

# Fact Sheet



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

This Fact Sheet serves to address the changes specific to this Minor Modification, and shall be considered a supplement to the Fact Sheet corresponding with the Title V operating permit issued on May 2, 2016.

Permit Number: **R30-10700182-2016**  
Application Received: **March 4, 2019**  
Plant Identification Number: **03-54-10700182**  
Permittee: **The Chemours Company FC, LLC**  
Facility Name: **Washington Works**  
Business Unit: **Fluoropolymers (Part 2 of 14)**  
Mailing Address: **P.O. Box 1217, Washington, WV 26181-1217**

Permit Action Number: MM03 Revised: December 3, 2019

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Physical Location: Washington, Wood County, West Virginia  
UTM Coordinates: 442.368 km Easting • 4,346.679 km Northing • Zone 17  
Directions: Route 68 west from Parkersburg to intersection of Route 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.

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### **Facility Description**

Within the Fluoropolymers Business Unit, there are the following Fluoroproduct production areas: C1, C2, C3, T1-T4 and T7, T5, and T6. Each area produces a product or family of products by varying operating conditions and small adjustments to raw material ratios or material feed rates.

### **Proposed Modification**

The purpose of this action is to change the language in condition 3.1.22 to allow ammonium perfluorooctanoate (APFO) use for compliance or analytical investigative purposes at the Washington Works Facility.

## Emissions Summary

There will be no changes of permitted emissions as a result of this minor modification.

## Title V Program Applicability Basis

With the proposed changes associated with this modification, this facility maintains the 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. Therefore, Chemours 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.

The modification to this facility has been found to be subject to the following applicable rules:

Federal and State:	45CSR13 45CSR30	Construction/modification permits Operating permit requirement.
State Only:	N/A	

Each State and Federally-enforceable condition of the Title V Operating Permit references the specific relevant requirements of 45CSR30 or the applicable requirement upon which it is based. Any condition of the Title V permit that is enforceable by the State but is not Federally-enforceable is identified in the Title V permit as such.

The Secretary's authority to require standards under 40 C.F.R. Part 60 (NSPS), 40 C.F.R. Part 61 (NESHAPs), and 40 C.F.R. Part 63 (NESHAPs MACT) is provided in West Virginia Code §§ 22-5-1 *et seq.*, 45CSR16, 45CSR34 and 45CSR30.

## Active Permits/Consent Orders

The active permits/consent orders associated with this minor modification are as follows:

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit ( <i>if any</i> )
R13-2365J	March 13, 2019	
R13-1953L	March 13, 2019	
R13-1823M	March 13, 2019	
R13-1353I	March 13, 2019	
R13-0815K	March 13, 2019	

## Determinations and Justifications

Changes made to the Title V Permit as part of this minor modification are summarized below:

1. **45CSR13, Permit Nos. R13-2365J, R13-1953L, R13-1823M, R13-1353I, and R13-0815K.** The Chemours Company FC, LLC (Chemours) filed a request to clarify previous NSR Permits R13-2365I Condition A.4, R13-1953K Condition 4.1.5, R13-1823L Condition 4.1.3, R13-1353H Condition A.7, and R13-0815J Condition A.6 which state "The Permittee shall not purchase, manufacture, store, or use Ammonium Perfluorooctanoate (APFO) within the Chemours' Washington Works Facility."

The existing conditions from the Chemours Washington Works Permits listed above were designed to terminate the use of APFO for any reason at the Washington Works site.

Because of the history at the site with APFO, the latest iteration of the NPDES permit for water set a discharge limitation for APFO at 70 ppt (Parts per trillion) without any netting capability for permit compliance. Unfortunately, at the same time, APFO arrives on the site in the Ohio River water used for process cooling and when discharged is included in the maximum allowable APFO limit placed on the site outfalls.

Troubleshooting by Chemours anticipated difficulties with meeting the discharge limitations placed on the Washington Works site by the water (NPDES) permit for APFO, coupled with the need to treat water streams to remove APFO imported into the plant from the environment have led to a perceived need to employ both conventional (Gas Chromatography) analysis and enhanced (Liquid Chromatography-Mass Spectrometry) analysis to allow Chemours to determine compliance levels with the water permit and to designate the contribution from different sources of APFO to the amounts being discharged. This means Chemours needs to be able to provide calibration standards for instruments used to measure APFO in samples as well as the capability to store and handle samples for analytical purposes.

Two analytical techniques are going to be used by Chemours for APFO analysis. The first, Gas Chromatography (GC), is operated 8 hours per day with a maximum sample processing rate of 1 sample per 15 minutes or 4 samples per hour. This gives 32 samples per day. Each sample consumes 5 micro-liters of sample material. If Chemours processed nothing but the maximum concentration calibration standard (200 ppm APFO in water) for an entire day they can calculate the maximum emissions associated with the operation of the GC.

For  $1 \times 10^6$  moles of solution there are 200 moles APFO and 999800 moles water. Calculating the weight fraction APFO, there are 0.4763% APFO in the 200 ppm sample. Calculating the emissions as below –

- $32 \text{ samples/day} \times 5 \times 10^{-6} \text{ liters/sample} \times 1000 \text{ mL/liter} \times 1 \text{ gm/ml (density)} \times 0.004763 = 0.000762 \text{ gms APFO/day}$
- $0.000762 \text{ gms/day APFO} = 1.678 \times 10^{-6} \text{ lbs./day or } 0.0006 \text{ lbs./year}$

For the Liquid Chromatography / Mass Spectroscopy (LC/MS) analytical method, the actual analysis by Mass Spec destroys the APFO and none is emitted for the operation of the instrument.

In the future, Chemours will also need to handle, through storage, any APFO removed using isolation or concentration technologies from potential sources that need to be treated to comply with the specified discharge limits for the NPDES permit. Chemours' current expectations are that at least one inlet water stream will need to be treated to reduce APFO content to allow the plant to meet the discharge limitation set by the permit.

The replacement language for the various conditions listed above and the underlying applicable requirements in the respective 45 CSR 13 permits is as follows –

“The Permittee shall not purchase, manufacture, store, or use Ammonium Perfluorooctanoate (APFO) for commercial or non-analytical purposes within the Chemours Washington Works Facility. The facility may purchase, store, or use APFO for compliance or analytical investigative purposes at the Washington Works facility.”

This will allow the support of regulatory required activities concerning APFO by allowing compliance activities as well as analytical activities and the associated calibration standards needed to support compliance activities.

Condition 3.1.22 of the previous Title V Permit has been updated to reflect the change in APFO language.

2. The above listed Permits have been updated to the most current version in Section 1.2.

### **Non-Applicability Determinations**

None.

### **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: Not applicable

Ending Date: Not applicable

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

Michael Egnor  
Title V Permit Engineer  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
[michael.egnor@wv.gov](mailto:michael.egnor@wv.gov)

### **Procedure for Requesting Public Hearing**

During the public comment period, any interested person may submit written comments on the draft permit and may request a public hearing, if no public hearing has already been scheduled. A request for public hearing shall be in writing and shall state the nature of the issues proposed to be raised in the hearing. The Secretary shall grant such a request for a hearing if he/she concludes that a public hearing is appropriate. Any public hearing shall be held in the general area in which the facility is located.

### **Point of Contact**

Michael Egnor  
West Virginia Department of Environmental Protection  
Division of Air Quality  
601 57<sup>th</sup> Street SE  
Charleston, WV 25304  
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### **Response to Comments (Statement of Basis)**

N/A