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NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION; THE COMMISSIONER OF THE NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION; and THE ADMINISTRATOR OF THE NEW JERSEY SPILL COMPENSATION FUND,

Plaintiffs,

v.

SOLVAY SPECIALTY POLYMERS USA, LLC; ARKEMA INC; AND "ABC CORPORATIONS" 1-10 (Names Fictitious),

Defendants.

SUPERIOR COURT OF NEW JERSEY  
LAW DIVISION

GLOUCESTER COUNTY

DOCKET NO. \_\_\_\_\_

CIVIL ACTION

**COMPLAINT AND JURY TRIAL**  
**DEMAND**

Plaintiffs the New Jersey Department of Environmental Protection ("Department" or "NJDEP"), the Commissioner of the Department of Environmental Protection ("Commissioner"), and the

Administrator of the New Jersey Spill Compensation Fund ("Administrator") (collectively the "Plaintiffs") file this Complaint against the above-named defendants (the "Defendants"), and allege as follows:

**I. STATEMENT OF THE CASE**

1. Plaintiffs bring this civil action against Defendants for damages and other relief caused by discharges and emissions of hazardous substances, pollutants, and contaminants at and from the Solvay Specialty Polymers USA, LLC manufacturing facility, located at 10 Leonard Lane, West Deptford, Gloucester County ("Solvay Site" or "Site").

2. Hazardous substances, pollutants, and contaminants discharged and emitted at and from the Site include per- and polyfluoroalkyl substances ("PFAS"), "forever chemicals" that persist indefinitely in the environment and bioaccumulate in the blood of humans. There is no more concentrated finding of perfluorononanoic acid ("PFNA") - a type of PFAS - in the State as at and around the Solvay Site, where Defendants released tens of thousands of pounds of PFAS compounds into New Jersey's environment for decades. In fact, levels of PFNA detected in surface water and public drinking water near the Site have been higher than has been reported anywhere else in the world.

3. Despite evidence of widespread contamination caused by activities at the Site, Solvay Specialty Polymers USA, LLC, the current owner of the Site, has repeatedly refused to comply with Plaintiffs' numerous directions to investigate all contamination from the Site and to pay for the treatment of all contaminated drinking water. Solvay Specialty Polymers USA, LLC's conduct has been driven by its desire to profit from the sale of its products and avoid the expense of properly disposing of and cleaning up PFAS, despite the harm it has caused to New Jersey's citizens and the environment.

4. Plaintiffs bring action pursuant to the Spill Compensation and Control Act, N.J.S.A. 58:10-23.11 to -23.24 ("Spill Act"); the Water Pollution Control Act, N.J.S.A. 58:10A-1 to -20 ("WPCA"); the Air Pollution Control Act, N.J.S.A. 26:2C-1 to -57 ("APCA"); the Solid Waste Management Act, N.J.S.A. 13:1E-1 to -230. ("SWMA"); the Brownfield and Contaminated Site Remediation Act, N.J.S.A. 58:10B-1 to -31 ("Brownfield Act"); and the common law of New Jersey.

5. Solvay Specialty Polymers, USA, LLC and its predecessor companies, including Solvay Solexis, Inc. and Ausimont USA, Inc., (collectively "Solvay"), have owned the Site since 1990. Prior to that, Arkema, Inc. and its predecessor companies, including Atochem North America, Inc., Elf Atochem North America Inc., and

Pennwalt Corporation (collectively "Arkema"), owned the Site from 1970 to 1990.

6. During their operation of the Site, Solvay and Arkema each utilized and discharged hazardous substances and pollutants into the environment. As a result of their processes, discharges, emissions, and waste disposal practices, Solvay and Arkema contaminated the Site and the surrounding area with numerous hazardous substances and pollutants, including but not limited to semi-volatile organic compounds ("SVOCs"), volatile organic compounds ("VOCs"), metals, polychlorinated biphenyls ("PCBs"), and PFAS.

7. Significantly, Solvay and Arkema used and discharged PFAS compounds at the Site, including PFNA and perfluorooctanoic acid ("PFOA"). PFNA, PFOA, and other PFAS compounds are extremely resistant to degradation, causing them to persist indefinitely in the environment, and they bioaccumulate in the blood of humans. PFAS compounds pose a substantial threat to human health and the environment.

8. Although Solvay and Arkema knew or should have known of the dangers of PFAS for decades, regulatory agencies around the world are only now coming to understand the true nature and dangers of these global contaminants. Today, Plaintiffs are expending substantial public resources to investigate PFAS, including their

toxicity and impacts to human health and the environment, and to locate, remediate, treat, and/or restore New Jersey's natural resources that are impacted with these "forever chemicals."

9. Solvay and Arkema used, discharged (both directly and indirectly via Gloucester County Utilities Authority), emitted, and dumped tens of thousands of pounds of PFAS compounds into New Jersey's air, waters, and other natural resources at and from the Site for decades. Despite doing so, Solvay and Arkema failed to disclose the impact of their use and releases of PFAS into the environment to the Department and the surrounding community.

10. Indeed, the Department was only alerted to the magnitude of the impact of the PFAS released at the Site through a study conducted by the Delaware River Basin Commission ("DRBC"). From 2007-2009, DRBC conducted a multi-year survey of contaminants of emerging concern in the Delaware River. The survey found PFNA in the Delaware River water up to 976 parts per trillion ("ppt") near the Site. This concentration of PFNA was the highest reported concentration in surface water in the world at that time.

11. Further investigation since that time has revealed significant PFAS contamination on and off-Site.

12. PFAS compounds discharged and emitted from the Site have been detected in drinking water, groundwater, surface waters, sediments, soils, air, fish, plants, and other natural resources

at locations miles from the Site. For example, in 2014, PFNA was detected at 150 ppt in the public water system of Paulsboro, New Jersey, prompting the New Jersey Department of Health to recommend that residents use bottled water for infant formula and other drinking uses for children up to the age of one year. Since that time, New Jersey adopted a Maximum Contaminant Level (i.e., drinking water standard) of 13 ppt for PFNA. Thus, the concentration present in Paulsboro's water was more than eleven times the regulatory limit permitted for drinking water.

13. Although Solvay ceased using products containing PFNA and PFOA in its manufacturing processes at the Site in 2010, it continued to discharge wastewater containing these and other PFAS compounds into the Delaware River. These discharges continue through today.

14. Despite multiple lines of evidence linking the Site to extensive PFAS contamination near and distant from the Site, Solvay has refused to take full responsibility for the necessary investigation and remediation. Instead, Solvay has repeatedly sought to blame other actors for PFNA contamination in the surrounding area, *despite that it was the dominant user of PFNA in the area for decades*. Solvay also has refused to comply with the Department's numerous directions to investigate all contamination

pathways and pay for the treatment of all contaminated drinking water.

15. Solvay also *continues to use* problematic "replacement" PFAS compounds at the Site, and has hidden much of its activity regarding these compounds from the Department and from public view.

16. More than a year-and-a-half ago, the Department issued a Statewide PFAS Directive, Information Request, and Notice to Insurers ("PFAS Directive") that required Solvay, among other things, to provide the Department with information regarding these "replacement" PFAS compounds. In response, Solvay disclosed to the Department that it has emitted and discharged so-called "replacement" PFAS compounds at the Site to New Jersey's air and water for many years. In fact, Solvay began using these "replacement" PFAS compounds before it stopped using either PFNA or PFOA, and it continues to use, emit, and discharge these compounds at the Site today.

17. Solvay has asserted that the specific chemical identities of the "replacement" PFAS compounds Solvay is using, emitting, and discharging at the Site, as well as emissions information, Safety Data Sheets, and toxicology and toxicokinetic studies that describe the health and environmental risks they pose, are confidential, trade secret, and proprietary. In so doing, Solvay has effectively barred the Department from disclosing this

information to the public at this time.<sup>1</sup> Solvay has also failed to provide the Department with publicly available technical grade analytical standards which would enable laboratory instruments to quantify these compounds in environmental samples.

18. According to an article published in Science in 2020 entitled "Nontargeted mass-spectral detection of chloroperfluoropolyether carboxylates in New Jersey soils," some of the "replacement" PFAS compounds that Solvay is likely using at the Site are chloroperfluoropolyether carboxylates ("ClPFPECAs").

19. Like PFNA and PFOA, ClPFPECAs have been identified in the environment in Gloucester and Salem Counties. For example, in 2020, EPA reported to the Department that it had detected ClPFPECAs in water samples collected from private potable wells near the Site.

20. Upon information and belief, ClPFPECAs pose risks to public health and the environment similar to the risks posed by PFNA and PFOA.

21. The Department will not wait any longer while Solvay seeks to escape responsibility for the contamination it has caused and puts its corporate interests over that of New Jersey's citizens and environment.

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<sup>1</sup> Plaintiffs are unable to allege certain facts at this time due to Solvay's confidential business information ("CBI") claims.

22. Accordingly, Plaintiffs bring this action to require Defendants to fully investigate and delineate all of the pollutants and hazardous substances, including PFAS compounds, that were and continue to be discharged, released, and/or emitted from the Solvay Site, wherever they have come to be located. In the alternative, Plaintiffs seek all of the costs necessary to fully investigate and delineate all of the pollutants and hazardous substances, including PFAS compounds, that were and continue to be discharged, released, and/or emitted from the Solvay Site, wherever they have come to be located. In addition, Plaintiffs seek an order requiring Defendants to cease all unpermitted discharges, emissions, and disposal of all pollutants, hazardous substances, and solid wastes, including PFAS compounds, that continue to be discharged, emitted, and/or disposed from the Solvay Site. Plaintiffs also seek an order that would require Defendants to remediate, assess, and restore the Site and all of the off-site areas and natural resources of New Jersey that have been contaminated from the Solvay Site.<sup>2</sup> In the alternative, Plaintiffs seek all of the costs

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<sup>2</sup> The State is explicitly reserving its claims to remediate and restore the Delaware River, itself, until such time as the investigation work relating to the River is more fully complete. Additionally, in this litigation, the State is not asserting claims, costs, or damages associated with aqueous film-forming foam ("AFFF"). The State brings this action for contamination originating from Defendants' industrial operations, waste disposal practices, emissions, releases, and discharges at and from the Site, and does not assert claims or seek damages related to the use of AFFF.

necessary to remediate, assess, and restore the Site and all of the off-site areas, receptors (including potable wells), and natural resources of New Jersey that have been contaminated from the Solvay Site.

23. Plaintiffs also seek from Defendants past direct and indirect costs, damages for injuries to all natural resources, property damages, economic damages, restitution, disgorgement of the Defendants' ill-gotten profits, assessment against Defendants of the actual amount of any economic benefit accrued from violating applicable laws, lost income, lost taxes, punitive damages, pre-judgment and post-judgment interest, litigation fees and costs, and all other damages, costs, and equitable relief to which it may be entitled.

## **II. THE PARTIES**

24. The Department is a principal department within the Executive Branch of the State government. Under the leadership of the Commissioner, it is vested with the authority to conserve natural resources, protect the environment, prevent pollution, and protect the public health and safety. N.J.S.A. 13:1D-9; N.J.S.A. 58:10-23.11b; N.J.S.A. 58:10A-3.

25. The State is the trustee, for the benefit of its citizens, of all natural resources within its jurisdiction. Plaintiff the Department is vested with the authority to protect

this public trust and to seek compensation for any injury to the natural resources of this State. N.J.S.A. 58:10-23.11a. In addition, the State may act in its parens patriae capacity to protect the State's "quasi-sovereign" interests, including its interest in the health and well-being of its residents and the integrity of its natural resources. The Department brings this case in its trustee, parens patriae, and regulatory (police power) capacities, as well as in its capacity as an owner of real property directly impacted by contamination originating from the Site.

26. Plaintiff Commissioner is the Commissioner of the Department. N.J.S.A. 58:10-23.11b and N.J.S.A. 58:10A-3. In this capacity, the Commissioner is vested by law with various powers and authority, including those conferred by the Department's enabling legislation. N.J.S.A. 13:1D-1 to -19.

27. Plaintiff Administrator is the Chief Executive Officer of the New Jersey Spill Compensation Fund ("the Spill Fund"). N.J.S.A. 58:10-23.11j. As Chief Executive Officer of the Spill Fund, Plaintiff Administrator is authorized to approve and pay any cleanup and removal costs the Department incurs, N.J.S.A. 58:10-23.11f(c) and (d), and to certify the amount of any claim to be paid from the Spill Fund. N.J.S.A. 58:10-23.11j(d).

28. Defendant Solvay Specialty Polymers USA, LLC is a corporation duly organized under the laws of the State of Delaware, with its principal place of business located at 4500 McGinnis Ferry Road, Alpharetta, Georgia, 30005. Solvay Specialty Polymers USA, LLC is the corporate successor of Solvay Solexis, Inc. and Ausimont USA, Inc.

29. Defendant Arkema Inc. is a corporation duly organized under the laws of the State of Pennsylvania, with its principal place of business located at 900 First Avenue, King of Prussia, Pennsylvania, 19406. Arkema Inc. is the corporate successor of Atochem North America Inc., Elf Atochem North America Inc., and Pennwalt Corporation.

30. Defendants "ABC Corporations" 1-10, these names being fictitious, are entities with identities that cannot be ascertained as of the filing of this Complaint that are otherwise liable for the causes of action set forth herein.

### **III. AFFECTED NATURAL RESOURCES**

31. The "natural resources" of this State are all land, fish, shellfish, wildlife, biota, air, water, and other such resources owned, managed, held in trust, or otherwise controlled by the State. N.J.S.A. 58:10-23.11b.

32. The natural resources of this State include the "waters of the State," which are the ocean and its estuaries, all springs, streams and bodies of surface and groundwater, whether natural or artificial, within the boundaries of this State or subject to its jurisdiction. N.J.S.A. 58:10A-3(t).

33. New Jersey's habitats and ecosystems – forests, lakes, rivers, wetlands, agricultural lands, coastal estuaries, pinelands, and grasslands – are some of the most threatened in the nation. They are vulnerable to pollution, degradation, and destruction from the discharge of hazardous substances and pollutants.

34. Hazardous substances and pollutants discharged, released, and/or emitted from the Site have been found in the groundwater, surface water, sediments, soils, wetlands, air, biota, and other natural resources at and off the Site.

35. These natural resources have intrinsic (i.e., inherent existence) values. The current and future residents of New Jersey have a substantial interest in a clean environment.

**A. Groundwater**

36. Groundwater – that is, water that exists beneath the Earth's surface – is an extremely important natural resource for the people of New Jersey. More than half of New Jersey's population obtains drinking water from groundwater sources, and

more than 900 million gallons of water per day are used for that purpose.

37. Public and private wells, which provide access to groundwater, are widely used in the communities around the Site. Well water is used for drinking water, irrigation, and filling swimming pools, among other things.

38. Not only does groundwater serve as a source of potable water, it also serves as an integral part of the State's ecosystem. Groundwater may provide base flow to streams and influence surface water quality, wetland ecological conditions, and the health of the aquatic ecosystem.

39. Groundwater also provides cycling and nutrient movement within and among the State's bodies of water and wetlands, prevents saltwater intrusion, provides ground stabilization, prevents sinkholes, and helps to maintain critical water levels in freshwater wetlands.

40. Groundwater and the other natural resources of the State are unique resources that help sustain the State's economy.

41. Hazardous substances and pollutants discharged, released, and/or emitted from the Site have reached and adversely affected groundwater both on and off-Site. Groundwater at the Site is heavily contaminated with hazardous substances and pollutants, including, but not limited to, VOCs, metals, PFNA, PFOA, and other

PFAS compounds. Discharges, emissions and/or releases of hazardous substances and pollutants at the Site have further resulted in contamination of groundwater located underneath neighboring properties and miles away from the Site.

**B. Surface Water**

42. Surface waters are a critical ecological resource of New Jersey. New Jersey's surface water – which includes all water in the State's lakes, streams, and wetlands – is a primary source of drinking water in the State. Nearly half of New Jersey's population obtains its drinking water from surface water sources, and approximately 850 million gallons of surface water per day is used for that purpose. In addition, much of the population in the region of the State near the Site that uses groundwater for its drinking water is actually drawing upon hydraulically connected surface water bodies.

43. Surface water in New Jersey is also used for other commercial and industrial purposes, such as cooling water and electrical generation, boating, fishing, and transportation of goods and services.

44. The tourism and recreation industries, which are vital to the State's economy, are dependent on clean water and beaches.

45. Surface waters also provide commercial, recreational, aesthetic, and ecological value, including by supporting aquatic ecosystems, nearby communities, and the citizens of the State.

46. Hazardous substances and pollutants discharged, emitted, and/or released from the Site have reached and adversely affected surface waters on and off-Site. Due to the tidal nature of the Delaware River, surface water bodies both upstream and downstream of the Site have been adversely affected. Surface water bodies that have been contaminated by hazardous substances and pollutants discharged, emitted, and/or released from the Site include, but are not limited to: the Delaware River, Mantua Creek, Little Mantua Creek, Main Ditch, Woodbury Creek, Repaupo Creek, Pargey Creek, Still Run, and several non-tidal ponds.

### **C. Sediments and Soils**

47. New Jersey's land and aquatic resources are comprised of unique and complex ecosystems.

48. Sediments and soils are critical components of New Jersey's ecological resources.

49. Sediments and soils can sustain a wide diversity of plants and animals that are essential in a healthy ecosystem. They provide a living substrate for submerged and emergent flora and that support diverse invertebrate species, wading birds, and fish and shellfish populations.

50. Contaminated sediment and soil can be a source of contamination to other types of natural resources, including surface water, groundwater, and biota.

51. Hazardous substances and pollutants discharged, emitted, and/or released from the Site have reached and adversely affected sediments and soils on and off-Site.

**D. Wetlands**

52. Wetlands are a critical component of New Jersey's ecological resources, which include land and aquatic resources comprised of unique and complex ecosystems.

53. New Jersey has approximately 730,000 acres of freshwater wetlands and 250,000 acres of coastal wetlands.

54. Wetlands can sustain a wide diversity of plants and animals that are essential in a healthy food chain.

55. Wetlands perform many additional functions, which include the improvement of water quality, sediment trapping, groundwater recharge, shoreline protections, and protecting land from flooding and erosion.

56. Upon information and belief, hazardous substances and pollutants discharged, emitted, and/or released from the Site have reached and adversely affected wetlands on and off-Site.

**E. Air**

57. Air resources are vital to life. Pollution of air resources can injure human health and welfare, flora and fauna, and property, and can unreasonably interfere with the enjoyment of life and property in areas affected by such pollution. Air deposition (i.e., deposits of air contaminants on the Earth's surface) can also be a source of contamination to other types of natural resources, including surface water, groundwater, sediments and soils, wetlands, forests, and biota.

58. Air contaminants emitted from the Site have reached and adversely affected natural resources on and off-Site.

**F. Biota**

59. Biota, including the flora and fauna of the State, are critical ecological resources. New Jersey is home to more than 2,000 plant species, which include entire communities of rare flora that cannot be found anywhere else in the world. Approximately 15 percent of the native plant species in New Jersey, however, are now at risk of extinction, with a total of 331 vascular plant species listed as endangered and an additional 32 that have already been extirpated.

60. New Jersey wildlife includes approximately 900 species, including 90 mammal species, 79 reptile and amphibian species, more than 400 fish species, and approximately 325 species of birds.

Approximately 1.5 million shorebirds and as many as 80,000 raptors make migratory stopovers in the State each year.

61. At least 17% of New Jersey's native vertebrate species and 24% of its native invertebrate species are at risk of extinction. Several threatened and endangered raptor species have difficulty breeding because of the bioaccumulation of toxic compounds.

62. New Jersey's biodiversity provides a wealth of ecological, social, and economic goods and services that are an integral part of the ecological infrastructure for all cultural and economic activity in the State.

63. Contamination from the discharge of hazardous substances and pollutants is one of the major causes of biodiversity loss.

64. Natural resource injuries to biota in New Jersey negatively impact not only the individual species directly involved, but the capacity of the injured ecosystems to regenerate and sustain such life into the future.

65. Hazardous substances and pollutants discharged, emitted, and/or released from the Site have reached and adversely affected biota on and off-Site.

#### **IV. GENERAL ALLEGATIONS**

66. The Site encompasses approximately 243 acres and is located at 10 Leonard Lane, West Deptford, Gloucester County. It

is also designated as Block 328, Lots 1.01 and 1.07 in West Deptford Township.

67. The Site is bordered on the north by the Delaware River, by a railroad line to the south, by undeveloped property to the east, and by Little Mantua Creek to the west.

68. The current manufacturing activities at the Site are located on the southernmost 34 acres of the property, which are zoned for industrial use. This area is known as the Main Plant Area ("MPA") and contains buildings, steel structures, and aboveground storage tanks that are used in the manufacturing process. A portion of the remaining 209 acres are used for agriculture while the rest is unused and generally classified as a mixture of open land, wooded and forested lands, and wetlands.

69. Groundwater beneath the Site is stored within the Potomac-Raritan-Magothy ("PRM") aquifer system, which is subdivided into lower, middle, and upper aquifers. Heavy regional groundwater pumping in Camden and Gloucester Counties has lowered the groundwater elevation within the MPA close to or below mean sea level. Under these conditions, regional groundwater flow is generally toward the south/southeast away from the Delaware River, which recharges (loses) water to the PRM aquifer system. Groundwater recharge in the vicinity of the Site is also influenced by shallow local aquifer zones. Further, local pumping centers

create cones of depression in the aquifers in the area, further influencing groundwater flow pathways.

**A. Site Ownership & Operational History**

70. Until 1970, the land on which the Site is now located was used primarily as farmland. National Steel Corp. purchased the Site in 1952. No steel production occurred at the Site.

71. Between 1961 and 1970, the United States Army Corps of Engineers deposited hydraulic dredge material removed from the Delaware River along the northern portion of the property; this area covers approximately 37 acres, and the depth of the dredge materials ranges from four to eight feet deep. This area is generally referred to as the Dredge Spoils Area ("DSA").

72. In 1970, Arkema purchased the property and built a chemical manufacturing facility that produced chlorofluorocarbon ("CFC") refrigerant gases under the trade name Isotron®. Arkema operated this plant until 1977, when it was decommissioned.

73. Between 1970 and 1977, the facility's waste streams were treated by an on-Site wastewater treatment system consisting of a sump and two neutralization pits which permitted solids to settle out. The clarified supernatant entered a retention pond where it was mixed with water softeners, boiler blowdown, and cooling tower blowdown prior to discharge to the Delaware River under a New Jersey Pollutant Discharge Elimination System ("NJPDES") permit.

74. Between 1977 and 1985, the plant was decommissioned and demolished. The wastewater treatment system and neutralization pits were also demolished; all pit lagoons, the neutralization pits, and the retention pond were backfilled.

75. Between 1983 and 1985, Arkema built a new manufacturing plant that produced industrial plastics and coatings, Kynar® (a fluoropolymer), hydrochlorofluorocarbon ("HCFC") gases, and polyvinylidene fluoride ("PVDF"). As further described below, Arkema began using Surflon®, a chemical mixture comprised of PFNA, perfluoroundecanoic acid ("PFUnDA" or "PFUnA"), PFOA and other PFAS compounds, in its manufacturing processes in 1985.

76. The new plant included: an incinerator designed to accept both liquid and gaseous wastes; an inorganic wastewater treatment system that discharged wastewater to the Delaware River under a NJPDES permit; and an organic wastewater treatment system that discharged wastewater to the Gloucester County Utilities Authority ("GCUA").

77. In October 1990, Arkema sold the Site to Solvay. Solvay has manufactured industrial plastics, coatings, and other chemicals at the Site from 1990 until today.

78. Products that have been manufactured on-Site by Solvay include, but are not limited to, PVDF (marketed by Solvay as Hylar® polymer), vinylidene fluoride, and Tecnoflon® fluoroelastomers and

perfluoroelastomers. As further described below, Solvay has used PFAS compounds in its manufacturing processes since 1990 and continues to use PFAS compounds at the Site today.

79. Waste streams from the current manufacturing processes continue to be treated by on-Site facilities, including an incinerator, an inorganic wastewater treatment system, and an organic wastewater treatment system. The inorganic wastewater treatment system continues to discharge wastewater to the Delaware River under a NJPDES permit, and the organic wastewater treatment system continues to discharge wastewater to the GCUA. Solvay disposes the sludge from its inorganic wastewater treatment system at off-Site landfills. Sludge from GCUA's treatment system has been applied to land as biosolids.

80. Manufacturing processes, discharges, emissions, and waste disposal practices at and from the Site have caused widespread soil, sediment, groundwater, and surface water contamination both on and off-Site. As a result of operations at the Site, natural resources on and off-Site have been contaminated by conventional hazardous substances and pollutants (including but not limited to VOCs, metals, and PCBs) and PFAS (including but not limited to PFNA, PFOA, and "replacement" PFAS products).

## **B. Conventional Contaminants**

### **a. OVERVIEW OF INVESTIGATION AND REMEDIATION**

81. Arkema finished construction of its plant in 1985, including an incinerator. In order to operate the incinerator, Arkema was required to obtain a permit under the Resource Conservation and Recovery Act ("RCRA"), which consisted of a Hazardous Waste Facility ("HWF") permit, as well as a permit pursuant to the Hazardous and Solid Waste Amendments of 1984 ("HWSA"). Arkema obtained the HWF permit by July 30, 1985, and the HWSA permit by April 24, 1989.

82. Pursuant to the HWSA permit, a RCRA Facility Assessment ("RFA") was conducted in late 1988. A June 1989 RCRA Facility Investigation ("RFI") report identified a total of 16 Solid Waste Management Units ("SWMUs"), including 12 that required further investigation.

83. Between 1989 and 1991, an additional 27 Areas of Concern ("AOCs") were identified pursuant to the New Jersey Environmental Cleanup Responsibility Act. These 27 AOCs are also known as "Historical AOCs".

84. Most of the soil investigations at the Site took place between 1990 and 2001, including sampling for numerous hazardous substances and pollutants, excavation of PCB-contaminated soil, and construction of a soil cap in the DSA.

85. Groundwater investigation activities conducted between 1989 and 2008 primarily focused on the MPA. In 2009, Solvay began to investigate groundwater contamination downgradient of the MPA, including at off-Site properties to the south of the Site.

86. The investigation revealed a plume of contaminants, including, but not limited to, 1,1-dichloroethene ("1,1-DCE") and 1,1-dichloro-1-difluoroethane ("HCFC-141b"), extending off-Site to the south.

87. In 2014, Solvay undertook a Preliminary Assessment ("PA") and a Site Investigation ("SI") as required pursuant to the Industrial Site Recovery Act. The PA identified two new AOCs that required additional soil investigation.

b. **CONVENTIONAL CONTAMINATION AT AND AROUND THE SITE**

88. As a result of multiple years of investigation at the Site, much of the injury to natural resources by conventional contaminants including, but not limited to VOCs and metals, is well-documented. These injuries include, but are not limited to, the following:

i. **Groundwater Contamination**

89. Historical Site operations have heavily contaminated groundwater on and off-Site with hazardous substances and pollutants, including but not limited to VOCs.

90. Groundwater samples collected between 2003 and 2012 detected numerous VOCs on-Site at concentrations exceeding applicable groundwater quality standards, including but not limited to 1,1,1-trichloroethane ("1,1,1-TCA"); 1,1-DCE; 1,1-dichloroethane; 1,2-dichloroethane; carbon tetrachloride; 1-chloro-1,1-difluoroethane ("HCFC-142b"); 1,1,1-trifluoroethane ("HCFC-143a"); HCFC-141b; 1,1,2-trichloro-1,2,2-trifluoroethane ("Freon 113"); and vinyl chloride.

91. Some contaminants exceeded groundwater quality standards by many orders of magnitude. For example, 1,1,1-TCA was measured on-Site at a concentration of 109,000 parts per billion ("ppb") (more than 3,600 times the groundwater quality standard of 30 ppb).

92. Certain VOCs, including 1,1-DCE and HCFC-141b, were detected at concentrations exceeding groundwater quality standards approximately 8,000 feet (1.5 miles) south of the Site.

93. Groundwater at the Site also contains metals of concern, including, but not limited to, aluminum, antimony, arsenic, beryllium, chromium, cobalt, iron, lead, manganese, nickel, and sodium, all of which have been detected on-Site at levels exceeding groundwater quality standards. Concentrations of aluminum in groundwater at the Site have been detected at levels up to 220,000 ppb, three orders of magnitude above the groundwater quality standard of 200 ppb.

94. Solvay has applied for two classification exception areas ("CEAs") for the groundwater underneath and off the Site due to the contamination exceeding groundwater quality standards and the need for remediation to protect human health and the environment. CEAs provide notice that the constituent standards for a given aquifer classification are not or will not be met in a localized area and suspend the designated uses of the groundwater in the affected area for the term of the CEA.

95. One of Solvay's proposed CEAs would be for contaminants found in the historic fill making up the DSA, and would include such contaminants as aluminum, antimony, arsenic, beryllium, cadmium, iron, lead, chromium, cobalt, nickel, sodium, and manganese. The total area of the historic fill CEA is 113 acres.

96. The second of Solvay's proposed CEAs is for Site-related releases that have contaminated groundwater resources on-Site and extending beyond the boundaries of the Site. This CEA would include contaminants such as carbon tetrachloride, 1,1,1-trichloroethane, 1,1,1-trifluoroethane, 1,1-dichloroethane, 1,2-dichloroethane, HCFC-141b, HCFC-143a, HCFC-142b, benzene, trichloroethane, vinyl chloride, methyl tertiary butyl ether and pH. The proposed boundary of this CEA covers approximately 303 acres. At its maximum, the groundwater contaminant plume boundary

for this CEA is approximately 10,000 feet (i.e., nearly two miles) long and 1,681 feet (i.e., nearly one-third of a mile) wide.

*ii. **Soils Contamination***

97. AOCs and SWMUs throughout the Site have been contaminated with total petroleum hydrocarbons, metals, VOCs, PCBs, SVOCs, and other pollutants.

98. In the 1990s, Solvay excavated approximately 1,100 tons of soil due to on-Site PCB contamination.

99. Soil samples taken at the Site in 2001 detected 1,1-DCE and 1,1,1-TCA above the reporting limits. 1,1-DCE was detected in 11 of the 26 soil samples taken and 1,1,1-TCA was detected in 17 of the 26 samples taken.

100. In 2014, Solvay detected contaminants on the Department's Extractable Petroleum Hydrocarbon List at levels exceeding applicable standards in two newly identified AOCs.

*iii. **Surface Water and Sediment Contamination***

101. Surface waters on and off-Site have been contaminated by hazardous substances and pollutants. Sampling of surface waters and sediments has revealed contamination in the open water drainage ditch north of the MPA and in the Delaware River. The main contaminants of concern are metals, such as manganese, cadmium, and antimony.

## **C. PFAS COMPOUNDS**

### **a. OVERVIEW**

102. PFAS are a family of chemical compounds containing fluorine and carbon atoms. PFAS have been used for decades to produce household and commercial products that are heat resistant, stain resistant, long lasting, and water and oil repellent. The PFAS family of chemicals is entirely manmade and does not occur in nature.

103. PFNA and PFOA, which are among the contaminants that are the subject of this action, are long-chain perfluoroalkyl carboxylic acids. PFNA has a totally fluorinated nine-carbon chain and a carboxylic acid functional group, while PFOA has a totally fluorinated eight-carbon chain and a carboxylic acid functional group. Although these chemicals have been used and discharged for decades, their threat to the public health and the environment has only relatively recently been revealed to regulators and the public.

104. PFNA and PFOA have characteristics that cause extensive and persistent environmental contamination. Specifically, they are mobile and persistent.

105. While these compounds may partition to soil depending on soil characteristics, they are mobilized by the percolation of rainwater and the rise of groundwater tables. Once soluble in groundwater, they can readily be transported great distances.

106. And they are persistent in that they do not biodegrade or chemically degrade in the environment and are not removed by conventional treatment systems for drinking water.

107. In short, once PFNA and PFOA are discharged or otherwise released onto land or into the air or water, they migrate through the environment and into groundwater, do not degrade, and are difficult and costly to remove.

108. PFNA and PFOA also bioaccumulate, bio-persist, and bio-magnify (the last of which refers to the increasing concentration of a chemicals in organisms at higher levels in the food chain) in people and other organisms.

109. PFNA and PFOA contamination in drinking water presents a serious threat to public health. Exposure to extremely low concentrations of PFNA and PFOA in drinking water results in increased concentrations in human blood serum that persists for years after exposure ends. PFNA persists in human blood serum even longer than PFOA. Humans can also be exposed through other routes, including consumption of contaminated foods (such as fish).

110. Exposure to PFAS in both humans and animals has been linked to several diseases.

111. PFOA exposure to humans is linked to increased cholesterol and liver enzymes, decreases in antibody response to vaccines, pregnancy-induced hypertension and preeclampsia, decreased birthweight, and testicular and kidney cancer.

112. While PFNA is similar in toxicity to PFOA, it is more bioaccumulative and, in animal studies, it is more potent (i.e., effects occur at lower doses) and some effects are more severe and persistent than for PFOA. In laboratory animals, PFNA is toxic to the liver, kidney, immune system, and male and female reproductive systems, and fetal and neonatal exposures cause persistent developmental delays in offspring. Based on this data and other sources, the Department has developed health-based standards to protect humans.

113. Notably, fetuses and newborns are particularly sensitive to PFNA and PFOA's toxicity. Further, exposures to newborns are higher (compared to other subpopulations) through breastmilk or prepared formula when drinking water is contaminated with PFNA and/or PFOA.

114. New Jersey is one of the states most impacted by PFNA in the country. During the U.S. EPA's third Unregulated Contaminant Monitoring Rule conducted during 2013-2015, PFNA was reported at

20 ppt or higher in 2.3 percent of the New Jersey public water systems tested, a significantly higher frequency than the national average of 0.2 percent.

115. Further, the levels of PFNA found in the Borough of Paulsboro's water supply in 2014 were higher than had ever been reported in drinking water elsewhere in the United States or the world.

116. The State has thus taken the lead in addressing the impact of PFNA contamination to public health and the environment. New Jersey has developed health-based standards for PFNA in drinking water and groundwater, including a maximum contaminant level ("MCL") in 2018. New Jersey's adoption of the MCL for PFNA made it the first state to adopt an MCL for any PFAS.

117. While the Department has sought to take necessary action to protect the public health, Solvay – individually and in concert with other major chemical companies and trade associations – has resisted these efforts.

118. Indeed, before the State and its citizens understood the scope of PFNA contamination in New Jersey, Solvay was messaging to the EPA that PFNA was not a risk to the general public, as further detailed below.

119. In 2003, the EPA initiated an enforceable consent agreement process concerning PFOA and related chemicals. As part of that process, Solvay and others formed the "APFN Work Group," which was a smaller working group within "the Fluoropolymer Manufacturers Group" coordinated by The Society of the Plastics Industry, Inc. ("SPI"). APFN, or ammonium perfluorononanoate, refers to the ammonium salt of PFNA, the form in which PFNA is manufactured.

120. The APFN Work Group had three members, Asahi Glass Co., Ltd., Arkema, and Solvay. According to the APFN Work Group's presentation to EPA on January 16, 2003, its members were "producers and users of APFN," and it was "[f]ormed to evaluate APFN as compared to APFO."

121. In the same presentation, the APFN Work Group provided the following summary to EPA to downplay any significant concerns regarding PFNA: First, the group suggested that PFNA would not be a widespread problem because "APFN [is] not widely used," and "[l]imited mostly to PVDF manufacturing." Second, the group stated that, at those limited places where APFN is used, "[s]ignificant reduction[s] in potential exposure sources [were] planned," including "[e]missions at fluoropolymer plants." Finally, the group stated that "[t]oxicity and environmental effects work" on PFNA was still "progressing."

122. During the following years, Solvay (through SPI and in conjunction with Asahi and Arkema) would submit toxicity studies for PFNA, and Solvay would also submit monitoring data on the presence of PFNA in its workers' blood to EPA. Solvay and others took the position in their submission to EPA that none of these data indicated a substantial risk of injury to human health or the environment.

123. No further action was taken at the federal level on PFNA. While the EPA organized the 2010/2015 PFOA Stewardship program, through which Solvay and other major users of PFOA and/or higher homologues, including PFNA, voluntarily agreed to reduce discharges and emissions, the risk to human health and the environment from existing PFNA contamination went unaddressed.

124. The Department was required to confront an unprecedented PFNA contamination problem.

125. On January 17, 2014, in response to the Borough of Paulsboro's Mayor's request for assistance, the Department provided a letter to Paulsboro focused on exposure of infants and children to PFNA. The letter stated that "out of an abundance of caution, the New Jersey Department of Health advises that residents use bottled water for powdered or concentrated infant formula and all other drinking uses for children up to the age of one year until the situation is resolved."

126. Thereafter, the Department began to develop further measures to respond to PFNA contamination.

127. On March 14, 2014, the Department posted an interim specific groundwater quality standard (a level applicable to groundwater used for drinking water that is health-based, and above which would pose an unacceptable human health risk from exposure through consumption) of 17 ppt, which, consistent with other groundwater criteria, was rounded one significant figure to 20 ppt. The interim groundwater standard was intended to be protective for chronic (lifetime) drinking water exposure.

128. Additionally, on March 21, 2014, the Commissioner requested that the New Jersey Drinking Water Quality Institute ("DWQI") – an institute charged under New Jersey law with developing MCLs for contaminants and recommending those standards to the Department for adoption – recommend an MCL for PFNA.

129. Pursuant to the Commissioner's request, DWQI set out to develop an MCL, and as part of that process released a draft support document for a health-based MCL, dated March 31, 2015. In response, Solvay submitted comments stating there could not be any health-based standard for PFNA. Solvay's consultants provided the comment that "it is premature to develop a maximum contaminant level (MCL) or any health-based standard for PFNA at this time."

130. DWQI continued its work, and on July 1, 2015, after public comment and a unanimous vote, DWQI recommended an MCL for PFNA of 13 ppt.

131. On November 25, 2015, the Department also updated its interim specific groundwater quality standard to 13 ppt, which was rounded one significant figure to 10 ppt.

132. On August 7, 2017, the Department, consistent with DWQI's recommendation, proposed an MCL for PFNA of 13 ppt.

133. Solvay responded by opposing the MCL, as it had done with all of the Department's other draft and proposed health-based standards for PFNA. On October 6, 2017, Solvay submitted comments stating that the MCL was not based on the "best information available," and that the MCL should simply be "withdrawn."

134. Additionally, Solvay moved against the interim groundwater quality standard for PFNA. Solvay, Arkema, and the Chemistry Council of New Jersey filed an action challenging the Department's authority to issue the interim standard. On December 19, 2017, the Appellate Division provided the Department with thirty days to begin the process of setting a permanent groundwater quality standard, which it did.

135. On January 16, 2018, the Department adopted a PFNA groundwater quality standard of 10 ppt, and also added PFNA to the Spill Act's list of hazardous substances.

136. On September 4, 2018, the Department adopted a PFNA MCL of 13 ppt, and concurrently amended the PFNA groundwater quality standard to 13 ppt.

137. Since the Department has adopted its MCL for PFNA, several other states have adopted their own MCLs for PFNA, all within the range of or lower than New Jersey's.

138. Similarly, the Department adopted standards for PFOA. On March 31, 2020, the Department adopted a PFOA MCL of 14 ppt, a PFOA groundwater quality standard of 14 ppt, and added PFOA to the Spill Act's list of hazardous substances.

139. Although Solvay stopped using products containing PFNA and PFOA in its manufacturing processes at the Site in 2010, Solvay has used - and continues to use - "replacement" PFAS products at the Site, the identities of which it claims are confidential. According to the article published in Science in 2020, some of the "replacement" PFAS compounds that Solvay is likely using at the Site are ClPFPECAs.

140. Like PFNA and PFOA, ClPFPECAs are PFAS compounds.

141. Upon information and belief, ClPFPECAs pose risks to public health and the environment similar to the risks posed by PFNA and PFOA. The European Chemicals Agency has classified the ClPFPECA congeners identified by Wang et al. (2013) as "Solvay's product" as a substance that "is fatal if swallowed, is fatal in

contact with skin, causes severe skin burns and eye damage, causes damage to organs through prolonged or repeated exposure and is toxic to aquatic life with long lasting effects."

142. The Department has previously expressed concern regarding this Solvay product. In January 2019, the Department commented to EPA:

Solvay's product consisting of congeners with >7 carbons is larger than GenX, a 6-carbon perfluorinated ether . . . [T]he data now available show that GenX causes toxicity at relatively low doses, and USEPA concluded that GenX is more potent than PFOA in mice, the most sensitive animal species for both compounds. Since toxicity and bioaccumulative potential of PFAS generally increase with longer carbon chain length, the data for GenX showing multiple non-carcinogenic and carcinogenic effects suggest that the longer chain-length polyether PFAS, such as the Solvay product, may similarly cause toxicological effects of concern.

143. Long-chain perfluoroether carboxylates generally similar to Solvay's product have been found to bioaccumulate in humans from exposure through drinking water in Wilmington, North Carolina. The California Department of Toxic Substances Control has indicated that perfluoroether carboxylic acids are "recalcitrant to degradation and extremely persistent in the environment" and "may have similar or higher toxic potency than the longer-chain [perfluoroalkyl acids, like PFOA] they are replacing."

b. **PFAS USAGE AND DISCHARGES AT THE SITE**

144. Beginning in approximately 1985 and continuing through today, PFAS compounds have been used as processing aids in the manufacture of Arkema and Solvay products made at the Site, including but not limited to PVDF and Tecnoflon® fluoroelastomers.

145. Surflon® was used at the Site as a processing aid in the manufacture of PVDF and other products between approximately 1985 and 2010, first by Arkema from approximately 1985 to 1990 and then by Solvay from approximately 1990 to 2010.

146. Surflon® is a commercial mixture of perfluorinated carboxylic acids composed primarily (approximately 79%) of PFNA. In addition to PFNA, Surflon® contains other long chain perfluorinated carboxylic acids including PFUnDA which has 11 carbons, perfluorotridecanoic acid ("PFTrA") which has 13 carbons, PFOA which has 8 carbons, perfluorodecanoic acid which has 10 carbons, and perfluorododecanoic acid which has 12 carbons.

147. AGC, Inc. (f/k/a Asahi Glass Co., Ltd.) manufactured the Surflon® used at the Site. Solvay used Surflon® at the Site until 2010 despite AGC, Inc. discontinuing production of Surflon® in 2008.

148. Solvay has reported using 275,730 lbs of Surflon® at the Site between 1991 and 2010. According to Solvay, 86.6 percent of the Surflon® used at the Site between 1991 and 2010 was released

into the environment through emissions to water and air, including 164,408 lbs discharged to water and 73,632 lbs emitted to the atmosphere. Solvay also reported disposing of approximately two percent of Surflon® used at the Site during this time at unidentified landfills.

149. Upon information and belief, releases of Surflon® from the Site to the water and atmosphere occurred prior to 1991.

150. Solvay also used sodium perfluorooctanoate ("NaPFO"), the sodium salt of PFOA, as a processing aid in the manufacture of PVDF between 1995 and 2003.

151. The 3M Company ("3M") manufactured the NaPFO used at the Site. Solvay continued to use NaPFO at the Site until 2003 despite 3M discontinuing production of NaPFO in 2002.

152. Solvay has reported using 23,241 lbs of NaPFO at the Site between 1995 and 2003. According to Solvay, approximately 97 percent of the NaPFO used at the Site between 1995 and 2003 was released into the environment through emissions to water and air, including 20,682 lbs discharged to water and 1,861 lbs emitted to the atmosphere. Solvay also reported disposing of approximately two percent of NaPFO used at the Site during this time at unidentified landfills.

153.

154. Although Solvay ceased using products containing PFNA and PFOA in its manufacturing processes at the Site in 2010, it has continued to discharge wastewater containing these and other PFAS compounds into the Delaware River. These discharges continue through today.

155. Further, Solvay has used "replacement" PFAS compounds at the Site as processing aids in the manufacture of PVDF and other products. Solvay began using these products before it stopped using either NaPFO or Surflon®, and it continues to use, emit, and discharge these products at the Site today. Solvay has reported discharging and emitting these products from the Site to New Jersey's air and water.

156. Solvay has claimed that the specific identities of the "replacement" PFAS products that it is using at the Site are confidential. According to the article published in Science in 2020, some of these products likely are ClPFPECAs. Like PFNA and PFOA, ClPFPECAs have been identified in the environment in Gloucester and Salem Counties.

c. **PFAS INVESTIGATION ON AND OFF-SITE**

157. Between 2007 and 2009, the DRBC conducted a multi-year survey of contaminants of emerging concern in the Delaware River. The survey found PFNA in the Delaware River water up to 976 ppt near the Site. This concentration of PFNA was higher than had

been reported in surface water anywhere else in the United States, or worldwide.

158. In 2009, the Department sampled 29 public community water system wells across the State for 10 different PFAS, including PFNA. The sampling detected PFNA in a PWS in Paulsboro, about two miles from the Site, at a level of 96 ppt.

159. Between 2010 and 2013, PFNA was detected in a New Jersey American Water public water system (Logan Birch Creek) located approximately 10 miles west-southwest from the Site at levels up to 72 ppt.

160. In September 2013, the Department required Solvay to test its effluent discharges to the Delaware River for the presence of PFAS once a month for four months. Solvay reported concentrations of PFNA up to 14,000 ppt and concentrations of PFOA up to 1,600 ppt.

161. In November 2013, Solvay submitted its first PFAS work plan for the Site to the Department. Solvay proposed to conduct limited sampling of seven public water systems, groundwater from on-Site monitoring wells, and surface water and sediments in the Delaware River, and to conduct air dispersion and deposition modeling of historic PFAS emissions from the Site.

162. The Department warned Solvay in a March 6, 2014 letter that "the sampling and modeling proposed . . . are not sufficient

to fully characterize the fate and occurrence of [PFAS] discharged from the site.”

163. In May 2014, Solvay also proposed a plan to conduct limited sampling of private potable wells in West Deptford and portions of East Greenwich Townships.

164. The Department warned Solvay that the plan was too limited, and in a letter dated June 12, 2014, the Department approved the plan only as an “initial step in the determination of the extent of [PFAS] contamination in private potable wells.”

165. Beginning in November 2013, Solvay conducted quarterly sampling of a limited number of public water systems in seven municipalities near the Site over a one-year period. PFNA concentrations at public water systems in five municipalities exceeded 20 ppt (West Deptford, East Greenwich, Greenwich, Woodbury, and Paulsboro). The two most contaminated public water systems were in Paulsboro, where PFNA was detected up to 150 ppt, and in Woodbury, where PFNA was detected up to 120 ppt.

166. In March and April 2014, Solvay sampled groundwater at monitoring wells on and off-Site. At on-Site monitoring wells, sampling revealed PFNA at concentrations of up to 482,000 ppt and PFOA at concentrations of up to 16,200 ppt. PFNA and PFOA were also detected in samples taken from off-Site monitoring wells. For

example, Solvay detected PFNA at a concentration of 2,680 ppt at an off-Site well approximately 1.3 miles from the Site.

167. In August 2014, Solvay collected limited samples of surface water, sediment, and pore water (i.e., water extracted from sediment samples) from the Delaware River. PFNA and PFUnDA were detected in more than half of the locations from which sediment samples were taken. PFNA and PFUnDA were also detected in pore water samples.

168. In 2014 and 2015, Solvay sampled 98 private potable wells near the Site. Twenty-five wells had PFNA concentrations above 13 ppt, with a maximum measured concentration of 1,500 ppt.

169. In March 2015, the Department required Solvay to test its effluent discharges to the Delaware River for the presence of PFAS once a month on a continuing basis. Since that time, Solvay has reported concentrations of PFNA in its effluent discharges as high as 14,000 ppt and concentrations of PFOA as high as 1,600 ppt.

170. Despite evidence of widespread PFAS contamination associated with the Site from multiple contaminant pathways, Solvay submitted a report to the Department in March 2015 that unilaterally concluded that no additional investigation of any public water system wells or private potable wells was needed in the area around the Site. Solvay also informed the Department that

it did not plan to conduct any additional investigation of surface water and sediment in the Delaware River, or to perform any additional air modeling.

171. At approximately the same time, on April 2, 2015, Solvay placed an advertisement in the *South Jersey Times* and issued a press release announcing that it "ha[d] completed the elements of the work plan developed with the New Jersey Department of Environmental Protection (NJDEP) and the U.S. Environmental Protection Agency (EPA)."

172. The Department informed Solvay in a letter dated July 31, 2015 that Solvay had not completed its investigation and that the company's conclusions were premature because it had not, among other things, evaluated the surface water to groundwater contaminant pathway and had not included scenarios and assumptions properly supported by peer-reviewed literature in its air dispersion modeling. The Department told Solvay to develop a conceptual site model that would evaluate all data collected to date from all media and evaluate all potential contaminant migration pathways.

173. In September 2015, Solvay submitted a second PFAS work plan to the Department for additional limited sampling and investigation, focused on sampling of groundwater at monitoring wells on and off-Site, sampling of soil on-Site, and sampling of

surface water and sediments from the Main Ditch and Little Mantua Creek, adjacent to the Site.

174. The Department again advised Solvay in a March 7, 2016 letter that its proposed investigation was inadequate. The Department wrote, "[Solvay's] focus remains on direct discharges/delineation from the facility and not the longer range transport of contaminants that are the concern of the Department, such as the Delaware River surface water to groundwater pathway that may explain the presence of PFASs so far from the direct facility discharges." The Department again instructed Solvay to develop a conceptual site model for the Site.

175. Following the Department's establishment of an interim specific groundwater quality standard for PFNA of 10 ppt in November 2015, Solvay submitted Immediate Environmental Concern ("IEC") Response Action Forms in December 2015, January 2016, and December 2016 identifying a limited area of potable wells impacted by PFNA downgradient and in close proximity to the Site.

176. The Department notified Solvay in a letter dated March 8, 2016 that it had failed to identify and address all receptors impacted by discharges of PFNA from the Site, including investigating the full extent of groundwater contamination and providing treatment on private wells impacted by PFNA. The Department wrote, "Since Solvay has a known discharge of [PFAS]

compounds extending off site via groundwater and surface water, Solvay is required to proactively address all impacted receptors by way of any migration pathway.”

177. To date, Solvay has not expanded the limited geographic area of potable wells impacted by PFNA that it identified in its December 2016 IEC reporting.

178. In 2015 and 2016, Solvay sampled groundwater monitoring wells on-Site and in a limited area off-Site. PFNA was detected in samples taken from almost every well at concentrations above 13 ppt, often by many orders of magnitude.

179. From May through August 2016, Solvay conducted soil sampling on and off-Site. PFNA was detected in on-Site soil samples at up to 2,400 ppb, and in off-Site soil samples up to 2.6 ppb.

180. In October 2016, Solvay sampled for and detected PFNA, PFOA, and PFUnDA in surface water, sediment, and pore water collected from the Main Ditch and Little Mantua Creek. PFNA was detected as high as 27 ppt in surface water, 7.9 ppb in sediment, and 940 ppt in pore water. PFUnDA was detected as high as 4.9 (estimated) ppt in surface water, 24 ppb in sediment, and 110 ppt in pore water.

181. In 2018, Solvay conducted a limited investigation of groundwater contamination off-Site to the south-southeast of the Site. Groundwater sampling conducted in September 2018 in this

area detected PFNA above 13 ppt in all sample locations. Concentrations of PFNA ranged from 45.1 ppt to 4,300 ppt.

182. In December 2019, the Department again informed Solvay that its investigation of PFAS contamination associated with the Site was incomplete and inadequate.

183. First, the Department identified multiple lines of evidence showing that PFAS discharges from the Site to the Delaware River between 1985 and 2010 caused widespread groundwater contamination around and distant from the Site. Due to the tidal nature of the Delaware River and the fact that the Delaware River recharges the PRM aquifer, PFAS discharged at the Site likely migrated both down river and up river into nearby tributaries, moved horizontally and downward through leaky confining units into the deeper aquifer system, and contaminated groundwater at locations not directly downgradient of the Site, including at locations proximal to the Delaware River and tidally influenced tributaries.

184. Second, the Department presented evidence to Solvay demonstrating that Solvay's emission of more than 70,000 lbs of Surflon® from air emission stacks at the Site likely contributed to soil contamination many miles from the Site, at far greater distances than predicted by Solvay's model.

185. Third, Department responded to Solvay's repeated attempts to point to other sources as the source of PFNA contamination in Gloucester County. While the activities pointed to by Solvay occur across New Jersey, the elevated PFNA levels found in the area surrounding the Site have not been detected elsewhere in New Jersey. There is no more concentrated finding of PFNA in the State as at and around the Solvay Site, where Solvay has reported that it used and released Surflon® - a product primarily consisting of PFNA - for decades. Further, while other activities may increase the presence of PFAS in the environment, PFNA would not be expected to be the dominant PFAS found in the environment from those activities; other PFAS would be expected to be found in higher concentrations. The PFNA-PFUnDA-PFTrA ratio in Surflon® is distinct, and it is consistent with the ratio of PFAS found in environmental media on and off-Site.

186. Finally, the Department again directed Solvay to investigate the surface water to groundwater contaminant pathway, to develop a conceptual site model, to conduct additional sampling of environmental media, and to resubmit an air deposition model that would fully address the air pathway from the Site as a source for off-Site deposition of PFAS.

187. Notwithstanding Solvay's repeated failures to fully investigate or address the PFAS contamination associated with the Site, the Department has taken multiple actions to address the contamination.

188. For example, the Department sampled 284 private potable wells in Gloucester and Salem Counties between January 2015 and July 2018. PFNA was detected in 42 wells at concentrations above the MCL of 13 ppt. The Department offered and provided treatment or an alternate water supply to all private well owners with PFNA detected at levels exceeding the MCL.

189. Since 2017, the Department has also collaborated with the DRBC and EPA's Office of Research and Development ("ORD") to investigate PFAS contamination related to the Site in various environmental media, including soils, vegetation, surface water, sediments, and groundwater. For example, the Department collected tidal surface water samples in the Delaware River upstream and downstream of the Site in 2017, including into the back reaches of tidal tributaries and creeks. Analysis of the samples performed by ORD revealed the presence of PFNA in surface water at concentrations up to 111 ppt in tidal tributaries.

190. Further, since 2014, the Department has installed Point of Entry Treatment systems ("POETs") at 40 properties in Gloucester County to address PFNA contamination associated with the Site. The

Department has installed POETs at an additional 30 properties in Gloucester and Salem Counties to address PFOA contamination associated with the Site.

191. Although Solvay stopped using Surflon® at the Site in 2010, it continues to use, discharge, and emit potentially harmful PFAS compounds into New Jersey's environment.

192. In April 2019, Solvay reported to the Department that it has discharged and emitted "replacement" PFAS products into New Jersey's environment for more than two decades, and that it continues to use, emit, and discharge these compounds today.

193. Solvay informed the Department in June 2019 that it had begun "expedited" development of analytical methods and standards capable of detecting and quantifying these pollutants in environmental media. But, to date, despite the Department's multiple requests, Solvay has failed to share publicly available technical grade analytical standards with the Department which would enable laboratory instruments to quantify the "replacement" PFAS products in the environment.

194. Analysis of soil and water samples by EPA has demonstrated that the "replacement" PFAS products Solvay is using likely include ClPFPECAs, and that these products have migrated off-Site.

195. For example, in 2020, ORD reported to the Department that it had detected ClPFPECAs in water samples collected from private wells near the Site.

196. Also in 2020, John W. Washington of ORD and his co-authors published an article in Science entitled "Nontargeted mass-spectral detection of chloroperfluoropolyether carboxylates in New Jersey soils." The authors reported that they had detected ClPFPECAs in soil samples collected in New Jersey in the dominant downwind direction from the Site, as far as 150 km from the Site.

d. **PFAS CONTAMINATION ON AND OFF-SITE**

197. In summary, investigations conducted to date establish that the use and release of PFAS compounds at the Site have caused and continue to cause widespread contamination of New Jersey's natural resources. Based on investigations conducted to date, injuries to natural resources include, but not are limited to, impacts to groundwater, soils, surface water and sediments, and biota. Because investigations conducted thus far cannot provide a full understanding of the off-Site PFAS contamination that operations at the Site have caused, the Department expects that further investigations will reveal additional injuries to natural resources.

***i. Groundwater Contamination***

198. Sampling and monitoring conducted at the Site and in the surrounding area have shown severe contamination of groundwater by PFNA, PFOA, and other PFAS compounds.

199. In New Jersey, PFNA has been detected as the primary PFAS compound in public supply wells in the two counties in the vicinity of the Solvay Site: Gloucester County - the County in which the Site is located - and the neighboring Camden County located to the northeast. PFNA has also been detected as a primary contaminant in private wells in Gloucester County.

200. The use and discharge of PFNA, PFOA, and other PFAS compounds at the Site has contaminated drinking water near and distant from the Site, including public water systems and private wells. As of March 19, 2019, out of the 400 private drinking water wells sampled as part of the potable well investigation associated with the Site, 83 wells - or 21 percent - required the installation of a POET for PFNA and/or PFOA.

***ii. Soils Contamination***

201. Sampling and monitoring conducted at the Site has shown high levels of contamination in on-Site soils by PFNA, PFOA, and other PFAS compounds. PFNA has also been detected in off-Site soil samples in the immediate vicinity of the Site.

202. As discussed, Solvay's emissions of PFAS compounds into the atmosphere via the Site's air emission stacks likely contributed to soil contamination miles from the Site as reported in Science in 2020.

*iii. **Surface Water & Sediment Contamination***

203. Releases and discharges of PFAS compounds at the Site have contaminated surface water and sediment in surface water bodies including, but not limited to, the Delaware River, Mantua Creek, Little Mantua Creek, Main Ditch, Woodbury Creek, Repaupo Creek, Pargey Creek, Still Run, and several non-tidal ponds.

204. In 2007, during the period of time during which Solvay was using and discharging Surflon® at the Site, PFNA was detected in surface water samples collected from the Delaware River downstream of the Site at up to 976 ppt. PFUnDA, another component of Surflon®, was also detected in locations where PFNA was found to be elevated.

205. In 2015 and 2016, the Department collected surface water samples from eleven waterways across the State. The highest levels of PFNA in any of the samples were found in Woodbury Creek, near the Site.

206. PFNA, PFOA, and PFUnDA were also detected in surface water collected by Solvay from the Main Ditch and Little Mantua Creek in October 2016.

207. Analysis of surface water samples collected by the Department in 2017 in the Delaware River upstream and downstream of the Site, including into the back reaches of tidal tributaries and creeks, revealed the presence of PFNA at concentrations up to 111 ppt in tidal tributaries.

208. Multiple lines of evidence demonstrate that PFAS compounds discharged at the Site into adjacent surface water bodies, including the Delaware River, migrated into nearby tributaries, their sediments, and then into groundwater near and distant from the Site, including at locations not directly downgradient of the Site.

*iv. Biota*

209. PFAS compounds released and discharged at the Site have contaminated animal and plant life on and off-Site.

210. For example, the DRBC sampled fish tissue in the Delaware River between 2007 and 2009. PFNA was detected in white perch and channel catfish downstream of the Site. PFUnDA, another component of Surflon® that is more bioaccumulative in fish than PFNA, was detected in even higher concentrations than PFNA in both white perch and channel catfish fish tissue. Notably, PFNA was not detected in fish tissue samples collected in 2012, after Solvay had ceased using Surflon® at the Site.

211. As another example, the Department collected fish tissue from eleven waterways across the State in 2015 and 2016. PFNA was only detected in fish tissue collected from Woodbury Creek and Fenwick Creek, a downstream Delaware River tributary. Further, the highest levels of PFUnDA detected in any of the samples were collected from Woodbury Creek.

**V. PFAS DIRECTIVE AND NON-COMPLIANCE**

212. On March 25, 2019, the Department issued the PFAS Directive to Solvay and other major users of PFAS in New Jersey.

213. With respect to Solvay, the PFAS Directive recited that, as of March 19, 2019, out of the 400 wells sampled as part of the potable well investigation around the Site, 83 wells - or 21 percent - required installation of a POET system for PFNA or PFOA.

214. The PFAS Directive recited that, as of March 4, 2019, the Department had incurred at least \$3,105,084.91 to investigate, monitor, test, treat, remediate, clean up and remove PFNA and PFOA from the area surrounding the Site, and that the Department continued to incur costs associated with PFNA and PFOA there on a daily basis.

215. The PFAS Directive required Solvay, within 30 days after receipt, to reimburse the Department for its previously incurred costs of \$3,105,084.91.

216. The PFAS Directive also required Solvay to assume responsibility for operation and maintenance of a substantial number of POETs installed by the Department to address PFNA and PFOA associated with the Site by taking action according to expedited site-specific timeframes.

217. Solvay has not provided the full reimbursement required in the PFAS Directive; nor has it assumed responsibility for operations and maintenance of all of the POETs as required by the PFAS Directive.

**VI. DEFENDANTS' FAILURE TO COMPLY WITH THE DEPARTMENT'S TECHNICAL REQUIREMENTS FOR SITE REMEDIATION**

218. Because Defendants are persons "in any way responsible" pursuant to the Spill Act, they are required to comply with the Department's Administrative Requirements for the Remediation of Contaminated Sites ("ARRCS") rules.

219. Pursuant to the Department's Technical Requirements for Site Remediation, N.J.A.C. 7:26E-1.3 and 7:26E-1.5(a) (the "Technical Requirements"), as a person subject to the requirements of the ARRCS rules, Defendants are required to conduct a remediation of contaminants discharged at the Site in accordance with the Technical Requirements.

220. Pursuant to N.J.A.C. 7:26E-4.3(a)(4), 7:26E-5.1(b) and 7:26E-5.1(d)(1) and (4) of the Technical Requirements, the Defendants are required to, inter alia, (1) delineate the

horizontal and vertical extent of all groundwater contamination to the groundwater remediation standards, and (2) remediate such contaminants in a manner that is "protective of public safety, health and the environment" and "complies with all applicable remediation standards." Defendants have failed to do so by not delineating the full extent of groundwater contamination caused by their discharges or remediating such contamination.

221. Moreover, although Defendants are required to do so, they have failed to investigate and remediate all contaminants, including but not limited to PFNA and PFOA, to applicable standards and to post a remediation funding source in connection with same.

**VII. SOLVAY'S ACTUAL MALICE / WANTON AND WILLFUL DISREGARD**

222. Solvay, as detailed above, committed acts and omissions with respect to its use and discharge of PFNA, PFOA, and other PFAS, including but not limited to its "replacement" PFAS products, with actual malice and/or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions.

223. Solvay's conduct was driven by its desire to profit from the sale of its products and avoid the expense of properly disposing of and cleaning up PFAS, despite the harm it would cause New Jersey's citizens and the environment, through contamination of drinking water, groundwater, surface water, and other natural resources.

224. Therefore, Solvay engaged in especially egregious and outrageous conduct and should be punished so as to discourage the company from engaging in similar misconduct in the future.

**VIII. SCOPE OF ACTION**

225. Through this action, Plaintiffs are not seeking damages, remediation, or restoration with respect to any contamination related to AFFF, which is a product that contains PFAS compounds and is not within the scope of this litigation. Plaintiffs bring this action for contamination originating from Defendants' industrial operations, waste disposal practices, emissions, releases, and discharges at and from the Site, and do not assert claims or seek damages related to the use of AFFF.

226. Likewise, and notwithstanding anything to the contrary herein, Plaintiffs are not asserting claims or seeking costs or damages regarding the remediation or restoration of the Delaware River at this time. While Plaintiffs are seeking an order requiring Defendants to perform or pay all costs necessary to investigate, locate, and assess all contamination that has been emitted, released, or discharged from the Solvay Site, including emissions, releases, and discharges at or from the Site to the Delaware River, Plaintiffs are explicitly reserving their claims to remediate and restore the Delaware River, itself, until such time as the investigation work is more fully complete. However,

any contamination emanating from or related to the Site that has migrated to and/or impacted other natural resources (e.g., potable water) via a pathway that includes the Delaware River is within the scope of this action.

**FIRST COUNT**  
**(Spill Act)**

227. Plaintiffs repeat each allegation of Paragraphs 1 through 225 above as though fully set forth in its entirety herein.

228. Each Defendant is a "person" within the meaning of N.J.S.A. 58:10-23.11b.

229. The discharge of hazardous substances is prohibited. N.J.S.A. 58:10-23.11c.

230. Many of the contaminants of concern discharged at the Site are hazardous substances as defined in N.J.S.A. 58:10-23.11b, including, but not limited to, PFNA and PFOA.

231. Except as otherwise provided in N.J.S.A. 58:10-23.11g(12), which is not applicable here, any person who discharges a hazardous substance, or is in any way responsible for any hazardous substance, shall be liable, jointly and severally, without regard to fault, for all cleanup and removal costs no matter by whom incurred. N.J.S.A. 58:10-23.11g(c).

232. Because each Defendant discharged hazardous substances and is in any way responsible for hazardous substances pursuant to N.J.S.A. 58:10-23.11g, each is a "person responsible for conducting the remediation" pursuant to N.J.A.C. 7:26C-1.3.

233. The person responsible for conducting the remediation is required to perform remediation consistent with the Technical Requirements for the Remediation of Contaminated Sites, N.J.A.C. 7:26E-1.5, and must ensure that each remedial action is protective of public health, safety, and the environment, N.J.A.C. 7:26E-5.1(d). Defendants have failed to do so.

234. The Department and the Administrator have incurred, and will continue to incur, costs and damages, including lost use and value, costs of restoration and replacement for natural resources of this State that have been, or may be, injured as a result of discharges at the Site, and assessment costs.

235. The costs and damages the Department and the Administrator have incurred, and will incur, associated with discharges at the Site, are "cleanup and removal costs" within the meaning of N.J.S.A. 58:10-23.11b.

236. Solvay and Arkema, as dischargers of hazardous substances at the Site, are liable, jointly and severally, without regard to fault, for all cleanup and removal costs and direct and indirect damages, including lost use and value, costs of

restoration and replacement, and assessment costs, the Department and Administrator have incurred, and will incur, to assess, mitigate, restore, or replace any natural resource of this State that has been, or may be, injured as a result of the discharge of hazardous substances at the Site. N.J.S.A. 58:10-23.11g(c)(1).

237. Solvay and Arkema, as owners and/or operators of the Site at the time hazardous substances were discharged there, also are persons in any way responsible, and are liable, jointly and severally, without regard to fault, for all cleanup and removal costs and direct and indirect damages, including lost use and value, costs of restoration and replacement, and assessment costs the Department and Administrator have incurred, and will incur, to assess, mitigate, restore, or replace any natural resource of this State that has been, or may be, injured as a result of the discharge of hazardous substances at the Site. N.J.S.A. 58:10-23.11g(c)(1).

238. Further, Solvay, by not complying with the PFAS Directive issued to it, is strictly liable in an amount up to three times the cleanup and removal costs and damages, including lost use and value, costs of restoration and replacement, and assessment costs the Department and Administrator have incurred, and will incur, to assess, mitigate, restore, or replace any natural resource of this State that has been, or may be, injured as a

result of the discharge of hazardous substances at the Site.  
N.J.S.A. 58:10-23.11.f.a(1).

239. Pursuant to N.J.S.A. 58:10-23.11u(a)(1)(a) and N.J.S.A. 58:10-23.11u(b), the Department may bring an action in the Superior Court for, inter alia, injunctive relief, N.J.S.A. 58:10-23.11u(b)(1); for its unreimbursed investigation, cleanup and removal costs, including the reasonable costs of preparing and successfully litigating the action, N.J.S.A. 58:10-23.11u(b)(2); for natural resource restoration and replacement costs, N.J.S.A. 58:10-23.11u(b)(4); and for any other unreimbursed costs or damages the Department incurs under the Spill Act, N.J.S.A. 58:10-23.11u(b)(5).

240. Pursuant to N.J.S.A. 58:10-23.11g(a) and (b), Defendants are also liable for lost income due to damage to natural resources destroyed or injured by discharges of hazardous substances at or from the Site, and loss of State tax revenue due to damage to property and natural resources proximately resulting from such discharges at the Site.

241. As a direct or indirect result of such violations, the Department and the Administrator have incurred, are incurring, and will continue to incur substantial costs including costs relating to:

- a. the investigation, cleanup, and removal of discharged hazardous substances;
- b. the restoration of natural resources contaminated by discharges of hazardous substances at the Site;
- c. the compensation of the citizens of New Jersey for the lost interim value and benefits of natural resources contaminated by discharges of hazardous substances at the Site; and
- d. the institution of corrective measures including monitoring of all impacted and potentially impacted public and private drinking water supplies for the presence of hazardous substances, provision of interim water supplies to residents whose water supplies have been contaminated due to such discharges, the establishment of acceptable sources of potable water to injured members of the public, and other necessary remedial actions, all at significant expense, loss, and damage.

242. The costs the Department and the Administrator have incurred, and will incur, are "cleanup and removal costs" within the meaning of N.J.S.A. 58:10-23.11b.

243. Pursuant to N.J.S.A. 58:10-23.11g, the Administrator is authorized to bring an action in the Superior Court for any unreimbursed costs or damages paid from the Spill Fund.

**PRAYER FOR RELIEF**

**WHEREFORE**, the Department and the Administrator request that this Court enter judgment against Defendants as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring Solvay to cease all unpermitted discharges of hazardous substances, including PFAS, at or from the Site.
- b. Ordering Solvay to pay Plaintiffs' costs, including treble damages, pursuant to N.J.S.A. 58:10-23.11f and N.J.A.C. 7:26C-1.3, for Solvay's failure to fully comply with the 2019 PFAS Directive, including three times the following amounts: (i) \$2,049,640.91 as reimbursement for the then calculated past costs incurred, which remain unpaid; (ii) the costs to perform operation and maintenance of all of the POETs in West Deptford Township, Greenwich Township, Logan Township, Swedesboro Borough, and Oldman's Township, which are listed in the PFAS Directive and for which Solvay has refused to assume responsibility; (iii) the costs to sample and identify all potable wells within 500 feet downgradient, 500 feet

side gradient, and 250 feet up gradient of each of the impacted wells listed in the PFAS Directive for which Solvay has refused to assume responsibility; (iv) the costs to perform treatment and monitoring, in accordance with N.J.A.C. 7:26E-1.11, for all potable wells with documented exceedances of the 13 ppt PFNA MCL attributable to the Site and/or documented exceedances of the 14 ppt PFOA MCL attributable to the Site (including all wells impacted through a surface water to groundwater pathway, air deposition pathway, or a direct groundwater pathway); and (v) the costs to perform a proper remediation funding source review for all of the above, which Solvay failed to perform.

- c. Ordering each Defendant to reimburse the Department and Administrator, jointly and severally, without regard to fault, for all cleanup and removal costs and direct and indirect damages they have incurred, including lost use and value, costs of restoration and replacement for any natural resource of this State injured as a result of the discharge of hazardous substances at the Site, with applicable interest, and assessment costs;
- d. Finding each Defendant liable, jointly and severally, without regard to fault, for all future cleanup and

removal costs and direct and indirect damages, including lost use and value, costs of restoration and replacement for any natural resource of this State injured as a result of the discharge of hazardous substances at the Site, with applicable interest, and assessment costs;

- e. Compelling each Defendant, jointly and severally, without regard to fault, to perform any cleanup of the Site and contaminated areas off-site under direct oversight pursuant to N.J.S.A. 58:10C-27, and all other applicable laws and regulations;
- f. Compelling each Defendant, jointly and severally, without regard to fault, to fund the Department's performance of an assessment of any natural resource that has been, or may be, injured as a result of the discharge of hazardous substances at the Site, and compelling each Defendant to compensate the citizens of New Jersey, for the costs of restoration and replacement, including lost use and value of any injured natural resource;
- g. Ordering Defendants to pay for all compensatory damages for the lost value (including lost use) of the State's natural resources as a result of the contamination of such natural resources;

- h. Finding each Defendant liable, jointly and severally, without regard to fault, for loss of State tax revenue due to damage to real or personal property proximately resulting from a discharge;
- i. Finding that portions of the Solvay facility constitute conveyances used or intended for use in the willful discharge of one or more hazardous substances and that such portions of the facility are subject to forfeiture to the State pursuant to the provisions of N.J.S.A. 13:1K-1, et seq.
- j. Awarding the Department and the Administrator their costs and fees in this action pursuant to N.J.S.A. 58:10-23.11u(b)(2); and
- k. Awarding the Department and the Administrator interest and such other relief as this Court deems appropriate.

**SECOND COUNT**  
**(Water Pollution Control Act)**

244. Plaintiffs repeat each allegation of Paragraphs 1 through 242 above as though fully set forth in its entirety herein.

245. Solvay and Arkema are each a "person" within the meaning of N.J.S.A. 58:10A-3.

246. Except as otherwise exempted pursuant to N.J.S.A. 58:10A-6(d) and (p), which are not applicable here, it is unlawful for any person to discharge any pollutant except to the extent the

discharge conforms with a valid New Jersey Pollutant Discharge Elimination System permit issued by the Commissioner pursuant to the WPCA, or pursuant to a valid National Pollutant Discharge Elimination System permit issued pursuant to the federal Water Pollution Control Act, 33 U.S.C. §§ 1251 to -1387. N.J.S.A. 58:10A-6(a).

247. The unauthorized discharge of pollutants is a violation of the WPCA for which any person who is the discharger is strictly liable, without regard to fault. N.J.S.A. 58:10A-6(a).

248. Solvay and Arkema have discharged, and Solvay continues to discharge, pollutants, including various PFAS, in violation of the WPCA.

249. The Department has incurred, and will continue to incur, costs as a result of the discharge of pollutants at the Site.

250. The Department also has incurred, and will continue to incur, costs and damages, including the costs of investigation to establish a violation at the Site, costs in removing, correcting or terminating the adverse effects upon water quality or public health due to violations at the Site, and compensatory damages and any other actual damages for any natural resource of this State that has been, or may be, lost or destroyed as a result of the discharge of pollutants at the Site.

251. The costs and damages the Department has incurred, and will incur, for the Site are recoverable by the Commissioner within the meaning of N.J.S.A. 58:10A-10(c)(2)-(4).

252. Solvay and Arkema discharged pollutants at the Site, which discharges were neither permitted pursuant to N.J.S.A. 58:10A-6(a), nor exempted pursuant to N.J.S.A. 58:10A-6(d) or N.J.S.A. 58:10A-6(p), and are liable, without regard to fault, for all costs and damages, including compensatory damages and any other actual damages for any natural resource of this State that has been, or may be, lost or destroyed as a result of the discharge of pollutants at the Site.

253. Pursuant to N.J.S.A. 58:10A-10(c), the Commissioner may bring an action in the Superior Court for injunctive relief, N.J.S.A. 58:10A-10(c)(1); for the costs of any investigation, inspection, or monitoring survey which led to establishment of the violation, including the costs of preparing and litigating the case, N.J.S.A. 58:10A-10(c)(2); any cost incurred by Plaintiffs in removing, correcting, or terminating the adverse effects upon water quality resulting from any unauthorized discharge of pollutants for which action under this subsection may have been brought, N.J.S.A. 58:10A-10(c)(3); compensatory damages and any other actual damages for any natural resource of this State that has been, or may be, lost or destroyed as a result of the

unauthorized discharge of pollutants, N.J.S.A. 58:10A-10(c)(4); and the actual amount of any economic benefits accruing to the violator from any violation, including savings realized from avoided capital or noncapital costs resulting from the violation, the return earned or that may be earned on the amount of avoided costs, any benefits accruing as a result of a competitive market advantage enjoyed by reason of the violation, or any other benefit resulting from the violation, N.J.S.A. 58:10A-10(c)(5).

254. Pursuant to N.J.S.A. 58:10A-10(e), the Defendants shall be subject to a court ordered civil penalty not to exceed \$50,000.00 per day for a violation of the WPCA with each day's continuation of the violation constituting a separate violation.

255. Defendants' unpermitted discharges of pollutants, including PFAS, constitute violations of the WPCA.

**PRAYER FOR RELIEF**

**WHEREFORE,** the Commissioner requests that this Court enter judgment against Solvay and Arkema as follows:

- a. Preliminarily and permanently enjoining Solvay and Arkema, requiring Solvay to cease all unpermitted discharges of pollutants, including Solvay's "replacement" PFAS products and other PFAS, and requiring both Solvay and Arkema to remove, correct, or terminate the adverse effects on water quality resulting

from any unauthorized discharge of pollutants at or from the Site;

- b. Assessing Solvay and Arkema, without regard to fault, for the costs for any investigation, inspection, or monitoring survey, leading to establishment of the violation, including the costs of preparing and litigating the case;
- c. Finding Solvay and Arkema liable, without regard to fault, for all costs for removing, correcting, or terminating the adverse effects upon water quality resulting from any unauthorized discharge of pollutants at the Site;
- d. Finding Solvay and Arkema liable, without regard to fault, for all compensatory damages and other actual damages for any natural resource of the State that has been, or may be, injured, lost, or destroyed as a result of the unauthorized discharge of pollutants at the Site;
- e. Finding Solvay and Arkema liable, without regard to fault, for the amount of any economic benefits they have accrued, including any savings realized from avoided capital or noncapital costs, the return they have earned of the amount of avoided costs, and benefits each Defendant has enjoyed as a result of a competitive market

advantage, or any other benefit they have received as a result of having violated the WPCA;

- f. Finding that portions of the Solvay facility constitute conveyances used or intended for use in the purposeful or knowing discharge, in violation of the provisions of the WPCA, of one or more pollutants or toxic pollutants and that such portions of the facility are subject to forfeiture to the State pursuant to the provisions of N.J.S.A. 13:1K-1, et seq.
- g. Ordering Defendants to pay a civil penalty not to exceed \$50,000.00 per day for each violation of the WPCA with each day's continuation of the violation constituting a separate violation;
- h. Awarding the Commissioner her costs and fees in this action pursuant to N.J.S.A. 58:10A-10(c)(2); and
- i. Awarding the Commissioner interest and such other relief as the Court deems appropriate.

**THIRD COUNT**  
**(Solid Waste Management Act)**

256. Plaintiffs repeat each allegation of Paragraphs 1 through 254 above as though fully set forth in its entirety herein.

257. Solvay and Arkema are each a "person" within the meaning of N.J.S.A. 13:1E-3.

258. The Solid Waste Management Act ("SWMA" or the "Act") defines "[s]olid waste" as, inter alia, "discarded materials resulting from industrial, commercial and agricultural operations" and "all other waste materials." N.J.S.A. 13:1E-3. N.J.A.C. 7:26-1.6(b) defines "other waste material," in pertinent part, as "any solid, liquid, semi-solid or contained gaseous material, including, but not limited to spent material, sludge, by-product, discarded commercial chemical products, or scrap metal resulting from industrial, commercial, mining or agricultural operations, from community activities, or any other material which has served or can no longer serve its original intended use, which . . . [i]s discarded or intended to be discarded . . . [i]s applied to the land or placed on the land or contained in a product that is applied to or placed on the land in a manner constituting disposal." N.J.A.C. 7:26-1.6(b) provides that "a material is also a solid waste if it is 'disposed of' by being discharged, deposited, injected, dumped, spilled, leaked or placed into or on any land or water so that such material or any constituent thereof may enter the environment or be emitted into the air or discharged into ground or surface waters."

259. N.J.S.A. 13:1E-3 of the SWMA and N.J.A.C. 7:26-1.4 define "disposal" as "the storage, treatment, utilization, processing, resource recovery of, or the discharge, deposit,

injection, dumping, spilling, leaking or placing of any solid or hazardous waste into or on any land or water, so that the solid or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including groundwaters."

260. Various constituents present in soils, groundwater, and surface water in and around the Site, including PFAS-related chemicals, are discarded materials and are "solid waste" as defined under N.J.S.A. 13:1E-3 and N.J.A.C. 7:26-1.6.

261. Solvay and Arkema have engaged in the past disposal, and/or are continuing to engage in the disposal, of solid waste in and around the Site in the form of various constituents, including PFAS-related chemicals, without first having filed a completed application for and received approval of a solid waste facility ("SWF") permit for such activities, resulting in the widespread presence of such solid wastes in soils, groundwater, and surface water in and around the Site, all in violation of N.J.A.C. 7:26-2.8(e).

262. Solvay and Arkema have engaged in the past disposal, and/or are continuing to engage in the disposal, of solid waste in and/or around the Site in the form of hazardous constituents, including PFAS-related chemicals, in excess of 0.148 cubic yards of solids and/or 30 gallons of liquids, at locations other than a

permitted SWF, resulting in the widespread presence of such solid wastes in soils, groundwater, and surface water in and around the Site, in violation of N.J.S.A. 13:1E-9.3.

263. Pursuant to N.J.S.A. 13:1E-9(b) and (d), when the Commissioner finds that a person has violated any provision of the SWMA or any regulations adopted pursuant to the SWMA, the Commissioner is authorized to bring a civil action in Superior Court seeking temporary or permanent injunctive and other relief, as well as assessment of the violator for the costs of any investigation, inspection, or monitoring leading to the establishment of the violation, costs incurred by Plaintiffs in removing, correcting or terminating the adverse effects to water and air quality resulting from the violation, and assessment against the violator of compensatory damages for any loss or destruction of wildlife, fish or aquatic life, and for any other actual damages, all of which relief may be awarded in a summary manner.

264. Pursuant to N.J.S.A. 13:1E-9(f), when the Commissioner finds that a person has violated any provision of the SWMA or any regulations adopted pursuant to the SWMA, the Commissioner is authorized to bring a civil action in Superior Court seeking a civil penalty of \$50,000.00 per day.

**PRAYER FOR RELIEF**

**WHEREFORE,** the Commissioner requests that this Court enter judgment against Solvay and Arkema as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring Solvay to cease all unlawful and unpermitted disposal of solid wastes, including PFAS, at all locations on and off the Site.
- b. Ordering Solvay and Arkema to, jointly and severally, fully comply with the SWMA by, inter alia, removing all unlawfully disposed of solid waste, including PFAS-related chemicals, under direct oversight pursuant to N.J.S.A. 58:10C-27, from all locations on and off the Site at which the same have come to be located and for which Solvay and Arkema did not obtain a SWF permit;
- c. Ordering Solvay and Arkema, jointly and severally, to reimburse the Commissioner for the reasonable costs of preparing and litigating her claim seeking the enforcement of Solvay's and Arkema's obligations pursuant to the SWMA;
- d. Ordering Solvay and Arkema, jointly and severally, to reimburse the Commissioner for the cost incurred by the Department in assessing, removing, correcting, or

- terminating the adverse effects upon water and air quality resulting from their violations of the SWMA Act;
- e. Ordering Solvay and Arkema, jointly and severally, to compensate Plaintiffs for the loss or destruction of wildlife, fish or aquatic life, and other actual damages caused by their violations of the SWMA; and
  - f. Finding that portions of the Solvay facility constitute conveyances used or intended for use in the willful discharge, in violation of the provisions of the SWMA, of any solid waste, or hazardous waste as defined in N.J.S.A. 13:1E-38 et seq. and that such portions of the facility are subject to forfeiture to the State pursuant to the provisions of N.J.S.A. 13:1K-1 et seq.
  - g. Ordering Defendants to pay a civil penalty not to exceed \$50,000.00 per day for each violation of the SWMA with each day's continuation of the violation constituting a separate violation;
  - h. Awarding the Commissioner such other relief as this Court deems appropriate.

**FOURTH COUNT**  
**(Brownfield and Contaminated Site Remediation Act - As Against Solvay)**

265. Plaintiffs repeat each allegation of Paragraphs 1 through 263 above as though fully set forth in its entirety herein.

266. Solvay is a "person" within the meaning of N.J.S.A. 58:10-23.11b and N.J.S.A 58:10B-1.

267. Solvay is a "discharger" of contaminants at the Site.

268. The contaminants of concern at the Site are hazardous substances as defined in N.J.S.A. 58:10-23.11b and pollutants as defined in N.J.S.A. 58:10A-3.

269. Solvay is a "person in any way responsible," pursuant to the Spill Act, N.J.S.A. 58:10-23.11, for any hazardous substance that was discharged at the Site, and as an "owner of the real property where the discharge occurred at the time of the discharge" N.J.A.C. 7:26C-1.4.

270. Pursuant to Section 58:10B-1.3 of the Brownfield Act, as the discharger of a hazardous substance at the Site and as a person in any way responsible for a hazardous substance pursuant to N.J.S.A. 58:10-23.11g, Solvay is affirmatively obligated to remediate the discharged hazardous substances at and from the Site.

271. Pursuant to Sections 58:10B-1.3 and 58:10B-3 of the Brownfield Act, Solvay is also required to establish a remediation funding source in an amount necessary to pay the costs to remediate the Site because it is a person in any way responsible for a hazardous substance under the Spill Act, it is a recipient of the PFAS Directive and numerous orders, and it is a discharger of contaminants (including hazardous substances and pollutants).

272. Pursuant to Sections 58:10B-1.3 and 58:10B-3 of the Brownfield Act, Solvay is also required to establish a remediation funding source in an amount necessary to pay the costs to remediate the Site because Solvay is the owner of an Industrial Establishment for which multiple transactions triggered obligations pursuant to the Industrial Site Recovery Act, N.J.S.A. 13:1K-6, as confirmed by the filing of multiple General Information Notices with the Department.

273. Pursuant to N.J.A.C. 7:26C-1.4, Solvay is a person "in any way responsible" pursuant to the Spill Act required to comply with the Department's ARRCs rules.

274. Pursuant to the Department's Technical Requirements for Site Remediation, N.J.A.C. 7:26E-1.3 and 7:26E-1.5(a) (the "Technical Requirements"), as a person subject to the requirements of the ARRCs rules, Solvay is required to conduct a remediation of contaminants discharged at the Site in accordance with the Technical Requirements.

275. Pursuant to N.J.A.C. 7:26E-4.3(a)(4), 7:26E-5.1(b) and 7:26E-5.1(d)(1) and (4) of the Technical Requirements, Solvay is required to, inter alia, (1) delineate the horizontal and vertical extent of all groundwater contamination to the groundwater remediation standards, and (2) remediate such contaminants in a manner that is "protective of public safety, health and the

environment" and "complies with all applicable remediation standards." Solvay has failed to do so by not delineating the full extent of groundwater contamination caused by its discharges or remediating such contamination.

276. Moreover, although Solvay is required to do so, Solvay has failed to investigate and remediate all contaminants, including but not limited to PFNA and PFOA, to applicable standards and to post a remediation funding source in connection with same.

277. As a direct or indirect result of the foregoing violations, the Department and the Administrator have incurred, are incurring, and will continue to incur substantial costs including costs relating to the investigation, cleanup, and removal of discharged constituents and other materials, and NJDEP has been thwarted in its right pursuant to the Brownfield Act to obtain the financial assurance necessary to ensure that all hazardous substances at and emanating from the Site will be cleaned up in accordance with the Brownfield Act and NJDEP's regulatory requirements.

**PRAYER FOR RELIEF**

**WHEREFORE,** the Department and the Administrator request that this Court enter judgment against Solvay as follows:

- a. Ordering Solvay to fully comply with the Brownfield Act by, inter alia, performing remediation under direct

oversight pursuant to N.J.S.A. 58:10C-27, submitting a remedial investigation workplan and remedial investigation report pertaining to all locations at which PFAS and PFAS-related pollutants, contaminants and/or hazardous substances originating from the Site have come to be located, establishing a properly valued remediation funding source for the Site in conformance with N.J.A.C. 7:26C-5.1 to -5.13, and submitting a proposed public participation plan that contains the strategy for and schedule of soliciting public comment from the members of the surrounding community concerning the remediation of the site;

- b. Ordering Solvay to reimburse the Department and Administrator for the reasonable costs of preparing and litigating their claim seeking the enforcement of Solvay's obligations under the Brownfield Act; and
- c. Awarding the Department and the Administrator such other relief as this Court deems appropriate.

**FIFTH COUNT**

**(Site Remediation Reform Act and Administrative Requirements for  
the Remediation of Contaminated Sites)**

278. Plaintiffs repeat each allegation of Paragraphs 1 through 276 above as though fully set forth in its entirety herein.

279. Solvay and Arkema are each a "person" within the meaning of N.J.S.A. 58:10C-2.

280. Many of the contaminants of concern discharged at the Site are hazardous substances as defined in N.J.S.A. 58:10C-2.

281. Solvay and Arkema are each a "discharger" of hazardous substances at the Site within the meaning of N.J.S.A. 58:10C-2.

282. Solvay and Arkema are each a "person responsible for conducting the remediation" pursuant to N.J.S.A. 58:10C-2 because each is the discharger of a hazardous substance at the Site and a person in any way responsible for a hazardous substance pursuant to N.J.S.A. 58:10-23.11g.

283. Solvay and Arkema are also each a "person responsible for conducting the remediation" pursuant to N.J.S.A. 58:10C-2 because each has been the owner of an Industrial Establishment for which multiple transactions triggered obligations pursuant to the Industrial Site Recovery Act, N.J.S.A. 13:1K-6, as confirmed by the filing of multiple General Information Notices with the

Department.

284. The Site is being remediated partially to satisfy the obligations under RCRA and is a priority site under the RCRA Government Performance and Results Act (i.e., RCRA 2020 GPRA Site).

285. Accordingly, pursuant to N.J.A.C. 7:26C-2.3(a)3i(3), the remediation of the Site may only be conducted with prior Department approval (i.e., Traditional Oversight).

286. Solvay has repeatedly refused to acknowledge or comply with its obligation to meet this legal requirement.

287. Pursuant to N.J.A.C. 7:26C-3.4(a) and (b), the Department may establish an expedited site-specific remediation timeframe so long as it notifies the person responsible for conducting the remediation in writing.

288. When the Department determines that the person responsible for conducting the remediation has failed to meet the expedited site-specific timeframe for a site, area of concern, or condition, such site, area of concern, or condition is subject to Direct Oversight of the Department. N.J.A.C. 7:26C-3.4(d).

289. In the 2019 PFAS Directive, Solvay was ordered to comply with expedited site-specific deadlines with respect to certain potable wells in West Deptford Township, Greenwich Township, Logan Township, Swedesboro Borough, and Oldman's Township. In addition, Solvay was ordered to identify, sample, and implement treatment

and monitoring of all wells with documented exceedances of the PFNA MCL or PFOA action level attributable to the Site.

290. Because Solvay has not fully complied with these expedited site-specific timeframes, it is subject to Direct Oversight pursuant to N.J.A.C. 7:26C-3.4(d) and N.J.A.C. 7:26C-14.2(b).

291. Pursuant to N.J.S.A. 58:10C-27(b), the Department may undertake Direct Oversight when the Department determines that more than one environmentally sensitive natural resource has been injured by contamination from the Site.

292. Pursuant to N.J.A.C. 7:1E-1.8, environmentally sensitive natural resources include surface waters and water resources used by a public water system, non-public water system, or water system.

293. The Department has determined that the Site has injured the Delaware River, several of its tributaries, and groundwater resources utilized for potable purposes.

294. Because the injuries to these natural resources are regional in scope, constitute far more than five acres, and involve injuries caused by bio-accumulative, persistent PFAS, the Department has determined that the entire remediation of the Site and all areas where contaminants from the Site have come to be

located shall be subject to Direct Oversight.

**PRAYER FOR RELIEF**

**WHEREFORE**, the Department requests that this Court enter judgment against Solvay as follows:

- a. Ordering the Defendants, consistent with the Department's directions, requirements, and timeframes for remediation, to fully comply with the Defendants' Direct Oversight obligations pursuant to N.J.A.C. 7:26-3.4(d), N.J.S.A. 58:10C-27(c), and N.J.A.C. 7:26C-14.2(b); and
- b. Awarding the Department such other relief as this Court deems appropriate.

**SIXTH COUNT**  
**(Safe Drinking Water Act)**

295. Plaintiffs repeat each allegation of Paragraphs 1 through 293 above as though fully set forth in its entirety herein.

296. "The Legislature finds and declares that it is a paramount policy of the State to protect the purity of the water we drink and . . . that the maintenance of high-quality potable water is essential in order to safeguard the health and welfare of the people of the State. . . ." N.J.S.A. 58:12A-2.

297. Solvay and Arkema have discharged, and Solvay continues to discharge, hazardous substances, pollutants, and contaminants including various PFAS, each of which constitutes a "contaminant"

under N.J.S.A. 58:12A-3.

298. Those contaminants are present in and are likely to continue to enter water systems, as defined by N.J.S.A. 58:12A-3, which include both public water systems and nonpublic water systems (i.e., private wells), presenting an imminent and substantial endangerment to the health of persons.

299. Pursuant to N.J.S.A. 58:12A-6, "[t]he [C]ommissioner, upon receipt of information that a contaminant which is present in or is likely to enter a water system may present an imminent and substantial endangerment to the health of persons, may take such actions as [s]he may deem necessary in order to protect the health of such persons," including "commencing a civil action for appropriate relief, including a restraining order or permanent or temporary injunction."

**PRAYER FOR RELIEF**

**WHEREFORE,** the Commissioner requests that this Court enter judgment against Solvay and Arkema as follows:

- a. Declaring that Solvay's and Arkema's discharges and emissions of contaminants present in or likely to enter water systems present an imminent and substantial endangerment to the health of persons using such water systems.

- b. Preliminarily and permanently enjoining Solvay and Arkema, requiring Solvay to cease all discharges and emissions of contaminants, including Solvay's "replacement" PFAS products and other PFAS present in or likely to enter water systems, and requiring both Solvay and Arkema to remove, correct, or terminate the adverse effects on water systems that pose an imminent and substantial endangerment to the health of persons resulting from any discharges or emissions of contaminants at or from the Site;
- c. Finding Solvay and Arkema liable, without regard to fault, for all costs for removing, correcting, or terminating the adverse effects upon potable water quality that pose an imminent and substantial endangerment to the health of persons resulting from any discharge or emissions of contaminants at or from the Site;
- d. Awarding the Commissioner her costs and fees in this action; and
- e. Awarding the Commissioner interest and such other relief as the Court deems appropriate.

**SEVENTH COUNT**  
**(Air Pollution Control Act)**

1. Plaintiffs repeat each allegation of Paragraphs 1 through 298 above as though fully set forth in its entirety herein.

2. Solvay and Arkema are each a "person" within the meaning of N.J.S.A. 26:2C-2 and N.J.A.C. 7:27-1.4.

It is unlawful for any person to "cause suffer, allow or permit to be emitted into the outdoor atmosphere substances in quantities which shall result in air pollution." N.J.A.C. 7:27-5.2.

3. "'Air pollution' means the presence in the outdoor atmosphere of one or more air contaminants in such quantities and duration as are, or tend to be, injurious to human health or welfare, animal or plant life or property, or would unreasonably interfere with the enjoyment of life or property throughout the State and in such territories of the State as shall be affected thereby and excludes all aspects of employer-employee relationship as to health and safety hazards." N.J.A.C. 7:27-5.1.

4. "'Air contaminant' means any substance, other than water or distillates of air, present in the atmosphere as solid particles, liquid particles, vapors, or gases." N.J.S.A. 26:2C-2.

5. PFAS compounds emitted from the Site, including PFNA, PFOA, and "replacement" PFAS, are air contaminants that have, upon information and belief, caused air pollution, impacting off-site

soils and groundwater. These emissions of air contaminants are injurious to human health and welfare, animal and plant life, and property, and unreasonably interfere with the enjoyment of life and property within the State, thereby violating N.J.A.C. 7:27-5.2.

6. Pursuant to N.J.S.A. 26:2C-19(a) and 13:1D-9(e) and (n), the Department may bring an action for injunctive relief and any other appropriate relief to prohibit and prevent the violations.

7. Solvay and Arkema are not entitled to any affirmative defense because their emissions of PFAS contaminants from the Site have threatened and continue to pose a potential threat to public health, welfare, and the environment. N.J.S.A. 26:2C-19.3.

**PRAYER FOR RELIEF**

**WHEREFORE**, the Department requests that this Court enter judgment against Defendants as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring it to cease emitting PFAS air contaminants from the Site;
- b. Ordering Solvay and Arkema to remediate all soils and waters contaminated by their PFAS emissions in order to mitigate the injuries to human health and welfare, animal and plant life and property, and the unreasonable

interference with the enjoyment of life and property;  
and

- c. Awarding the Commissioner her costs and fees in this action and any other relief the Court deems appropriate pursuant to N.J.S.A. 26:2C-19(a).

**EIGHTH COUNT**  
**(Public Nuisance)**

306. Plaintiffs repeat each allegation of Paragraphs 1 through 305 above as though fully set forth in its entirety herein.

307. Groundwater, surface water, sediments, wetlands, air, and biota are natural resources of the State held in trust by the State.

308. The use, enjoyment, and existence of uncontaminated natural resources is a right common to the general public.

309. The contamination of the groundwater, surface water, sediment, wetlands, air, and biota at and around Solvay constitutes a physical invasion of the State's natural resources, and upon information and belief, the State's real property in the vicinity of the Site, and an unreasonable and substantial interference, both actual and potential, with (1) the exercise of the public's common right to these natural resources; (2) the State's special property and statutory status and obligations regarding the natural resources of the State; (3) the State's ability, through the Department, to protect, conserve and manage the natural

resources of the State, which are by law precious and invaluable public resources held by the State in trust for the benefit of the public; and (4) the rights of the people of the State to enjoy their natural resources free from interference by pollution and contamination.

310. As long as these natural resources at and around the Site remain contaminated due to Solvay's and Arkema's conduct, the public nuisance continues.

311. Until these natural resources are restored to their pre-injury quality, Solvay and Arkema are liable for the creation, and continued maintenance, of a public nuisance in contravention of the public's common right to clean natural resources.

312. Solvay and Arkema committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions.

313. In addition to being empowered by the common law, the Department is also empowered pursuant to N.J.S.A. 13:1D-9 to institute legal proceedings for the prevention of pollution of the environment and abatement of nuisances and shall have the authority to seek and obtain injunctive relief.

**PRAYER FOR RELIEF**

**WHEREFORE,** Plaintiffs request that this Court enter judgment against Solvay and Arkema as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring it to cease all ongoing unpermitted discharges and emissions of contaminants, including PFAS, contributing to the nuisance on and off the Site.
- b. Ordering Solvay and Arkema to reimburse the Department and Administrator for their costs of abatement, without regard to fault, including but not limited to all costs to investigate, clean up, restore, treat, monitor, and otherwise respond to contamination of the State's natural resources so that such natural resources are restored to their original condition;
- c. Compelling Solvay and Arkema to abate the nuisance by investigating, cleaning up, restoring, treating, monitoring, and otherwise responding to contamination in the State's natural resources so that such natural resources are restored to their original condition;
- d. Compelling Solvay and Arkema to pay special damages to Plaintiffs, funding the Department's performance of any further assessment and compensatory restoration of any natural resource that has been, or may be, injured as a

result of the discharge of hazardous substances and pollutants at the Site, and compelling Solvay and Arkema to compensate the citizens of New Jersey, for the costs of restoration and replacement, including lost use and value of any injured natural resource;

- e. Awarding Plaintiffs punitive damages in an amount to be determined by the Court;
- f. Awarding Plaintiffs their costs and fees in this action, including attorneys' fees incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- g. Awarding Plaintiffs such other relief as this Court deems proper.

**NINTH COUNT**  
**(Trespass)**

314. Plaintiffs repeat each allegation of Paragraphs 1 through 313 as if fully set forth in their entirety herein.

315. Groundwater, surface water, sediment, wetlands, air, and biota are natural resources of the State held in trust by the State for the benefit of the public. Groundwater is owned by the State for the benefit of its citizens.

316. The Department brings this claim in three capacities: (i) as public trustee; (ii) in its parens patriae capacity; and (iii) in its capacity as a property owner.

317. As the trustee over the State's natural resources, the Department has a duty to protect and restore all natural resources of the State and protect the health and comfort of its inhabitants.

318. In its parens patriae capacity, the State may protect its "quasi-sovereign" interests, including its interest in the well-being of its populace, as well as the populace's interest in the integrity of the State's natural resources. Accordingly, the Department is bringing this action for the invasion of a substantial number of its residents' possessory interests in the State's natural resources. Waters, sediments, air, and biota that have been affected by Solvay's and Arkema's contamination are mobile, moving to and inhabiting areas far from the immediate area of the initial contamination.

319. The hazardous substances and pollutants in the groundwater, surface water, sediment, wetlands, soils, air, and biota at and around Solvay, including, upon information and belief, on State-owned lands, constitute a physical invasion of property without permission or license.

320. Solvay and Arkema are liable for trespass, and continued trespass, because the hazardous substances and pollutants in the groundwater, surface water, sediment, wetlands, soils, air, and biota at and around the Site, as well as contamination previously

removed from the Site, resulted from discharges and emissions of hazardous substances and pollutants at and from the Site.

321. As long as the natural resources remain contaminated due to Solvay's and Arkema's conduct, the trespass continues.

322. Solvay and Arkema committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions.

**PRAYER FOR RELIEF**

**WHEREFORE**, Plaintiffs request that this Court enter judgment against Solvay and Arkema as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring it to cease all ongoing unpermitted discharges and emissions of contaminants, including PFAS, contributing to the trespass.
- b. Finding Solvay and Arkema liable, jointly and severally, for all costs to investigate, clean up, restore, treat, monitor, and otherwise respond to contamination of the State's natural resources so that such natural resources are restored to their original condition, and for all damages to compensate the citizens of New Jersey for the lost use and value of their natural resources during all times of injury caused by hazardous substances and

pollutants, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs of:

- 1) Past and future testing of natural resources likely to have been contaminated by hazardous substances or pollutants;
  - 2) Past and future treatment of all natural resources containing detectable levels of hazardous substances or pollutants restored to non-detectable levels; and
  - 3) Past and future monitoring of the State's natural resources to detect the presence of hazardous substances or pollutants, and restoration of such natural resources to their pre-discharge condition;
- c. Ordering Solvay and Arkema to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of contamination of the State's natural resources;
- d. Ordering Solvay and Arkema to pay for all damages in an amount at least equal to the full cost of restoring the State's natural resources to their original condition prior to the contamination;

- e. Ordering Solvay and Arkema to pay for all compensatory damages for the lost value (including lost use) of the State's natural resources as a result of the contamination of such natural resources;
- f. Ordering Solvay and Arkema to pay for all other damages sustained by Plaintiffs in their public trustee, parens patriae, proprietary, and regulatory capacities as a direct and proximate result of Solvay's and Arkema's acts and omissions alleged herein;
- g. Entering an order against Solvay and Arkema for all appropriate injunctive relief to abate or mitigate the contamination that Solvay and Arkema caused;
- h. Awarding Plaintiffs punitive damages in an amount to be determined by the Court;
- i. Awarding Plaintiffs costs and fees in this action, including attorneys' fees, incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- j. Awarding Plaintiffs such other relief as this Court deems appropriate.

**TENTH COUNT**  
**(Negligence)**

323. Plaintiffs repeat each allegation of Paragraphs 1 through 322 above as though fully set forth in its entirety herein.

324. Solvay and Arkema had a duty to Plaintiffs to ensure that hazardous substances and pollutants were not discharged at the Site and did not injure groundwater, surface water, sediment, wetlands, air, and biota at and around the Site.

325. Defendants breached these duties.

326. As a direct and proximate result of Solvay's and Arkema's discharge of hazardous substances and pollutants at the Site, groundwater, surface water, sediment, wetlands, soils, air, biota, and other natural resources at and around the Site have been injured. Solvay and Arkema are jointly and severally liable for such injuries and the consequential damages.

327. As a further direct and proximate result of Solvay's and Arkema's discharge of hazardous substances and pollutants at the Site, the Department and the Administrator have incurred, are incurring, and will continue to incur investigation, cleanup and removal, treatment, monitoring and restoration costs, and expenses for which Solvay and Arkema are jointly and severally liable.

328. The injuries and harm caused by Defendants' breaches were foreseeable consequences of Defendants' acts and omissions.

329. Defendants committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions.

**PRAYER FOR RELIEF**

**WHEREFORE**, Plaintiffs request that this Court enter judgment against Defendants as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring it to cease all ongoing unpermitted discharges and emissions of contaminants, including PFAS, on and off the Site.
- b. Finding Defendants liable, jointly and severally, for all costs to investigate, clean up, restore, treat, monitor, and otherwise respond to contamination of the State's natural resources so that such natural resources are restored to their original condition, and for all damages to compensate the citizens of New Jersey for the lost use and value of their natural resources during all times of injury caused by hazardous substances and pollutants, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs of:
  - 1) Past and future testing of natural resources likely to have been contaminated by hazardous substances or pollutants;
  - 2) Past and future treatment of all natural resources containing detectable levels of

hazardous substances or pollutants restored to non-detectable levels; and

- 3) Past and future monitoring of the State's natural resources to detect the presence of hazardous substances or pollutants, and restoration of such natural resources to their pre-discharge condition;
- c. Ordering Defendants to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of contamination of the State's natural resources;
  - d. Ordering Defendants to pay for all damages in an amount at least equal to the full cost of restoring the State's natural resources to their original condition prior to the contamination;
  - e. Ordering Defendants to pay for all compensatory damages for the lost value (including lost use) of the State's natural resources as a result of the contamination of such natural resources;
  - f. Ordering Defendants to pay for all other damages sustained by Plaintiffs in their public trustee, parens patriae, and regulatory capacities as a direct and

proximate result of the Defendants' acts and omissions alleged herein;

- g. Entering an order against Defendants for all appropriate injunctive relief to abate or mitigate the contamination that Defendants caused;
- h. Awarding Plaintiffs punitive damages in an amount to be determined by the Court;
- i. Awarding Plaintiffs costs and fees in this action, including attorneys' fees, incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- j. Awarding Plaintiffs such other relief as this Court deems appropriate.

**ELEVENTH COUNT**  
**(Abnormally Dangerous Activity)**

330. Plaintiffs repeat each allegation of Paragraphs 1 through 329 above as though fully set forth in its entirety herein.

331. Solvay and Arkema used, disposed of, discharged, and emitted their PFAS at and from the Site. These activities occurred in the immediate vicinity of the State's natural resources, including groundwater, air, surface water, sediments and soils, wetlands, and biota. These activities occurred in the immediate vicinity of drinking water sources.

332. As a result of Solvay's and Arkema's use of PFAS at the Site, the State's natural resources, including drinking water sources serving significant populations, were contaminated by PFAS.

333. The use of PFAS in the manufacture of other products and their disposal, discharge, and emission constitute ultra-hazardous activities that introduce an unusual danger into the community. These activities presented and continue to present a high degree of risk of harm to the State's natural resources, including large quantities of potable water. These activities have presented a high likelihood that the harm they would cause would be great. Neither Plaintiffs nor the broader community were able to eliminate this risk by the exercise of reasonable care, particularly in light of Solvay's and Arkema's failure to provide an adequate warning about the dangers involved.

334. The use, disposal, discharge, and emission of PFAS is not a matter of common usage in the areas in which Solvay and Arkema carried out these activities, and these activities were inappropriate to carry out in these locations.

335. At all relevant times, the risks of Solvay's and Arkema's abnormally dangerous activities outweighed the value to the community.

336. Solvay's and Arkema's acts and omissions in using, disposing, discharging, and emitting PFAS in the areas in which they did proximately caused the contamination of the State's natural resources, including large quantities of potable water. Solvay and Arkema are thus strictly liable for the harm these ultra-hazardous activities caused.

337. Solvay has exacerbated the impact of its PFAS on the public health, safety, and environment by treating virtually all information regarding the safety of and its use, discharge, and emission of the "replacement" PFAS compounds as Confidential Business Information, thereby limiting the Department's ability to act promptly to address the ultra-hazardous activities involving and the impacts of Solvay's "replacement" compounds.

338. Solvay and Arkema committed each of the above-described acts and omissions with actual malice or with a wanton and willful disregard of persons who foreseeably might be harmed by those acts or omissions.

**PRAYER FOR RELIEF**

**WHEREFORE**, Plaintiffs request that this Court enter judgment against Solvay and Arkema as follows:

- a. Preliminarily and permanently enjoining Solvay, requiring it to cease all ongoing unpermitted discharges

and emissions of contaminants, including PFAS, on and off the Site.

- b. Finding Solvay and Arkema liable, jointly and severally, for all costs to investigate, clean up and remove, restore, treat, monitor, and otherwise respond to PFAS contamination in the State's groundwater, surface waters, and other natural resources so that such natural resources are restored to their original condition, and for all damages to compensate the citizens of New Jersey for the lost use and value of their natural resources during all times of injury caused by PFAS products, and for such orders as may be necessary to provide full relief to address risks to the State, including the costs of:

- 1) Past and future testing of groundwater, surface waters, and natural resources likely to have been contaminated for the presence of PFAS;
- 2) Past and future treatment of all groundwater, surface waters, and other natural resources containing detectable levels of PFAS until restored to non-detectable levels; and

- 3) Past and future monitoring of the State's groundwater, surface waters, and other natural resources to detect the presence of PFAS, and restoration of such natural resources to their pre-discharge condition;
- c. Ordering Solvay and Arkema to pay for all costs related to the investigation, cleanup, restoration, treatment, and monitoring of contamination of the State's groundwater, surface waters, and other natural resources caused by PFAS;
  - d. Ordering Solvay and Arkema to pay for all damages in an amount at least equal to the full cost of restoring the State's groundwater, surface waters, and other natural resources to their original condition prior to the contamination of such waters by PFAS;
  - e. Ordering Solvay and Arkema to pay for all compensatory damages for the lost value (including lost use) of the State's groundwater, surface waters, and other natural resources as a result of the contamination of such natural resources with PFAS;
  - f. Ordering Solvay and Arkema to pay for all other damages sustained by Plaintiffs as a direct and proximate result of their acts and omissions alleged herein, including

remedial, administrative, oversight, and legal fees and expenses;

- g. Entering an order against Solvay and Arkema for all appropriate injunctive relief to abate or mitigate the PFAS contamination that they caused;
- h. Ordering Solvay to withdraw its Confidential Business Information claims for its "replacement" PFAS compounds, including the identities of those compounds; all information relating to discharges, emissions, or releases of such compounds into New Jersey's environment; all health and safety information; and all information relevant to developing analytical methods and standards capable of measuring these compounds in the environment.
- i. Awarding Plaintiffs punitive damages in an amount to be determined by this Court;
- j. Awarding Plaintiffs costs and fees in this action, including attorneys' fees, incurred in prosecuting this action, together with prejudgment interest, to the full extent permitted by law; and
- k. Awarding Plaintiffs such other relief as this Court deems appropriate.

**JURY DEMAND**

Plaintiffs are entitled to a jury trial and hereby demand a trial by jury.

**RULE 4:5-1 CERTIFICATION**

I hereby certify that, to the best of my knowledge and belief, the matter in controversy is not the subject of any action pending in any other court or of a pending arbitration proceeding, nor is any other action or arbitration proceeding contemplated, except for the following matter filed by Solvay Specialty Polymers USA, LLC in the Appellate Division on November 4, 2020:

- *In Re New Jersey Dep't of Env'tl. Prot. Direct Oversight Determination Against Solvay Specialty Polymers USA, LLC.*

Plaintiffs do not consider the following cases to be related to this matter, which is being brought by State governmental entities, as these other cases involve private plaintiffs with different types of standing, rights, injuries, and relief. Nevertheless, since these cases do have some of the same parties and concern some of the same contaminants and locations as the within matter, plaintiffs identify them herein:

- *Giordano et al. v. Solvay Specialty Polymers USA, LLC et al.*, venued in the United States District Court for the

District of New Jersey, Docket Civ. 1:19-cv-21573 (NLH-JS);

- *Severa et al. v Solvay Specialty Polymers USA, LLC et al.*, venued in the United States District Court for the District of New Jersey, Docket Civ. 1:20-cv-06906 (NLH-JS);
- *Bond et al. v. Solvay Specialty Polymers USA, LLC et al.*, venued in the United States District Court for the District of New Jersey, Docket Civ. 1:08487 (NLH-KMW);
- *Slusser et al. v. Solvay Specialty Polymers USA, LLC, et al.*, venued in the United States District Court for the District of New Jersey, Docket Civ. 20-11393 (NLH/JS);  
and
- *Solvay Specialty Polymers USA, LLC v. Paulsboro Refining Company LLC*, venued in the Superior Court of New Jersey, Law Division, Civil Part, Gloucester County, Docket No. GLO-L-001082-20.

I know of no other parties other than the parties set forth in this pleading who should be joined in the above action. I recognize the continuing obligation of each party to file with the Court and serve on all parties an amended Certification if there is a change in the facts stated in the original Certification.

**DESIGNATION OF TRIAL COUNSEL**

Pursuant to Rule 4:25-4, Plaintiffs designate Leonard Z. Kaufmann, Esq., as trial counsel in this matter.

Dated: November 10, 2020

**Gurbir S. Grewal**  
**ATTORNEY GENERAL OF NEW JERSEY**  
*Attorneys for Plaintiffs*

By: /s/ Gwen Farley

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# Civil Case Information Statement

## Case Details: GLOUCESTER | Civil Part Docket# L-001239-20

**Case Caption:** NEW JERSEY DEPARTMENT OF ENVIRONMENTAL PROTECTION VS SOLVAY SPECIAL

**Case Initiation Date:** 11/10/2020

**Attorney Name:** LEONARD ZEE KAUFMANN

**Firm Name:** COHN LIFLAND PEARLMAN HERRMANN & KNOPF

**Address:** PARK 80 WEST - PLAZA ONE 250 PEHLE AVE STE 401

SADDLE BROOK NJ 07663

**Phone:** 2018459600

**Name of Party:** PLAINTIFF : New Jersey Department of Environment

**Name of Defendant's Primary Insurance Company**  
(if known): Unknown

**Case Type:** ENVIRONMENTAL/ENVIRONMENTAL COVERAGE LITIGATION

**Document Type:** Complaint with Jury Demand

**Jury Demand:** YES - 6 JURORS

**Is this a professional malpractice case?** NO

**Related cases pending:** NO

**If yes, list docket numbers:**

**Do you anticipate adding any parties (arising out of same transaction or occurrence)?** NO

**Are sexual abuse claims alleged by: New Jersey Department of Environment?** NO

**Are sexual abuse claims alleged by: The Commissioner of the NJ?** NO

**Are sexual abuse claims alleged by: The Administrator of the Admin?** NO

## THE INFORMATION PROVIDED ON THIS FORM CANNOT BE INTRODUCED INTO EVIDENCE

CASE CHARACTERISTICS FOR PURPOSES OF DETERMINING IF CASE IS APPROPRIATE FOR MEDIATION

**Do parties have a current, past, or recurrent relationship?** NO

**If yes, is that relationship:**

**Does the statute governing this case provide for payment of fees by the losing party?** NO

**Use this space to alert the court to any special case characteristics that may warrant individual management or accelerated disposition:**

In re NJ Dept of Environl. Prot. Direct Oversight Determination Against Solvay Specialty Polymers USA filed by Solvay Specialty Polymers USA, LLC in The App .Div. on 11/4/2020

**Do you or your client need any disability accommodations?** NO

**If yes, please identify the requested accommodation:**

**Will an interpreter be needed?** NO

**If yes, for what language:**

**Please check off each applicable category: Putative Class Action?** NO **Title 59?** NO **Consumer Fraud?** NO

I certify that confidential personal identifiers have been redacted from documents now submitted to the court, and will be redacted from all documents submitted in the future in accordance with *Rule* 1:38-7(b)

11/10/2020  
Dated

/s/ LEONARD ZEE KAUFMANN  
Signed