

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 October 1, 2021.

Permit Number: **R30-10700182-2021 (Part 2 of 14)**

Application Received: **September 7, 2021**

Plant Identification Number: **03-54-10700182**

Permittee: **The Chemours Company FC, LLC**

Facility Name: **Washington Works**

Mailing Address: **8480 DuPont Road - Building 1 Washington, WV 26181**

Permit Action Number: MM01 Revised: August 16, 2022

Physical Location:	Washington, Wood County, West Virginia
UTM Coordinates:	442.310 km Easting • 4,346.800 km Northing • Zone 17
Directions:	Taking the Route 50 Bypass around Parkersburg from I-77, take the DuPont Road exit which is the last exit prior to leaving West Virginia. At the bottom of the exit ramp turn left on to DuPont Road. Chemours Washington Works is approximately ½ mile on DuPont Road on the righthand side.

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

1. Installation of an in-plant laboratory for the analysis of polymer properties and metals content. The laboratory will be used to measure polymer properties and product characteristics. It will involve the measurement of metal content in the polymer with the concurrent thermal destruction of fluoropolymer sample. Generated gases from the thermal destruction of the fluoropolymer test sample will be vented out through C1MLE.
2. Addition of a Fluorination room and Reactor. This installation is a functional duplicate of the existing fluorination reactor. Connections for venting and operation like the existing unit with a vacuum eductor to supply motive force will be made with the existing KOH scrubber (ID – C1FEC). The old fluorination reactor is designated C1FE and is called the South Fluorination Reactor. The south Fluorination enclosure is C1MK venting out C1FEE. The new additional fluorination unit is designated C1FH and is called the North Fluorination Reactor. The new Fluorination enclosure is designated C1MO and vents out a new stack C1MOE. Both the new Fluorinator and the old Fluorinator are subject to 40 CFR 63 Subpart FFFF [MON MACT] due to the formation of HF during the reaction. Only one Fluorinator will react fluorine at a time.
3. Restructuring the pellet conveying from the fluorination reactors to reflect the additional fluorination reactor. The product Conveyor (ID – C1GL) will serve the existing Fluorinator (C1FE) and the new Fluorinator (C1FH). The conveyor will move hot material to cool down bins (IDs – C1FA and C1FB). The new conveying system will separate the pellets from the conveying air stream, and dump them into the cool down bins, using cyclones as inherent process devices. The Cyclones will be designated C1MI (Inherent) and C1MJ (Inherent) and the conveying air from the two cyclones will be routed to C1MIC (Bag filter) and then on to the existing Stack (C1FEE).
4. Consolidation of the Metals testing laboratory hood and the creation of a new stack to serve the laboratory (C1ML and C1MLE). The lab performs metals analysis on polymer samples and is subject to 45 CSR 13B for the operation.
5. The routing of the Fluorine trailer unloading enclosure (C1MN) that is routed to a Stack designated C1MNE.
6. The permitting of the existing environmental control system for the packout room. The local ventilation system is a recirculation system with a pressure vent that vents intermittently to a downward facing stack designated C1MME.

Emissions Summary

This modification results in the following emission changes:

Pollutant	Change in Potential Emissions (tpy)
Volatile Organic Compounds (VOC)	0.03
Total Suspended Particulate (TSP)	1.13
Particulate Matter (PM ₁₀)	1.13
Particulate Matter (PM _{2.5})	1.13
Nitrogen Oxides (NO _x)	0.01
Hydrogen Fluoride	0.04

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:	45CSR7	To Prevent and Control Particulate Matter Air Pollution From Manufacturing Processes and Associated Operations
	45CSR13	Construction/modification permits
	45CSR30	Operating permit requirement.
	45CSR34	Emission Standards for Hazardous Air Pollutants
	40CFR63 Subpart FFFF	MON MACT
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 affected by this modification are as follows:

Permit or Consent Order Number	Date of Issuance	Permit Determinations or Amendments That Affect the Permit (<i>if any</i>)
R13-2365N	12/10/2021	

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," which may be downloaded from DAQ's website.

Determinations and Justifications

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

Descriptions of emission units in Section 1.1 Emission Units table were updated.

Control devices C1MI, C1MJ, and C1MIC were added to emission units C1FA and C1FB in Section 1.1 Emission Units table.

Control device C1FEC was added to emission unit C1FD in Section 1.1 Emission Units table.

Emission units C1FH North Fluorination Reactor, C1GF Isolation Filter, C1GG Ammonium Hydroxide System, C1GL Pellet Conveyor with control devices C1MI, C1MJ, and C1MIC, C1GW Isolation Filtrate Collection Tank, C1ME Vent Recovery System, C1MF Central Vacuum System, C1MG Pellet Separation Cyclone, C1MK South Fluorination Room Ventilation, C1ML Metals Lab, C1MM Clean Room Vent, C1MN F2 Trailer Unloading Ventilation, C1MO North Fluorination Room Ventilation, C1NM ACS Feed Tank, and C1NR ACS Product Tank were added to Section 1.1 Emission Units table.

R13-2365M was changed to R13-2365N in Table 1.2.

Section 2.11.4 and 2.22.1 references were updated.

C1FH (reactor) was included in Section 4.1.1 table and limits were changed.

C1FFE and C1FGE limits in Section 4.1.1 table were increased.

Emission Point C1MLE was added to Section 4.1.1 table including limits for NO_x and HF.

Changes were made to the control device monitoring requirements in condition 4.2.2.

Condition 4.1.8 was added and old condition 4.4.6 was removed due to changes in R13-2365N.

C1FH Reactor and Reactor production were added to Attachment A monthly records.

C1FH was added to the Equipment ID for emission point C1FEE in Attachment B Monthly Emissions.

The following 40 C.F.R. 63 Subpart FFFF (MON MACT) requirements were identified in section 4.2.2. of the permit.

The permittee conducted a design analysis of the KOH scrubber C1FEC in a previous permit action in accordance with §63.1257 (a)(1), as allowed under §63.2465(c)(1), and determined that the design is sufficient to meet the required destruction efficiency in 40 CFR 63 Subpart FFFF Table 3 (1)(a.) of greater than or equal to 99% .

Minimum KOH concentration of 4.0 wt% was the parametric limit determined during the design analysis of the C1FEC scrubber to achieve greater than or equal to 99% destruction efficiency. Once per day monitoring of KOH concentration is required in Table 4.2.2.b of the permit when reactors are fluorinating in accordance with 40 C.F.R. §63.2450 (k)(3).

Recirculating flowrate of KOH in the C1FEC scrubber shall be monitored in accordance with 40 C.F.R. §63.994(c)(1)(ii).

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

Point of Contact

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

Jonathan Carney
West Virginia Department of Environmental Protection
Division of Air Quality
601 57th Street SE
Charleston, WV 25304
304/926-0499 ext. 41247
jonathan.w.carney@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.

Response to Comments (Statement of Basis)

Not applicable.