#### STATE OF SOUTH CAROLINA IN THE COURT OF COMMON PLEAS COUNTY OF RICHLAND FIFTH JUDICIAL CIRCUIT THE STATE OF SOUTH CAROLINA, ex. *rel*. Alan M. Wilson, in his official capacity as Attorney General of the State of South Carolina. Plaintiff, VS. Civil Action No.: 2023-CP-40-3M COMPANY (f/k/a Minnesota Mining and **SUMMONS** Manufacturing Co.); BUCKEYE FIRE (JURY TRIAL REQUESTED) EQUIPMENT COMPANY; CHEMGUARD, INC.; CORTEVA, INC.; DUPONT DE NEMOURS, INC.; EIDP, INC. (f/k/a E.I. DUPONT DE **NEMOURS** AND

THE

Defendants.

COMPANY); NATIONAL FOAM, INC.;

CHEMOURS COMPANY FC, LLC; and

COMPANY;

CHEMOURS

TYCO FIRE PRODUCTS LP.

THE

#### TO: THE ABOVE-NAMED DEFENDANTS:

YOU ARE HEREBY SUMMONED and required to Answer the Complaint in the abovecaptioned matter, a copy of which is served upon you, and to serve a copy of your Answer upon undersigned counsel for the Plaintiff at the OFFICE OF THE ATTORNEY GENERAL OF SOUTH CAROLINA at Post Office Box 11549, Columbia, South Carolina 29211, within thirty (30) days of service, exclusive of the date of service. If you fail to respond to this Complaint within the time prescribed above, judgment by default will be rendered against you for the relief demanded in the Complaint.

> <u>s/ Alan M. Wilson</u> ALAN M. WILSON (SC Bar No. 71754) Attorney General of South Carolina W. JEFFREY YOUNG (SC Bar No. 5747) Chief Deputy Attorney General

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ATTORNEYS FOR PLAINTIFF

Columbia, South Carolina October 17, 2023

# Civil Action No.: 2023-CP-40-FIRE **COMPLAINT** (JURY TRIAL REQUESTED) AND THE

STATE OF SOUTH CAROLINA

#### COUNTY OF RICHLAND

THE STATE OF SOUTH CAROLINA, ex. rel. Alan M. Wilson, in his official capacity as Attorney General of the State of South Carolina,

Plaintiff,

vs.

3M COMPANY (f/k/a Minnesota Mining and Manufacturing Co.): BUCKEYE EQUIPMENT COMPANY; CHEMGUARD, INC.; CORTEVA, INC.; DUPONT DE NEMOURS, INC.; EIDP, INC. (f/k/a E.I. DUPONT **NEMOURS** DE COMPANY); NATIONAL FOAM, INC.; CHEMOURS COMPANY; THE CHEMOURS COMPANY FC, LLC; and TYCO FIRE PRODUCTS LP

Defendants.

The State of South Carolina, by and through its Attorney General Alan M. Wilson ("Plaintiff" or the "State"), as trustee of State natural resources, as owner of State property, and in its parens patriae capacity on behalf of its citizens, makes the following allegations against Defendants 3M Company (f/k/a Minnesota Mining and Manufacturing Co.); Buckeye Fire Equipment Company; Chemguard, Inc.; Corteva, Inc.; DuPont de Nemours, Inc.; EIDP, INC. (f/k/a E. I. DuPont De Nemours and Company); National Foam, Inc.; The Chemours Company; The Chemours Company FC, LLC; and Tyco Fire Products LP (individually and as successor-in-interest to The Ansul Company), (collectively, "Defendants").

#### IN THE COURT OF COMMON PLEAS

#### FIFTH JUDICIAL CIRCUIT

#### **INTRODUCTION**

1. The State of South Carolina brings this action to protect and restore the State's natural resources and environment from contamination caused by the Defendants' manufacture, sale, distribution, and use of aqueous film-forming foam (AFFF) products. South Carolina's natural resources are vital to the State's citizens and economy.

2. Defendants are manufacturers and distributors of Aqueous Film Forming Foam ("AFFF"), a firefighting foam that contains per- and polyfluoroalkyl substances ("PFAS"). AFFF historically contained perfluorooctane sulfonate (PFOS) and its chemical relatives, many formulations still contain perfluorooctanoic acid (PFOA) and other PFAS-family compounds, and modern formulations contain varying types of PFAS and may contain PFOA as a manufacturing byproduct.<sup>1</sup> AFFF is commonly used at firefighting training centers, airports, ship and shore installations, and other places where fire may greatly endanger human life and property.

3. PFAS are a group of man-made, long chain carbon compounds known as "forever chemicals" due to their resistance to biodegradation and their propensity to bioaccumulate and biomagnify. PFAS spread quickly because they easily dissolve in water, and they persist in the environment because they have strong and stable carbon-fluorine bonds that resist natural degradation processes. Once present in the environment, PFAS are difficult and costly to remove and present health hazards to humans and animals.

4. PFAS contamination in South Carolina presents a serious threat to public health. PFAS are toxic to humans, even at extremely low levels (measured in parts per trillion, or ppt). PFAS exposure through contaminated food or drinking water is associated with numerous adverse

<sup>&</sup>lt;sup>1</sup> Aqueous Film Forming Foam (AFFF), ALASKA DEPARTMENT OF ENVIRONMENTAL CONSERVATION,

https://dec.alaska.gov/spar/csp/pfas/firefighting-foam/ (last accessed August 21, 2023); *Firefighting Foams*, INTERSTATE TECHNOLOGY REGULATORY COUNCIL (ITRC), available at https://pfas-1.itrcweb.org/3-firefighting-foams/ (last accessed August 23, 2023).

health effects, including high cholesterol, increased liver enzymes, decreased vaccination response, thyroid disorders, pregnancy-induced hypertension, preeclampsia, and testicular and kidney cancer.

5. On June 15, 2022, the Environmental Protection Agency ("EPA") lowered the Health Advisory Limits for PFOA and PFOS. The new interim Health Advisory Limits are .004 ppt for PFOA and .02 for PFOS. In March 2023, the EPA released proposed drinking water standards for PFOA, PFOS, PFNA, PFHxS, GenX, and PFBS pursuant to the Safe Water Drinking Act. *See*, 8 Fed. Red. 18638 (Mar. 29, 2023). At that time, the EPA proposed to establish Maximum Contaminant Levels ("MCLs") for PFOA and PFOS at 4 ppt, which is the lowest amount that can be reliably measured based on currently available technologies.

6. The South Carolina Department of Health and Environmental Control ("DHEC") has not developed an independent health advisory for PFOA, PFOS, PFNA, PFHxS, GenX, PFHpA or PFBS, but defers to the EPA's health advisories and proposed Maximum Contaminant Levels ("MCLs") under the Safe Drinking Water Act, which are enforceable drinking water standards. Additionally, DHEC relies upon the EPA's regional screening levels ("RSLs") and Regional Removal Management Levels ("RMLs").

7. DHEC recently launched an investigation of PFAS contamination throughout the State. Through the investigation, DHEC has discovered that PFAS contamination is ubiquitous, having been found in most environmental media, including soil and sediment, groundwater, surface water, and biota.

8. People and animals can suffer exposure to harmful PFAS through ingestion, inhalation, and surface contact.<sup>2</sup>

<sup>&</sup>lt;sup>2</sup> See Katherine E. Pelch, et al., *PFAS Health Effects Database: Protocol for a Systematic Evidence Map*, 130 ENVIRONMENTAL INTERNATIONAL 104861, (September 2019), available at

https://www.sciencedirect.com/science/article/pii/S0160412019305380 (last accessed September 25, 2023) (providing a summary of currently available scientific research on health effects related to PFAS through both an article and a live web-database, PFASToxDatabase, sponsored by The Endocrine Disruption Exchange).

9. The State believes runoff and wastewater discharge from sites using AFFF is a significant contributing factor in the widespread contamination found across South Carolina, and that PFAS-containing AFFF is more likely than not the cause of PFAS chemicals' presence found in samples collected from the direct vicinity of sites where AFFF is and has been used.

10. For decades, Defendants profited from the formulation, manufacture, sale, and distribution of AFFF to known destinations in South Carolina and Defendants' products have contaminated South Carolina's natural resources and property.

#### **SCOPE OF ACTION**

11. Plaintiff brings this action to recover any and all past and future compensatory and/or consequential damages for the investigation, remediation, removal, disposal, treatment, and monitoring of the ongoing contamination of its natural resources and property, including groundwater, surface water, lands and water sources, water supplies, treatment system, piping and distribution system, infrastructures, facilities, and properties caused and/or created by Defendants' AFFF products, and the reduction in value, use, and enjoyment of these resources and property. The State seeks injunctive relief to prevent further contamination and civil penalties to deter Defendants from engaging in this conduct in the future. The State also seeks punitive damages for the Defendants' egregious conduct, attorneys' fees and costs, as well as any and all other damages available as a result of the actions and/or inactions of Defendants.

12. <u>This action is specifically confined to the recovery of damages as a result of AFFF</u> <u>contamination and does not attempt to address or seek damages caused by other forms of PFAS</u> <u>pollution</u>. <u>Discovery, coupled with facts already known about the distribution and use of AFFF,</u> <u>will allow Plaintiff to draw this distinction to the appropriate legal standards.</u>

13. This matter does <u>not</u> involve any PFAS contamination at issue in the matter of the *State of South Carolina v. 3M Company, et. al.*, 2023-CP-40-04111, currently pending in the Court

of Common Pleas for Richland County. Plaintiff has identified different contamination at distinct sites in each action. The contamination and sites at issue in this Complaint are distinct from those sites at issue in the other action and some of the Defendants named in this Complaint are distinct from those named in the other pending action.

#### PARTIES

#### PLAINTIFF

14. Plaintiff is the State of South Carolina, as represented by and through Alan M. Wilson, the Attorney General of the State of South Carolina, with its principal office at 1000 Assembly Street, Columbia, SC 29201.

15. The State brings this action in its capacity as sovereign, as trustee of State natural resources, and as owner of property (or of substantial interests in property) contaminated and injured by Defendants, and pursuant to its authority to protect the public interest.

16. The State also brings this action based upon its statutory authority to protect State natural resources and property, and its common law police power. This power includes, but is not limited to, its power to prevent pollution of the State's natural resources and property, to prevent nuisances, and to prevent and abate hazards to public health, safety, welfare, and the environment.

17. In this Complaint, the term "State's natural resources and property" refers to all natural resources or property for which the State seeks damages, which may include fish, wildlife, biota, air, surface water, groundwater, wetlands, drinking water supplies, State-held public lands, and State-owned lands.

#### DEFENDANTS

18. Upon information and belief, at all times relevant to this action, the following Defendants designed, manufactured, formulated, marketed, distributed, sold, and/or assumed or acquired liabilities for the manufacture and/or sale of AFFF products that each Defendant knew or

should have known would be placed in commerce or otherwise used and subsequently contaminate South Carolina's natural resources and property.

19. Defendant **3M Company** (f/k/a Minnesota Mining and Manufacturing Company) ("3M") is a Delaware corporation authorized to conduct business in South Carolina, with its principal place of business located at 3M Center, St. Paul, Minnesota 55144. Upon information and belief, 3M is the only company that manufactured and/or sold AFFF containing PFOS in the United States, including South Carolina. 3M's PFAS-containing AFFF products, which it designed, formulated, manufactured, marketed, transported, and sold, were stored, used, handled, trained with, used in testing, spilled, or otherwise discharged into South Carolina's environment, ultimately contaminating the State's natural resources and property.

20. Defendant EIDP, Inc. (f/k/a E. I. DuPont De Nemours and Company) ("Old DuPont") is a Delaware corporation with its principal place of business located at 974 Centre Road, Wilmington, Delaware 19805. Old DuPont is registered to do business in South Carolina. Upon information and belief, Old DuPont designed, formulated, manufactured, marketed, promoted, distributed, and/or sold fluorochemicals and/or fluorosurfactants containing PFAS used to manufacture AFFF that was transported, stored, used, handled, trained with, used in testing, spilled, or otherwise discharged into South Carolina's environment, ultimately contaminating the State's natural resources and property.

21. Defendant **The Chemours Company** ("Chemours") is a Delaware corporation with its principal place of business located at 1007 Market Street, Wilmington, DE 19899. Chemours is registered to do business in the State of South Carolina. Upon information and belief, Chemours' AFFF products contaminate South Carolina's natural resources and property.

22. In 2015, Old DuPont spun off its "performance chemicals" business to Chemours, along with certain environmental liabilities.

23. Defendant **The Chemours Company FC, LLC** ("Chemours FC"), successor-ininterest to DuPont Chemical Solutions Enterprise, is a Delaware limited liability company with its principal place of business located at 1007 Market Street Wilmington, DE, 19899. Chemours FC is registered to do business in South Carolina. Upon information and belief, Chemours FC's AFFF products contaminate South Carolina's natural resources and property.

24. The Chemours Company and The Chemours Company FC, LLC are collectively referred to throughout this Complaint as "Chemours."

25. In August 2017, Old DuPont merged with The Dow Chemical Company to create DowDuPont Inc. ("DowDuPont"). Old DuPont and The Dow Chemical Company each merged with wholly-owned subsidiaries of DowDuPont and, as a result, became subsidiaries of DowDuPont. Since that time, DowDuPont has effected a series of separation transactions to separate its businesses into three independent, publicly traded companies for each of its agriculture, materials science, and specialty products businesses.

26. Defendant **Corteva**, **Inc.** ("Corteva") is a Delaware corporation with its principal place of business located at 974 Centre Road, Wilmington, DE 19805. In 2019, New DuPont (DuPont de Nemours, Inc.) spun off Corteva as a new publicly traded company, which currently holds Old DuPont (EIDP, Inc.) as a subsidiary. Upon information and belief, in connection with these transfers, Corteva assumed certain Old DuPont liabilities – including those related to AFFF. Corteva was registered to do business in South Carolina until it was administratively dissolved in 2021.

27. Defendant **DuPont de Nemours, Inc. (f/k/a/ DowDuPont, Inc.)** ("New DuPont") is a Delaware corporation with its principal place of business located at 974 Centre Road, Building 730, Wilmington, DE 19805. On June 1, 2019, DowDuPont, the surviving entity after the spinoff of Defendant Corteva and of another entity known as Dow, Inc., changed its name to DuPont de Nemours, Inc., to be known as DuPont ("New DuPont"). New DuPont retained assets in the specialty products business lines following the above-described spinoffs, as well as the balance of the financial assets and liabilities of Old DuPont not assumed by Corteva. Moreover, New DuPont is registered to do business in the State of South Carolina. Upon information and belief, New Dupont's AFFF products contaminate South Carolina's natural resources and property.

28. Defendants EIDP, Inc.; The Chemours Company; The Chemours Company FC, LLC; Corteva, Inc.; and DuPont de Nemours, Inc. are collectively referred to as "DuPont" throughout this Complaint.

29. Defendant **Tyco Fire Products LP** ("Tyco") is a Delaware limited partnership with its principal place of business at 1400 Pennbrook Parkway, Lansdale, PA 19446. Tyco acquired Defendant Chemguard in 2011. Tyco is registered to do business in South Carolina and, upon information and belief, its AFFF products contaminate South Carolina's natural resources and property.

30. Tyco is the successor-in-interest to The Ansul Company ("Ansul") and manufactures the Ansul brand of products (Ansul and/or Tyco as the successor-in- interest to Ansul will be referred to collectively as "Tyco/Ansul"). Upon information and belief, Tyco/Ansul avails itself of doing business in South Carolina, and its AFFF products contaminate South Carolina's natural resources and property.

31. Defendant **Chemguard, Inc.** ("Chemguard") is a Texas corporation with its principal place of business located at One Stanton Street, Marinette, Wisconsin 54143. Upon information and belief, Chemguard avails itself of doing business in South Carolina and Chemguard's AFFF products contaminate South Carolina's natural resources and property. Johnson Controls is Chemguard's parent company, through Johnson Controls' parentage of Defendant Tyco.<sup>3</sup>

<sup>&</sup>lt;sup>3</sup> Press Release, Tyco International to Acquire Chemguard, Inc., a Leading Provider of Fire Suppression Products and

32. Upon information and belief, Chemguard acquired Williams Fire and Hazard Control, Inc. ("WFHC"). Upon information and belief, WFHC has and continues to sell and/or distribute AFFF in South Carolina and its AFFF products contaminate South Carolina's natural resources and property.

33. Defendant **National Foam, Inc.** ("National Foam") is a Delaware corporation with its principal place of business located at 141 Junny Road, Angier, North Carolina 27501. National Foam, Inc. is a subsidiary of Angus International Safety Group, Ltd. Upon information and belief, National Foam, Inc. manufactures the Angus brand of AFFF products. Upon information and belief, National Foam, Inc. has availed itself of doing business in South Carolina and its AFFF products contaminate South Carolina's natural resources and property.

34. Defendant **Buckeye Fire Equipment Company** ("Buckeye") is an Ohio corporation with its principal place of business at 110 Kings Road, Mountain, North Carolina 28086. Buckeye is registered to do business in South Carolina and, upon information and belief, its AFFF products contaminate South Carolina's natural resources and property.

35. All Defendants and/or their predecessors or successors in liability: (a) designed, manufactured, formulated, promoted, marketed, sold, and/or otherwise supplied (directly or indirectly) AFFF containing PFAS that were delivered into areas affecting the State's natural resources and property, such that AFFF has contaminated, injured, and threatens the State's natural resources and property; (b) acted with actual or constructive knowledge that AFFF containing PFAS would be delivered into areas affecting the State's natural resources and property; (c) are legally responsible for and committed each of the multiple tortious and wrongful acts alleged in this Complaint; and (d) promoted AFFF containing PFAS, despite the availability of reasonable

*Specialty Chemicals*, CISION PR NEWSWIRE (July 19, 2011), available at https://www.prnewswire.com/news-releases/tyco-international-to-acquire-chemguard-inc-a-leading-provider-of-fire-suppression-products-and-specialty-chemicals-125804493.html (last accessed September 26, 2023).

alternatives and their actual or constructive knowledge that the pollution alleged in this Complaint would be the inevitable result of their conduct.

36. All references to a Defendant or Defendants in this Complaint include any predecessors, successors, parents, subsidiaries, affiliates and divisions of the named Defendants.

37. When the term "Defendants" is used alone, it refers to all Defendants named in this Complaint jointly and severally. When reference is made to any act or omission of a Defendant, it shall be deemed to mean that the officers, directors, agents, employees, or representatives of the Defendant committed or authorized such act or omission, or failed to adequately supervise or properly control or direct their employees while engaged in the management, direction, operation or control of the affairs of the Defendant, and did so while acting within the scope of their employment or agency.

#### JURISDICTION AND VENUE

38. The State of South Carolina has the authority and responsibility to protect, conserve, and manage State natural resources for present and future generations of South Carolinians. To that end, the State brings this action to ensure the Defendants, who knowingly and intentionally contaminated the State of South Carolina with their toxic chemicals, bear the costs of AFFF contamination clean-up, rather than the State and its taxpayers.

39. Accordingly, the State brings this action, by and through its Attorney General in its sovereign capacity, to protect the interests of the State and its citizens. The Attorney General brings this action pursuant to his constitutional, statutory, and common law authority, including the authority granted to him by the State of South Carolina Unfair Trade Practices Act.

40. Plaintiff, the State of South Carolina, through its Attorney General, is the appropriate party to bring this action to protect and preserve natural resources, establish a uniform statewide plan for addressing contamination caused by AFFF, and establish a means and method to recover,

store, and distribute funds retrieved from the Defendants who profited from activity that inevitably led to damage to the State of South Carolina.

41. This Court may exercise jurisdiction over Defendants because they either are or at the relevant times were: authorized to do business in South Carolina, registered with the South Carolina Secretary of State, transacting sufficient business with sufficient minimum contacts in South Carolina, or otherwise intentionally availing themselves of the South Carolina market through the manufacturing, marketing, distribution, and/or sale of AFFF products in South Carolina so as to satisfy minimum contacts and to render the exercise of jurisdiction over Defendants by the South Carolina courts consistent with traditional notions of fair play and substantial justice.

42. Venue is proper in this Court because the State is the plaintiff, and the State's natural resources and property have been contaminated, injured, and damaged by Defendants' AFFF contamination in Richland County and other counties throughout the State.

#### STATEMENT OF FACTS

#### AFFF HISTORY, DEVELOPMENT, AND CHARACTERISTICS

43. Aqueous film forming foam (AFFF) was developed in the 1960s to fight very hot and dangerous fires, commonly those with liquid fuel sources, known as Class B fires.

44. AFFF is predominantly used, stored at, and transported to and from places that are likely to suffer liquid fuel-based fires, like airports, military sites, chemical facilities, and firefighting training centers.

45. At a basic level, PFAS, which are created by bonding fluorine and carbon atoms in a chain, react with other AFFF ingredients to form a film that sits between the air and the combustible liquid, suffocating the fire and preventing the fuel from spreading. Fluorinated surfactants (PFAS) are used in AFFF because they reduce surface tension, helping the foam suffocate the fire.

46. The carbon-fluorine bond is very strong, which makes AFFF an efficient firefighting

agent, but also makes PFAS chemicals resistant to biodegradation, highly water soluble, easily mobile in the environment, and easily able enter sediments and organisms, moving up the food chain and bioaccumulating.

47. Some PFAS, known as C8, have eight carbon atoms in the chain and are now understood to be environmentally persistent and toxic to organisms. Other PFAS, C6, have six carbon atoms in the chain. Science is developing that shows C6 behaves similarly to C8 in the environment and may be similarly toxic.<sup>4</sup>

48. AFFF containing PFAS came into widespread usage before the public and consumers became aware of the associated health risks, however, the Defendants were aware of health risks long before regulators and the public.

49. The United States Department of Defense maintains Military Specification MIL-F-24385F ("MilSpec"), which is under the control of the Navy, as a performance standard for AFFF products required to be used at military installations, onboard ships, and in other government uses.<sup>5</sup>

50. AFFF meeting the MilSpec is commonly used in civilian applications at airports, industrial facilities, and other civilian locations subject to Class B fires.

51. The AFFF products designed, manufactured, marketed, distributed, and/or sold by Defendants contain or did contain PFOS, PFOA, or chemical precursors, derivatives, or related PFAS chemicals resulting from manufacturing and product usage.

#### **3M'S ROLE IN AFFF CONTAMINATION**

52. AFFF came onto the market in the early 1960s and was developed by the Department

<sup>&</sup>lt;sup>4</sup> *Guidance Leaflet: PFOA in Fire-Fighting Foams*, ENVIRONMENTAL PROTECTION AGENCY OF IRELAND, available at https://www.epa.ie/publications/monitoring--assessment/waste/65203287-PFOA-EPA-Factsheet-Final.pdf (last accessed August 23, 2023); *The Science: Types of PFAS*, FIDRA, available at https://www.pfasfree.org.uk/about-pfas/pfas-science-the-basics#:~:text=PFOA%20and%20PFOS%2C%20are%20'long,as%20the%20ones%20they%20replace (last accessed August 23, 2023).

<sup>&</sup>lt;sup>5</sup> Ronald S. Sheinson, et al., *The Future of Aqueous Film Forming Foam (AFFF): Performance Parameters and Requirements*, NAVAL RESEARCH LABORATORY AND NAVAL SEA SYSTEMS COMMAND, U.S. DEPT. OF DEFENSE, available at https://www.nist.gov/system/files/documents/el/fire\_research/R0201327.pdf (last accessed August 23, 2023).

of Defense and 3M, using 3M's PFOS as an ingredient.

53. PFOS and its chemical precursors were manufactured using 3M's patented electrochemical fluorination process ("ECF").<sup>6</sup> The ECF process creates a product that includes PFOS, among other PFAS.<sup>7</sup> The PFAS are added to preservatives and other ingredients to form a concentrate that, when mixed with water, foams.

54. 3M was the only Defendant to make AFFF containing PFOS, marketed as "Light Water," and did so from the 1960s until it stopped producing that formulation in 2002 after pressure from the EPA.<sup>8</sup>

55. For decades, 3M manufactured, designed, marketed, distributed, and sold AFFF and the raw materials for production of AFFF within the United States, including in South Carolina. Chemicals known to appear in 3M's AFFF products contaminate the State of South Carolina.

#### **DUPONT AND OTHER DEFENDANTS' ROLES IN AFFF CONTAMINATION**

56. All AFFF formulations other than 3M's contain PFAS created through telomerization, rather than ECF. Telomerization produces fluorotelomer PFAS that are chemical precursors to and may degrade into PFOA.<sup>9</sup> These long-chain (C8) formulations have largely been replaced with short-chain formulations (C6) (known as "modern fluorotelomer foams") that still contain PFAS and may contain low levels of PFOA as a manufacturing byproduct.<sup>10</sup>

<sup>&</sup>lt;sup>6</sup> Simons, J. H., *Electrochemical Process of Making Fluorine-Containing Carbon-Compounds*, U.S. PATENT OFFICE, Patent No. 2,519,983 (August 22, 1950), available at

https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1010.pdf.

<sup>&</sup>lt;sup>7</sup> See ITRC, supra note 1.

<sup>&</sup>lt;sup>8</sup> See id. See also Lauren Kirchner, Massive Court Case Suggests 'Forever Chemical' Manufacturers Hid Health Risks for Decades, CONSUMER REPORTS (updated June 23, 2023), available at https://www.consumerreports.org/toxic-chemicals-substances/case-suggests-forever-chemical-manufacturers-hid-health-risk-a8896667936/ (last accessed August 23, 2023); Press Release, EPA and 3M Announce Phase Out of PFOS, EPA (May 16, 2000), available at https://www.epa.gov/archive/epapages/newsroom\_archive/newsreleases/33aa946e6cb11f35852568e1005246b4.html (last accessed August 23, 2023).

<sup>&</sup>lt;sup>9</sup> See ITRC, supra note 1.

<sup>&</sup>lt;sup>10</sup> See id. See also Marzeih Shojaei, et al., Novel Per- and Polyfluoroalkyl Substances in an Active-Use C6-Based Aqueous Film Forming Foam, 3 J. HAZARDOUS MATERIALS LETTERS 100061 (November 2022), available at https://doi.org/10.1016/j.hazl.2022.100061 (last accessed September 26, 2023).

57. Although C6 was promoted as less dangerous than C8, C6 foams still contain PFAS that can contaminate the environment and cause health problems.<sup>11</sup>

58. Upon information and belief, between the mid-1960s and 2016, National Foam formulated, manufactured, marketed, sold, and transported in commerce various AFFF formulations, including fluoroprotein foam and alcohol-resistant foam, all of which contained C8 PFAS variants that have been discovered in South Carolina. In 2016, National Foam transitioned to C6 formulations, which still contain PFAS that pose a risk to the environment.<sup>12</sup>

59. Tyco/Ansul manufactured, designed, marketed, distributed, and/or sold AFFF containing PFOA and/or its chemical precursors within the United States, including South Carolina.<sup>13</sup>

60. Upon information and belief, by the late 1970s, Tyco/Ansul was aware of its AFFF products' toxicity.

61. Upon information and belief, by the 1980s, Chemguard began to manufacture, design, market, distribute, and/or sell AFFF containing PFOA and/or its chemical precursors within the United States, and fluorosurfactants containing PFOA and/or its chemical precursors for use in the production of AFFF within the United States, including South Carolina.

62. Upon information and belief, by the 1990s, Buckeye began to manufacture, design, market, distribute, and/or sell AFFF containing PFOA and/or its chemical precursors within the United States, including South Carolina.

63. Upon information and belief, Class B fire suppressants can be made without PFOA,

<sup>&</sup>lt;sup>11</sup> See ITRC, supra note 1.

<sup>&</sup>lt;sup>12</sup> See History, NATIONAL FOAM, available at https://nationalfoam.com/about-us/history/ (last accessed August 24, 2023). <sup>13</sup> Press Release, *Tyco Fire Protection Products to Exit Fluorinated Firefighting Foam (AFFF) Market by June 2024*,

JOHNSON CONTROLS (July 18, 2023), available at https://www.johnsoncontrols.com/media-center/news/pressreleases/2023/07/18/tyco-fire-protection-products-to-exit-fluorinated-firefighting-foam-afff-market-by-june-2024 (last accessed September 26, 2023).

PFOS, or their precursor chemicals. Fluorine-free foams do not release PFOA, PFOS, and/or their precursor chemicals into the environment.

64. Use of Defendants' AFFF products allowed PFOA, PFOS, and/or their precursor chemicals to enter into and onto the State's natural resources and property. These compounds migrated through the subsurface and into the groundwater, thereby ultimately contaminating the surface water, soil, sediment, and groundwater as well as causing other extensive and ongoing damage to the State's natural resources and property.

65. These chemicals have caused and continue to cause injury and damage to the State's natural resources and property.

## THE DEFENDANTS WERE AWARE OF THE DANGERS AFFF CHEMICALS PRESENT TO HUMAN HEALTH AND THE ENVIRONMENT.

66. 3M knew PFAS chemicals in AFFF were dangerous and failed to properly inform regulators and consumers.

67. Among Defendants, 3M exclusively manufactured PFOS, which was the primary PFAS used in its AFFF formulations from the 1960s through 2002. PFOA and its related chemicals also appeared in 3M's AFFF formulations during that time.

68. 3M marketed and sold AFFF products throughout the United States, including in South Carolina.

69. 3M supplied AFFF to third parties for use at sites throughout the State of South Carolina.

70. Upon information and belief, 3M was aware as early as the 1950s of PFAS contamination and accumulation in surface and groundwater, accumulation in and toxicity to humans and animals, and general resistance to biodegradation.

71. Upon information and belief, in the 1970s, 3M was aware of toxicology testing of its

"Light Water" line of PFAS-containing AFFF which caused fish to drown and was otherwise so hazardous to marine life that the test program was abandoned to avoid severe local stream pollution.<sup>14</sup>

72. Throughout the mid and late 1900s, 3M actively researched and concealed knowledge of PFAS hazards from the public and government, until, in 2002, upon pressure from the EPA, 3M phased out its AFFF products line.

73. However, as recently as 2018, 3M continued to claim publicly and falsely that PFAS is not hazardous or toxic to the environment or human health.

74. In the 1970s, 3M began monitoring the blood of its employees for PFAS because 3M was concerned about the health effects of PFAS, and in 1976, confirmed that PFAS chemicals were in fact in its workers' blood.<sup>15</sup>

75. In 1975, 3M found PFOA to have a "'universal' presence" in its human plasma in samples taken from several locations in the United States.<sup>16</sup>

76. Since PFOA is not naturally occurring, these findings in the human body reasonably should have alerted 3M that its AFFF products were likely dangerous to humans—a possibility that 3M considered internally but did not share outside the company.

77. These findings also should have alerted 3M that PFOA is mobile, persistent, bioaccumulative, and biomagnifying, as those characteristics would explain the presence of PFOA in blood from 3M's products.

<sup>&</sup>lt;sup>14</sup> Correspondence from S.I. Kalkstein, President of Chemical Concentrates Corporation, to the National Fire Protection Association (June 15, 1970), available at https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1083.pdf (last accessed August 28, 2023) (3M and DuPont were members of the National Fire Protection Association).

<sup>&</sup>lt;sup>15</sup> Interoffice Correspondence from L. C. Krogh to J.D. La Zerte re: Presentation to Corporate Responsibility Committee on Progress – Fluorochemicals in Blood, 3M (October 19, 1977), available at

https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1145.pdf (last accessed August 24, 2023).

<sup>&</sup>lt;sup>16</sup> G.H. Crawford to L.C. Krogh et al., *Record of a Telephone Conversation with William Guy of The University of Florida re: Fluorocarbon in Blood Samples from Texas and New York*, 3M (August 20, 1975), available at https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1118.pdf (last accessed August 24, 2023).

78. In 1978, 3M studied, and independent experts confirmed, the risks of PFAS. A 3M internal report from 1978 warned that PFOS and PFOA "are likely to persist in the environment for extended periods." That same study found that two common PFAS compounds, including PFOA, were found "to be completely resistant to biodegradation" under the test conditions.<sup>17</sup>

79. Results of a 90-day animal study conducted by 3M in 1978 indicated that PFAS "should be regarded as toxic," and those aware of the results "urgently recommended that all reasonable steps be taken immediately to reduce exposure of employees to these compounds."<sup>18</sup>

80. Despite these warnings and recommendations, 3M decided not to disclose the findings of its investigation.

81. A 1979 memo from M.T. Case, a former employee within 3M's medical department in Corporate Toxicology and Regulatory Services, stated that he believed it "paramount to begin now an assessment of the potential (if any) of long term (carcinogenic) effects for these compounds which are known to persist for a long time in the body and thereby give long-term chronic exposure."<sup>19</sup>

82. At a meeting among 3M employees in June 1979 discussing the "Fluorochemicals in Blood Program," an outside researcher named Dr. H.C. Hodge recommended that "[r]eduction in exposure [of 3M employees to fluorochemicals] should have top priority," that further testing be conducted, and that "[i]t should be determined if FC-807 [a PFAS chemical marketed in the Scotchban family and related to those appearing in AFFF] or its metabolites are present in man,

<sup>&</sup>lt;sup>17</sup> Technical Report Summary, *Biodegradation Studies of Fluorocarbons - III* by Reiner to Bacon, 3M (July 19, 1978), available at https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1179.pdf (last accessed August 24, 2023).

<sup>&</sup>lt;sup>18</sup> Interoffice Correspondence from Prokop re: Meeting Minutes - Review of Animal Studies, 3M (May 17, 1978), available at https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1174.pdf (last accessed August 24, 2023).

<sup>&</sup>lt;sup>19</sup> Riker Laboratories Interoffice Correspondence from M. T. Case to R. A. Nelson re: Fluorochemical Chronic Toxicity, 3M (July 6, 1979), available at https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1212.pdf (last accessed August 24, 2023).

what level they are present, and the degree of persistence (half-life) of these materials."<sup>20</sup>

83. In 1983, 3M scientists concluded that test results on PFAS "give rise to concern for environmental safety," including "legitimate questions about the persistence, accumulation potential, and ecotoxicity of fluorochemicals in the environment."<sup>21</sup>

84. In a December 1988 email, a 3M employee stated, "I don't think it is in 3M's longterm interest to perpetuate the myth that these fluorochemical surfactants are biodegradable. It is probable that this misconception will eventually be discovered, and when that happens, 3M will likely be embarrassed, and we and our customers may be fined and forced to immediately withdraw products from the market."<sup>22</sup>

85. In 1997, 3M provided DuPont with a Material Safety Data Sheet for FC-118 Fluorad Brand Fluorochemical Surfactant, which included a warning that stated: "CANCER: WARNING: Contains a chemical which can cause cancer. (3825-26-1) (1983 and 1993 studies conducted jointly by 3M and DuPont).<sup>23</sup> While FC-118 was not, Plaintiff believes, a chemical used in AFFF, it is a PFAS related to those appearing in AFFF.

86. In 1998, a 3M scientist, Dr. Richard Purdy conducted a risk assessment of potential adverse effects on marine animals, like birds and the fish they consume, from PFOS in the food chain and informed 3M of his findings. Dr. Purdy concluded there was a significant risk of harm of food chain transfer, and that "the levels we are seeing in eagles and other biota is likely to climb

<sup>&</sup>lt;sup>20</sup>Interoffice Correspondence re: Meeting Minutes - Meeting with H.C. Hodge, 3M (June 7, 1979), available at https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1210.pdf (last accessed August 24, 2023).

<sup>&</sup>lt;sup>21</sup> E.A. Reiner, Ed., *Fate of Fluorochemicals - Phase II*, 3M ENVIRONMENTAL LABORATORY (May 20, 1983), available at https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1282.pdf (last accessed August 24, 2023).

<sup>&</sup>lt;sup>22</sup> Lori Swanson, Former Attorney General of Minnesota, Testimony Before the Committee on Oversight and Reform, SUBCOMMITTEE ON ENVIRONMENT, UNITED STATES HOUSE OF REPRESENTATIVES, at Exhibit H, (Sept. 10, 2019), https://www.congress.gov/116/meeting/house/109902/witnesses/HHRG-116-GO28-Wstate-SwansonL-20190910.pdf (hereinafter "Swanson Testimony").

<sup>&</sup>lt;sup>23</sup> Swanson Testimony, at 3, Exhibit A.

each year."<sup>24</sup>

87. 3M's practices were concerning to its own employees. In March 1999, 3M environmental scientist, Dr. Purdy, who had conducted the 1998 study on marine animals, resigned from 3M in a letter expressing his "profound disappointment" with "3M's handling of the environmental risks associated with the manufacture and use of" PFOS. Dr. Purdy described PFOS as "the most insidious pollutant since PCB," and stated, "it is probably more damaging than PCB because it does not degrade, whereas PCB does; it is more toxic to wildlife." Dr. Purdy described his attempts to discuss the dangers of the chemical with the company, and 3M's refusal to act. Dr. Purdy further stated that "3M continues to make and sell these chemicals though the company knows of an ecological risk assessment [he] did that indicates there is a better than 100% probability that perfluorooctanesulfonate [PFOS] is biomagnifying in the food chain and harming sea mammals...3M told those of us working on the fluorochemical project not to write down our thoughts or have email discussions on issues because of how our speculations could be viewed in a legal discovery process." Finally, Dr. Purdy stated, "I can no longer participate in the process that 3M has established for the management of PFOS and precursors. For me it is unethical to be concerned with markets, legal defensibility and image over environmental safety."25

88. 3M informed the EPA in May 1998 that PFOS had been found in the blood of animals but did not disclose the extent and concerning nature of its decades-long research on PFAS. Dr. Purdy noted that disclosure to the EPA omitted the most significant information, which was that 3M had discovered "widespread environmental contamination and food chain transfer and probable bioaccumulation and bio-magnification."<sup>26</sup>

<sup>&</sup>lt;sup>24</sup> Richard E. Purdy, *Email to Georjean Adams re: Risk to the environment due to the presence of PFOS* (Dec. 3, 1998, 11:53AM) https://static.ewg.org/reports/2019/pfa-timeline/1998\_Food-Chain.pdf (last accessed August 24, 2023).

<sup>&</sup>lt;sup>25</sup> Swanson Testimony, at Exhibit B.

<sup>&</sup>lt;sup>26</sup> Id.

89. In 2000, following pressure from the EPA, 3M announced it would phase out PFOS products and issued a press release asserting "our products are safe," citing the company's "principles of responsible environmental management" as the reason to cease production.<sup>27</sup>

90. The EPA issued a contradictory press release on the same day, stating 3M had provided data indicating PFOS "chemicals are very persistent in the environment, have a strong tendency to accumulate in human and animal tissues and could potentially pose a risk to human health and the environment over the long term."<sup>28</sup>

91. In addition to concealing its knowledge of PFAS risks, 3M controlled and distorted the scientific literature on PFAS, including, hiring "independent" scientists to publicly refute unfavorable research.<sup>29</sup>

92. In 2006, the EPA cited 3M for 244 violations of the Toxic Substances Control Act, accusing 3M of failing to notify the agency about new chemicals and of late reporting of "substantial risk information."<sup>30</sup> 3M was fined \$1.52 million for these violations.<sup>31</sup>

93. Based upon their decades of research, 3M knew or should have known that AFFF, which included PFAS on which 3M had significant information, would contaminate the environment and present a public health crisis in South Carolina.

## DUPONT KNEW PFAS CHEMICALS IN AFFF WERE DANGEROUS AND FAILED TO PROPERLY INFORM REGULATORS AND CONSUMERS.

94. DuPont's AFFF formulations were made using fluorotelomer PFAS, where PFOA was

https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1694.pdf (last accessed August 24, 2023).

<sup>&</sup>lt;sup>27</sup> Press Release, *3M Phasing Out Some of its Specialty Materials*, 3M (May 16, 2000), available at

<sup>&</sup>lt;sup>28</sup> Press Release, *EPA and 3M Announce Phase Out of PFOS*, EPA (May 16, 2000), available at

https://www.epa.gov/archive/epapages/newsroom\_archive/newsreleases/33aa946e6cb11f35852568e1005246b4.html (last accessed August 24, 2023).

<sup>&</sup>lt;sup>29</sup> Swanson Testimony, at Exhibit K.

<sup>&</sup>lt;sup>30</sup> Press Release, *3M Company Settlement*, EPA (April 25, 2006), available at https://www.epa.gov/enforcement/3m-company-settlement (last accessed August 24, 2023).

<sup>&</sup>lt;sup>31</sup> *Id*.

not an ingredient, but which contain PFOA's chemical precursors and may degrade into PFOA.

95. DuPont marketed and sold AFFF products throughout the United States, including in South Carolina.

96. DuPont supplied AFFF to third parties for use at sites throughout the State of South Carolina.

97. Although DuPont knew about the health and environmental risks of PFAS since the early science in the mid-1900s, DuPont formulated, manufactured, sold, and transported its own AFFF formulas starting in the 1970s and continuing through today.

98. Like 3M, DuPont has known for decades of the health and environmental risks of AFFF. Instead of warning the public, users, and consumers about such risks, DuPont covered up this information and promoted AFFF and PFAS-containing products as safe.

99. In approximately 1951, DuPont started using PFOA in making Teflon at its Washington Works manufacturing plant in Parkersburg, West Virginia. As early as 1954, employees at DuPont's Washington Works plant reported that C8 (another name for PFOA) might be toxic. PFOA is commonly found in AFFF formulations.

100. Upon information and belief, as early as 1966, DuPont was aware that PFOA could leach into groundwater.

101. In 1978, DuPont's Medical Director, Dr. Bruce Karrh, published an article in the Bulletin of the New York Academy of Medicine in which he acknowledged DuPont's "duty to 'to discover and reveal the unvarnished facts about health hazards...' and "that a company 'should be candid, and lay all the facts on the table. This is the only responsible and ethical way to go."<sup>32</sup>

<sup>&</sup>lt;sup>32</sup> Shannon Lerner, *The Teflon Toxin*, THE INTERCEPT (Aug. 11, 2015), available at

https://theintercept.com/2015/.08/11/dupont-chemistry-deception/ (last accessed August 25, 2023).

102. By 1979, DuPont had data indicating that its workers who were exposed to PFOA had a significantly higher frequency of health issues compared to unexposed workers but failed to report this data to any government agency or any community where it used PFOA.

103. In 1981, DuPont doctors recommended moving female employees "of childbearing potential" that handled PFOA-containing products off production lines in its Parkersburg, WV plant and other facilities.<sup>33</sup> This recommendation was based on a study 3M had reported which discovered birth defects in rats.<sup>34</sup> The DuPont doctors documented that 3M's rat studies potentially aligned with abnormal outcomes in DuPont employee pregnancies.<sup>35</sup> It was later documented that employees exposed to PFAS at the Parkersburg plant had children with birth defects at rates above the general population average.<sup>36</sup>

104. By at least the mid-1980s, DuPont was aware that "continued exposure [to PFOA] is not tolerable," and that PFOA accumulates and persists in the human body.<sup>37</sup>

105. In 1981, DuPont monitored female employees who had been exposed to PFOA to study if their children were born with abnormalities. Initial data showed that two of the eight babies born to women who worked with PFOA-containing products had eye and nostril deformities. These figures were "significant enough to suggest that C8 exposure caused the problems."<sup>38</sup> DuPont abandoned the study rather than inform regulators, its own employees, or the public.<sup>39</sup>

<sup>&</sup>lt;sup>33</sup> Dr. Frank A. Ubel, *Recommendation Regarding Fluorochemical Exposure to Females of Childbearing Potential*, DUPONT (April 17, 1981), available at https://www.ag.state.mn.us/Office/Cases/3M/docs/PTX/PTX1254.pdf (last accessed August 25, 2023); *Intraoffice Correspondence from Dr. Bruce Karrh, M.D. to C. De Martino, Ammonium Perfluorooctanoate (FC-143) C-8 Compounds*, DUPONT (March 25, 1981), available at

https://www.documentcloud.org/documents/2782027-KarrhMemo (last accessed August 25, 2023). <sup>34</sup> Karrh, *supra* note 33.

<sup>&</sup>lt;sup>35</sup> Id.

<sup>&</sup>lt;sup>36</sup> Ken Ward, Jr., *DuPont Proposed, Dropped '81 Study of C8, Birth Defects*, THE CHARLESTON GAZETTE (July 10, 2005), available at https://www.fluoridealert.org/wp-content/pesticides/2005/effect.pfos.class.news.169.html (last accessed August 25, 2023).

<sup>&</sup>lt;sup>37</sup> Lerner, *supra* note 32.

<sup>&</sup>lt;sup>38</sup> Id.

<sup>&</sup>lt;sup>39</sup> Ward, *supra* note 36.

106. In 1984, DuPont held a meeting at its corporate headquarters in Wilmington, Delaware to discuss health and environmental issues related to PFOA. The corporate managers expressed concern about "C-8 exposures off plant as well as to our customers and the communities in which they operate." The corporate managers admitted internally that "none of the options developed are … economically attractive and would essentially put the long-term viability of this business segment on the line." The DuPont corporate managers predicted that the medical and legal departments "will likely take a position of total elimination," of PFOA but instead decided that "corporate image, and corporate liability" would drive decisions about PFOA. And the corporate managers admitted that it was too late to address past liability: "Liability was further defined as the incremental liability from this point on if we do nothing as we are already liable for the past 32 years of operation."<sup>40</sup> DuPont did not disclose the information discussed at the 1984 meeting to the EPA, the State, or the general public.

107. Upon information and belief, DuPont began treating PFOA as early as 1988 as a possible human carcinogen but did not disclose that knowledge to the public and, in fact, publicly stated PFOA was not carcinogenic.

108. Notwithstanding its internal knowledge of PFOA's health and environmental risks beginning as early as the 1950s, DuPont publicly stated in 2003 that "[w]e are confident that there are no health effects associated with C-8 exposure," and that "C-8 is not a human health issue."<sup>41</sup>

109. In a 2005 *Washington Post* article, DuPont Spokesperson Clifton Webb is quoted saying: "[b]ased on an evaluation of human health and toxicology studies, DuPont believes that the weight of evidence suggests that PFOA exposure does not cause cancer in humans and does not

<sup>&</sup>lt;sup>40</sup> Schmid, J.A., *Personal & Confidential Memorandum, re: C-8 Meeting Summary*, DUPONT (May 23, 1984), Wilmington, Del., available at https://static.ewg.org/files/dupont\_elim\_PFOA\_1984.pdf (last accessed August 25, 2023) (hereinafter "The DuPont Memo").

<sup>&</sup>lt;sup>41</sup> Washington Works Media Update, DUPONT (March 18, 2003), available at

https://static.ewg.org/reports/2003/pfcs/dupontpresentation.pdf (last accessed August 25, 2023).

pose a risk to the general public. To date, no human health effects are known to be caused by PFOA, even in workers who have significantly higher exposure levels than the general population."<sup>42</sup>

110. DuPont's own Epidemiology Review Board ("ERB") repeatedly raised concerns about DuPont's practice of stating publicly that there were no adverse health effects associated with human exposure to PFOA. In February 2006, the ERB "strongly advise[d] against any public statements asserting that PFOA does not pose any risk to health" and "question[ed] the evidential basis of DuPont's public expression asserting, with what appears to be great confidence, that PFOA does not pose a risk to health."<sup>43</sup>

111. In October 2006, contrary to ERB's advice, DuPont's chief medical officer issued a press release stating that "there are no human health effects known to be caused by PFOA."<sup>44</sup>

112. In December 2005, the EPA uncovered evidence that DuPont had concealed the environmental and health effects of C8 for more than two decades. In response, EPA levied a \$16.5 million administrative penalty on DuPont, which at that time was the largest civil administrative penalty the EPA had ever imposed under any federal environmental statute.<sup>45</sup> At approximately the time this penalty was issued, DuPont was making around \$1 billion a year in revenue from products containing C8.

113. Also in 2005, Old DuPont settled a class action lawsuit filed on behalf of 70,000 residents of Ohio and West Virginia. Under the terms of the settlement, Old DuPont agreed to fund

<sup>&</sup>lt;sup>42</sup> Juliet Eilperin, *Compound in Teflon a 'Likely Carcinogen'*, THE WASHINGTON POST (June 29, 2005), available at https://www.washingtonpost.com/archive/politics/2005/06/29/compound-in-teflon-a-likely-carcinogen/5cca31d1-0c50-4c56-948a-c27d300d4dd6/ (last accessed August 25, 2023).

<sup>&</sup>lt;sup>43</sup> Tom L. Beauchamp, et al., *Memorandum to Michael Kaplan re: Epidemiology Review Board and PFOA*, DUPONT (February 24, 2006), available at https://static.ewg.org/files/ERB\_February2006.pdf (last accessed August 25, 2023).

<sup>&</sup>lt;sup>44</sup> Press Release, *DuPont Concludes Washington Works Employee PFOA Study*, DUPONT (October 17, 2006), available at https://us.vocuspr.com/Newsroom/Query.aspx?SiteName=DupontNew&Entity=PRAsset&SF\_PRAsset\_PRAssetID\_EQ =103587&XSL=PressRelease&Cache=False (last accessed August 25, 2023).

<sup>&</sup>lt;sup>45</sup> Michael Janofsky, *DuPont to Pay \$16.5 Million for Unreported Risks*, THE NEW YORK TIMES (December 15, 2005), available at https://www.nytimes.com/2005/12/15/politics/dupont-to-pay-165-million-for-unreported-

risks.html#:~:text=WASHINGTON%2C%20Dec.,making%20Teflon%20and%20other%20plastics (last accessed August 25, 2023).

a panel of scientists to determine if any diseases were linked to PFOA exposure, to filter local water for as long as C8 concentrations exceeded regulatory thresholds, and to set aside funds for ongoing medical monitoring of the affected community. After 8 years, the C8 Science Panel found several significant diseases, including cancer, with a probable link to PFOA.

114. Upon information and belief, as late as March 2009, DuPont falsely claimed that PFOA in drinking water was completely safe, despite DuPont's knowledge about the toxicity of PFAS.

115. DuPont and its entities made and continue to make AFFF that contains dangerous PFAS chemicals and contributing to contamination of and injury to South Carolina's environment, creating a risk to public health.

#### ALL DEFENDANTS KNEW OF THE DANGERS OF PFAS.

116. After 3M exited the AFFF market in the United States in 2002, taking PFOS foam out of production, the remaining AFFF manufacturer Defendants continued to manufacture and sell AFFF containing PFOA and/or its chemical precursors.

117. Tyco/Ansul, Chemguard, Buckeye, and National Foam/Angus knew, or at the very least should have known, that their AFFF products would harm the environment and human health, including causing harm to the State of South Carolina.

118. Each Defendant is an expert in the field of AFFF manufacturing and/or the materials needed to manufacture AFFF. Each Defendant has detailed information and understanding about the chemical compounds that form AFFF products.

119. The Fire Fighting Foam Coalition ("FFFC"), an AFFF trade group, was formed in 2001 to advocate for AFFF's continued viability.<sup>46</sup>

120. Upon information and belief, all Defendants except 3M, were or still are members of

<sup>&</sup>lt;sup>46</sup> Fire Fighting Foam Coalition, https://www.fffc.org/ (last accessed August 28, 2023).

the FFFC.

121. Through their involvement in the FFFC, as well as a variety of other trade associations and groups, the Defendants shared knowledge and information regarding AFFF's environmental effects.

122. The FFFC's efforts were designed to shield its members and the AFFF industry from the public and regulators learning about the harms of PFOA to human health and the environment.

123. These Defendants worked together to protect AFFF from scrutiny.

124. Upon information and belief, these Defendants' close cooperation included public messaging on PFOA's toxicological profile. These Defendants regularly published newsletters and attended conferences bolstering their AFFF products.

125. These coordinated efforts were meant to dispel concerns about the impact AFFF had on the environment and human health and these Defendants worked in concert to conceal known risks of their AFFF from the government and public.

126. Upon information and belief, these Defendants knew the use of their AFFF products presented a threat to human health and the environment.

127. While this was known to these Defendants, it was not fully understood by the users of AFFF, the public, and Plaintiff.

128. Upon information and belief, notwithstanding this knowledge, Defendants designed, manufactured, marketed, distributed, and/or sold AFFF products and issued instructions on how AFFF products should be used and disposed of (including washing AFFF into the soil or wastewater system), thus improperly permitting PFOA and/or PFOS to contaminate the surface water, soil, and groundwater in and around the State's natural resources and property.

129. As a direct result of Defendants' acts and omissions alleged in this Complaint, the State's natural resources and property have been and will continue to be contaminated with PFAS,

including PFOA and PFOS, creating an environmental hazard, that will grow unless the contamination is remediated. As a direct and proximate result of Defendants' actions and/or inactions, Plaintiffs must assess, evaluate, investigate, monitor, remove, clean up, correct, treat, and remediate PFOA and PFOS and other PFAS occurring in AFFF products' contamination to the State's natural resources and property at significant expense, loss and damage. Defendants failed to evaluate and test such AFFF products adequately and thoroughly to determine their potential human health and environmental impacts before they sold the products. They also had a duty and breached that duty to minimize the environmental harm caused by AFFF products.

# THE STATE OF SOUTH CAROLINA IS CONTAMINATED, INJURED, AND DAMAGED BY AFFF PRODUCTS.

130. The South Carolina Department of Health and Environmental Control ("DHEC") and other State agencies have been investigating PFAS contamination throughout the State. The State has expended significant resources on this ongoing effort.

131. This research has equipped the Plaintiff with significant data, enabling a betterdefined picture of the expected trailing damages from known contaminating behaviors. A portion of this data has been used to create a map which displays the discovery in ambient surface water of 26 distinct PFAS compounds including the 6 chemical products for which the Environmental Protection Agency ("EPA") has proposed Maximum Contaminant Levels ("MCLs") (surface water sampling sites are indicated by orange pins).<sup>47</sup>

132. Figure 1.

<sup>&</sup>lt;sup>47</sup> Ambient Surface Water Project, DHEC, available at

https://gis.dhec.sc.gov/gisportal/apps/webappviewer/index.html?id=162b8d1e7fdf459db7ff6b251671651f (last accessed August 22, 2023) (interactive map with pins indicating sampling sites for surface water, freshwater fish, oyster, and blue crab) (hereinafter "Figure 1").



133. The same map shows tissue sampling locations for blue crab, freshwater fish, and oysters, indicated with blue, green, and gray pins, respectively.<sup>48</sup> 77 fish samples had been collected at 21 different sites as of August 2023 and all but one sample indicated the presence of PFAS chemicals.<sup>49</sup> PFAS chemicals were discovered in 26 of the 30 samples collected from 24 different oyster sampling sites, and in all 10 of the blue crab samples collected at 8 different sampling sites as of August 2023.<sup>50</sup> DHEC notes PFOS is the most prevalent freshwater fish contaminant. As

 <sup>&</sup>lt;sup>48</sup> Figure 1. As DHEC continues testing, more pins will be added to the map and data for existing pins will be expanded.
 <sup>49</sup> Ambient Surface Water Project – Tissue Data, DHEC, available at

https://gis.dhec.sc.gov/gisportal/apps/webappviewer/index.html?id=162b8d1e7fdf459db7ff6b251671651f (last accessed August 22, 2023) (spreadsheet available for download).

mentioned, PFOS is the principal PFAS chemical occurring in AFFF and PFOS, PFOA, and other PFAS regulated by the EPA's standards appear in AFFF products.

134. Investigating, monitoring, remediating, and rehabilitating the specific natural resources surrounding AFFF-using sites requires a concerted and uniform stakeholder effort. This will be costly, and the cost should be borne by the Defendants who profited from the manufacture, sale and distribution of AFFF products.

135. DHEC's ambient sampling data supports the Plaintiff's belief that AFFF wastewater and runoff are likely the sources of PFAS chemical presence near AFFF-using sites.<sup>51</sup> For example, testing in areas surrounding military sites, airstrips, and/or firefighting training facilities reveals PFAS contamination consistent with AFFF formulations.<sup>52</sup> Testing performed with the same processes at other locations with no known AFFF-using sites nearby shows different contamination characteristics.<sup>53</sup>

136. In addition to the information published by DHEC, Environmental Working Group, a nonprofit environmental research entity, identifies PFAS presence indicative of AFFF-caused contamination near several sites known to use AFFF in South Carolina.<sup>54</sup>

137. Figure 2.

<sup>&</sup>lt;sup>51</sup> Id.

<sup>&</sup>lt;sup>52</sup> Id.

<sup>&</sup>lt;sup>53</sup> Id.

<sup>&</sup>lt;sup>54</sup> Figure 2. PFAS Contamination in the U.S., ENVIRONMENTAL WORKING GROUP, available at

https://www.ewg.org/interactive-maps/pfas\_contamination/map/ (last accessed August 22, 2023) (Purple dots indicate suspected AFFF-caused contamination, light blue dots indicate PFAS contamination in drinking water supplies above the EPA's proposed limits, and dark blue dots indicate PFAS contamination in drinking water supplies below the EPA's proposed limits. Orange dots indicate other known PFAS contamination sites.).



138. An overlay (Figure 3) of the EWG contamination map and the DHEC contamination map indicates an association between AFFF-using sites and chemicals known to appear in AFFF. Upon information and belief, AFFF is the most probable source of contamination at these testing locations.

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139. Figure 3.
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140. The science surrounding AFFF contamination tracking is evolving and improving. Discerning the most probable source of PFAS contamination in a given area can be accomplished through a combination of tools including analysis of the molecular structure of the product, the proximity to known industrial contamination, and the migration and travel behavior of the compounds.

141. Defendants were at all times relevant to this action aware that the natural and probable consequence of AFFF use at any location is that chemicals from the AFFF would contaminate surrounding areas. Plaintiff asserts that, upon information and belief, contamination at these locations is more likely than not caused by AFFF use.

142. AFFF chemicals have appeared in testing and contaminate the surface waters, groundwater, wetlands, soil, and natural resources at and around specific sites, including but not limited to: the Marine Corps Recruit Depot Parris Island, Marine Corps Air Station Beaufort, Charleston Naval Complex, Joint Base Charleston Air, Charleston International Airport, Myrtle Beach Air Force Base, Myrtle Beach International Airport, Shaw Air Force Base, McCrady Training Center, McEntire Joint National Guard Base, Columbia Metropolitan Airport, Greenville-Spartanburg International Airport, and The South Carolina Fire Academy.<sup>55</sup> The State anticipates more sites to be discovered as testing continues.

143. PFOA, PFOS, and other PFAS chemicals found in AFFF are highly water soluble, which increases the rate at which they spread throughout the environment, contaminating soil, groundwater, and surface water. Their mobility is made more dangerous by their persistence in the environment and resistance to biologic, environmental, or photo-degradation.<sup>56</sup>

144. PFOA, PFOS, and other PFAS chemicals found in AFFF are readily absorbed in animal and human tissues after ingestion and accumulate in the serum, kidney, and liver. They have been found globally in water, soil, air, as well as in human food supplies, breast milk, umbilical cord blood, and human serum.<sup>57</sup>

145. PFOA, PFOS, and other PFAS chemicals found in AFFF are persistent in the human body. Even short-term exposure can cause PFAS to accumulate and persist in the body for years, increasing with additional exposures.<sup>58</sup>

146. The EPA advises that exposure to PFOA, PFOS, and other PFAS chemicals found in AFFF over certain levels may cause "effects on the immune system, the cardiovascular system,

<sup>&</sup>lt;sup>55</sup> See Strategy to Assess the Impact of Per- and Polyfluoroalkyl Substances on Ambient Surface Waters in South Carolina, DHEC BUREAU OF WATER (April 30, 2021), available at

https://scdhec.gov/sites/default/files/media/document/BOW\_PFAS\_SurfaceWaterStrategy\_0.pdf (last accessed August 25, 2023).

<sup>&</sup>lt;sup>56</sup> See Drinking Water Health Advisory for Perfluorooctanoic Acid (PFOA), EPA, Doc. No.: 822-R-16-005, at 16 (May 2016); Drinking Water Health Advisory for Perfluorooctane Sulfonate (PFOS), EPA, Doc. No.: 822-R-16-004, at 16 (May 2016).

<sup>&</sup>lt;sup>57</sup> See EPA Doc. No.: 822-R-16-005, at 18–20, 25–27; EPA Document Number: 822-R-16-004, at 19–21, 26–28.

<sup>&</sup>lt;sup>58</sup> See EPA Doc. No.: 822-R-16-005, at 55; EPA Doc. No.: 822-R-16-004 at 55.

human development (e.g., low birth weight) ...cancer...effects on the liver, the kidney...the thyroid[, and] reproductive system."<sup>59</sup>

147. The EPA also warns "there is suggestive evidence of carcinogenic potential for PFOS in humans."<sup>60</sup>

148. The EPA further states "drinking water can be an additional source [of PFOA/PFOS in the body] in...communities where these chemicals have contaminated water supplies. Such contamination is typically localized and associated with a specific facility, for example,...an airfield at which [the chemicals] were used for firefighting."<sup>61</sup>

149. Defendants designed, manufactured, formulated, marketed, distributed, sold, and/or assumed or acquired liabilities for the manufacture and/or sale of AFFF with the knowledge that these toxic compounds would be released into the environment even when released, stored, used, cleaned up, and/or disposed of as directed or intended by Defendants.

150. The use of Defendants' AFFF products allowed PFOA, PFOS, and other PFAS chemicals to enter the State's natural resources and property and migrate through the subsurface and into the groundwater, ultimately contaminating the surface water, ground water, soil, sediment, and plant life as well as causing other extensive and ongoing damage to the State's natural resources and property.

151. At all times pertinent herein, Plaintiff did not know, nor should Plaintiff have known, of the ongoing contamination of its natural resources and property through the use, release, storage, and/or disposal of Defendants' AFFF products.

#### DUPONT RESTRUCTURED ITS BUSINESS TO AVOID LIABILITY.

152. By 2013, Old DuPont faced mounting liabilities arising out of its long-running

<sup>&</sup>lt;sup>59</sup> See Drinking Water Health Advisories for PFAS: Fact Sheet for Communities, EPA, 2022 INTERIM HEALTH ADVISORIES, available at https://www.epa.gov/system/files/documents/2022-06/drinking-water-ha-pfas-factsheet-communities.pdf (last accessed August 23, 2023).

<sup>&</sup>lt;sup>60</sup> Health Effects Support Document for Perfluorooctane Sulfonate (PFOS), EPA, Doc. No.: 822-R-16-002, at 3-114 (May 2016).

<sup>&</sup>lt;sup>61</sup> Fact Sheet PFOA & PFOS Drinking Water Health Advisories, EPA Doc. No.: 800-F-16-003, at 1 (November 2016).

manufacture, use, marketing, distribution, and sale of PFAS-containing products throughout the United States. These liabilities included, among other things, clean-up costs, remediation obligations, tort damages, natural resources damages, and potential punitive damages.

153. Upon information and belief, by 2013, in order to shield its assets from these liabilities, Old DuPont began a complex series of corporate restructurings and spinoffs.

154. In 2014 and 2015, Old DuPont (*i.e.*, defendant EIDP, Inc.) created and transferred its assets and liabilities, including those related to AFFF product lines (known as "performance chemicals"), to The Chemours Company as a wholly owned subsidiary.

155. At that time, upon information and belief, DuPont and Chemours knew, based on the financial situation of the product lines included in the spinoff, that Chemours was undercapitalized.

156. In undertaking Old DuPont's obligations and liabilities, Chemours completely indemnified Old DuPont and completely substituted DuPont in all primarily associated performance chemicals liabilities, including those originating before the spinoff.<sup>62</sup>

157. Until the spinoff was complete, Chemours was controlled by DuPont's Board of Directors as a wholly-owned subsidiary.

158. Under the Separation Agreement, The Chemours Company agreed to indemnify Old DuPont against, and assumed for itself, all "Chemours Liabilities," which is defined broadly to include, among other things, "any and all liabilities relating," "primarily to, arising primarily out of or resulting primarily from, the operation of or conduct of the [performance chemicals] Business at any time." This indemnification is uncapped and does not have a survival period.<sup>63</sup>

159. The Chemours Company agreed to indemnify Old DuPont from, and assume all,

<sup>&</sup>lt;sup>62</sup> See generally Separation Agreement by and between E.I. Du Pont De Nemours and Company and The Chemours Company, at 57, (June 26, 2015), available at

https://www.sec.gov/Archives/edgar/data/30554/000003055415000065/exhibit21separationagreeme.htm (last accessed August 25, 2023) (hereinafter "Separation Agreement").

<sup>&</sup>lt;sup>63</sup> *Id.* at 10–11.

environmental liabilities that arose prior to the spinoff if they were "primarily associated" with the performance chemicals business. Such liabilities were deemed "primarily associated" if Old DuPont reasonably determined that 50.1% of the liabilities were attributable to the performance chemicals business.<sup>64</sup>

160. The Chemours Company agreed to indemnify Old DuPont against and assume for itself the performance chemical business's liabilities regardless of: (i) when or where such liabilities arose; (ii) whether the facts upon which they are based occurred prior to, on, or subsequent to the effective date of the spinoff; (iii) where or against whom such liabilities are asserted or determined; (iv) whether arising from or alleged to arise from negligence, gross negligence, recklessness, violation of law, fraud or misrepresentation by any member of the Old DuPont group or the Chemours group; and (v) which entity is named in any action associated with any liability.<sup>65</sup> The Chemours Company also agreed to use its best efforts to be fully substituted for Old DuPont with respect to "any order, decree, judgment, agreement or Action with respect to Chemours Assumed Environmental Liabilities...."<sup>66</sup>

161. At the time of the July 2015 Chemours spinoff, Old DuPont was well aware of its potential liabilities related to AFFF contamination throughout the United States.<sup>67</sup>

162. Once the spinoff was complete, seven new members of The Chemours Company board were appointed, for an eight-member board of directors of the new public company. The negotiations concerning the spinoff were conducted and the related decisions were made while the board was still controlled by Old DuPont. The new independent board appointed upon the completion of the spinoff did not take part in the negotiations of the terms of the separation.<sup>68</sup>

<sup>&</sup>lt;sup>64</sup> *Id.* at 7, 53–65.

<sup>&</sup>lt;sup>65</sup> *Id.* at 29.

<sup>&</sup>lt;sup>66</sup> *Id.* at 63.

<sup>&</sup>lt;sup>67</sup> See, e.g., The DuPont Memo, *supra* note 40.

<sup>&</sup>lt;sup>68</sup> The Chemours Co. v. DowDuPont, Inc., Corteva, Inc., and E.I. Du Pont de Nemours & Co., C.A. No. 2019-0351-SG, at ¶ 35 (Del. Cha. Aug. 14, 2019) (verified first amended complaint by Chemours against the other DuPont entities regarding the spinoff and extent of Chemours' exposure to DuPont's historical liabilities) (hereinafter "Spinoff Case").

163. In 2015 when DuPont transferred its performance chemicals business to The Chemours Company, Old DuPont had been sued, threatened with suit, and/or had knowledge of the likelihood of litigation to be filed regarding Old DuPont's liability for damages and injuries from the manufacture of PFAS compounds and products that contain PFAS compounds, including AFFF.<sup>69</sup>

164. The Chemours Company's creation attempted to segregate a large portion of Old DuPont's environmental liabilities, including liabilities related to its AFFF chemicals and products.

165. In or around December 2015, Old DuPont entered into an agreement with Dow, Inc. ("Old Dow") pursuant to which Old DuPont and Old Dow merged with subsidiaries of a newly formed holding company, DowDuPont, Inc. ("DowDuPont"), which was created solely for the purpose of effectuating the merger. Old DuPont and Old Dow became subsidiaries of DowDuPont.

166. Following its creation, DowDuPont engaged in a number of realignments and divestitures, the details of which remain largely hidden from Plaintiff and other creditors, intended to frustrate and/or hinder creditors with claims against Old DuPont. Upon information and belief, the net effect of these transactions was the transfer, directly or indirectly, of a substantial portion of Old DuPont's assets to DowDuPont for far less than these assets were worth.

167. In 2018 and 2019, DowDuPont completed its transformation and spun off two new publicly traded companies, Corteva, Inc. and Dow, Inc. ("New Dow"). DowDuPont was then renamed DuPont de Nemours, Inc. ("New DuPont").

168. Upon information and belief, Corteva currently holds Old DuPont as a subsidiary.

169. Corteva is an agriculture science company that holds other legacy Old DuPont operations and some PFAS liabilities.

170. Upon information and belief Corteva was undercapitalized at its creation, remains under

<sup>&</sup>lt;sup>69</sup> See e.g., In re E.I. du Pont de Nemours & Co. C-8 Personal Inj. Litig., No. 1-13-MD-2433 (S.D. Ohio) (MDL regarding injuries associated with contamination near the DuPont-Chemours Washington Works Plant, Parkersburg, WV, petition for certiorari to the U.S. Supreme Court pending at the time this complaint was filed).

DuPont's control, and is not a distinct or unique business operation.

171. Like The Chemours Company, creating Corteva was an attempt to segregate a large portion of Old Dupont's environmental liabilities, including liabilities related to its AFFF chemicals and products.

172. The consolidation of Old DuPont's performance chemical liabilities in these spinoff entities has potentially limited the availability of funds arising out of Old DuPont's liability.

#### **CAUSES OF ACTION**

#### FOR A FIRST CAUSE OF ACTION Public Nuisance (All Defendants)

173. Defendants designed, manufactured, distributed, marketed, sold, and/or assumed or acquired liabilities for the manufacture and/or sale of AFFF products in a manner that created, or participated in creating, a public nuisance that unreasonably and substantially interferes with the use and enjoyment of the State's natural resources and property, and unreasonably endangers or injures the health, safety, and comfort of the general public and Plaintiff, causing inconvenience and annoyance.

174. The unreasonable and substantial interference with the use and enjoyment of the State's natural resources and property includes but is not limited to: the contamination of State ground water, surface water, soil, air, and wildlife with PFOS, PFOA, and other PFAS appearing in AFFF; and the exposure to known toxic chemicals manufactured and/or sold by Defendants.

175. The presence of PFOS, PFOA, and other PFAS appearing in AFFF causes significant costs, inconvenience, and annoyance to Plaintiff, who is charged with, among other things, protecting the State's natural resources and property.

176. The contamination affects a substantial number of people who rely upon the State's natural resources and property for commercial and recreational purposes and interferes with the

rights of the public at large to clean and safe water resources and environment.

177. The seriousness of the environmental and human health risk far outweighs any social utility of Defendants' conduct in manufacturing AFFF products and concealing the dangers those Products posed to human health and the environment.

178. As a result of the actual and threatened PFOS, PFOA, and AFFF-related contamination caused by Defendants' conduct, Plaintiff has suffered, and will continue to suffer, harm that is different from the type of harm suffered by the general public, and Plaintiff has incurred, and will continue to incur, substantial costs to remove the contamination from its natural resources and property.

179. Plaintiff did not consent to the conduct that resulted in the contamination of its natural resources and property.

180. Each Defendant's conduct was a substantial factor in causing the harm to Plaintiff.

181. Defendants have, by their acts and omissions set forth above, among other things, knowingly unleashed long-lasting and ongoing PFOS, PFOA, and AFFF-related contamination, and threat of PFOS, PFOA, and AFFF-related contamination, upon the State's natural resources and property.

182. Defendants knew or, in the exercise of reasonable care, should have known that the use and introduction of their AFFF products into the environment would endanger, and has continuously, unreasonably and seriously endangered and interfered with the ordinary safety, use, benefit, and enjoyment of the State's natural resources and property.

183. Defendants committed each of the above-described acts or omissions willfully and/or deliberately and with a conscious, reckless and outrageous indifference to the health, safety and welfare of others, including Plaintiff. Such conduct was performed to promote the sales of Defendants' AFFF products, in conscious disregard to the probable dangerous consequences of that

conduct and its reasonably foreseeable impacts on the environment and the public's health, safety, and welfare. Therefore, Plaintiff requests an award of punitive damages in an amount sufficient to punish Defendants and that fairly reflects the aggravating circumstances alleged herein.

184. As a direct and proximate result of Defendants' above-described acts and omissions, Plaintiff has incurred, continues to incur, and/or will incur costs and damages related to the PFAS contamination of its natural resources and property. As a result, Plaintiff seeks recovery of any and all past, present and future compensatory and/or consequential damages for the investigation, monitoring, treatment, testing, remediation, removal, filtration, and/or disposal of the PFAS contamination of its natural resources and property, operating, maintenance and consulting costs, attorneys' fees and costs, as well as any and all other damages available as a result of the actions and/or inactions of Defendants as described herein.

#### FOR A SECOND CAUSE OF ACTION TRESPASS (All Defendants)

185. Plaintiff has significant property interests in the natural resources of the State. These property interests include, but are not limited to, the State's public trust and *parens patriae* interests and authority in protecting such natural resources from contamination and injury.

186. A trustee by definition is authorized to take action to protect trust property as if the trustee were the owner of the property.

187. The State also brings this action in its *parens patriae* capacity on behalf of its citizens to protect quasi-sovereign interests, including the integrity of the State's natural resources.

188. The State never authorized Defendant's invasion of its natural resources and property with PFAS.

189. The State owns in fee certain property within the State, including lands and water wells.

190. Defendants knew, or in the exercise of reasonable care should have known, that AFFF

products are hazardous to natural resources and property, including groundwater, surface water, and public water systems, and including the property and interests of the State.

191. Defendants' acts and omissions directly and proximately caused and continue to cause PFAS to intrude onto and contaminate State natural resources and property, including water systems, surface water, groundwater systems, and zones of influence of the areas that supply production wells within the State.

192. At the time of Defendants' acts and omissions, Defendants knew with substantial certainty that PFAS contained in AFFF would reach onto and contaminate State natural resources and property, including water systems, surface water, groundwater systems, and zones of influence of the areas that supply production wells within the State. Defendants' knowledge was based on their knowledge of the properties of AFFF, their knowledge and experience regarding PFAS contamination at their own facilities where they manufactured and/or used AFFF, and other conduct alleged in this Complaint. Despite this knowledge, Defendants manufactured, marketed, distributed, promoted, and/or sold AFFF products containing PFAS with a profit motive in a way that has harmed the State.

193. As a direct and proximate result of the trespass, the State has been damaged and is entitled to compensatory damages for the costs of investigation, remediation, and treatment, damages for loss of use and enjoyment of State natural resources and property, cost of restoring State natural resources and property to their original conditions as if the trespass had not occurred, and/or other relief the State may elect at trial.

194. As a direct and proximate result of Defendants' acts and omissions, the State's natural resources and property are contaminated with PFAS. The State has incurred, is incurring, and will incur, investigation, remediation, cleanup, restoration, removal, treatment, monitoring, and other costs and expenses related to contamination of the State's natural resources and property, for which Defendants are jointly and severally liable.

195. As a further direct and proximate result of Defendants' acts and omissions, the State has sustained and will sustain other substantial expenses and damages, including damages for loss of use and enjoyment, for which Defendants are jointly and severally liable.

196. Defendants' acts and omissions have caused and/or threatened to cause injuries to the State's natural resources and property that are indivisible.

#### FOR A THIRD CAUSE OF ACTION VIOLATION OF THE SOUTH CAROLINA UNFAIR TRADE PRACTICES ACT (All Defendants)

197. The State brings this claim under the South Carolina Unfair Trade Practices Act ("SCUTPA"), asserting a claim under sections 39-5-50 and 39-5-110 of the South Carolina Code.

198. Section 39-5-10, et. seq. of the South Carolina Code prohibits unfair or deceptive acts or practices in the conduct of any trade or commerce.

199. Defendants' manufacturing, marketing, promotion, distribution, and sale of PFAS constitute "trade" or "commerce" within the meaning of SCUTPA.

200. Defendants engaged in unfair and/or deceptive acts or practices within the meaning of section 39-5-20 of the South Carolina Code by, *inter alia*, representing that the PFAS Defendants manufactured were safe while misrepresenting and omitting risks and the harmful effects associated with PFAS.

201. Defendants' misrepresentations are deceptive because they have the capacity to mislead a substantial number of consumers.

202. An act or practice may be unfair if it offends public policy; is immoral, unethical, oppressive, unconscionable, or causes injury to consumers. Defendants' acts or practices as alleged in this Complaint are unfair.

203. Defendants' unfair and deceptive conduct in the manufacturing, marketing, promotion, distribution, and sale of PFAS affects the public interest. Moreover, Defendants' acts or practices

regarding South Carolina as alleged herein are capable of repetition.

204. Defendants knew or reasonably should have known that their conduct violated SCUTPA and therefore is willful for purposes of section 39-5-110 of the South Carolina Code, justifying civil penalties.

205. The State seeks all remedies available under SCUTPA including, without limitation, the following:

- a. Injunctive and other equitable relief pursuant to section 39-5-50(a) of the South Carolina Code;
- Restoration of all ascertainable losses under section 39-5-50(b) of the South Carolina
   Code to any person or entity who suffered them as a result of Defendants' conduct;
- c. Civil penalties in an amount up to \$5,000.00 per violation with every unfair or deceptive act or practice by Defendants constituting a separate and distinct violation; and
- d. Costs and attorneys' fees pursuant to section 1-7-85 of the South Carolina Code.

#### **PRAYER FOR RELIEF**

The State of South Carolina respectfully requests that the Court provide the State with the following relief against all Defendants as follows:

A. Permanently enjoin Defendants, pursuant to section 39-5-50(a) of the South Carolina Code from engaging in any acts that violate SCUTPA, including, but not limited to, the unfair or deceptive acts or practices alleged herein;

B. Order Defendants to restore to all persons and entities all ascertainable losses suffered as a result of Defendants' violations of SCUTPA;

C. Order Defendants to pay civil penalties in the amount of \$5,000.00, pursuant to section
39-5-110(a) of the South Carolina Code, for each and every willful violation of SCUTPA;

D. Order Defendants to pay attorneys' fees and costs pursuant to section 1-7-85 of the

South Carolina Code for violations of SCUTPA;

E. Award compensatory damages to the State of South Carolina arising from AFFF contamination and injury of State natural resources and property, including groundwater, surface water, drinking water supplies, biota, wildlife including fish, and their associated soils, sediments, and uses, and other State natural resources and property, according to proof, including, but not limited to:

- (i) natural resource damages;
- (ii) loss-of use damages;
- (iii) costs of investigation;
- (iv) costs of testing and monitoring;
- (v) costs of providing water from an alternate source;
- (vi) costs of installing and maintaining wellhead treatment;
- (vii) costs of installing and maintaining a wellhead protection program;
- (viii) costs of installing and maintaining an early warning system to detect PFAS before it reaches wells;
- (ix) costs of mitigating and remediating PFAS from natural resources including groundwater, surface waters, soils, sediments, and other natural resources;
- (x) costs of mitigating and remediating PFAS contamination at release sites;
- (xi) any other costs or other expenditures incurred to address PFAS contamination and injury; and
- (xii) interest on the damages according to law;

F. Order Defendants to abate the continuing nuisance and trespass by funding the removal of PFAS from State natural resources and property;

G. Award punitive damages pursuant to S.C. Code Ann. § 15-33-135, in an amount to be determined at trial for Defendants' reckless and willful disregard for the property and natural resources

of the State of South Carolina to impress upon the Defendants' the seriousness of its misconduct and to deter similar misconduct in the future;

- H. Award prejudgment interest; and
- I. Any other and further relief as the Court deems just, proper, and equitable.

Respectfully submitted,

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