



Consent Order Submissions to the State of North Carolina and Cape Fear River  
Watch

The following table identifies Consent Order submissions by Chemours for the period following the lodging of the proposed Consent Order in November 2018 through the end of the first quarter of 2019.

CO Section	Submitted To	Title	Submittal Date
7bii	NCDAQ	VEN Carbon Adsorber Project Completion Notification	12312018
7biii	NCDAQ	Final Report VEN Carbon Adsorber Unit > 93% Efficiency	02152019
8bi	NCDAQ	Final PPA Stack Test Report	02222019
8bi	NCDAQ	Final Semi-Works Stack Test Report	02222019
8bi	NCDAQ	Final VES Stack Test Report	02222019
8bi	NCDAQ	Final Division Stack Test Report	03042019
8bi	NCDAQ	Final Polymers Stack Test Report	03042019
8bi	NCDAQ	Final Semi-Works Stack Test Report	03042019
8d	NCDAQ	Monthly Emissions Report	03222019
9	NCDAQ	E1 and 2-MTP (HFPO Monomer) GC Method SOP	12202018
9	NCDAQ	HFPO Dimer Acid LCMSMS Method SOP	12202018
9	NCDAQ	HFPO Dimer Acid Preparation Method SOP	12202018
9	NCDAQ	PFAS Extraction Protocol SOP	12202018
9	NCDAQ	PFAS Test Methods Lab Standards Submittal	12202018
11a	NCDWR	PFAS Non-Targeted Analysis and Methods Work Plan	01302019
11a	NCDWR	Modified Method 537 PFAS Analytical and Test Methods	01302019
11a	NCDWR	Table 3+ Compounds Analytical and Test Methods	01302019
11b	NCDWR	PFAS Characterization Sampling Workplan	12302018
12c and 27	NCDEQ	Geosyntec Approval Request	01142019
14	NCDEQ	Request for Laboratory Approval	03012019
14	NCDEQ	Toxicity Study Work Plan	03272019
17	NCDWM	Permanent Lining of North Sedimentation Pond Notification	12312018
19	NCDEQ	GAC Approval Request Enclosure	03062019
19	NCDEQ	GAC Approval Request Letter	03062019
19	NCDEQ	Public Water Feasibility Analysis	03112019
19 and 20	NCDEQ	RO Approval Request Enclosure	03062019
19 and 20	NCDEQ	RO Approval Request Letter	03062019
19 and 20	NCDEQ	Request for Approval of Drinking Water Letters to Residents	01282019
21	NCDEQ	Request for Laboratory Approval and Funding Notification	12182018
22	NCDEQ	Residential Sampling Results	Multiple and Ongoing
Other	NCDEQ	Final Creeks and Seeps Work Plan	02272019



Replacement Drinking Water Actions Through First Quarter 2019

Bottled Water	Residences Receiving	Additional Residences 1Q19	Refused	Vacant	Already Connected to Public Water
	600	407	13	6	2

RO	Eligible (including houses that share a well)	Systems to Install
	407	407

GAC	Eligible	Already Connected to Public Water	Public Water Readily Available	Public Water Feasible	Systems to Install
	183	2	13	36	132

  

Initial Interview Conducted?	Signed Access Agreement?	Total Sheds Dropped	Completed	Initial Sampling Complete	GAC Change Outs
51	37	37	29	35	1

Drinking Water Data to State	Sample Delivery Group (SDG) Emailed or Uploaded	% Within 7 days of Final Data
	151	100%

Drinking Water Data to Residents	Samples	% Within Timeframe (7 or 30 days) Delivered or Attempted
	668	100%

## Consent Order Progress Details

This section summarizes the activities that have been undertaken by Chemours pursuant to the Consent Order Compliance Measures for the period following the lodging of the proposed Consent Order in November 2018 through the end of the first quarter of 2019.

### Paragraph 7 - Control Technology Improvements

#### Paragraph 7a - Second Phase Scrubber

- Chemours completed installation of a packed bed scrubber ("Second Phase Scrubber") to control emissions from the Division Waste Gas Scrubber on November 7, 2018.

#### Paragraph 7bi - Vinyl Ethers North Carbon Adsorber Project

- On October 19, 2018, Chemours submitted to DAQ a process hazard assessment pertaining to the Vinyl Ethers North Carbon Adsorber Project.

#### Paragraph 7bii - Vinyl Ethers North Carbon Adsorber Project

- On December 26, 2018, Chemours completed construction of the Vinyl Ethers North Carbon Adsorber Project.
- All emissions from the Second Phase Scrubber are controlled by the Vinyl Ethers North Carbon Adsorber Unit subject to such unit downtime as may be required by the process hazard assessment or as necessary for maintenance of the unit. Chemours is using its best efforts consistent with safe operations to minimize unit downtime and downtime has been minimal to date.

#### Paragraph 7biii - Vinyl Ethers North Carbon Adsorber Project

- On February 15, 2019, Chemours submitted a report documenting a 93.9% control efficiency for the Vinyl Ethers North Carbon Adsorber Unit.

#### Paragraph 7c - Thermal Oxidizer

- A new Title V air permit (including for the thermal oxidizer) was issued by DAQ on March 14, 2019.
- Chemours construction activities continue on schedule for completion of installation of the thermal oxidizer by December 31, 2019, with foundations having been formed and poured at the facility and the construction of the equipment continuing offsite by the supplier for delivery and installation later this year.

### Paragraph 8 - GenX Emissions Reduction Milestones

- On March 22, 2019, Chemours submitted its first monthly emissions report as required under the Consent Order, showing the details of emissions to date for the two annual reporting periods (one starting October 6, 2018 and one starting December 31, 2018) and how the facility plans to meet the Consent Order's 82% and 92% requirements for plant-wide interim reductions of air emissions of GenX Compounds.

- Emissions testing of the first product campaigns in 2019 have been conducted for all products except for EVE and IXM CR. The first campaigns for these products will not occur until later in 2019, and will be tested then. All emissions test reports have been submitted to DAQ within forty-five days of completion of the emissions test, as required.

#### Paragraph 9 - Disclosure of PFAS Emissions

- On December 20, 2018, Chemours provided DAQ with analytical test methods and lab standards for PFAS compounds in air emissions from the Fayetteville Works.

#### Paragraph 10 - No Discharge of Process Wastewater from Chemours' Manufacturing Area

- Chemours continues to not discharge its process wastewater and to ship all of its process wastewater offsite for disposal.

#### Paragraph 11 - Characterization of PFAS in Process and Non-Process Wastewater and Stormwater at the Facility

##### Paragraph 11a - Test Methods and Lab Standards

- On January 30, 2019, Chemours submitted analytical test methods and lab standards for PFAS in process and non-process wastewater and stormwater at the Facility as well as a plan and schedule for conducting non-targeted analysis.
- Comments from NCDEQ and USEPA on the non-targeted analysis plan have been received and are being addressed.
- Chemours plans to submit a response to comments table alongside updated TestAmerica and Eurofins Lancaster Table 3+ SOPs to facilitate discussion and approval of the non-targeted analysis plan.
- Chemours plans to collect samples for non-targeted analysis during its first sampling event pursuant to Consent Order paragraph 11c.

##### Paragraph 11b - Sampling Plan

- On December 30, 2018, Chemours submitted its sampling plan.
- Comments from NCDEQ, USEPA and Cape Fear River Watch on the sampling plan have been received and are being addressed.
- Chemours plans to submit a response to comments table to facilitate discussion and approval of the sampling plan. Chemours also plans to submit a revised set of figures and tables for review.

##### Paragraph 11c - Initial Characterization

- Chemours has conducted planning for its first round of initial characterization sampling, including the purchase of auto-samplers, coordination with analytical laboratories, and refining sample collection methods.

- A dry sampling event was scheduled for late April 2019 (it was conducted on April 24, 2019) and the first stormwater sampling event will be conducted soon.

#### Paragraph 11.1 - Characterization of PFAS Contamination in Downstream Raw Water Intakes

- Chemours' contractor Geosyntec is preparing a recommendation of suggested raw water samples to collect to perform the analysis required under the Consent Order.

#### Paragraph 11.2 - Characterization of PFAS Contamination in River Sediment

- Chemours' contractor Geosyntec has identified task leads and prepared a proposed scope of work to complete this effort.

#### Paragraph 12 - Accelerated Reduction of PFAS Contamination in the Cape Fear River and Downstream Water Intakes

##### Paragraph 12a - Accelerated Reduction of PFAS Contamination in the Cape Fear River and Downstream Water Intakes

- Chemours and its contractors Geosyntec and Parsons have reviewed existing data (including from the seep and creek investigation), potential actions, and estimated reductions.

##### Paragraphs 12b and 12c - Accelerated Reduction of PFAS Contamination in the Cape Fear River and Downstream Water Intakes

- By the end of March 2019, Chemours and its contractors had prepared a draft modeling scope of work document (the final document was submitted to DEQ and Cape Fear River Watch on April 11, 2019).

##### Paragraph 12e - Accelerated Reduction of PFAS Contamination in the Cape Fear River and Downstream Water Intakes

- Chemours' contractor Parsons prepared a work plan for sampling in Old Outfall 002. The first sampling event was conducted on March 21, 2019.
- REGENESIS pilot study:
  - Trees have been removed to facilitate the installation of performance verification monitoring wells and subsequent injections.
  - A geophysical survey was completed to determine the presence of utilities.
  - A driller was contracted to install performance verification testing monitoring points in April 2019.
  - Injections are scheduled to begin in early May 2019.
- Chemours continues to work on the plan to be submitted within 90 days of Consent Order entry as well as the pilot study for capture and treatment.



#### Paragraph 13 - Facility Site Visit

- The facility site visit with DEQ and Cape Fear River Watch occurred on January 3, 2019.

#### Paragraph 14 - Toxicity Studies

- In March 2019, Chemours submitted its request for laboratory approvals as well as its toxicology workplan. Chemours is working to respond to DEQ's questions about the laboratories.

#### Paragraph 16 - Groundwater Remediation

- Chemours' contractor Geosyntec has started to develop the Corrective Action Plan, which will be submitted by the deadline of December 31, 2019.

#### Paragraph 17 - Lining of Nafion Ditch and Sedimentation Ponds

- These items have been completed, as stated in the Consent Order.

#### Paragraph 18 - On and Off-site Assessment

- Chemours' contractor Geosyntec has started to prepare the comprehensive site assessment, which will be submitted by the deadline of September 30, 2019.

#### Paragraphs 19 and 20 - Provision of Public Water Supplies, Whole Building Filtration Systems, and Reverse Osmosis Drinking Water Systems

- On March 11, 2019, Chemours submitted its public water feasibility analysis.
- On March 22, 2019, Chemours met with the Bladen County utilities department to discuss the process for making public water connections.
- On March 25, 2019, Chemours received DEQ's approval for the Granular Activated Carbon (GAC) whole building filtration system and the Reverse Osmosis (RO) drinking water systems that Chemours plans to install.

#### Paragraph 21 - Private Well Testing

- On December 18, 2018, Chemours submitted its request for laboratory approval and notification of funding.

#### Paragraph 22 - Provision of Sampling Results

- Chemours provided (and continues to provide) sampling results to DEQ and residences as required under the Consent Order.
- Chemours' contractor AECOM also prepared and transmitted level 4 lab reports for the sampling results to DEQ (and continues to do so).

#### Paragraph 23 - Interim Replacement of Private Drinking Water Supplies

- As of March 31, 2019, Chemours had provided bottled water to 600 residences. Of these, 407 residences were added to the bottled water distribution program in the first quarter of 2019.

#### Paragraph 24 - Drinking Water Compliance Plan

- During the first quarter of 2019, Chemours drafted the Drinking Water Compliance Plan (the Plan was submitted on April 26, 2019).

#### Paragraph 26 - Total Organic Fluorine

- During the first quarter of 2019, Chemours obtained and reviewed proposals from third-parties to conduct this work (Chemours will soon submit for approval a proposal from the scientist to be recommended to conduct this study).

#### Paragraph 27 - Fate and Transport Study

- Chemours's contractor Geosyntec performed a fate and transport literature review and identified relevant literature papers to support development of this study. The study will be submitted by the deadline of June 30, 2019.

#### Paragraphs 29 and 30 - Public Information

- Chemours has posted its Consent Order submissions at <https://www.chemours.com/Fayetteville-Works/en-us/c3-dimer-acid/compliance-testing/index.html>.