 QQQQ - “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Wood Building Products.” The surface coating activities of Research and Development are excluded from the requirements of the rule because they are non-commercial operations using coatings supplied by non-refillable aerosol containers.
- p. 40 C.F.R. 63, Subpart RRRR - “National Emission Standards for Hazardous Air Pollutants: Surface Coating of Metal Furniture.” The surface coating activities of Research and Development use non-refillable aerosol containers for the purpose of repairing furniture for on-site use and are excluded from the requirements of the rule.
- q. 40 C.F.R. 63, Subpart WWWW - “National Emission Standards for Hazardous Air Pollutants: Reinforced Plastic Composites Production.” The Research and Development 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.
- r. 40 C.F.R. 63, Subpart DDDDD – “National Emission Standards for Hazardous Air Pollutants: Industrial/Commercial/Institutional Boilers and Process Heaters.” The Research and Development Area does not own or operate an industrial, commercial, or institutional boiler or process heater as defined in 40 C.F.R. §63.7575.
- s. 40 C.F.R. 63, Subpart GGGGG – “National Emission Standards for Hazardous Air Pollutants: Site Remediation.” Research and Development does not conduct site remediation as defined in §63.7957.
- t. 40 C.F.R. 63, Subpart HHHHH – “National Emission Standards for Hazardous Air Pollutants: Miscellaneous Coating Manufacturing.” Research and Development does not manufacture coatings as defined in 40 C.F.R. §63.8105.
- u. 40 C.F.R. 63, Subpart NNNNN – “National Emission Standards for Hazardous Air Pollutants: Hydrochloric Acid Production.” Research and Development does not produce a liquid HCl product.
- v. 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. Research and Development does not conduct motor vehicle maintenance involving CFCs on site.
- w. 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 Research and Development Area does not use, manufacture, nor distribute these materials.

- x. 45CSR2 – “To Prevent and Control Particulate Air Pollution from Combustion of Fuel in Indirect Heat Exchangers.” The Research and Development Area does not contain any fuel burning units.
- y. 45CSR10 – “To Prevent and Control Air Pollution from the Emission of Sulfur Oxides.” The Research and Development Area does not have any emission sources of sulfur oxides subject to this rule.
- z. 45CSR16 – “Standards of Performance for New Stationary Sources Pursuant to 40 C.F.R. 60.” The Research and Development Area is not subject to any requirements under 40 C.F.R. 60.
- aa. 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 Research and Development Area is not subject to 45CSR17 because it is subject to the fugitive particulate matter emission requirements of 45CSR7.
- bb. 45CSR34 – “Emission Standards for Hazardous Air Pollutants.” The Research and Development Area is not subject to any requirements under 40 C.F.R. 61 or 40 C.F.R. 63.

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: May 24, 2011

Ending Date: June 23, 2011

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

Carrie McCumbers
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

Carrie McCumbers
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE

Charleston, WV 25304

Phone: 304/926-0499 ext. 1226 • Fax: 304/926-0478

Response to Comments (Statement of Basis)

No comments were received.