

West Virginia Department of Environmental Protection
Division of Air Quality



Title V Operating Permit Revision

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

For Minor Modification Permitting Action Under 45CSR30 and Title V of the Clean Air Act

Permit Action Number: MM08 SIC: 2821
Name of Permittee: The Chemours Company FC, LLC
Facility Name/Location: Washington Works
County: Wood
Facility Address: P.O. Box 1217, Washington, WV 26181-1217

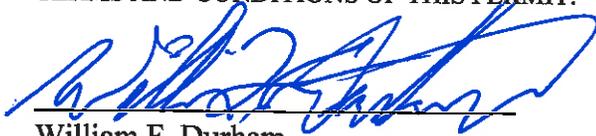
Description of Permit Revision: Update the Facility Name and Facility ID Number from "E. I. du Pont de Nemours and Company" and "10700001" to "The Chemours Company FC, LLC" and "10700182" respectively. Added HCL storage tanks T2ET and T2EU to the equipment table. These tanks are subject to the HCl MACT requirements found in Section 7.0.

Initial Title V Permit Information:

Permit Number: R30-10700182-2010 (Part 2 of 14)
Effective Date: December 15, 2010
Expiration Date: December 1, 2015

Directions To Facility: 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.

THIS PERMIT REVISION IS ISSUED IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL ACT (W.VA. CODE §§ 22-5-1 ET SEQ.) AND 45CSR30 - "REQUIREMENTS FOR OPERATING PERMITS." THE PERMITTEE IDENTIFIED AT THE FACILITY ABOVE IS AUTHORIZED TO OPERATE THE STATIONARY SOURCES OF AIR POLLUTANTS IDENTIFIED HEREIN IN ACCORDANCE WITH ALL TERMS AND CONDITIONS OF THIS PERMIT.


William F. Durham
Director

June 9, 2015
Date Issued

West Virginia Department of Environmental Protection
Division of Air Quality

Earl Ray Tomblin
Governor

Randy C. Huffman
Cabinet Secretary

Permit to Operate



Pursuant to
Title V
of the Clean Air Act

Issued to:

~~E. I. du Pont de Nemours and Company~~

The Chemours Company FC, LLC

Washington Works

Fluoropolymers

R30-1070000-~~182~~-2010 (Part 2 of 14)

John A. Benedict
Director

Issued: December 1, 2010 • Effective: December 15, 2010
Expiration: December 1, 2015 • Renewal Application Due: June 1, 2015

Permit Number: R30-10700001182-2010 (Part 2 of 14)
Permittee: ~~E. I. du Pont de Nemours and Company~~
The Chemours Company FC, LLC
Facility Name: Washington Works
Business Unit: Fluoropolymers
Permittee Mailing Address: P. O. Box 1217, Washington, WV 26181-1217

This permit is issued in accordance with the West Virginia Air Pollution Control Act (West Virginia Code §§ 22-5-1 et seq.) and 45CSR30 — Requirements for Operating Permits. The permittee identified at the above-referenced facility is authorized to operate the stationary sources of air pollutants identified herein in accordance with all terms and conditions of this permit.

Facility Location:	Washington, Wood County, West Virginia
Facility Mailing Address:	P. O. Box 1217, Washington, WV 26181-1217
Telephone Number:	(304) 863-4240
Type of Business Entity:	Corporation
Facility Description:	Chemical and Plastic Resins Manufacturing
SIC Codes:	2821
UTM Coordinates:	442.368 km Easting • 4,346.679 km Northing • Zone 17

Permit Writer: Carrie McCumbers

Any person whose interest may be affected, including, but not necessarily limited to, the applicant and any person who participated in the public comment process, by a permit issued, modified or denied by the Secretary may appeal such action of the Secretary to the Air Quality Board pursuant to article one [§§ 22B-1-1 et seq.], Chapter 22B of the Code of West Virginia. West Virginia Code §22-5-14.

Issuance of this Title V Operating Permit does not supersede or invalidate any existing permits under 45CSR13, 14 or 19, although all applicable requirements from such permits governing the facility's operation and compliance have been incorporated into the Title V Operating Permit.

Emission Unit ID	Emission Unit Description	Year Installed/Modified	Emission Point ID	Control Device
T1XG	Column	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T1XO	Column – Feed Condenser	1997	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T2EN	Tank Car Loading	2005	T2ERE	T2ERC – Scrubber
T2EO-EP	Tanks	2005	T2ERE	T2ERC – Scrubber
T2ER	Storage Tanks	2005	T2ERE	T2ERC – Scrubber
T2ES	Air Stripper	1997	T2ERE	T2ERC – Scrubber
<u>T2ET</u>	<u>HCl Aqueous Acid Tank #1</u>	<u>2015</u>	<u>T2ERE</u>	<u>T2ERC - Scrubber</u>
<u>T2EU</u>	<u>HCl Aqueous Acid Tank #2</u>	<u>2015</u>	<u>T2ERE</u>	<u>T2ERC - Scrubber</u>
T2EX	Trailer Loading	2000	T2EXE	None
			T7IME	T7IMC – Thermal Converter
T2EY	Analyzer	2000	T2EYE	None
T2XH, T2XL	Cooler/Absorber	1997	T2ERE	T2ERC – Scrubber
			T7IME	T7IMC – Thermal Converter
T2XJ	Column	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T2XM	Column	1997	T7XIE	T7XIC – Scrubber
			T7IME	T7IMC – Thermal Converter
T2XN	Column	1997	T7XIE	None
			T7IME	T7IMC – Thermal Converter
T2XQ	Vaporizer	1997	T7XIE	T7XIC – Scrubber
T2XS	Column Feed Cooler	1997	T7XIE	None
T2XT-XU	Adsorption Beds	1997	T2ERE	T2ERC – Scrubber
T2XV	Cooler Loop	1997	T7XIE	None
T3FB	Furnace	1997	T7XIE	None
T4GB	Storage Tank	1987	T4GBE	None
T4GK	Shipping Containers	1983	T7XIE	None
T4GM	Column	1997	T7XIE	T7XIC - Scrubber
			T7IME	T7IMC – Thermal Converter
T4GO	Recycle Tank	1979	T7XIE	T7XIC – Scrubber

Emission Unit ID	Emission Unit Description	Year Installed/Modified	Emission Point ID	Control Device
C1LD	Parts Washer	NA	C1LDE	None
T1JG	Parts Washer	NA	T1JGE	None

1.2. Active R13, R14, and R19 Permits

The underlying authority for any conditions from R13, R14, and/or R19 permits contained in this operating permit is cited using the original permit number (e.g. R13-1234). The current applicable version of such permit(s) is listed below.

Area	Permit Number	Date of Issuance
All	R13-3223	December 8, 2014
C1P	R13-2365E	April 4, 2013
C2	R13-1953H	August 31, 2012
C3	R13-2391H	October 21, 2014
T1, T2, T3, T4, and T7	R13-1823I <u>R13-1823J</u>	September 15, 2010 <u>March 4, 2015</u>
T5	R13-1353F	April 4, 2014
T6	R13-0815H	April 4, 2014

- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to 40 C.F.R. § 82.161.

[40 C.F.R. 82, Subpart F]

- 3.1.8. **Risk Management Plan.** This stationary source, as defined in 40 C.F.R. § 68.3, is subject to Part 68. This stationary source shall submit a risk management plan (RMP) by the date specified in 40 C.F.R. Part 68.10. This stationary source shall certify compliance with the requirements of Part 68 as part of the annual compliance certification as required by 40 C.F.R. Part 70 or 71.

[40 C.F.R. 68]

- 3.1.9. **Fugitives.** No person shall cause, suffer, allow or permit any manufacturing process or storage structure generating fugitive particulate matter to operate that is not equipped with a system, which may include, but not be limited to, process equipment design, control equipment design or operation and maintenance procedures, to minimize the emissions of fugitive particulate matter. To minimize means such system shall be installed, maintained and operated to ensure the lowest fugitive particulate matter emissions reasonably achievable. **[45CSR§7-5.1.; 45CSR13, R13-2365, B.10; 45CSR13, R13-1953, 4.1.18; 45CSR13, R13-2391, B.8; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, B.1]**
- 3.1.10. **Fugitives.** The owner or operator of a plant shall maintain particulate matter control of the plant premises, and plant owned, leased or controlled access roads, by paving, application of asphalt, chemical dust suppressants or other suitable dust control measures. Good operating practices shall be implemented and when necessary particulate matter suppressants shall be applied in relation to stockpiling and general material handling to minimize particulate matter generation and atmospheric entrainment. **[45CSR§7-5.2; 45CSR13, R13-2365, B.10; 45CSR13, R13-1953, 4.1.19; 45CSR13, R13-2391, B.8; 45CSR13, R13-1353, B.2; 45CSR13, R13-0815, B.1]**
- 3.1.11. **MACT Applicability Determination Records.** An owner or operator of a stationary source that emits (or has the potential to emit, without considering control(s) one or more hazardous air pollutants who determines that the source is not subject to a relevant standard or other requirement established under this part, shall keep a record of the applicability determination as specified in §63.10(b)(3) of 40 C.F.R. 63 Subpart A. **[45CSR34 and 40 C.F.R. §63.10(b)(3)]**
- 3.1.12. **APFO Emission Sources.** The following table provides a listing of all ammonium perfluorooctanoate (CAS 3825-26-1 and hereby abbreviated as APFO) sources at the ~~DuPont~~ Chemours Washington Works Facility. Hourly and annual APFO emission limits are provided in 4.1.1 for C1FSE; 5.1.5 for C2DTE; 7.1.3 for T7IME; 8.1.1 for T5HGE and T5HIE; 9.1.5 for T6PME, T6IGE, T6IZCE, T6IVE, T6IEE, T6IFE, T6IXE, T6IYE; and ~~R30-10700001-2003~~ Research and Development (Part 11 of 14) and R13-2692 for the semi-works application.

Table 3.1.12 – APFO Emission Sources

Business Unit	Process Area	Emission Point ID No.
Fluoropolymers (2 of 14)	C1P	C1FSE
	C2	C2DTE
	T5	T5HGE
		T5HIE
	T6	T6IXE
		T6IYE
		T6IZCE
		T6PME
		T6IGE
		T6IVE
		T6IEE
		T6IFE
T7	T7IME	
Research and Development (11 of 14)	NA	R022EEF006
	NA	R022EEF089

[45CSR13, R13-2365, R13-1953, R13-1823, R13-1353, and R13-0815; and R30-10700001-2003 Research and Development (Part 11 of 14) and R13-2692]

- 3.1.13. **APFO Screening Level.** In accordance with Consent Order GWR-2001-019 and the Additional Obligations Notice dated March 13, 2003, the permittee shall limit the annual average modeled exposure levels for ammonium perfluorooctanoate (CAS 3825-26-1 and hereby abbreviated as APFO) to no more than the C-8 Assessment of Toxicity (CAT) Team recommended airborne screening level of $1 \mu\text{g}/\text{m}^3$ in any area not subject to controlled access by the permittee when modeled using Industrial Source Complex 3 Short Term (ISC3ST) modeling software. As stated in the referenced order, the $1 \mu\text{g}/\text{m}^3$ screening level will be the basis for compliance until such time as the United States Environmental Protection Agency promulgates a standard for APFO that is applicable for emissions from this facility.

For the purpose of modeling, the emissions of APFO from sources associated with Fluoropolymers Production (2 of 14) shall include the emission points and discharge specifications as shown in the following table 3.1.13.

- e. 40 C.F.R. 60 Subpart DDD - "Standards of Performance for Volatile Organic Compound (VOC) Emissions from the Polymer Manufacturing Industry." The Fluoroproducts production facilities do not manufacture polypropylene, polyethylene, polystyrene, or poly(ethylene terephthalate) for which this rule applies.
- f. 40 C.F.R. 60 Subpart NNN - "Standards of Performance for Volatile Organic Compound (VOC) Emissions From Synthetic Organic Chemical Manufacturing Industry (SOCMI) Distillation Operations." The Fluoroproducts facilities do not have a process unit that produces any of the chemicals listed in §60.667 as a product, co-product, by-product, or intermediate.
- 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." The Fluoroproducts facilities do not have a process unit that produces any of the chemicals listed in §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 §61.241. VHAP service involves chemicals that are not used in Fluoroproducts manufacture.
- 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 manufacturing process units that do not meet the criteria in §§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. Fluoroproducts manufacturing does not produce the materials listed in §63.1310.
- k. 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 Fluoroproducts production facility does not conduct motor vehicle maintenance involving CFCs on site.
- l. 40 C.F.R. 63, Subpart EEEE – "National Emission Standards for Hazardous Air Pollutants: Organic Liquids Distribution (Non-Gasoline)." Storage tank T5HY has a design capacity of less than 18.9 cubic meters (5,000 gallons) and is not required to be controlled under 40 C.F.R. 63, Subpart EEEE. It is only subject to the recordkeeping requirements of 40 C.F.R. §63.2343(a). Storage tank T7AA is an existing tank with a design capacity greater than or equal to 18.9 cubic meters (5,000 gallons) and less than 189.3 cubic meters (50,000 gallons) storing an organic liquid with an annual average true vapor pressure of the total Table 1 organic HAP in the stored organic liquid less than 27.6 kilopascals (4.0 psia). Since the annual average true vapor pressure of the total Table 1 organic HAP is less than 4.0 psia, this tank is not required to be controlled under 40 C.F.R. 63, Subpart EEEE and is only subject to the notification, recordkeeping, and reporting requirements of 40 C.F.R. §§63.2343(b)(1) through (3). The unloading systems MCE and MCS are used for unloading when maintenance or inspection is required and are not an affected source under 40 C.F.R. 63, Subpart EEEE as specified in 40 C.F.R. §63.2338(c)(3). Since the tanks do not require control and the unloading systems are not affected sources, 40 C.F.R. §63.2350(c) does not require DuPont Chemours to develop a written startup, shutdown, and malfunction (SSM) plan for the tanks or unloading systems. Also, since the equipment leak detection requirements of 40 C.F.R. §63.2346(c) only apply if the affected source has at least one storage tank or transfer rack that meets the applicability criteria for control in Table 2 of 40 C.F.R. 63, Subpart EEEE, and none of the tanks or transfer racks are required to be controlled, DuPont Chemours is not subject to the leak detection and repair requirements of 40 C.F.R. 63, Subpart EEEE.

**Attachment A
 Monthly Records**

**DuPont Chemours Washington Works
 Teflon PFA Area (C1)
 Permit R13-2365E**

Current month:
 Data entered by:
 Date entered:
 Reviewed by:
 Date reviewed:
 Delegated Authority:
 Date reviewed:

Equipment	Equipment ID No.	Value	Monthly Monitoring Parameter
Comonomer cylinders	C1FW		Cylinder disconnects – Comonomer A
Comonomer cylinders	C1FW		Cylinder disconnects – Comonomer B
Reactor	C1FQ		Aborted batches – after comonomer addition
Reactor	C1FQ		Aborted batches – after kickoff
Reactor	C1FQ		Normal batches – Product C
Reactor	C1FQ		Normal batches – All FP products
Reactor	C1FQ		Normal batches – All dispersion productions
Reactor	C1FQ		Maximum pressure after venting to monomers area
Reactor	C1FQ		Sumped batches
Totes	C1FR		# of totes prepared
Dryer	C1FS		Maximum dispersion flow to filter (lb/hr)
Dried polymer production	N/A		lb polymer
Extruder	C1FV		Maximum hourly screw speed
Polymer to mixer	N/A		lb polymer
Reactor	C1FE		Maximum bin weight for month
Reactor production	C1FE		# of batches
Extruder burnout oven	C1GR		Small packs cleaned
Extruder burnout oven	C1GR		Large packs cleaned
C1FSC1 filter delta P	C1FSC1		Maximum value (while running) (hourly average)
C1FEC scrubbing liquid conc., %	C1FEC		Minimum value (while running)
Reactor	C1FQ		# of completed GenX commercial dispersion batches included in count above
Reactor	C1FQ		# of aborted GenX commercial dispersion batches included in count above
Sump	C1GK		# of sumped GenX commercial dispersion batches included in count above
Extruder	C1FV		Total lbs of GenX commercial cube production (fluorinated and nonfluorinated) included in count above

**Attachment B
Monthly Emissions**

**DuPont Chemours Washington Works
Teflon PFA Area (C1)
Permit R13-2365E**

Current month:

Emission Pt ID	Equipment ID	Monthly Emissions (lb)											
		VOC		ODC		PM ₁₀		Acetonitrile		HF		APFO	
		max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month	max lb/hr	lb/month
C1FCE	C1FC												
C1FEE	C1FA, FB, FD, FE, GN												
C1FFE	C1FF												
C1FGE	C1FG												
C1FQE	C1FQ, GH												
C1FSE	C1FS, C1FK												
C1FUE	C1FU												
C1FVE1	C1FV												
C1FVE2	C1FV												
C1FWE	C1FW												
C1GAE	C1GA												
C1GBE	C1GB												
C1GCE	C1GC												
C1GDE	C1GD												
C1GJE	C1GJ												
C1GPE	C1GP, GS, GT												
C1GQE	C1GQ												
C1GRE	C1GR												
C1GVE	C1GV												
C1GXE	C1GX												
C1NPE	C1NP												
Area	C1FW												
Area	C1GK												

**Attachment C
 Annual Emissions**

**DuPont Chlorours Washington Works
 Teflon PFA Area (C1)
 Permit R13-2365E**

Current month:

Emission Pt ID	Equipment ID	VOC Emissions (lb)											12 Month Total		
C1FCE, GAE, GBE, GCE	C1FC, GA, GB, GC														
C1FFE, FGE	C1FF, FG														
C1FQE	C1FQ, GH														
C1FSE	C1FS														
C1FVE1	C1FV														
C1FVE2	C1FV														
C1FWE	C1FW														
C1GDE	C1GD														
C1GXE	C1GX														
C1NPE	C1NP														
Area	C1FW														
Area	C1GK														

Emission Pt ID	Equipment ID	ODC Emissions (lb)											12 Month Total		
C1FQE	C1FQ, GH														
C1GDE	C1GD														
Area	C1GK														

**Attachment C
 Annual Emissions**

**DuPont Chemours Washington Works
 Teflon PFA Area (C1)
 Permit R13-2365E**

Current month:

Emission Pt ID		Equipment ID	PM ₁₀ Emissions (lb)												12 Month Total		
CIFCE, GAE, GBE, GCE	C1FC, GA, GB, GC																
CIFEE	C1FE																
C1FFE, FGE	C1FF, FG																
C1FSE	C1FS, C1FK																
C1FUE	C1FU																
C1FVE1	C1FV																
C1GJE	C1GJ																
C1GPE	C1GS, GT																
C1GQE	C1GQ																
C1GVE	C1GV																
			APFO Emissions (lb)												12 Month Total		
Equipment ID	Emission Pt ID																
C1FS	C1FSE																

**Attachment C
 Annual Emissions**

**DuPont Chemours Washington Works
 Teflon PFA Area (C1)
 Permit R13-2365D**

Current month:

Emission Pt ID	Equipment ID	HF Emissions (lb)											
													12 Month Total
C1FEE	C1FA, FB, FD, FE												
C1FVE2	C1FV												
C1GRE	C1GR												

Emission Pt ID	Equipment ID	Acetonitrile Emissions (lb)											
													12 Month Total
C1FQE	C1FQ												
C1FWE	C1FW												
C1GDE	C1GD												
C1GXE	C1GX												
Area	C1FW												
Area	C1GK												

Attachment A - Monthly Recordkeeping (Equipment)

DuPont Chemours Washington Works – Area (C2) – Permit R13-1953H

Current Month:

Data entered by:

Date entered:

Reviewed by:

Date Reviewed:

Equipment ID	Value	Monthly Monitoring
		Parameter
C2DP		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2EP		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DX – tank		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DX – bottom valve		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DX – top valve		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DY – tank		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DY – bottom valve		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DY – top valve		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2DR		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
C2EE		# of times system deinventoried through System #1
		# of times system deinventoried through System #2
Facility		# of completed batches
Facility		# of completed GenX batches
C2DA		# of completed dispersion batches
C2DA		# of GenX dispersion batches
C2DT		Max pph held for one hour during the month
C2DW		max pph held for one hour during the month
C2EH		max pph held for one hour during the month
C2DT, C2DW, C2EH		max pph rate of all TDD for one hour during the month
C2DS		pounds of flake to flake packout
C2EN		max pph for month conveyed from TDD to compactor
C2ER		max RPM held for one hour
C2ER		total rework weight for month
C2EV		# of makeup cartridges used
		# of ink cartridges used
		# of wash bottles used
C2EQ		# of screenpacks

**Attachment B - Monthly Emissions
DuPont Chemours Washington Works – Area (C2) – Permit R13-1953H**

Current Month:

Emission Point ID	Equipment ID	VOC		ODC		PM ₁₀		APFO		HF		Toluene lb/month	Total HAPs lb/month
		max pph	lb/month	max pph	lb/month	max pph	lb/month	max pph	lb/month	max pph	lb/month		
C2DAE	C2DA, C2DE, C2EC, C2KW, C2KX												
C2DHE	C2DH												
C2DKE	C2DK												
C2DSE	C2DS												
C2DTE	C2DW, C2EH												
C2EFE	C2EJ, C2EF												
C2EGE	C2EG												
C2EJE	C2EJ, C2DG												
C2ENE	C2EN												
C2EQE	C2EQ												
C2ERE	C2ER												
C2ETE	C2ET												
C2EUE	C2EU												
C2EVE	C2EV												
C2KDE	C2KD												
C2KOE1	C2KO												
C2KPE	C2KP												
C2KUE	C2KU												
Area	C2KQ												

**Attachment C – Annual Emissions
 DuPont Chemours Washington Works – Area (C2) – Permit R13-1953H**

Current Month:

Emission Point ID	Equipment ID	VOC Emissions (lb)												12 Month Total	
C2DAE	C2DA, C2DE, C2EC, C2KW, C2KX														
C2DHE	C2DH														
C2DKE	C2DK														
C2EFE	C2EJ, C2EF														
C2EGE	C2EG														
C2EJE	C2EJ, C2DG														
C2EQE	C2EQ														
C2ERE	C2ER														
C2ETE	C2ET														
C2EVE	C2EV														
C2KDE	C2KD														
C2DTE	C2DW, C2EH														
Area	C2KQ														
Totals															

Emission Point ID	Equipment ID	ODC Emissions (lb)												12 Month Total	
C2EFE	C2EJ, C2EF														
C2EJE	C2EJ, C2DG														
Totals															

Attachment C – Annual Emissions
DuPont Chemours Washington Works – Area (C2) – Permit R13-1953H

Current Month:

Emission Point ID	Equipment ID	PM ₁₀ Emissions (lb)											12 Month Total		
C2DKE	C2DK														
C2DSE	C2DS														
C2DTE	C2DW, C2EH														
C2EGE	C2EG														
C2ENE	C2EN														
C2EQE	C2EQ														
C2ERE	C2ER														
C2EUE	C2DO, C2EU														
C2KPE	C2KP														
Totals															

Emission Point ID	Equipment ID	APFO Emissions (lb)											12 Month Total		
C2DTE	C2DW, C2EH														

**Attachment C – Annual Emissions
DuPont Chemours Washington Works – Area (C2) – Permit R13-1953H**

Current Month:

Emission Point ID	Equipment ID	HF Emissions (lb)	12 Month Total
C2DHE	C2DH		
C2EQE	C2EQ		
C2ERE	C2ER		
C2ETE	C2ET		
C2KDE	C2KD		
C2KOE1	C2KO		
C2KUE	C2KU		
Totals			

Emission Point ID	Equipment ID	Total HAPs (lb)	12 Month Total
C2EVE	C2EV		
C2EFE	C2EF, C2EJ		
C2EJE	C2DG, C2EJ		
Totals			

Attachment D – Monthly Recordkeeping – Control Devices and Inherent Process Devices
DuPont Chemours Washington Works – Area (C2) – Permit R13-1953H

Current Month:

Data entered by:

Date entered:

Reviewed by:

Date reviewed:

Equipment Name	ID No.	Interlock Tripped? (Yes or No)
Scrubber	C2DWC2	
Scrubber	C2EHC2	
Scrubber	C2DTC3	
Vacuum Pump	C2EQC	

ATTACHMENT A
DuPont Chemours Washington Works
Teflon Monomers Area
Recordkeeping for Process Emissions

Current Month:
 Data entered by:
 Date entered:
 Reviewed by:
 Date reviewed:

Equipment	Equip. ID	Emission Pt. ID	Monthly Parameters		Units
			Max/hr	Total	
No. 6 Furnace - Process	T1CA	T1CAE			MM scf
No. 7 Furnace - Process	T1CB	T1CBE			MM scf
No. 8 Furnace - Process	T1CC	T1CCE			MM scf
No. 9 Furnace - Process	T1CD	T1CDE			MM scf
Cooler/Absorber Air Stripper	T2ES	T2ERE			lb 36% (wt) HCl
Emergency Generator	T7JJ	T7JJE			Hrs Operation
Column - Process Vent (Problems with C/A)	T2XM	T7XIE			hrs vented
Column - Process Vent (High Inerts)	T2XM	T7XIE			hrs vented
Primary Column - Condenser Operating Vents	T1XD	T7XIE			lbs vented
Distillate Storage Tanks - Process	T1BP-T	T7XIE			Tank vents
Brine Sent to T/C	T4GM	T7MIE			lbs
Brine System - Starting Inventory	T7AB	T7ABE	*		gal
Brine System - Ending Inventory	T7AB	T7ABE	*		gal
Brine System - Amount Added	T7AB	T7ABE	*		gal
Brine System - Amount Shipped in Waste	T7AB	T7ABE	*		gal
Brine System - Amount Spilled	T7AB	T7ABE	*		gal
Number of hours Cooler Absorber Vent went to NTFS	T2XH&T2XL	T2ERE	n/a		hrs/this month
Average Brine Storage Tank Vapor Pressure	T7AA	T7AAE		n/a	psia
MGH Vent Stack	T1GN	T1GNE			pph-VOC

Thermal Converter Feed Rates:

Equipment	Equip. ID	T/C Operating	T/C not Operating	Total	Max /hr	Units
		Max/hr				
Recovery Column - Process - Thermal Con.	T4GM					
FP/D Autoclaves #8 & #9 (PFA only)	T6ID & T6IU			*	*	lb OH
PFA Autoclave (Aqueous) -Aborted Batches	C1FQ			*	*	batches
PFA Autoclave (Aqueous) -Normal Batches	C1FQ			*	*	batches
L3 Extruder Vent	C2ES	N/A		*		batches
Telomers Vent Accumulator	C3IZ			N/A	N/A	lb feed
Heels Column Process Vent	T4XK					
Heels Column Pot Vent	T4XK			**	**	lb OH
Portable Container Facility - Thermal Converter	T7EM			**	**	lb feed
Thermal Converter Combustion Emissions				**	**	lb F23
						MM scf

* These vent to the Mixed Gas Holder when the T/C is down.

** These streams are not vented when the T/C is down.

ATTACHMENT B

DuPont Chemours Washington Works

Teflon Monomers Area

Recordkeeping for Maintenance Emissions

Current Month:

Data entered by:

Date entered:

Reviewed by:

Date reviewed:

Equipment	Equipment ID	Emission Pt. ID	Maintenance operation	Current Month No. of Events	Permit Frequency (per yr) ^a
Mixed Gas Holder	T1GN	T1GNE	Clear		2
Storage Tank & Vaporizer	T1LF	T2ERE T7XIE	Clear		2
Coolers - Press. Purge	TIDD-F	T7IME	Clear		156
Bag Filters - Press. Purge	T1DG&H	T7IME	Clear		16
Column & Piping - Press. Purge	T1XD	T7IME	Clear		3
Column - Maintenance - PP	T4GM	T7IME	Clear		3
Storage Tank - Thermal Converter	T4GO	T7IME	Clear		3
Storage Tanks - Maintenance	T1BP-T	T7XIE	Evacuate		9
Column - Evacuate Column	T4GS	T7XIE	Evacuate		3
Column - Detox/Dry	T4GS	T7XIE	Detox/dry Column		2
Storage Tank	T4GU, T4GV	T7XIE	Evacuate		10
Shipping Tank	T4GW	T7XIE	Evacuate		3
Shipping Tank	T4GX	T7XIE	Evacuate		3
Cylinder Loading	T4KA	T7XIE	Evacuate		600
Cylinder Loading	T4KA	T7XIE	Evacuate		250
Feed Tank	T4KB	T7XIE	Evacuate		3
Tank Truck Loading	T4KC	T7XIE	Evacuate		12
Tank Car Loading	T4KD	T7XIE	Evacuate		6

^a This is the frequency that was assumed in calculation emission limits for the R13 permit.

ATTACHMENT C

**DuPont Chemours Washington Works
 Teflon Monomers Area
 Recordkeeping for Control Devices**

Current Month:
 Data entered by:
 Date entered:
 Reviewed by:
 Date reviewed:

North Tank Farm Scrubber (T2ERC)	Value	Units
Minimum Liquor Flow		lb/hr
Maximum Scrubber Temperature		Deg C
Minimum Re-circulation Pump Current (or Minimum Liquor Flow and Maximum Scrubber Temperature)		amps
Thermal Converter - Combustion (T7IMC)	Value	Units
Minimum Combustion Chamber Temperature		Deg F
Maximum Waste Gas Feed Rate		lb/hr
Maximum Charge Rate (HFC-23 from tank car unloading for CISWI)		lb/hr
Thermal Converter - Scrubber (T7IMC)	Value	Units
Maximum Gas Stream Flow		pph
Minimum Pressure Drop Across the Wet Scrubber		in. wc
Minimum Re-circulated Liquor Flow (1 st Stage)		gpm
Minimum Re-circulation Pump Current (1 st Stage)		amps
Minimum Scrubber Liquor Flow (4 th Stage) (Dilute Na ₂ SO ₃ , pH adjusted)		gpm
Liquor Oxidation/Reduction Potential (4 th Stage)		Millivolts vs Ag/AgCl ref. electrode
Minimum Scrubber Liquor pH (4 th Stage)		
Maximum Scrubber Effluent pH (4 th Stage)		
Neutralization System Scrubber (T7JDC)	Value	Units
Scrubber Liquor Flow		gpm
Daily Confirmation of Blower Operation		
South Stillhouse Scrubber (T7XIC)	Value	Units
Maximum Scrubber Temperature		Deg F
Minimum Scrubber Liquor Circulation Rate		gpm
Maximum Vent Flow Discharge Rate		lb/hr HCl