STATE OF NORTH CAROLINA
DEPARTMENT OF ENVIRONMENTAL QUALITY
DIVISION OF WATER RESOURCES

DRAFT NPDES PERMIT

TO DISCHARGE WASTEWATER UNDER THE

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM

In compliance with the provisions of North Carolina General Statute 143-215.1, other lawful standards and regulations promulgated and adopted by the North Carolina Environmental Management Commission, and the Federal Water Pollution Control Act, as amended,

The Chemours Company FC, LLC

is hereby authorized to discharge treated wastewater and stormwater from a facility located at

Chemours Company- Fayetteville Works
22828 NC Highway 87 W
Fayetteville
Bladen County

to receiving waters designated as the Cape Fear River in the Cape Fear River Basin in accordance with effluent limitations, monitoring requirements, and other conditions set forth in Parts I, II, III, and IV hereof.

The permit shall become effective Month DD, 20YY.

This permit and the authorization to discharge shall expire at midnight on Month DD, 20YY.

Signed this day Month DD, 20YY.

DRAFT

S. Daniel Smith, Director
Division of Water Resources
By Authority of the Environmental Management Commission

SUPPLEMENT TO PERMIT COVER SHEET

The exclusive authority to operate and discharge from this facility arises under the permit conditions, requirements, terms, and provisions included herein.

The Chemours Company FC, LLC

is hereby authorized to:

1. Operate a 1.58 MGD wastewater treatment facilities consisting of:
   - influent oxidation, coagulation, and pH adjustment tank;
   - dual booster pumps;
   - dual ultrafiltration units;
   - three granular activated carbon (GAC) adsorption units;
   - sludge pump;
   - polymer make down/injection system;
   - in-line mixer and thickener unit;
   - rotary fan press skid;
   - return filtrate pump;

2. Discharge treated surface water, stormwater, and groundwater, including groundwater from the existing Black Creek Aquifer monitoring wells, through Outfall 003 at the location specified on the attached map into the Cape Fear River, a class C, WS-IV water in the Cape Fear River Basin;

Part I

A. (1.) EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – OUTFALL 003

[15A NCAC 02B .0400 et seq., 02B .0500 et seq.] Facility Physical-Chemical Grade II

Beginning on the effective date of this permit and lasting through the expiration date, the Permittee is authorized to discharge from **Outfall 003 (treated surface water, groundwater, and stormwater)** Such discharges shall be limited and monitored by the Permittee as specified below:

PARAMETER CHARACTERISTICS		EFFLUENT LIMITS		MONITORING REQUIREMENTS		
		Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Flow	*50050*	1.58 MGD		Continuous	Recording	Effluent
Total Monthly Flow	*82220*	Monitor and Report (MG/mo)		Monthly	Recording or Calculation	Effluent
Temperature (°C)	*00010*	See Note 2		Weekly	Grab	Effluent, Upstream, Downstream
BOD, 5-day, 20°C	*CO310*	30.0 mg/L	45.0 mg/L	Monthly	Composite	Effluent
TSS	*CO530*	30.0 mg/L	45.0 mg/L	Monthly	Composite	Effluent
Dissolved Oxygen, mg/L	*00300*			Weekly	Grab	Upstream, Downstream
PMPA[3,4]		0.054 µg/L	0.054 µg /L	Twice per month	Grab	Influent, Effluent
PMPA[3,4]		Monitor and Report (lb/mo)		Monthly	Calculation	Effluent
PMPA[3,4]		Monitor and Report (lb/yr)		Annually	Calculation	Effluent
HFPO-DA[4]	*52612*	0.06 µg/L	0.06 µg /L	Twice per month	Grab	Influent, Effluent
HFPO-DA[4]		Monitor and Report (lb/mo)		Monthly	Calculation	Effluent
HFPO-DA[4]		Monitor and Report (lb/yr)		Annually	Calculation	Effluent
PFMOAA[4]	*52613*	0.85 µg/L	0.85 µg/L	Twice per month	Grab	Influent, Effluent
PFMOAA[4]		Monitor and Report (lb/mo)		Monthly	Calculation	Effluent
PFMOAA[4]		Monitor and Report (lb/yr)		Annually	Calculation	Effluent
PFAS compounds, ng/L				See A. (5.)	Grab	See A. (5.)
Total Phosphorus, mg/L	*CO665*			Monthly	Composite	Effluent
Total Nitrogen, mg/L (NO2+NO3+TKN)	*CO600*			Monthly	Composite	Effluent
Conductivity	*00094*			Monthly	Grab	Upstream, Downstream

PARAMETER CHARACTERISTICS		EFFLUENT LIMITS		MONITORING REQUIREMENTS		
		Monthly Average	Daily Maximum	Measurement Frequency	Sample Type	Sample Location[1]
Chronic Toxicity	*TGP3B*	See Note 5		Quarterly	Composite	Effluent
pH	*00400*	Between 6.0 and 9.0 Standard Units		Weekly	Grab	Effluent
Mercury (Method 1631E), ng/L	*COMER*			Quarterly	Grab	Effluent
Total Selenium	*01147*			Quarterly	Composite	Effluent
Total Silver[7]	*01077*	0.48 µg/L[6]	2.01 µg/L	Monthly	Composite	Effluent
Total Cobalt[7]	*01037*	23.9 µg/L	23.9 µg/L	Monthly	Composite	Effluent
Total Cadmium, µg/L	*01027*			Quarterly	Composite	Effluent
Total Copper, µg/L	*01042*			Quarterly	Composite	Effluent
Total Cyanide, µg/L	*00720*			Quarterly	Composite	Effluent
Total Lead, µg/L	*01051*			Quarterly	Composite	Effluent
Total Thallium, µg/L	*01059*			Quarterly	Composite	Effluent
Total Hardness [as $CaCO_3$] (mg/L)	*00900*			Quarterly	Composite	Effluent

Notes:

1. Upstream monitoring shall be at the Permittee's Cape Fear River Water Intake; downstream shall be at the boat ramp approximately 4500 feet downstream at Prospect Hall Landing.
   As a participant in the Middle Cape Fear River Basin Association, the instream monitoring requirements for conventional parameters (DO, temperature, and conductivity) as stated above are waived. Should your membership in the agreement be terminated, you shall notify the Division immediately and the instream monitoring requirements specified in your permit shall be reinstated.
   Influent – influent to the Old Outfall 002 Wastewater Treatment System. Note the Outfall 003 concentration limitations do not apply to the influent. Influent sampling is required to calculate the HFPO-DA and PFMOAA percent removal.
   Effluent – Outfall 003 (effluent from the Old Outfall 002 Wastewater Treatment System).
2. The temperature of the effluent shall be such as not to cause an increase in the temperature of the receiving stream of more than 2.8°C and in no case cause the ambient water temperature to exceed 32°C.
3. The requirement for 99% removal at the treatment system for PMPA shall not become effective until Jan. 31, 2021. The monitoring and reporting requirements for PMPA are effective immediately.
4. The Permittee shall remove indicator parameters HFPO-DA, PFMOAA, and PMPA at an efficiency of 99% in order to reduce PFAS loading to the Cape Fear River. The effluent limits listed above are Technology Based Effluent Limits ("TBELs") calculated to ensure a minimum of 99% removal efficiency. In addition to complying with these effluent limits the Permittee must demonstrate compliance with the 99% removal efficiency requirement by calculating monthly removal efficiency for HFPO-DA, PFMOAA, and PMPA pursuant to condition A. (6.). The Permittee may request revision of the 99% removal efficiency requirement upon a demonstration that influent concentrations of PFAS have been reduced to such a level that 99% removal is no longer technically feasible. However, notwithstanding any such revision, Chemours shall continue to operate the Treatment System at optimal efficiency.

5. Chronic Toxicity (*Ceriodaphnia*) P/F @ 12.5%; quarterly during February, May, August, November; see condition A. (2.) of this permit.
6. Sufficiently sensitive test methods shall be used to analyze for Silver. The Division shall consider all effluent Silver values reported below the PQL to be in compliance with the Monthly Average Silver limit. As of the effective date of this permit, DWR recommends a target PQL of 1.0 µg/L for Silver.
7. After 12 months of sampling the facility can apply for a reduction in sampling if all the sampling results demonstrate concentrations below detection levels. The facility shall be employing the sufficiently sensitive test methods.

THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

The facility shall develop a Dam (collection system) Operation and Maintenance Plan (Plan) to ensure maximum dry weather flow (~ 610 gpm) in the channel is consistently captured and treated. Similar efforts should be applied at the sumps/dams or other devices that will be used to capture water from the seeps.

The Plan should be provided to the DEQ within 30 days of the permit issuance for review and approval. Upon approval, the Plan becomes an integral part of the permit.

The facility shall complete and submit EPA Form 2C for this Outfall within 180 days of commencement of the discharge.

From time-to-time the Middle Cape Fear River has experienced flooding conditions which are documented to cause a significant increase in water levels below Lock and Dam #3, consistent with the location of proposed Outfall 003. During these events a backwater condition propagates upstream in the "Old Outfall 002 Stream". Historical observation indicates that the Old Outfall 002 Stream levels can rise significantly (consistent with the flooded Cape Fear River levels) and would be expected, at times, to be equal to or significantly greater than the invert elevation of the treatment system intake dam and associated pumping system. During these flooded backwater conditions elevated sediment load and reduced flow velocity gradients are expected to cause significant sediment deposition within the collection dam and pumping structure. The sediment load may cause failure of the pumping and treatment system during the flooded backwater condition. Requirement for treatment shall be suspended during these force majeure flooding events and be allowed 48 hours after the backwater stream level falls below the invert of the intake collection dam to safely maintain the influent collection structure and re-initiate collection and treatment. The triggering Cape Fear River flood elevations; event documentation and notification requirements; and procedure for treatment cessation and safe restart shall be included in the approved Dam Operation and Maintenance Plan.

A. (2.) CHRONIC TOXICITY PERMIT LIMIT P/F (QUARTERLY) – OUTFALL 003

[15A NCAC 02B.0200]

The effluent discharge shall at no time exhibit observable inhibition of reproduction or significant mortality to ***Ceriodaphnia dubia*** at an effluent concentration of **12.5%.**

The permit holder shall perform at a minimum, **quarterly** monitoring using test procedures outlined in the "North Carolina *Ceriodaphnia* Chronic Effluent Bioassay Procedure," (Revised December 2010, or subsequent versions) or "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised December 2010, or subsequent versions). The tests will be performed **during the months of February, May, August, and November**. These months signify the first month of each three-month toxicity testing quarter assigned to the facility. Effluent sampling for this testing must be obtained during representative effluent discharge and shall be performed at the NPDES permitted final effluent discharge below all treatment processes.

If the test procedure performed as the first test of any single quarter results in a failure or ChV below the permit limit, then multiple-concentration testing shall be performed at a minimum, in each of the two following months as described in "North Carolina Phase II Chronic Whole Effluent Toxicity Test Procedure" (Revised-December 2010, or subsequent versions).

All toxicity testing results required as part of this permit condition will be entered electronically using the Division's eDMR system for the months in which tests were performed, using the parameter code **TGP3B** for the pass/fail results and **THP3B** for the Chronic Value. Additionally, DWR Form AT-3 (original) is to be sent to the following address:

North Carolina Division of Water Resources
Water Sciences Section/Aquatic Toxicology Branch
1621 Mail Service Center
Raleigh, NC 27699-1621

Or, results can be sent to the email, ATForms.ATB@ncdenr.gov.

Completed Aquatic Toxicity Test Forms shall be filed with the Water Sciences Section no later than 30 days after the end of the reporting period for which the report is made.

Test data shall be complete, accurate, include all supporting chemical/physical measurements and all concentration/response data, and be certified by laboratory supervisor and ORC or approved designate signature. Total residual chlorine of the effluent toxicity sample must be measured and reported if chlorine is employed for disinfection of the waste stream.

Should there be no discharge of flow from the facility during a month in which toxicity monitoring is required, the permittee will complete the information located at the top of the aquatic toxicity (AT) test form indicating the facility name, permit number, pipe number, county, and the month/year of the report with the notation of "No Flow" in the comment area of the form. The report shall be submitted to the Water Sciences Section at the address cited above.

Should the permittee fail to monitor during a month in which toxicity monitoring is required, monitoring will be required during the following month. Assessment of toxicity compliance is based on the toxicity testing quarter, which is the three-month time interval that begins on the first day of the month in which toxicity testing is required by this permit and continues until the final day of the third month.

Should any test data from this monitoring requirement or tests performed by the North Carolina Division of Water Resources indicate potential impacts to the receiving stream, this permit may be re-opened and modified to include alternate monitoring requirements or limits.

NOTE: Failure to achieve test conditions as specified in the cited document, such as minimum control organism survival, minimum control organism reproduction, and appropriate environmental controls, shall constitute an **invalid test** and will require immediate follow-up testing to be completed no later than the last day of the month following the month of the initial monitoring.

A. (3.) RE-OPENER CONDITION

[NCGS 143-215.3 (a) (2) and NCGS 143-215.66]

This permit shall be modified, or revoked and reissued to incorporate additional limitations and monitoring requirements in the event toxicity testing or other studies indicate that detrimental effects may be expected as a result of this discharge. Additionally, and if appropriate, after 3 years of treatment system operation the division will evaluate effluent limits and adjust the limits if the analysis indicates an improved performance.

A. (4.) ELECTRONIC REPORTING OF MONITORING REPORTS

[G.S. 143-215.1(b)]

Federal regulations require electronic submittal of all discharge monitoring reports (DMRs) and program reports. The final NPDES Electronic Reporting Rule was adopted and became effective on December 21, 2015.

NOTE: This special condition supplements or supersedes the following sections within Part II of this permit (*Standard Conditions for NPDES Permits*):

- Section B. (11.) Signatory Requirements
- Section D. (2.) Reporting
- Section D. (6.) Records Retention
- Section E. (5.) Monitoring Reports

1. Reporting Requirements [Supersedes Section D. (2.) and Section E. (5.) (a)]

The permittee shall report discharge monitoring data electronically using the NC DWR's Electronic Discharge Monitoring Report (eDMR) internet application.

Monitoring results obtained during the previous month(s) shall be summarized for each month and submitted electronically using eDMR. The eDMR system allows permitted facilities to enter monitoring data and submit DMRs electronically using the internet. The eDMR system may be accessed at: https://deq.nc.gov/about/divisions/water-resources/edmr.

If a permittee is unable to use the eDMR system due to a demonstrated hardship or due to the facility being physically located in an area where less than 10 percent of the households have broadband access, then a temporary waiver from the NPDES electronic reporting requirements may be granted and discharge monitoring data may be submitted on paper DMR forms (MR 1, 1.1, 2, 3) or alternative forms approved by the Director. Duplicate signed copies shall be submitted to the following address:

NC DEQ / Division of Water Resources / Water Quality Permitting Section
ATTENTION: Central Files
1617 Mail Service Center
Raleigh, North Carolina 27699-1617

See "How to Request a Waiver from Electronic Reporting" section below.

Regardless of the submission method, the first DMR is due on the last day of the month following the issuance of the permit or in the case of a new facility, on the last day of the month following the commencement of discharge.

Starting on **December 21, 2020**, the permittee must electronically report the following compliance monitoring data and reports, when applicable:

- Sewer Overflow/Bypass Event Reports; (This does not include the flow of waters over the dam of OOF2 drainage waters from water treatment due to wet weather events causing OOF2 drainage flow rates to be above dry weather flows.)
- Pretreatment Program Annual Reports; and

- Clean Water Act (CWA) Section 316(b) Annual Reports.

The permittee may seek an electronic reporting waiver from the Division (see "How to Request a Waiver from Electronic Reporting" section below).

2. Electronic Submissions

In accordance with 40 CFR 122.41(l)(9), the permittee must identify the initial recipient at the time of each electronic submission. The permittee should use the EPA's website resources to identify the initial recipient for the electronic submission.

Initial recipient of electronic NPDES information from NPDES-regulated facilities means the entity (EPA or the state authorized by EPA to implement the NPDES program) that is the designated entity for receiving electronic NPDES data [see 40 CFR 127.2(b)].

EPA plans to establish a website that will also link to the appropriate electronic reporting tool for each type of electronic submission and for each state. Instructions on how to access and use the appropriate electronic reporting tool will be available as well. Information on EPA's NPDES Electronic Reporting Rule is found at: https://www.federalregister.gov/documents/2015/10/22/2015-24954/national-pollutant-discharge-elimination-system-npdes-electronic-reporting-rule

Electronic submissions must start by the dates listed in the "Reporting Requirements" section above.

3. How to Request a Waiver from Electronic Reporting

The permittee may seek a temporary electronic reporting waiver from the Division. To obtain an electronic reporting waiver, a permittee must first submit an electronic reporting waiver request to the Division. Requests for temporary electronic reporting waivers must be submitted in writing to the Division for written approval at least sixty (60) days prior to the date the facility would be required under this permit to begin submitting monitoring data and reports. The duration of a temporary waiver shall not exceed 5 years and shall thereupon expire. At such time, monitoring data and reports shall be submitted electronically to the Division unless the permittee re-applies for and is granted a new temporary electronic reporting waiver by the Division. Approved electronic reporting waivers are not transferrable. Only permittees with an approved reporting waiver request may submit monitoring data and reports on paper to the Division for the period that the approved reporting waiver request is effective.

Information on eDMR and the application for a temporary electronic reporting waiver are found on the following web page:

http://deq.nc.gov/about/divisions/water-resources/edmr

4. Signatory Requirements [Supplements Section B. (11.) (b) and Supersedes Section B. (11.) (d)]

All eDMRs submitted to the permit issuing authority shall be signed by a person described in Part II, Section B. (11.)(a) or by a duly authorized representative of that person as described in Part II, Section B. (11.)(b). A person, and not a position, must be delegated signatory authority for eDMR reporting purposes.

For eDMR submissions, the person signing and submitting the DMR must obtain an eDMR user account and login credentials to access the eDMR system. For more information on North Carolina's eDMR system, registering for eDMR and obtaining an eDMR user account, please visit the following web page:

http://deq.nc.gov/about/divisions/water-resources/edmr

Certification. Any person submitting an electronic DMR using the state's eDMR system shall make the following certification [40 CFR 122.22]. NO OTHER STATEMENTS OF CERTIFICATION WILL BE ACCEPTED:

"I certify, under penalty of law, that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations."

5. Records Retention [Supplements Section D. (6.)]

The permittee shall retain records of all Discharge Monitoring Reports, including eDMR submissions. These records or copies shall be maintained for a period of at least 3 years from the date of the report. This period may be extended by request of the Director at any time [40 CFR 122.41].

A. (5.) PFAS MONITORING REQUREMENTS AND ANALYTICAL METHODS

[NCGS 143-215.3 (a) (2) and NCGS 143-215.66]

The permittee shall monitor for PFAS compounds at the monitoring frequencies described below. The lists of compounds follow. Note that not all required compounds have eDMR parameter codes. Those with parameter codes should be reported using the applicable codes, and all other results for PFAS compounds should be reported in the comment section of the eDMR or added as supplemental information. In addition to other data reporting requirements a complete copy of all PFAS sampling results shall be submitted to NPDES Permitting via email at svc_deq_npdes-ec@ncdenr.gov, with the Facility permit number and name in the Subject heading, at the same time eDMR data is due; and

The Permittee shall use the following analytical methods when testing for the PFAS compounds.

Method description: Approved methods and SOPs referred to as "EPA 537 Modified" and "Table 3" should be used as described in supporting material and approved by DEQ Division of Waste Management in a letter dated May 8th 2019. For this permit, Eurofins Lancaster and Eurofins Test America should use these same approved methods and update all method revisions with the referenced methods for consistency across all work projects for Chemours Company Fayetteville Works.

Monitoring Locations and Frequency

Location	Compounds	Frequency
Upstream at the Permittee's Cape Fear River Water Intake	Table 3+ Lab SOP	Monthly
	Full Suite (Table 3+ Lab SOP and EPA Method 537 Mod)	Quarterly
Influent to the Treatment System	Table 3+ Lab SOP	Monthly
	Full suite (Table 3+ Lab SOP and EPA Method 537 Mod)	Quarterly

Outfall 003 (effluent from the Treatment System)	Table 3+ Lab SOP	Monthly
	Full suite (Table 3+ Lab SOP and EPA Method 537 Mod)	Quarterly
Downstream The boat ramp approximately 4500 feet downstream at Prospect Hall Landing.	Table 3+ Lab SOP	Monthly
	Full Suite (Table 3+ Lab SOP and EPA Method 537 Mod)	Quarterly

PFAS Compounds: Full Suite = Table 3+ Lab SOP + Method 537 Modified Compounds:

Analytical Method	Common Name	Chemical Name	CASN	Chemical Formula	Parameter code
Table 3+ Lab SOP	HFPO-DA	Hexafluoropropylene oxide dimer acid	13252-13-6	C6HF11O3	52612
	PEPA	Perlfuoroethoxypropyl carboxylic acid	26729-61-2	C5HF9O3	52618
	PFECA-G	Perfluoro-4-isopropoxybutanoic acid	801212-59-9	C12H9F9O3S	52619
	PFMOAA	Perfluoro-2-methoxyacetic acid	674-13-5	C3HF5O3	52613
	PFO2HxA	Perfluoro(3,5-dioxahexanoic) acid	39492-88-1	C4HF7O4	52617
	PFO3OA	Perfluoro(3,5,7-trioxaoctanoic) acid	39492-89-2	C5HF9O5	52616
	PFO4DA	Perfluoro(3,5,7,9-tetraoxadecanoic) acid	39492-90-5	C6HF11O6	52615
	PMPA	Perfluoromethoxypropyl carboxylic acid	13140-29-9	C4HF7O3	52620
	Hydro-EVE Acid	Perfluoroethoxypropanoic acid	773804-62-9	C8H2F14O4	52621
	EVE Acid	Perfluoroethoxypropionic acid	69087-46-3	C8HF13O4	52622
	PFECA-B	Perfluoror-3,6-dioxaheptanoic acid	151772-58-6	C5HF9O4	52626
	R-EVE	R-EVE	N/A	C8H2F12O5	52640
	PFO5DA	Perfluoro-3,5,7,9,11-pentaoxadodecanoic acid	39492-91-6	C7HF13O7	52627
	Byproduct 4	Byproduct 4	N/A	C7H2F12O6S	52643
	Byproduct 5	Byproduct 5	N/A	C7H3F11O7S	52644
	Byproduct 6	Byproduct 6	N/A	C6H2F12O4S	52645
	NVHOS	Perfluoroethoxysulfonic acid	1132933-86-86-8	C4H2F8O4S	52628
	PES	Perfluoroethoxyethanesulfonic acid	113507-82-7	C4HF9O4S	52629
	PFESA-BP1	Byproduct 1	29311-67-9	C7HF13O5S	52630
	PFESA-BP2	Byproduct 2	749836-20-2	C7H2F14O5S	52614
Table 3+ Lab SOP	DFSA	DFSA	422-67-3	C2H2F2O5S	
	MMF	MMF	1514-85-8	C3H2F2O4	
	MTP	MTP	93449-21-9	C4H4F4O3	
	PPF Acid	PPF Acid	422-64-0	C3HF5O2	

EPA Method 537 Mod	PFBA	Perfluorobutanoic acid	375-22-4	C4HF7O2	51522
	PFDA	Perfluorodecanoic acid	335-76-2	C10HF19O2	51627
	PFDoA	Perfluorododecanoic acid	307-55-1	C12HF23O2	51629
	PFHpA	Perfluoroheptanoic acid	375-85-9	C7HF13O2	51625
	PFNA	Perfluorononanoic acid	375-95-1	C9HF17O2	51626
	PFOA	Perfluorooctanoic acid	335-67-1	C8HF15O	51521
	PFHxA	Perfluorohexanoic acid	307-24-4	C6HF11O2	51624
	PFPeA	Perfluoropentanoic acid	2706-90-3	C5HF9O2	51623
	PFTeA	Perfluorotetradecanoic acid	376-06-7	C14HF27O2	51531
	PFTriA	Perfluorotridecanoic acid	72629-94-8	C13HF25O2	51630
	PFUnA	Perfluoroundecanoic acid	2058-94-8	C11HF21O2	51628
	PFBS	Perfluorobutanesulfonic acid	375-73-5	C4HF9SO	52602
	PFDS	Perfluorodecanesulfonic acid	335-77-3	C10HF21O3S	52603
	PFHpS	Perfluoroheptanesulfonic acid	375-92-8	C7HF15O3S	52604
	PFHxS	Perfluorohexanesulfonic acid	355-46-4	C6HF13SO3	52605
	PFNS	Perfluorononanesulfonic acid	68259-12-1	C9HF19O3S	52611
	PFOS	Perfluorooctanesulfonic acid	1763-23-1	C8HF17SO3	52606
	PFPeS	Perfluoropentanesulfonic acid	2706-91-4	C5HF11O3S	52610
	10:2 FTS	10:2 fluorotelomersulfonic acid	120226-60-0	C12H5F21O3	52631
	4:2 FTS	4:2 fluorotelomersulfonic acid	757124-72-4	C6H5F9O3S	52607
	6:2 FTS	6:2 fluorotelomersulfonic acid	27619-97-2	C8H5F13SO3	52608
	8:2 FTS	8:2 fluorotelomersulfonic acid	39108-34-4	C10H5F17O3S	52609
	NEtFOSAA	NEtFOSAA	2991-50-6	C12H8F17NO4S	51643
	NEtPFOSA	NEtPFOSA	4151-50-2	C10H6F17NO2S	52642
	NEtPFOSAE	NEtPFOSAE	1691-99-2	C12H10F17NO3S	51641
	NMeFOSAA	NMeFOSAA	2355-31-9	C11H6F17NO4S	51644
	NMePFOSA	NMePFOSA	31506-32-8	C9H4F17NO2S	52641
	NMePFOSAE	NMePFOSAE	24448-09-7	C11H8F17NO3S	51642
	PFDOS	Perfluorododecanesulfonic acid	79780-39-5	C12HF25O3S	52632
	PFHxDA	Perfluorohexadecanoic acid	67905-19-5	C16HF31O2	52633
	PFODA	Perfluorooctadecanoic acid	16517-11-6	C18HF35O2	52634
	PFOSA	Perfluorooctanesulfonamide	754-91-6	C8H2F17NO2S	51525
	F-53B Major	F-53B Major	73606-19-6	C8HClF16O4S	52638
	F-53B Minor	F-53B Minor	83329-89-9	C10HClF20O4S	52639
	ADONA	4,8-Dioxa-3H-perfluorononanoic acid	919005-14-4	C7H2F12O4	52636

A. (6.) CALCULATION OF HFPO-DA, PFMOAA, & PMPA REMOVAL/LOADS

a. The Permittee shall calculate monthly removal efficiency for HFPO-DA, PFMOAA and PMPA as follows:

$$\%\ Removal = \frac{Influent - Effluent}{Influent}$$

Where:

Influent = monthly average influent concentration

Effluent = monthly average effluent concentration

b. The Permittee shall calculate monthly load for HFPO-DA, PFMOAA, and PMPA as follows:

$$Monthly\ C\ Load = C\ x\ TMF\ x\ 8.34$$

Where:

C = monthly average concentration for each compound (mg/L)
TMF = Total Monthly Flow of wastewater discharged during the month (MG/month)
8.34 = conversion factor from (mg/L x MG) to pounds

$$Annual\ C\ Load = Sum\ of\ the\ 12\ Monthly\ Loads\ for\ each\ compound\ for\ the\ calendar\ year$$

c. The Permittee shall report monthly HFPO-DA, PFMOAA, and PMPA results [% removal (ng/L), and Loading (pounds/month)] in the discharge monitoring report for each month and shall report each calendar year's Annual Load (pounds/year) with the December report for that year. Percent removal shall be listed in the comment section of the eDMR since it has no parameter code. The requirement for 99% removal at the treatment system for PMPA shall not become effective until Jan. 31, 2021.

In addition, calculations shall be submitted electronically with all PFAS data to NPDES Permitting via email at svc_deq_npdes-ec@ncdenr.gov, with the Facility permit number and name in the Subject heading.

This percent removal will be reported monthly with Chemours electronic Discharge Monitoring Report (eDMR) data. If the influent HFPO-DA or PFMOAA concentrations to the water treatment system are equal to or less than 200 ng/L and 500 ng/L, respectively, then the water treatment system effluent concentrations of less than the current reporting limits (2 ng/L and 5 ng/L, respectively) shall be considered as achieving 99% removal.