



**Division of Air Quality**  
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## West Virginia Department of Environmental Protection

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Earl Ray Tomblin  
Governor

Randy C. Huffman  
Cabinet Secretary

### PERMIT TO UPDATE A TELOMERS 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 R13-2391H.

Name of Permittee: The Chemours Company FC, LLC

Name of Facility: Washington Works

Permit No.: R13-2391I

Plant ID No.: 107-00182

Effective Date of Permit: August 7, 2015

Permit Writer: Mike Egnor

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

County: Wood County

Nearest City or Town: Washington, WV

UTM Coordinates: Easting: 442.38 km      Northing: 4,346.83 km      Zone: 17

Directions to Exact Location: Route 68 (old Route 2) west from Parkersburg to the intersection of Route 892. Continue on Route 892 for approximately 3 miles. The plant is on the north (right) side of the road.

Type of Facility or Modification: Class I Administrative Update

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

**A. SPECIFIC REQUIREMENTS**

1. Emissions within the Telomers (C3) Area, as listed in A.3., will be monitored by tracking the total number of batches per year, limited to 3,040, the number of batches per line per year, limited to 1,520, and by keeping track of significant maintenance events as listed in Attachment A of this permit.
2. During routine operations and during periods of preparation for cleaning and/or maintenance, emissions from the equipment identified in Table A.2. shall be routed through the associated air pollution equipment prior to being released into the atmosphere.

Table A.2.

<b>Equipment ID No.</b>	<b>Air Pollution Control Device ID No.</b>	<b>Air Pollution Control Device Type</b>	<b>Emission Point ID No.</b>
C3HG	C3HGC	Scrubber	C3HGE
C3HH	C3HGC	Scrubber	C3HGE
C3HK	C3HPC	Scrubber	C3HPE
C3HL	C3HPC	Scrubber	C3HPE
C3IF	C3HPC	Scrubber	C3HPE
C3HM	C3HPC	Scrubber	C3HPE
C3HP	C3HPC	Scrubber	C3HPE
C3IV	C3HPC	Scrubber	C3HPE

3. The maximum allowable emissions released to the atmosphere during normal operations shall be limited to the pollutants and associated emission rates shown in Table A.3.

**Table A.3.**

Emission Point ID	VOC		HF		Fluorides		PM <sub>10</sub>	
	Hourly (lb/hr)	Annual (ton/yr)	Hourly (lb/hr)	Annual (ton/yr)	Hourly (lb/hr)	Annual (ton/yr)	Hourly (lb/hr)	Annual (ton/yr)
C3HPE	779.2	3.40	---	---	0.04	0.01	0.19	0.08
C3HGE	---	---	---	---	---	---	0.87	0.11
C3HG2E	---	---	---	---	---	---	0.02	0.002
C3HIE	255.7	0.814	---	---	---	---	---	---
C3IPE	0.40	0.28	---	---	---	---	---	---
Area	---	---	0.50	0.001	---	---	2.00	0.07

4. Except for those emissions limited by Table A.3. within Specific Requirements A.3. of this permit, all process vents from the C3 process equipment shown in Table A.4. shall direct process related emissions to thermal converter T7IMC covered in permit R13-1823B and subsequent revisions.

**Table A.4.**

Equipment ID No.	Description	Equipment ID No.	Description
C3HI	Reactor	C3HD	Tank
C3HO	Reactor	C3IE	Tank
C3HJ	Still Pot	C3ID	Tank
C3HQ	Still Pot	C3HX	Tank
C3HT	Tank	C3IT	Tank
C3IL	Tank	C3IX	Tank
C3HN	Tank	C3IY	Tank
C3IK	Tank	C3IG	Bulk Loading
C3HS	Tank	C3IH	Tank
C3IJ	Tank	C3JA	Filter

## B. OTHER REQUIREMENTS

1. The permittee shall maintain records of all information (including monitoring data, support information, reports, and notifications) required by this permit recorded in a form suitable and readily available for expeditious inspection and review. The files shall be maintained for at least five (5) years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent two (2) years of data shall be maintained on-site. The remaining three (3) years of data may be maintained off-site, but must remain accessible within a reasonable time. Where appropriate, the permittee may maintain records electronically (on a computer, on computer floppy disks, CDs, or DVDs, or magnetic tape disks), on microfilm, or on microfiche.

Certified copies of these records shall be made available to the Director of the Division of Air Quality or his duly authorized representative upon request. At a time prior to submittal to the Director, all records shall be certified and signed by a "Responsible Official" utilizing the attached Certification of Data Accuracy statement. If these records are considered to contain confidential business information as identified in the permit application, then the records may be submitted according to the procedures set forth in 45CSR31 – "Confidential Information."

2. For the purpose of determining compliance with the maximum emission limits set forth in Specific Requirements A.3, the permittee shall maintain records equivalent to the example recordkeeping form supplied as Attachment A to this permit, and emission reports equivalent to the monthly and annual reports supplied as Attachments B and C to this permit. All records shall be documented and maintained in accordance to the requirements set forth by Other Requirements B.1. of this permit.
3. The permittee shall maintain certified records that the L2 Scrubber (C3HGC) solution was changed before falling below a concentration of 0.2 percent  $\text{Na}_2\text{SO}_3$ . The solution status is determined by periodic analytical measurements of scrubber composition ( a minimum of once every seven days). To show compliance, the concentration of  $\text{Na}_2\text{SO}_3$  in the scrubbing media shall be recorded for each analysis and each date and time the solution is changed. The periodic analysis results and measured concentration at changeout and the number of times the concentration is less than 0.2 percent shall be recorded monthly. All records shall be documented and maintained in accordance to the requirements set forth by Other Requirement B.1 of this permit.
4. The permittee shall maintain certified records that the L3 Scrubber (C3HPC) solution was changed before falling below a concentration of 0.2 percent  $\text{Na}_2\text{SO}_3$  and  $\text{KOH}/\text{NaOH}$ . The solution status is determined by periodic analytical measurements of scrubber composition ( a minimum of once every seven days). To show compliance, the concentration of  $\text{Na}_2\text{SO}_3$  and

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KOH/NaOH in the scrubbing media shall be recorded for each analysis and each date and time the solution is changed. The periodic analysis results and measured concentration at changeout and the number of times the concentration is less than 02 percent shall be recorded monthly. All records shall be documented and maintained in accordance to the requirements set forth by Other Requirement B.1 of this permit.

5. The permittee is subject to 40CFR63, Subpart A, Section 1(b)(3), and therefore, must maintain record of the applicability determination performed per 40CFR63-10(b)(3).
6. 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" Section 40 and any more stringent requirements set forth by Section A of this permit. The following requirements, and those additional requirements to this process found in R13-3223 will apply.

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 E 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.6.

**Table B.6.**

Equipment ID Per R13-2391C	Equipment ID per R13-3223	Control Plan (RACT or RACM <sup>1</sup> )
C3HI	CHI	RACM
C3HJ	CHJ	RACM
C3HO	CHO-1	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 Requirements A.3. and the following requirements supersede and replace the equivalent requirements pertaining to the aforementioned sources contained in R13-3223.

- 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

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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 its potential to 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.
- e. 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

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and repair procedures associated with approved exemptions are continued and practiced.

- f. The permittee shall submit to the DAQ a plan for complete, facility-wide implementation of RACT requirements within one hundred eighty (180) 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.
  - g. 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.
7. The permitted facility shall 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".
8. The permitted facility shall comply with all applicable requirements of 45CSR7, with the exception of any more stringent limitations set forth in SPECIFIC REQUIREMENT A.1. 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 greater than 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

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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 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 visible emissions from any storage structure(s) associated with any manufacturing process(es) that pursuant to subsection 5.1 is required to have a full enclosure and be equipped with a particulate matter control device.

§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 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.

9. 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 R13-2391F, R13-2391E, R13-2391D, R13-2391C, R13-2391B, R13-2391A, and R13-2391, 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

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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 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: August 7, 2015