



west virginia department of environmental protection

Division of Air Quality
601 57th Street SE
Charleston, WV 25304
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Earl Ray Tomblin, Governor
Randy C. Huffman, Cabinet Secretary
www.dep.wv.gov

September 24, 2015

CERTIFIED MAIL

91 7199 9991 7032 6242 2695

Robert J. Fehrenbacher
Chemours
P.O. Box 1217
Washington, WV 26181-1217

Re: The Chemours Company FC, LLC
Washington Works
Permit No. R13-1353H
Plant ID No. 107-00182

Dear Mr. Fehrenbacher:

Your application for a permit as required by Section 5 of 45CSR13 - "Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permit, General Permit, and Procedures for Evaluation" has been approved. The enclosed permit R13-1353H is hereby issued pursuant to Subsection 5.7 of 45CSR13. Please be aware of the notification requirements in the permit which pertain to commencement of construction, modification, or relocation activities; startup of operations; and suspension of operations.

The source is subject to 45CSR30. The permittee has the duty to update the facility's Title V (45CSR30) permit application to reflect the changes permitted herein.

In accordance with 45CSR30- Operating Permit Program, the permittee shall submit a certified emissions statement and pay fees on an annual basis in accordance with the submittal requirements of the Division of Air Quality. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.

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.

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Should you have any questions or comments, please contact me at (304) 926-0499, extension 1208 or michael.egnor@wv.gov.

Sincerely,



Mike Egnor
Engineer

Enclosures



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**CLASS I ADMINISTRATIVE UPDATE PERMIT
FLUOROPOLYMERS PRODUCTION FACILITY**

IN ACCORDANCE WITH THE WEST VIRGINIA AIR POLLUTION CONTROL LAW (W. Va. Code §§22-5-1 et seq.), AND REGULATIONS PROMULGATED THEREUNDER, THE FOLLOWING PERMITTEE IS AUTHORIZED TO CONSTRUCT, SUBJECT TO THE TERMS AND CONDITIONS OF THIS PERMIT, THE SOURCE DESCRIBED BELOW.

This permit will supersede and replace Permit R13-1353G.

Name of Permittee: The Chemours Company FC, LLC

Name of Facility: Washington Works Plant

Permit No.: R13-1353H

Plant ID No.: 107-00182

Effective Date of Permit: September 4, 2015

Permit Writer: Mike Egnor

Facility Mailing Address: P.O. Box 1217
Washington, WV 26181-1217

County: Wood County

Nearest City or Town: Washington, WV

UTM Coordinates: Easting: 442.3 km Northing: 4,346.8 km Zone: 17

Directions to Exact Location: Take State Route 68 South from Parkersburg to Route 892 (DuPont Road). Go East on DuPont Road approximately 3.0 miles. The plant is on the right at a traffic light before reaching the US Post Office of Washington, WV.

Type of Facility or Modification: This Class I Administrative update application is the result of the removal of conditions regarding Ammonium Perfluorooctanate (APFO), as well as the addition of a requirement that the Permittee not manufacture, use or purchase the material.

THE SOURCE IS SUBJECT TO 45CSR30. THE PERMITTEE HAS THE DUTY TO UPDATE THE FACILITY'S TITLE V (45CSR30) PERMIT APPLICATION TO REFLECT THE CHANGES PERMITTED HEREIN.

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IN ACCORDANCE WITH THE PERMIT APPLICATION AND ITS AMENDMENTS, THIS PERMIT IS LIMITED AS FOLLOWS:

A. SPECIFIC REQUIREMENTS

1. Emissions released into the atmosphere shall be limited to the pollutants and associated maximum emission rates as set forth in Table A.1.

Table A.1.

Emission Point ID	Source ID (Description)	Control Device	Pollutant	Emission Limit	
				pph	tpy
T5HTE	T5HT (#1 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HUE	T5HU (#2 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HVE	T5HV (#3 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HWE	T5HW (#4 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HXE	T5HX (#5 Tank)	None	ODC VOC	0.2 27.4	0.01 0.06
T5HN (Area Emissions)	T5HN (Raw Material System)	None	VOC	2.2	0.01
T5HC & T5HD (Area Emissions)	T5HC (#4 Polykettle) T5HD (#5 Polykettle)	None	ODC VOC	0.1 1.7	0.02 7.14
T5HCE	T5HC (#4 Polykettle) T5HN (Raw Material System) T5HW (#4 Tank) T5HP (Raw Material Tank)	None	ODC VOC	0.8 17.10	0.15 3.30
T5HCE2	T5HC (#4 Polykettle)	None	ODC VOC	0.7 152.0	0.01 1.33
T5HDE	T5HD (#5 Polykettle) T5HX (#5 Tank) T5HT (#1 Tank) T5HU (#2 Tank) T5HV (#3 Tank) T5HP (Raw Material Tank)	None	ODC VOC	0.78 32.30	0.15 3.30
T5HDE2	T5HD (#5 Polykettle)	None	ODC VOC	0.7 152.0	0.01 1.33
T5HAE	T5HA (#1 Heater)	None	NOx CO PM (Total, 2.5, 10) SO ₂ VOC	0.5 0.4 0.1 0.1 0.1	1.90 1.60 0.15 0.02 0.11
T5HBE	T5HB (#2 Heater)	None	NOx CO PM (Total, 2.5, 10) SO ₂ VOC	0.5 0.4 0.1 0.1 0.1	1.80 1.51 0.14 0.02 0.10

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Emission Point ID	Source ID (Description)	Control Device	Pollutant	Emission Limit	
				pph	tpy
T5HGE	T5HG (#1 Dryer)	T5HGC (Cyclone)	PM	0.5	1.22
			PM ₁₀	0.1	0.22
			VOC	0.06	0.15
T5HIE	T5HI (#2 Dryer)	T5HIC (Cyclone)	PM	0.7	0.92
			PM ₁₀	0.2	0.17
			VOC	0.1	0.11
T5HYE	T5HY (Chiller)	None	Methanol (67-56-1)	0.11	0.780

Note: The hourly emission rate is the largest of the sources feeding the stack, not the sum of the sources feeding the stack. The annual limit reflects the total of all sources. Also, aborted batches from T5HC and T5HD vent to T5HCE and T5HCE2, and T5HDE and T5HDE2, resulting in a higher potential emission rate.

2. Heater #1 [T5HA] is a natural gas-fired heater limited to a maximum heat output of 4,300,000 BTU per hour and a maximum fuel consumption rate of 4,300 standard cubic feet of natural gas per hour.
3. Heater #2 [T5HB] is a natural gas-fired heater limited to a maximum heat output of 4,100,000 BTU per hour and a maximum fuel consumption rate of 4,100 standard cubic feet of natural gas per hour.
4. Emissions from the Line #1 Dryer, T5HG, shall be vented to the mechanical collector, T5HGC, and then to the atmosphere through emission point T5HGE.
5. Emissions from the Line #2 Dryer, T5HI, shall be vented to the mechanical collector, T5HIC, and then to the atmosphere through emission point T5HIE.
6. Acetonitrile (CAS 107-13-1) shall be emitted from Source T5HN through Emission Points T5HCE at a total maximum hourly rate of 0.01 pounds per hour and a total maximum annual rate of 15 pounds per year.
7. The permittee shall not purchase, manufacture, store, or use Ammonium Perfluorooctanate (APFO) within the Chemours' Washington Works Facility.
8. Reserved
9. Reserved
10. Reserved

11. Emissions from the Methanol Brine System, T5HY, are emitted through emission point T5HYE. Methanol emissions from T5HYE and equipment leaks shall be limited to 0.78 tons of methanol per year.
12. Compliance with all annual emission and/or operating limits shall be determined using a twelve month rolling total. A twelve month rolling total shall mean a sum at any given time during the previous twelve (12) consecutive calendar months.

B. OTHER REQUIREMENTS

1. The permitted facility will comply with 45CSR4 - "To Prevent and Control the Discharge of Air Pollutants into the Open Air Which Causes or Contributes to an Objectionable Odor or Odors". If an objectionable odor is identified, the procedures, in accordance to 45CSR4, are:

§45-4-5.1

No person shall be considered in violation of this rule unless notified that he is discharging an air pollutant or air pollutants which causes or contributes to an objectionable odor.

§45-4-5.2

Notification as herein required shall be by registered or certified letter of notice sent to the person at his last known address which notice shall set forth the nature of the violation and require such person to submit a control program within such reasonable time as the Director shall specify.

2. The permitted facility shall comply with all applicable requirements of 45CSR7, with the exception of any more stringent limitations set forth in Specific Requirements A. of this permit. The principle provisions of 45CSR7, applicable to the permitted facility, are:

§45-7-3.1

No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any process source operation which is darker in shade or appearance than that designated as No. 1 Ringelmann or twenty (20) percent opacity, except as noted in subsections 3.2, 3.3, 3.4, 3.5, 3.6, and 3.7.

§45-7-3.2

The provisions of subsection 3.1 shall not apply to smoke and/or particulate matter emitted from any process source operation which is less than No. 2 Ringelmann or forty (40) percent opacity for any period or periods aggregating no more than five (5) minutes in any sixty (60) minute period.

§45-7-3.7

No person shall cause, suffer, allow, or permit emissions of smoke and/or particulate matter into the open air from any storage structure associated with any manufacturing process.

§45-7-4.12

Any stack serving any process source operation or air pollution control equipment on any process source operation shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.

§45-7-5.1

No person shall cause, suffer, allow, or permit any manufacturing process generating fugitive particulate matter to operate that is not equipped with a system to minimize the emissions of fugitive particulate matter. To minimize means that a particulate capture or suppression system shall be installed to ensure the lowest fugitive particulate emissions reasonably achievable. The permitted facility shall comply with all applicable requirements of 45CSR7, with the exception of any more stringent limitations set forth in Specific Requirements A. of this permit.

3. For the purpose of determining compliance with the opacity limits of 45CSR7-3.1 and 3.2, the permittee shall conduct opacity monitoring and record keeping for emission points T5HGE and T5HIE. Monitoring shall be conducted at least once per month. These checks shall be conducted by personnel trained in the practices and limitations of 40CFR60, Appendix A, Method 22 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. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 45CSR7A within three (3) days of the first signs of visible emissions. A 45CSR7A evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions. Records shall be maintained documenting the date and time of each visible emission check, the name of the responsible observer, the results of the check, and, if necessary, all corrective actions taken. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request.
4. For the purpose of determining compliance with the permit limits based on the maximum annual operating parameters of the natural gas-fired heaters set forth in Specific Requirements A.2. and A.3., and the

associated emission limits through Emission Points T5HAE and T5HBE established in Specific Requirement A.1., the permittee shall maintain monthly records of the heaters' operating schedules and associated natural gas consumption rates. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request.

5. For the purpose of determining compliance with the permit limits based on the maximum permitted emission rates as described in Specific Requirements A.1., the permittee shall maintain monthly calculations of the average hourly and total annual emissions associated with the operation of all affected sources. In addition, the permittee shall record and document all operating parameters and production records used to calculate the monthly emissions estimates. These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible Official" and made available to the Director or his duly authorized representative upon request.
6. To ensure compliance with the hourly and annual emission rates of particulate matter as set forth in Specific Requirements A.1., process control interlocks shall be utilized that shuts down the operation of the dryers, T5HG and T5HI, in the event the process conditions exceed the alarm levels preset and continuously monitored within the cyclones T5HGC and T5HIC for more than 10 seconds. An documented log shall be maintained when these interlocks are tripped and the operation continues for up to or greater than thirty (30) minutes in duration. At a minimum, the following information must be documented for each logged malfunction:
 - a. The equipment involved and associated cause of the malfunction
 - b. Steps taken to correct the malfunction
 - c. Steps taken to minimize emissions during the malfunction
 - d. The duration of the malfunction
 - e. The estimated increase in emissions during the malfunction
 - f. Any changes or modifications to equipment or procedures that would help prevent future recurrence of the malfunction

These records shall be maintained according to the conditions specified in 40 CFR 63.10(b)(1). Such records shall be certified by a "Responsible

Official” and made available to the Director or his duly authorized representative upon request.

7. The permitted facility shall comply with all applicable requirements of 45CSR21 – “Regulation to Prevent and Control Air Pollution from the Emission of Volatile Organic Compounds” provided, however, that compliance with any more stringent requirements under Section A, SPECIFIC REQUIREMENTS, shall also be demonstrated.

The permittee shall maintain the aggregated hourly and annual control efficiency of 90% or greater, on a site-wide basis, for all sources subject to 45CSR21 Section 40.a.1. Attachment A identifies all sources located site-wide that must be considered in any evaluation of the aggregated annual control efficiency. Sources encompassed by this permit and subject to 45CSR21 Section 40.1.a. include, but are not limited to those identified in Table B.7.

Table B.7.

Equipment ID Per R13-1353B	Equipment ID per R13-3223	Control Plan (RACT or RACM ¹)
T5HC	THC	RACM
T5HD	THD	RACM

¹- Source included in facility-wide control efficiency plan to achieve a minimum 90% reduction in emissions below the total (aggregate) maximum theoretical emissions.

The emission limits specified by SPECIFIC REQUIREMENT A.10. and the following requirements supercede and replace the equivalent requirements pertaining to the aforementioned sources contained in R13-3223. All other provisions of R13-3223 are intact and valid.

- a. On or after May 1, 1996, construction or modification of any emission source having maximum theoretical emissions (MTE) of VOCs equaling or exceeding six pounds per hour (6 pph) shall require the prior approval by the Director of an emission control plan that meets the definition of reasonably available control technology (RACT) on a case-by-case basis for both fugitive and non-fugitive VOC emissions from such source. All RACT control plans for sources constructed or modified on or after May 1, 1996 shall be embodied in a permit in accordance with 45CSR13 or 45CSR30.
- b. Physical changes to or changes in the method of operation of an existing emission source listed or required to be listed as part of the facility-wide control efficiency plan which do not result in an increase in it’s potential to

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emit VOCs in a cumulative amount (with cumulative accounting commencing on December 3, 1997) of two pounds per hour (2 pph) or five tons per year (5 tpy) or more, shall not require submittal of a RACT plan, provided that the company can provide information upon request to demonstrate compliance with its facility-wide VOC emission reduction requirement (RACM or AERP).

- c. If a modification to an existing source with current maximum theoretical emissions below the threshold of six pounds per hour (6 pph) of VOCs, causes an increase in the MTE that results in the source exceeding the six pounds per hour (6 pph) level for the first time, but the increase is less than two pounds per hour (2 pph) or five tons per year (5 tpy), the permittee shall not be required to submit RACT plans.

- d. Unless otherwise expressly exempted from Leak Detection and Repair (LDAR) requirements in this permit, the permittee shall implement and maintain LDAR programs for the reduction of fugitive VOC emissions in all manufacturing process units subject to C.S.R. §45-21-40 producing a product or products intermediate or final, in excess of 1000 megagrams (1100 tons) per year in accordance with the applicable methods and criteria of C.S.R. §45-21-37 or alternate procedures approved by the Director. Procedures approved by the Director include 40 CFR Part 60 Subpart VV, 40 CFR Part 61 Subpart V, 40 CFR Part 63 Subpart H, 40 CFR Part 63 Subpart TT, 40 CFR Part 63 Subpart UU, 40 CFR Part 65 Subpart F, and 40 CFR Part 265 Subpart CC. This requirement shall apply to all units irrespective of whether or not such units produce as intermediates or final products, substances on the lists contained with 40 CFR Part 60, 40 CFR Part 61, or 40 CFR Part 63.

Manufacturing process units may be exempted upon written request of the permittee to the Director. Exempted units are exempted from the frequency of testing as described in C.S.R. §45-21-37, however, LDAR testing of this unit or certification of emission using approved fugitive emission factors will be required every three years, or upon request by the Director or his duly authorized representative. Waiver or rescheduling of LDAR testing every three years may be granted by the Director if written request and justification are submitted by the permittee. Units exempted from LDAR monitoring as required by C.S.R. §45-21-37, are not exempted from testing which may be required under any other applicable State or Federal regulations, orders, or permits. The Director may periodically require verification by the permittee that maintenance and repair procedures associated with approved exemptions are continued and practiced.

- e. The permittee shall submit to the DAQ a plan for complete, facility-wide implementation of RACT requirements within one hundred eighty (180)

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days of notification by the Director of the Division of Air Quality that a violation of the National Ambient Air Quality Standards (NAAQS) for ozone (that were in effect on or before May 1, 1996) has occurred. Such plan shall include those sources and activities listed as part of the site-wide control efficiency requirement and may contain an update of existing RACT analyses. Full implementation of such plan shall be completed within two (2) years of approval of the RACT plan by the Director.

- f. Unless granted a variance pursuant to 45CSR21 Section 9.3, or as approved by the Director as part of a required Start-up, Shutdown, and Malfunction (SSM) Plan mandated under 40CFR63.6(e) or another applicable section of 40CFR63, the owner or operator of the facility shall operate all emission control equipment listed as part of the facility-wide control efficiency plan at all times the facilities are in operation or VOC emissions are occurring from these sources or activities. In the event of a malfunction, and a variance has not been granted, the production unit shall be shutdown or the activity discontinued as expeditiously as possible. The permittee shall comply with 45CSR21 Section 9.3 with respect to all periods of non-compliance with the emission limitations and emissions reduction requests set forth in the facility-wide control efficiency plan resulting from unavoidable malfunctions of equipment.
- 8. Reserved
 - 9. Reserved
 - 10. The pertinent sections of 45CSR13 applicable to this facility include, but are not limited to, the following:

§45-13-6.1

At the time a stationary source is alleged to be in compliance with an applicable emission standard and at reasonable times to be determined by the Secretary thereafter, appropriate tests consisting of visual determinations or conventional in-stack measurements or such other tests the Secretary may specify shall be conducted to determine compliance.

§45-13-10.2

The Secretary may suspend or revoke a permit if, after six (6) months from the date of issuance, the holder of the permit cannot provide the Secretary, at the Secretary's request, with written proof of a good faith effort that construction, modification, or relocation, if applicable, has commenced. Such proof shall be provided not later than thirty (30) days after the Secretary's request. If construction or modification of a stationary source is discontinued for a period of eighteen (18) months or longer, the Secretary may suspend or revoke the permit.

§45-13-10.3

The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based or the conditions established in the permit are not adhered to. Upon notice of the Secretary's intent to suspend, modify or revoke a permit, the permit holder may request a conference with the Secretary in accordance with the provisions of W.Va Code § 22-5-5 to show cause why the permit should not be suspended, modified or revoked.

C. GENERAL REQUIREMENTS

1. In accordance with 45CSR30 - "Operating Permit Program", the permittee shall not operate nor cause to operate the permitted facility or other associated facilities on the same or contiguous sites comprising the plant without first filing a Certified Emissions Statement (CES) and paying the appropriate fee. Such Certified Emissions Statement (CES) shall be filed and the appropriate fee paid annually. A receipt for the appropriate fee shall be maintained on the premises for which the receipt has been issued, and shall be made immediately available for inspection by the Secretary or his/her duly authorized representative.
2. Approval of this permit does not relieve the permittee herein of the responsibility to apply for and obtain all other permits, licenses, and/or approvals from other agencies; i.e., local, state, and federal, which may have jurisdiction over the construction and/or operation of the source(s) and/or facility herein permitted.
3. The permitted facility shall be constructed and operated in accordance with information filed in Permit Application R13-1269, R13-1353, R13-1353R, R13-1353A, R13-1353B, R13-1353C, R13-1353D, R13-1353E, , R13-1353F, R13-1353G, 1353H, and any amendments thereto. The Secretary may suspend or revoke a permit if the plans and specifications upon which the approval was based are not adhered to.
4. At such reasonable time(s) as the Secretary may designate, the permittee shall conduct or have conducted test(s) to determine compliance with the emission limitations established in the permit application and/or applicable regulations. Test(s) shall be conducted in such a manner as the Secretary may specify or approve and shall be filed in a manner acceptable to the Secretary. The Secretary, or his/her duly authorized representative, may at his option witness or conduct such test. Should the Secretary exercise his option to conduct such test(s), the permittee shall provide all the necessary sampling connections and sampling ports to be located in such manner as the Secretary may require, power for test equipment, and the required safety equipment such as scaffolding, railings, and ladders to comply with generally accepted good safety practices. For any tests to be conducted by the permittee, a test protocol shall

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be submitted to the DAQ by the permittee at least thirty (30) days prior to the test and shall be approved by the Secretary. The Secretary shall be notified at least fifteen (15) days in advance of the actual dates and times during which the test will be conducted.

5. In the event the permittee should deem it necessary to suspend, for a period in excess of sixty (60) consecutive calendar days, the operations, either in whole or in part, authorized by this permit, the permittee shall notify the Secretary, in writing, within two (2) calendar weeks of the passing of the sixtieth (60) day of the suspension period.
6. The provisions of this permit are severable and should any provision(s) be declared by a court of competent jurisdiction to be invalid or unenforceable, all other provisions shall remain in full force and effect.
7. The permittee shall notify the Secretary, in writing, within fifteen (15) calendar days of the commencement of the construction, modification, or relocation activities authorized under this permit.
8. The permittee shall notify the Secretary, in writing, at least fifteen (15) calendar days prior to actual startup of the operations authorized under this permit.
9. This permit is transferable in accordance with the requirements outlined in Section 10.1 of 45CSR13.
10. Violations of any of the conditions contained in this permit, or incorporated herein by reference, may subject the permittee to civil and/or criminal penalties for each violation and further action or remedies as provided by West Virginia Code 22-5-6 and 22-5-7.
11. At such time(s) as the Secretary may designate, the permittee herein shall prepare and submit an emission inventory for the previous calendar year, addressing the emissions from the facility and/or process(es) authorized herein, in accordance with the emission inventory submittal requirements of the Division of Air Quality. After the initial submittal, the Secretary may, based upon the type and quantity of the pollutants emitted, establish a submittal frequency other than on an annual basis.

ISSUED BY:



WILLIAM F. DURHAM, DIRECTOR
WV DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

DATE SIGNED: September 4, 2015

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