

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF NORTH CAROLINA  
SOUTHERN DIVISION**

CAPE FEAR RIVER WATCH, )  
 )  
 Plaintiff, ) Case No. \_\_\_\_\_  
 )  
 v. )  
 )  
 CHEMOURS COMPANY FC, LLC, )  
 )  
 Defendant. )  
 \_\_\_\_\_ )

**COMPLAINT FOR DECLARATORY  
AND INJUNCTIVE RELIEF**

1. For nearly four decades, E.I. du Pont de Nemours and Company (“DuPont”) knowingly contaminated the air, water, and groundwater at its Fayetteville Works Facility (“Facility”), and the Cape Fear River—the drinking water supply for more than 250,000 North Carolinians. After DuPont created the Chemours Company FC, LLC,<sup>1</sup> and passed responsibility for its pollution to its then-subsiary, the Facility continued to quietly release hundreds of thousands of pounds of toxic perfluoroalkyl and polyfluoroalkyl substances (“PFAS”), including GenX.<sup>2</sup> Even now that the companies’ widespread pollution has been exposed to the public and regulatory agencies, Chemours persists in releasing the same chemicals into the air and water.

2. This is not the first time DuPont has contaminated a community and its drinking water. Before DuPont polluted the air and water in southeastern North Carolina, the company

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<sup>1</sup> E.I. du Pont de Nemours and Company owned and operated the Fayetteville Works facility from the 1970s until the company formed Chemours Company FC, LLC, and transferred ownership to Chemours in 2015. DuPont and Chemours are referred to collectively as “companies” in this Complaint.

<sup>2</sup> For the purposes of this Complaint, GenX is the chemical with a Chemical Abstracts Service Registry number of 13252-13-6. It is also known as C3 Dimer Acid and HFPO Dimer Acid.

devastated communities in West Virginia with its pollution containing perfluorooctanoic acid (“PFOA”),<sup>3</sup> an earlier, toxic variant of GenX.

3. DuPont knew about the dangers of PFOA beginning in the early 1960s, after DuPont conducted studies that showed the chemical caused liver damage, was resistant to degradation, and could cause birth defects. By 1981, DuPont found PFOA in the umbilical cord of a pregnant employee, demonstrating that the chemical’s toxic effects could reach fetuses.

4. By 1982, DuPont knew that PFOA emissions from its facility’s stacks in West Virginia traveled beyond the boundaries of its West Virginia facility and was warned by its own medical director that surrounding communities were likely being exposed to the company’s poisonous dust. By 1991, DuPont found the chemical in drinking water around its West Virginia facility, yet told no one outside the company.

5. Nevertheless, when DuPont lost its supply of PFOA from the 3M Company in 2000, it decided to begin making PFOA in North Carolina, starting a new legacy of pervasive environmental pollution in a new place.

6. DuPont began studying the harmful health effects of GenX, the latest version of PFOA, as early as 1963. Over time, DuPont’s studies on the chemical showed that GenX produced toxic effects in laboratory animals similar to that of PFOA, including cancers in the liver, pancreas, and testicles. Still, the company began quietly releasing the chemical into a North Carolina drinking water supply, the Cape Fear River, in 1980.

7. DuPont also began emitting hundreds of millions of pounds of GenX and similar compounds into the air each year, and allowing the chemicals to leak from its open pits, ditches, and pipes into the aquifers that supply the drinking water wells for hundreds of families.

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<sup>3</sup> PFOA is the anion of Ammonium Perfluorooctanoate. The terms—PFOA and Ammonium Perfluorooctanoate—are often used interchangeably. For the sake of simplicity, Ammonium Perfluorooctanoate is referred to as PFOA throughout this Complaint.

8. Eventually, plagued by thousands of civil lawsuits from its PFOA pollution in West Virginia, scientific evidence showing that PFOA causes birth defects, cancer, and other severe health effects, and pressure from the public and the EPA, DuPont was compelled to stop making PFOA.

9. Even before DuPont stopped its manufacture of PFOA, the company began making GenX as a replacement at the Fayetteville Works Facility in North Carolina. DuPont did so without disclosing to the North Carolina Department of Environmental Quality (“DEQ”) or the public that GenX has harmful health effects similar to those of PFOA, or the fact that DuPont had already been dumping the chemical into the Cape Fear River for nearly three decades.

10. Not much later, DuPont created a new company, Chemours, to bear the weight of its hundreds of million dollars’ worth of legal liabilities from its PFOA contamination. When Chemours took ownership of the Fayetteville Works Facility in 2015, it simply continued DuPont’s tradition of toxic pollution in violation of the companies’ Toxic Substances Control Act Consent Order and Clean Water Act permit.

11. Chemours and DuPont have contaminated soil, groundwater, and surface water at the Fayetteville Works Facility with a variety of PFAS. The companies’ pollution extends beyond the boundaries of the Facility, tainting the Cape Fear River and public drinking water supplies as far away as Wilmington and Brunswick County.

12. On July 14, 2017, after studying the potential adverse health effects caused by GenX, the North Carolina Department of Health and Human Services issued a health goal of 140 parts per trillion (“ppt”) for the chemical.

13. Members of Cape Fear River Watch who live near and downstream of the Fayetteville Works Facility have been harmed by the companies’ pollution. They and their

families have been exposed to air and water that has been contaminated by Chemours and DuPont for decades. They now live in fear of how much the pollution has affected the health of their families and communities, and in frustration that Chemours continues to release that pollution into their environments. This Complaint seeks to prevent ongoing air and water contamination from the Facility on behalf of Cape Fear River Watch's members.

### **JURISDICTION AND VENUE**

14. Cape Fear River Watch brings this enforcement action under the citizens' suit provisions of the Clean Water Act, 33 U.S.C. § 1365, and the Toxic Substances Control Act, 15 U.S.C. § 2619. This court has jurisdiction over this action pursuant to 28 U.S.C. §§ 1331, 1332 and has jurisdiction over the parties.

15. Venue is proper in this court pursuant to 28 U.S.C. § 1391(b), 33 U.S.C. § 1365(c)(1), and 15 U.S.C. § 2619(a). The challenged discharges and permit violations are located and are occurring in multiple counties throughout southeastern North Carolina, including Cumberland County, Bladen County, Robeson County, New Hanover County, and Brunswick County.

16. In compliance with 33 U.S.C. § 1365(b)(1)(A), 40 C.F.R. § 135.2, 15 U.S.C. § 2619(b)(1)(A), and 40 C.F.R. § 702.61, on May 7, 2018, Cape Fear River Watch gave the Chemours Company FC, LLC, E.I. du Pont de Nemours and Company, EPA, and DEQ notices of the violations specified in this Complaint and of Cape Fear River Watch's intent to file suit should those violations continue. Copies of the notice letters with documentation of their receipt are attached as Exhibits 1, 2 and 3.

17. More than sixty days have passed since notice was given pursuant to law and regulation, and the violations identified in the notice letters are continuing at this time and are reasonably likely to continue in the future.

### **PLAINTIFF**

18. Plaintiff Cape Fear River Watch is a § 501(c)(3) nonprofit public interest organization headquartered in Wilmington, North Carolina that engages residents of the Cape Fear watershed through programs to preserve and safeguard the river. The organization has 1,100 members, including members who live near, drink water from, and fish, swim, and boat on the Cape Fear River downstream of Chemours' Fayetteville Works Facility. Cape Fear River Watch's mission is "to protect and improve the water quality of the Lower Cape Fear River Basin through education, advocacy and action." In order to fulfill that mission, the organization works to protect the entire river from pollution, including toxic chemicals, such as the PFAS that have been released from the Fayetteville Works Facility for decades, and continue to be pumped into the environment at alarming rates.

19. Members of Cape Fear River Watch who live near and downstream of the Fayetteville Works Facility have been devastated by Chemours' poisoning of the Cape Fear River and its tributaries. Chemours has subjected members and their families to contaminated air and water for four decades. They are worried that the years of drinking, fishing from, and swimming in Chemours' polluted waters have permanently harmed the health of themselves and their families. They are angry and frustrated that the company continues to release its toxic pollution into their air, water, and soil. Since they learned about Chemours' pollution, members of Cape Fear River Watch have avoided drinking their tap water, which comes from the Cape Fear River. They have also limited how often they fish, swim, or paddle in the river.

20. Chemours' discharges of PFAS contamination are reducing the use and enjoyment by Cape Fear River Watch and its members of the Cape Fear River Basin and its tributaries.

### **DEFENDANT**

21. Defendant, the Chemours Company FC, LLC, is a Delaware limited liability corporation with its principal place of business in Wilmington, Delaware, and is registered to do business in North Carolina. The Chemours Company FC, LLC currently owns and operates the Fayetteville Works Facility, located at 22828 NC Highway 87 W, Fayetteville, North Carolina.

### **FACTUAL ALLEGATIONS**

#### **A. The Fayetteville Works Facility.**

22. The Fayetteville Works Facility is fifteen miles southeast of Fayetteville, North Carolina and is partially bordered by the Cape Fear River and its tributaries. The Facility was constructed by DuPont in the early 1970s. DuPont owned and operated the Facility until 2015, when it transferred ownership of the Facility to its then-subsiary, Chemours. DuPont continues to operate one out of five manufacturing areas at the Facility.

23. The Fayetteville Works Facility has five active manufacturing areas: (1) Fluoromonomers/Nafion Membrane Manufacturing Area ("Nafion Manufacturing area") (operated by Chemours), (2) Polymer Processing Aid ("PPA") Manufacturing area (operated by Chemours), (3) Butacite Manufacturing area (operated by Kuraray America Inc. and rented from Chemours), (4) SentryGlas Manufacturing area (operated by Kuraray America Inc. and rented from Chemours), and (5) Polyvinyl Fluoride Manufacturing area (operated by DuPont and rented from Chemours).

24. Chemours' Nafion Manufacturing area produces Nafion fluorochemical products, including Nafion Membrane and Nafion Polymer Dispersions, as well as numerous fluorochemicals, including HFPO monomer and Vinyl Ether monomer which are used to manufacture fluorochemical products. GenX and other PFAS compounds are produced as a result of the manufacturing processes at the Nafion Manufacturing area.

25. Chemours' PPA Manufacturing area originally produced nylon strapping and Elastomeric Tape. DuPont began producing PFOA at the Facility in October or November of 2002 after it lost its supply of PFOA from the 3M Company and then decided to manufacture the chemical on its own. The PPA Manufacturing area produced PFOA until April 2013. In 2009, DuPont also began producing GenX at this manufacturing area, and GenX is still manufactured there today.

26. The Polyvinyl Fluoride Manufacturing area is operated by DuPont. It produces a polyvinyl fluoride resin that used as a backing for photovoltaic cells. The Polyvinyl Fluoride Manufacturing process began in September or October 2007. This area is suspected to be a source of PFAS contamination.

27. The Fayetteville Works Facility also includes a former, now inactive manufacturing area: the Polymer Manufacturing Development Facility. DuPont manufactured Teflon-branded fluorinated ethylene propylene for electrical wiring insulation and other uses at the Polymer Manufacturing Development Facility from December 2000 until June 2009. This area is suspected to be a source of PFAS contamination.

28. The Fayetteville Works Facility is bordered by Willis Creek approximately 3,000 feet north of the manufacturing areas, Georgia Branch Creek to the south, and the Cape Fear

River—a public drinking water supply—approximately 1,850 feet to the east. Both Willis Creek and the Georgia Branch Creek flow into the Cape Fear River.

29. The Fayetteville Works Facility discharges wastewater into the Cape Fear River through an underground pipe, Outfall 002. The segment of the Cape Fear River into which the Facility’s wastewater is discharged is classified as a Class C and Water Supply IV water. Class C waters are “freshwaters protected for secondary recreation, fishing, aquatic life including propagation and survival, and wildlife.” 15A N.C. Admin. Code 02B .0101(c)(1). A few miles downstream of the discharge point, the Cape Fear River is also classified as a critical area. Critical areas are defined as the “area adjacent to a water supply intake or reservoir where risk associated with pollution is greater than from the remaining portions of the watershed.” 15A N.C. Admin. Code 2B.0202(20).

30. The Fayetteville Works Facility is located upstream of several drinking water intakes that serve water utilities, including the Lower Cape Fear Water and Sewer Authority, the Cape Fear Public Utility Authority, and Brunswick County.

31. Beneath the Fayetteville Works Facility are layers of groundwater partially confined by clay, including the perched zone, and the Surficial and Black Creek Aquifers—the principal potable water aquifers in the region. The Surficial Aquifer is approximately 50 feet below ground surface, and the Black Creek Aquifer is between 80 and 100 feet below ground surface. The perched zone, which underlies most of the Facility, is a shallow layer of groundwater 6 to 20 feet below ground surface that has been created by seepage of water through the companies’ leaking pipes, ditches, and basins.

32. Groundwater beneath the Facility generally flows west-southwest to east-northeast. All three layers of groundwater flow toward surface waters surrounding the

Fayetteville Works Facility. Water from the perched zone flows into the Cape Fear River and also infiltrates the Surficial and Black Creek aquifers before entering the Cape Fear River.

Groundwater from the Surficial Aquifer flows toward the Cape Fear River, and also discharges directly into Willis Creek, which is a tributary that connects to the Cape Fear River.

Groundwater from the Black Creek Aquifer discharges into the Cape Fear River and Willis Creek.

**B. Groundwater and Surface Waters In and Around the Fayetteville Works Facility Contain Toxic PFAS.**

33. When the public learned of Chemours' pollution in June of 2017, Chemours was dumping wastewater into the Cape Fear River that had GenX levels of up to 39,000 parts per trillion ("ppt") and GenX levels in the finished drinking water from the downstream Cape Fear Public Utility Authority's Sweeney Water Treatment Plant reached levels of up to 1,100 ppt—nearly 8 times the state's health goal for GenX of 140 ppt.

34. In September 2017, Chemours agreed to stop pumping its PFAS-contaminated process wastewater directly into the Cape Fear River. GenX levels in the Cape Fear River and its tributaries, however, persisted as contaminated groundwater both on and offsite continued to seep into surface waters. Months after Chemours' agreement, GenX was found in Willis Creek at levels of up to 450 ppt and in Georgia Branch at levels of 690 ppt.

35. Chemours continues to pollute at least the Cape Fear River and Willis Creek due to its extensive contamination of on-site groundwater, which are hydrologically connected to surrounding surface waters. All three layers of groundwater beneath the Fayetteville Works Facility have been contaminated with GenX and other PFAS.

36. The perched zone has had concentrations of GenX of up to 640,000 ppt. The Surficial Aquifer has had concentrations of GenX of up to 45,000 ppt right along the Cape Fear

River. Only four wells were tested for GenX in the Black Creek Aquifer, yet those samples had concentrations of GenX of up to 9,900 ppt. Other PFAS have been found in onsite groundwater wells in much higher levels than GenX. For instance, Perfluoro- 2-methoxyacetic acid (PFMOAA) was measured at levels of over 8 million and 6 million ppt. Perfluoro(3,5-diolxahexanoic) acid (PFO2HxA) was measured at levels of nearly 2 million ppt.

37. From September to December of 2017, at least 33 different PFAS were identified in private drinking water wells around the Facility. GenX has now been found in at least 763 private wells up to 5.5 miles away from the Facility's border, in levels as high as 4,000 ppt. Over 220 of these private wells have concentrations of GenX above the state's health goal of 140 ppt. The contamination in those wells has been attributed to the companies' air emissions.

38. Those air emissions have also resulted in rainwater with GenX levels as high as 810 ppt, five miles from the Facility, and in spring-fed recreational lakes surrounding the Facility. In Camp Dixie, a lake about two miles away from the Facility that is drained about once a year, GenX was found at levels of 620 ppt. In Marshwood Lake, which is about .7 miles northeast of the Facility, 16 PFAS were detected in recent testing, and GenX was found at levels of 1,160 ppt.

**C. Chemours' Leaking Pipes, Ditches, Basins, and Air Emissions Continue to Pollute the Surface Waters, Groundwater, Soil, and Air.**

39. Chemours and DuPont have released PFAS from the Fayetteville Works Facility for decades, and Chemours continues to release GenX and other PFAS into surface and groundwaters through myriad pathways.

40. Chemours discharges PFAS into the Cape Fear River through its current Outfall 002, as demonstrated by samples taken well after Chemours purportedly ceased its discharge.

A sample collected from Outfall 002 on January 25, 2018 contained concentrations of 1,500 ppt and a sample collected in April 26, 2018 contained concentrations of 1,300 ppt.

41. Chemours also discharges PFAS directly into the Cape Fear River through its unlined old Outfall 002. The abandoned ditch, which was built by DuPont as part of its previous waste treatment system, has eroded so much that it collects polluted groundwater from the Surficial and Black Creek Aquifers and channels contaminated water from those aquifers straight into the Cape Fear River.

42. There are numerous other sources of ground and surface water contamination within Chemours' Facility, including but not limited to:

- a. A leaking terracotta pipe which was previously used to transport process wastewater from the Facility's Nafion Manufacturing area to its wastewater treatment plant;
- b. Other parts of the Facility's process sewer system, which include a system of pipes, manholes, and sumps—in particular the “common sump” in the Nafion Manufacturing area, which historically received process wastewater, cooling water, and steam condensate from the Nafion manufacturing process;
- c. An unlined “Nafion Ditch” in the Nafion Manufacturing area which collects five to eight million gallons a day of wastewater and stormwater that leaches into the groundwater beneath the Facility. The ditch also flows directly into the current Outfall 002 and the Cape Fear River;
- d. Two large unlined sedimentation basins in the Nafion Manufacturing area which remove sediment from the Cape Fear River and leach into the groundwater beneath the Facility;

- e. A “Borrow Pit” which has been used for the disposal of sediment from the two sedimentation basins in the Nafion Manufacturing area. PFOA has been found in at least one groundwater sample in the vicinity of the pit;
- f. Many unlined lagoons that were used for settling and disposing sludge from the site’s wastewater treatment plant;
- g. A rainwater retention basin north of the PPA Manufacturing area that has previously leached contaminants from the deposition of PPA Manufacturing area’s air emissions into groundwater;
- h. The Facility’s storm sewer system, which collects stormwater through sumps, drains, and ditches throughout the Facility, and transports them to the Cape Fear River;
- i. Numerous erosional channels that receive contaminated groundwater east of the Facility;
- j. A wood-lined ditch carrying stormwater and wastewater from the Facility’s wastewater treatment plant towards Outfall 002;
- k. The Facility’s Polyvinyl Fluoride Manufacturing area; and
- l. The former Polymer Manufacturing Development Facility in which DuPont manufactured Teflon-branded fluorinated ethylene propylene until 2009.

43. PFAS pollution from each of these discrete point sources likely directly or indirectly pollutes Willis Creek, the Georgia Branch, and/or the Cape Fear River—all of which are waters of the United States and protected by the Clean Water Act.

44. Chemours’ manufacturing areas also release numerous PFAS into the environment through air emissions, as well as equipment leaks. Of the PFAS, Chemours’ aerial

releases of GenX, HFPO Dimer Acid Ammonium Salt, and HFPO Dimer Acid Fluoride have been tested for most thoroughly. HFPO Dimer Acid Fluoride and HFPO Dimer Acid Ammonium Salt both convert to GenX in the presence of water. Collectively, GenX, HFPO Dimer Acid Fluoride, and HFPO Dimer Acid Ammonium Salt are referred to as “GenX compounds.”

45. The Nafion Manufacturing area’s four stacks, which range in height from about 25 to 75 feet, release air emissions containing GenX compounds. The stacks are part of four different processing units within the manufacturing area, including: (1) the Vinyl Ethers – North Process Unit, (2) Vinyl Ethers – South Process Unit, (3) the Polymer Processing Unit, and (4) the Semi-works Polymerization Unit. These units also release GenX compounds through leaks from Chemours’ indoor and outdoor equipment from a height of about 15 to 45 feet.

46. According to Chemours, the Vinyl Ethers – North Process Unit emitted approximately 1,510 pounds of GenX compounds in 2017, the Vinyl Ethers – South Process Unit emitted approximately 116 pounds of GenX compounds in 2017, the Polymer Processing Unit emitted approximately 5 pounds of GenX compounds in 2017, and the Semi-works Polymerization Unit emitted approximately 0.5 pounds of GenX compounds in 2017. In total, Chemours estimates that the Nafion Manufacturing area emitted approximately 1,631 pounds of GenX compounds in 2017.

47. Chemours’ PPA Manufacturing area also emits GenX compounds through stacks and leaks. In 2017, Chemours estimated that its 75-foot high PPA stack emitted approximately 639 pounds of GenX compounds, and that its indoor and outdoor PPA equipment leaked about 32 pounds of fugitive GenX emissions at a height of about 9 feet. The company estimated that it released a total of 671 pounds GenX compounds from its PPA Manufacturing area in 2017.

48. In total, Chemours reported that its air emissions of GenX compounds for 2017 were approximately 2,302 pounds.

49. The Facility emits numerous other PFAS in addition to GenX compounds. In 2012, DuPont emitted over 85,000 pounds of total PFAS into the air. In 2013, DuPont emitted over 96,000 pounds of PFAS into the air. In 2014, DuPont emitted over 102,000 pounds of PFAS into the air. In 2015, the companies emitted over 125,000 pounds of PFAS into the air. In 2016, Chemours emitted over 89,000 pounds of PFAS into the air.

50. Chemours' air emissions from its stacks are a direct and indirect source of surface water pollution. First, GenX compounds emitted from the stack land directly into the Cape Fear River, Willis Creek, and the Georgia Branch. Second, the emissions contribute to significant surface and groundwater pollution by depositing onto surrounding lands and leaching through the surface to underlying groundwater, which then flows, at a minimum, into the Cape Fear River and Willis Creek.

**D. DuPont and Chemours Knew They Were Polluting Surface Waters and Groundwaters.**

51. Based on DuPont's experience at its Washington Works Facility in West Virginia, DuPont knew about its PFAS air emissions and their potential to pollute land and water on-site at its facilities and in neighboring communities. By 1982, DuPont had found that the PFOA dust from its stacks at the Washington Works Facility in West Virginia traveled beyond the property line and settled on the surrounding lands. By at least 2003, DuPont knew that PFOA air emissions from its West Virginia facility were polluting groundwater aquifers that were a source of drinking water for residents in the area.

52. Despite its knowledge of the harm that its toxic air emissions could cause, DuPont began manufacturing PFOA in its facility in North Carolina in 2002 and contaminating the air and surrounding land and waters as it had done in West Virginia.

53. That same year, DuPont conducted modeling of its PFOA air emissions at the Fayetteville Works Facility that showed air particles from its emissions would likely deposit into the surrounding watershed and be carried into the Cape Fear River as stormwater runoff.

54. DuPont found elevated levels of PFOA in the groundwater around its Nafion and PPA Manufacturing areas soon after it began manufacturing PFOA in North Carolina. As early as 2003, the company found PFOA in an on-site groundwater monitoring well in the Nafion Manufacturing area.

55. Beginning in 2004, DuPont measured its annual PFOA air emissions at the Fayetteville Works Facility and knew that PFOA contaminated ground and surface waters.

56. Groundwater samples taken by DuPont in 2005 near the PPA Manufacturing area contained levels of PFOA at 147,000 ppt in October 2005 and 765,000 ppt in December 2005. Concentrations of PFOA from groundwater samples around the Nafion Manufacturing area reached up to 872 ppt in October 2005.

57. By 2006, DuPont was aware of many sources of PFOA contamination within its facility, and the chemical's movement through the air, unlined ditches and basins, and groundwaters and surface waters. In particular, the company knew:

- a. that PFOA air emissions at the Facility were depositing onto the ground and directly contributing to groundwater contamination,
- b. that PFOA contaminated at least one of its sedimentation basins and an unlined ditch located in the Nafion Manufacturing area,

- c. that there was a perched zone of groundwater below the Facility, and that the groundwater was being recharged by the DuPont's contaminated basins and ditch,
- d. that PFOA contaminated on-site groundwater in high concentrations,
- e. that groundwater beneath the Facility flowed into Willis Creek and the Cape Fear River, and
- f. that PFOA was contaminating nearby surface waters.

**E. PFAS Harm Human Health.**

58. The PFAS that have been manufactured and released by DuPont and Chemours into ground and surface waters, air, and soil are known to cause harmful effects to human health.

59. Of the commonly studied PFAS, PFOA and perfluorooctyl sulfonate ("PFOS") have been found to cause developmental effects to fetuses and infants, kidney and testicular cancer, liver malfunction, hypothyroidism, high cholesterol, ulcerative colitis, lower birth weight and size, obesity, decreased immune response to vaccines, reduced hormone levels, and delayed puberty.

60. PFOA and PFOS have been found in the air, surface water and groundwater, and soil and sediment. They are extremely resistant to breaking down in the environment, take years to leave the human body, and slowly accumulate over time.

61. Until 2013, DuPont manufactured PFOA at the Fayetteville Works Facility. DuPont had known about the dangers of PFOA since the early 1960s, secretly conducting studies that showed the chemical caused liver damage, was resistant to degradation, and could cause birth defects. By 1981, DuPont had found PFOA in the umbilical cord of a pregnant employee at its facility in West Virginia, showing that the chemical's toxic effects could reach fetuses. Decades later, information about PFOA's toxicity began to rise to the surface, and in 1999, the

first of over 3,500 personal injury lawsuits were filed against DuPont for knowingly poisoning thousands of people.

62. Concerned about the extensive health effects of PFOA and PFOS, in 2016, the EPA established a lifetime health advisory of 70 ppt for the *combined* concentrations of PFOA and PFOS in drinking water.

63. In 2009, DuPont also began manufacturing GenX, a structurally similar compound, at the Fayetteville Works Facility to eventually replace its production of PFOA. Instead of being a long unbroken chain of several carbon atoms, GenX and many other new PFAS alternatives have shorter chains of carbon atoms and ether (oxygen) linkages. Therefore, they are often referred to as “short-chain” PFAS.

64. DuPont’s own studies of GenX, which it began as early as 1963, showed that GenX had health effects in laboratory animals consistent with the effects of other PFAS, such as cancers in multiple organs, including the liver, pancreas, and testicles.

65. In DuPont’s 2009 Toxic Substances Control Act Consent Order for GenX, which DuPont entered into with the Environmental Protection Agency, the EPA warned the company that the agency had human health concerns about GenX because the chemical is “structurally similar” to other heavily studied PFAS, such as PFOA, that are known to persist in the environment and bioaccumulate in humans.<sup>4</sup> The EPA further voiced concerns that GenX “could bioaccumulate and be toxic ... to people, wild mammals, and birds,” that they “are expected to be absorbed by all routes of exposure,” that they are expected “to be highly persistent in the environment,” and that “there is high concern for possible environmental effects over the long-

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<sup>4</sup> EPA, Consent Order and Determinations Supporting Consent Order for PMN Substances P-08-508 and P-08-509, vii (2009), included as Exhibit 4.

term.”<sup>5</sup> In its Consent Order with DuPont, the EPA ultimately concluded that “[t]he Company should make every effort to minimize or prevent any release to the environment of these substances,” and “that uncontrolled manufacture [...] and disposal of [GenX] may present an unreasonable risk of injury to human health and the environment.”<sup>6</sup>

66. In May of 2015, two hundred researchers and scientists warned government officials, manufacturers, and the public not to underestimate the danger of short-chain PFAS alternatives, including GenX.

67. On July 14, 2017, after studying the potential adverse health effects caused by GenX, the North Carolina Department of Health and Human Services issued a health goal of 140 ppt for the chemical.

68. The California Department of Toxic Substances Control reviewed recent scientific literature on PFAS, including short-chain PFAS alternatives. In February 2018, it released a draft report that stated short-chain PFAS take just as long to break down in the environment and can even travel more readily than long-chain PFAS such as PFOA. The report also found that the short-chain alternatives, in particular GenX, could be more toxic than the compounds they are replacing.

69. In June 2018, the Agency for Toxic Substances and Disease Registry, part of the United States Department of Health and Human Services, released an updated Draft Toxicological Profile for certain PFAS. This report suggested that many of the chemicals are much more harmful than previously thought. For instance, the minimum risk levels, or the amount of a chemical a person can eat, drink, or breathe each day without a detectable risk to health, should be 11 ppt for PFOA, and 7 ppt for PFOS.

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<sup>5</sup> *Id.* at vii, xi, xii.

<sup>6</sup> *Id.* at xiv-xv.

**F. Fayetteville Works Facility’s National Pollution Discharge Elimination System Permit Does Not Authorize Chemours’ PFAS Discharges.**

70. Chemours and DuPont released these pollutants into ground and surface waters for decades without authorization under the Clean Water Act.

71. Chemours has a Clean Water Act permit, though it does not address the discharges described above. The company is authorized to discharge wastewater into the Cape Fear River from the Fayetteville Works Facility under National Pollution Discharge Elimination System (“NPDES”) Permit No. NC0003573, issued by DEQ in 2012,<sup>7</sup> and administratively extended past its expiration date of October 31, 2016 as the agency considers the company’s pending renewal application. Chemours’ permit is attached to this Complaint as Exhibit 5.

72. Chemours’ current NPDES permit authorizes the discharge of wastewater from the Facility through two outfalls: Outfall 001 and Outfall 002. Outfall 001 is an internal outfall from the Facility’s wastewater treatment plant. Process wastewater and stormwater flows through Chemours’ on-site wastewater treatment plant through Outfall 001, is diluted with cooling water and stormwater, and then is discharged into the Cape Fear River through an underground pipe at Outfall 002.

73. The Removed Substances provision within Chemours’ current NPDES permit requires that: “Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be utilized/disposed of in accordance with NCGS 143-215.1 and in a manner such as to prevent any pollutant from such materials from entering waters of the State or navigable waters of the United States except as permitted by the Commission.”<sup>8</sup>

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<sup>7</sup> That Fayetteville Work Facility’s NPDES permit was modified in 2015 to reflect the Facility’s change in ownership from DuPont to Chemours.

<sup>8</sup> NPDES Permit Standard Conditions at 8, included as Exhibit 6.

74. The Duty to Mitigate provision within Chemours' current NPDES permit requires that: "The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit with a reasonable likelihood of adversely affecting human health or the environment."<sup>9</sup>

75. The Operation and Maintenance provision within Chemours' current NPDES permit requires that: "The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit."<sup>10</sup>

76. From DuPont's application for its first NPDES permit, issued in 1987, until Chemours' latest application in 2016, neither company sought approval of their discharges of GenX or any other PFAS. In fact, the companies repeatedly represented to DEQ that its discharges containing PFAS were harmless or that the wastewater from PFAS manufacturing processes were being collected and disposed of elsewhere.

77. In its 2006 NPDES permit application, DuPont stated that all of the wastewater from its manufacture of PFOA would be collected and shipped off-site for disposal, although the company was already well aware that its PFAS air emissions were polluting shallow and deep layers of groundwater and that contaminated groundwater likely leached into surface waters around the Facility.

78. In 2010, DuPont met with DEQ to discuss its replacement of PFOA with GenX, stating that GenX would be less harmful to health and the environment, although DuPont had already conducted nearly 50 years' worth of studies on GenX showing that the chemical had health effects in laboratory animals consistent with the effects of other toxic PFAS. DuPont also

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<sup>9</sup> NPDES Permit Standard Conditions at 4, *see also* 40 C.F.R. §122.41(d).

<sup>10</sup> NPDES Permit Standard Conditions at 7; *see also* 40 C.F.R. §122.41(e).

stated that the wastewater from the company's manufacture of GenX would be collected and shipped off-site for disposal. The company failed to mention that it had already been releasing GenX directly into the Cape Fear River for four decades.

79. None of the NPDES permits issued by DEQ to DuPont or Chemours authorize the discharge of GenX or any other PFAS.

80. After discovering that DuPont and Chemours had discharged GenX and other PFAS into drinking water supplies for decades without notifying the agency, in September 2017, DEQ filed a complaint against Chemours for its violation of its NPDES permit, the Clean Water Act, and state water quality laws. Chemours agreed through a consent order to stop its discharge of wastewater containing GenX and two other PFAS from Outfall 002 directly into the Cape Fear River.

81. DEQ later discovered that Chemours had concealed a GenX spill into the Cape Fear River that occurred on October 9, 2017, which caused GenX concentrations to spike at 3,700 ppt at Outfall 002. Because the company hid the spill from the agency, on November 30, 2017, DEQ suspended Chemours' NPDES permit provisions that authorize Chemours to discharge process wastewater from Chemours' Nafion Manufacturing area. DEQ continued to allow wastewater from Kuraray America Inc.'s and DuPont's facilities to be discharged through Outfall 002 under the permit.

## **STATUTORY BACKGROUND**

### **A. The Clean Water Act.**

82. The Clean Water Act seeks to "restore and maintain the chemical, physical, and biological integrity of the Nation's waters." 33 U.S.C. § 1251(a). To accomplish that objective, Congress set the national goal that "the discharge of pollutants into the navigable waters be

eliminated.” *Id.* Accordingly, the Act prohibits the discharge of pollutants from a point source to waters of the United States except in compliance with, among other conditions, a NPDES permit issued pursuant to 33 U.S.C. § 1342. 33 U.S.C. § 1311(a). Each violation of a NPDES permit, and each discharge of a pollutant that is not authorized by the permit, is a violation of the Clean Water Act. 33 U.S.C. §§ 1311(a), 1342(a), 1365(f).

83. The Clean Water Act defines a “point source” as “*any* discernible, confined, and discrete conveyance, including but not limited to any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, [or] container [...] from which pollutants are or may be discharged.” 33 U.S.C. § 1362(14) (emphasis added).

84. In addition, a “point source need not be the original source of the pollutant; it need only convey the pollutant to ‘navigable waters.’” *S. Fla. Water Mgmt. Dist. v. Miccosukee Tribe of Indians*, 541 U.S. 95, 105 (2004). Thus, ditches and channels that convey pollutants but are themselves not the original source constitute point sources. This includes unintentional conveyance of pollutants, for example, through natural-formed ditches, gullies, or fissures.

85. The Clean Water Act prohibits “any addition of any pollutant to navigable waters from any point source.” 33 U.S.C. § 1362(12)(A). When unpermitted pollution travels from a point source to a river or lake via hydrologically connected groundwater, there is an illegal “addition of any pollutant to navigable waters.” 33 U.S.C. § 1362(12).

## **B. The Toxic Substances Control Act.**

86. The Toxic Substances Control Act states, “The Congress finds that [...] among the many chemical substances and mixtures which are constantly being developed and produced, there are some whose manufacture, processing, distribution in commerce, use, or disposal may present an unreasonable risk of injury to health or the environment.” 15 U.S.C. § 2601.

87. Under Section 5 of the Toxic Substances Control Act, no person may manufacture or import a “new chemical substance” or manufacture or process any chemical substance for “a significant new use” unless (1) pre-manufacture notice is filed with the EPA, (2) the EPA reviews the notice, and (3) the EPA makes a determination of the human health and environmental risks of the chemical. 15 U.S.C. § 2604. Pre-manufacture notices submitted to the EPA must include data on the health and ecological effects of the chemical substance, including “all test data in the submitter’s possession or control,” as well as data “that are known to or reasonably ascertainable by the submitter.” 40 C.F.R. § 720.50.

88. If EPA determines that there is insufficient information about the chemical substance, the EPA “shall issue an order [...] to prohibit or limit the manufacture, processing, distribution in commerce, use, or disposal of such substance or to prohibit or limit any combination of such activities to the extent necessary to protect against an unreasonable risk of injury to health or the environment, without consideration of costs or other nonrisk factors...” 15 U.S.C. § 2604(e)(1)(A). Following an EPA order, “the submitter of the notice may commence manufacture of the chemical substance, or manufacture or processing of the chemical substance for a significant new use, including while any required information is being developed, *only in compliance with the order.*” *Id.* (emphasis added). It is “unlawful for any person to fail or refuse to comply with any [...] order issued” under Section 5 of Toxic Substances Control Act. 15 U.S.C. § 2614(1).

**FIRST CAUSE OF ACTION**  
**Unauthorized Discharges to Waters of the United States**  
**in Violation of the Clean Water Act**

89. The allegations of the preceding paragraphs are incorporated here by reference.

90. Chemours continues to release GenX and other PFAS into surface waters directly and through its contamination of the groundwater, soil, and air in and around the Fayetteville Works Facility, in violation of the Clean Water Act's prohibition on unauthorized discharges.

91. Chemours continues to discharge PFAS into the Cape Fear River through its current Outfall 002 without authorization from its current NPDES permit.

92. Chemours also discharges PFAS directly into the Cape Fear River through its unlined old Outfall 002 in violation of its NPDES permit. The abandoned ditch has eroded so much that it reaches polluted groundwater from the Surficial and Black Creek Aquifers. It then channels contaminated water from those aquifers straight into the Cape Fear River.

93. Chemours has numerous other potential sources of PFAS groundwater contamination at the site, including: leaking pipes, sumps, drains, and ditches in its process and storm sewer systems, unlined ditches and rainwater and sedimentation basins within its Nafion and PPA Manufacturing areas, unlined former sludge lagoons, erosional channels east of the Facility, and the site's Polyvinyl Manufacturing area and former Polymer Manufacturing Development Facility. These sources likely leach pollutants into the groundwater beneath the Fayetteville Works Facility, which then travel to surrounding surface waters.

94. Groundwaters beneath and around the Facility have been heavily polluted by Chemours' air emissions and leaking ditches, basins, and pipes. All three layers of groundwater beneath the Facility are contaminated with GenX and other PFAS, including the deepest layer which is between 80 and 100 feet below ground surface.

95. All three layers of groundwater beneath the Facility connect with surrounding surface waters, including but not limited to the Cape Fear River and Willis Creek. GenX levels in the Cape Fear River, as well as in Willis Creek and Georgia Branch Creek, have continued to persist due to the companies' discharges.

96. Chemours has reported that it releases nearly 100,000 pounds of PFAS in its air emissions each year, including GenX compounds at a rate of 2,302 pounds per year. These emissions are a source of on-site groundwater contamination that then flows into surface waters, including Willis Creek and the Cape Fear River.

97. Chemours' air emissions also contribute directly to PFAS contamination of surface waters by depositing the chemicals immediately into rivers, streams, and lakes, including the Cape Fear River and its tributaries.

98. In May 2018, Chemours installed carbon adsorption bed technology at the Fayetteville Works Facility, which it stated would remove only 40 percent of the company's PFAS emissions.

99. Chemours' leaking ditches, basins, pipes, stacks, and other sources of PFAS contamination are all unpermitted point sources under the Clean Water Act.

100. Chemours' unpermitted discharges into the Cape Fear River and its tributaries have adversely affected members of Cape Fear River Watch. Because of the pollution, members have avoided drinking water from the river and limited their fishing, swimming, and paddling in the Cape Fear River downstream of the Chemours Fayetteville Works Facility.

**SECOND CAUSE OF ACTION**  
**Violations of the National Pollutant Elimination Discharge System Permit**

101. The allegations of the preceding paragraphs are incorporated here by reference.

102. Chemours is violating numerous provisions of its NPDES permit, including but not limited to the Removed Substances Provision, the Duty to Mitigate Provision, and the Operate and Maintenance Provision.

103. Chemours is violating the Removed Substances Provision of its NPDES permit, which requires that: “Solids, sludges, filter backwash, or other pollutants removed in the course of treatment or control of wastewaters shall be utilized/disposed of [...] in a manner such as to prevent any pollutant from such materials from entering waters of the State or navigable waters of the United States...”

104. Removed substances provisions ensure that “measures shall be taken to assure that pollutants [and] materials removed from the process water and waste streams will be retained in storage areas and not discharged or released...” *In re: 539 Alaska Placer Miners*, Nos. 1085-06-14-402C and 1087-08-03-402C, 1990 WL 324284, at \*8 (EPA Mar. 26, 1990); *see also* 40 C.F.R. § 440.148(c). This provision aims to “ensure the integrity” of such systems so that pollution does not escape into the environment. *Yadkin Riverkeeper, Inc. v. Duke Energy Carolinas, LLC*, 141 F. Supp. 3d 428, 446-47 (M.D.N.C. 2015).

105. As discussed above, Chemours has kept “two large unlined basins on the [s]ite that are used for disposal of solids removed from river water that is used for non-contact cooling.”<sup>11</sup> The basins are pumped with water from the Cape Fear River, and then solids are removed in the course of treatment when they settle to the bottom of the basin. Water from the two basins then leaches into the underlying sandy soil to the contaminated perched groundwater zone beneath the Facility, which then flows laterally and deeper beneath to the Surficial and Black Creek Aquifers. All three layers of groundwater discharge to the Cape Fear

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<sup>11</sup> Chemours Fayetteville Works, “Focused Feasibility Study Report – PFAS Remediation,” February 28, 2018, 10, included as Exhibit 7.

River. Accordingly, Chemours' sedimentation basins are contributing to "the primary source of site-wide groundwater contamination,"<sup>12</sup> which then enters surface waters surrounding the Facility. Sampling of groundwater in the immediate vicinity of the sedimentation basins showed elevated concentrations of GenX. Sampling in the perched groundwater zone at the boundary of the southern sedimentation basin contained GenX in concentrations of 14,000 ppt. Sampling in the Surficial Aquifer (approximately 50 feet below ground surface) just west of the sedimentation basins contained GenX in concentrations of 3,600 ppt.

106. Chemours is violating the Duty to Mitigate provision of its NPDES permit, which requires that: "The Permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit with a reasonable likelihood of adversely affecting human health or the environment."

107. For decades, Chemours has discharged its toxic PFAS through its current Outfall 002, air emissions, leaking basins, ditches, and pipes. It has polluted both public drinking water supplies by discharging into the Cape Fear River upstream of several intake locations for public water utilities, and at least 763 private drinking water wells. Private wells up to 5.5 miles away from the Facility's border have been found contaminated, in levels as high as 4,000 ppt. GenX levels in the Cape Fear River and its tributaries have continued at levels of up to 690 ppt. The Cape Fear Public Utility Authority, which services 200,000 customers in North Carolina, has reported that PFAS, including GenX, persist in its treated public drinking water, at combined levels above 230 ppt from testing done as recently as July 17, 2018. During its presentation to the House Select Committee on North Carolina River Quality on April 26, 2018, the Cape Fear Utility Authority emphasized that an upgraded multi-million dollar treatment system will not eliminate PFAS in its treated drinking water.

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<sup>12</sup> *Id.* at 9.

108. Chemours has not taken “all reasonable steps to minimize or prevent any discharge [...] or disposal in violation of [its] permit with a reasonable likelihood of adversely affecting human health or the environment,” and is in violation of the Duty to Mitigate provision of its permit. Instead, Chemours is discharging dozens of toxic PFAS through multiple unpermitted sources with full knowledge that its discharges have adversely affected human health for decades, and continue to harm the health of surrounding communities.

109. Chemours is violating the Operation and Maintenance provision of its NPDES permit, which requires that: “The Permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit.”

110. Chemours has allowed leaking ditches, basins, and pipes to leach PFAS into surface and groundwaters for years. In fact, the company has created an entire layer of highly polluted groundwater beneath its Facility by allowing PFAS-contaminated waters to leak continuously from its poorly maintained site. Chemours knew that it was creating this heavily contaminated zone of groundwater at least as early as 2006. Chemours’ failure to maintain “properly operate and maintain” the integrity of its stormwater and wastewater systems so that the company “achieve[s] compliance with the conditions of [its] permit” violates the Operation and Maintenance provision.

111. Failure to comply with any of these, and other, NPDES permit provisions “constitutes a violation of the Clean Water Act and is grounds for enforcement action.” 40 C.F.R. §122.41(a).

112. Chemours’ violations of its NPDES permit provisions have adversely affected members of Cape Fear River Watch. Because of the pollution, members have avoided drinking

water from the river and limited their fishing, swimming, and paddling in the Cape Fear River downstream of the Chemours Fayetteville Works Facility.

**THIRD CAUSE OF ACTION**  
**Violation of the Toxic Substances Control Act**

113. The allegations of the preceding paragraphs are incorporated here by reference.

114. Due to the toxic nature of GenX, in 2008, DuPont filed Toxic Substances Control Act pre-manufacture notices for two PFAS: (1) P-08-508- Perfluorinated aliphatic carboxylic acid, which has a Chemical Abstracts Registry Number of 13252-13-6, and is also known as “GenX” or HFPO Dimer Acid; and (2) P-08-509- Perfluorinated aliphatic carboxylic acid, ammonium salt, which has a Chemical Abstracts Registry Number of 62037-80-3, and is also known as HFPO Dimer Acid Ammonium Salt. HFPO Dimer Acid Ammonium Salt readily turns to GenX in the presence of water.

115. Ultimately, in 2009, pursuant to Section 5(e)(1)(A)(i) of Toxic Substances Control Act, the EPA determined “that the information available to the Agency is insufficient to permit a reasoned evaluation of the human health and environmental effects of the [pre-manufacture notice] substances.”<sup>13</sup> Thus, EPA entered into a consent order with DuPont, which states, “[i]n light of the potential risk of human health and environmental effects [...], EPA has concluded: that uncontrolled manufacture, import, processing, distribution in commerce, use and disposal of the [pre-manufacture notice] substances may present an unreasonable risk of injury to human health and the environment,”<sup>14</sup> and “that the [pre-manufacture notice] substances will be produced in substantial quantities [...], may be reasonably anticipated to enter the environment

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<sup>13</sup> EPA, Consent Order and Determinations Supporting Consent Order for PMN Substances P-08-508 and P-08-509, xv (2009), included as Exhibit 4.

<sup>14</sup> *Id.* at xv.

in substantial quantities [..], and there may be significant (or substantial) human exposure to the substances.”<sup>15</sup>

116. EPA’s Consent Order therefore requires DuPont to “recover and capture (destroy) or recycle the [pre-manufacture notice] substances at an overall efficiency of 99% from all the effluent process streams and the air emissions (point source and fugitive).”<sup>16</sup>

117. Since its Consent Order with the EPA, DuPont has submitted multiple studies to the agency on the two chemicals. The EPA has not modified its 2009 Consent Order with the company based on the studies DuPont submitted.

118. When DuPont transferred ownership of the Fayetteville Works Facility to Chemours in 2015, Chemours became responsible for complying with DuPont’s Consent Order with the EPA.

119. Chemours is releasing air emissions of GenX compounds, which include GenX, HFPO Dimer Acid Ammonium Salt, and HFPO Dimer Acid Fluoride, from at least five point sources: (1) the Vinyl Ethers – North Process Unit, (2) Vinyl Ethers – South Process Unit, (3) the Polymer Processing Unit, (4) the Semi-works Polymerization Unit, and (5) the PPA Unit from the PPA Manufacturing area.

120. Based on testing conducted by Chemours, the company has determined that it released approximately 2,302 pounds of GenX compounds in 2017. This includes both process emissions and indoor and outdoor equipment leaks.

121. These emissions are contaminating surface water, groundwater, and drinking water sources.

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<sup>15</sup> *Id.*

<sup>16</sup> *Id.* at 36.

122. Chemours' violation of its Toxic Substances Control Act Consent Order has harmed members of Cape Fear River Watch. Because of the pollution, members have avoided drinking water from the river and limited their fishing, swimming, and paddling in the Cape Fear River downstream of the Chemours Fayetteville Works Facility.

123. From 2009 to 2018, neither Chemours nor DuPont installed any air pollution controls that would recover or capture GenX compounds.

124. In May 2018, Chemours installed carbon adsorption bed technology at the Facility, which it stated would remove only 40 percent of the company's PFAS emissions.

125. Chemours has failed, and continues to fail, to "recover and capture (destroy) or recycle" GenX and HFPO Dimer Acid Ammonium Salt air emissions "at an overall efficiency of 99%" in violation of its Toxic Substances Control Act Consent Order.

### **REQUEST FOR RELIEF**

Plaintiffs respectfully request that the Court:

126. Declare that Chemours Company FC, LLC violated the U.S. Environmental Protection Agency's Consent Order for the chemicals with Toxic Substances Control Act Pre-manufacture Notice Numbers P-08-508 and P-08-509;

127. Enter appropriate preliminary and permanent injunctive relief to ensure that the Chemours Company FC, LLC immediately recover and capture 99% of its emissions containing the chemicals with Toxic Substances Control Act Pre-manufacture Notice Numbers P-08-508 and P-08-509;

128. Declare that Chemours Company FC, LLC violated the Clean Water Act with its ongoing discharges to surface waters on and adjacent to the Facility;

129. Declare that Chemours Company FC, LLC violated its NPDES permit by allowing and causing removed substances to contaminate waters of the state, by failing to take all reasonable steps to minimize or prevent discharges in violation of its Permit with a reasonable likelihood of adversely affecting human health or the environment, by failing to properly operate and maintain the Fayetteville Works Facility, and otherwise violating prohibitions and requirements of its Permit;

130. Enter appropriate preliminary and permanent injunctive relief to ensure that the Chemours Company FC, LLC prevents discharges to waters of the United States including, but not limited to, discharges to the Cape Fear River, Willis Creek, or Georgia Branch;

131. Assess civil penalties against the Chemours Company FC, LLC of up to \$37,500 per violation per day for each violation of the Clean Water Act occurring on or before November 2, 2015, and \$52,414 per violation per day for each violation of the Clean Water Act occurring after November 2, 2015, pursuant to 33 U.S.C. §§ 1319(d), 1365(a); 74 Fed. Reg. 626, 627 (Jan. 7, 2009); and 82 Fed. Reg. 3633 (January 12, 2017);

132. Assess civil penalties against the Chemours Company FC, LLC of up to \$37,500 per violation per day for each violation of the Toxic Substances Control Act occurring on or before November 2, 2015, and \$38,114 per violation per day for each violation of the Toxic Substances Control Act occurring after November 2, 2015, pursuant to 15 U.S.C. §§ 2615, 2619(a); 74 Fed. Reg. 626, 627 (Jan. 7, 2009); and 82 Fed. Reg. 3633 (January 12, 2017);

133. Award Cape Fear River Watch its reasonable fees, costs, and expenses, including attorneys' fees, associated with this litigation; and

134. Grant Cape Fear River Watch such further and additional relief as the Court may deem just and proper.

Respectfully submitted this 29th day of August, 2018.

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