STATE OF NEW YORK
SUPREME COURT COUNTY OF RENSSELAER

JAY BURDICK, CONNIE PLOUFFE, EDWARD PLOUFFE, FRANK SEYMOUR, EMILY MARPE, as parent and natural guardian of E.B., an infant, and, G.Y., an infant, JACQUELINE MONETTE, WILLIAM SHARPE, EDWARD PERROTTI-SOUSIS, MARK DENUE and MEGAN DUNN, individually, and on behalf of all similarly situated,

Plaintiffs,

v.

TONOGA INC., (d/b/a TACONIC),

Defendant.

PLAINTIFFS' MEMORANDUM OF LAW IN OPPOSITION TO TACONIC'S MOTION FOR SUMMARY JUDGMENT

Index No.: 00253835

Hon. Patrick J. McGrath

PLAINTIFFS' MEMORANDUM OF LAW IN OPPOSITION TO TACONIC'S MOTION FOR SUMMARY JUDGMENT

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PRELIMINARY STATEMENT

This is a simple common law tort case: may a sophisticated plastics corporation contaminate the surrounding community for decades and then wash its hands of responsibility for the properties it contaminated and the people it exposed? The defendant in this case, Tonoga Inc., which is commonly known as Taconic, claims that as a matter of law it was permitted to contaminate its community with the dangerous, man-made chemical perfluorooctanoic acid (PFOA) because the emission and disposal of its waste was not a violation of its permits. The common law duty of care has never been interpreted so narrowly.

Taconic used dispersions in its manufacturing process for decades that contained small amounts of the chemical ammonium perfluorooctanoate, which is often referred to as APFO or PFOA. Since at least the mid-1990s, Taconic received notices from its chemical suppliers explaining that APFO had toxic attributes and should not be released into the environment. Taconic discharged wastewater containing APFO into the ground around its property anyway. In the late 1990s, the New York Department of Environmental Conservation informed Taconic that its coating process may release harmful APFO vapor from the stacks. Taconic paid for one emission test, which it knew to be faulty, and then for the next twenty years neglected to make sure that harmful APFO vapor was being emitted and spread to the community.

By 2005, Taconic knew—definitively—that it had contaminated its own property with PFOA as well as the drinking water of nearby residential properties. It also knew by this point that the Science Advisory Board at the US Environmental Protection Agency had labeled PFOA a "likely human carcinogen." Its environmental manager assumed that the contamination had spread

via Taconic's stack emissions to the properties of residents who lived in the area. But Taconic did not so much as warn those residents because no one from the state told it to do so.

The factual record depicts a company that was reactive when it came to environmental health and safety. Prior to 2001, the company had no environmental health and safety program at all. This only changed after Taconic was fined by the state for poor environmental pollution practices and forced to hire its first-ever environmental compliance manager. That individual, Andy Kawczak, testified that he had no budget, that he had to fight for every penny spent on environmental compliance, and that Taconic's CEO, Andy Russell, would not authorize an environmental health and safety expenditure unless he was required to do so by law.

So for eleven years after Taconic definitively knew it spread PFOA throughout the community, the people of Petersburgh continued to drink contaminated water. All because Taconic decided to withhold this information because it was not forced by the state to tell them. Meanwhile, Taconic did not tell the state what it knew about PFOA or even all it knew about the extent of the contamination it caused. It did not tell the state that it believed it had spread PFOA to the community. It did not share with the state the science concerning health risks posed by PFOA or its persistence in the environment. It stayed silent until a public health crisis erupted in nearby Hoosick Falls over PFOA drinking water contamination, spread in that nearby community through a manufacturing process similar to the one used at Taconic. Since that time, Taconic has been named by the state as the party responsible for the PFOA contamination in Petersburgh; its facility has been named a Superfund site; and the state is requiring Taconic to implement certain measures to remediate its property.

Taconic refuses, however, to take responsibility for the people of Petersburgh who have been exposed to dangerous levels of PFOA, and whose properties and drinking water have been

contaminated. It now claims it had no common law duties to prevent this contamination all along. It claims that New York's common law of torts leaves the community with no options when their properties are invaded by a toxic contaminant, or when that contaminant enters their households and then contaminates their bodies. Taconic will have an opportunity to make that argument to a jury, but the law is clear that it is required to face one.

Plaintiffs in this case represent four classes certified by this Court pursuant to CPLR Article 9. Those classes consist of: owners of real property who obtained their drinking water from the Town of Petersburgh Public Water System; owners or lessees of real property located within a seven mile radius of the Taconic facility whose privately owned wells were contaminated with PFOA; and individuals who have ingested PFOA-contaminated water from either the municipal water system or a contaminated well within seven miles of the Taconic facility and have accumulated PFOA in their blood in excess of 1.86 ug/L. The classes bring claims of negligence, trespass, private nuisance, and strict liability. Based on the evidence in this case, they are entitled to a trial on each common law claim.

Plaintiffs submit this memorandum of law, along with a number of exhibits attached to the undersigned Attorney's Affidavit. In addition, Plaintiffs submit a memorandum of law in opposition to Defendant's motions to exclude expert testimony. Several of Plaintiffs' experts have submitted affidavits and record evidence in support of Plaintiff's opposition, and Plaintiffs incorporate those expert affidavits and the attached records in support of this memorandum as well.

STATEMENT OF FACTS

I. TACONIC IS A SOPHISTICATED USER AND PROCESSOR OF POLYMER PRODUCTS, BUT IT HISTORICALLY UNDERFUNDED AND UNDEREMPHASIZED ENVIRONMENTAL HEALTH AND SAFETY ISSUES.

A. Taconic is a Sophisticated Processor of Polymer Products with Worldwide Coating Operations.

Taconic is a global company with operations on four continents. It has manufacturing facilities in the United States, Ireland, Germany, Poland, Brazil, and Korea, and sales operations in Canada and France.[1] Taconic employs 703 individuals worldwide, 240 of whom work in Petersburgh, New York.[2] [redacted][3]

Taconic has been operating in Petersburgh, New York since the 1960s.[4] Since it commenced operations, the facility has coated polytetrafluoroethylene (PTFE) and fluorinated ethylene propylene (FEP) dispersion (referred to collectively as "PTFE dispersions") onto fiberglass fabric and other materials.[5] Taconic uses coated fiberglass fabric as the base material for a variety of products, including film tapes, belts, and PTFE fabrics. Until 2013, PTFE dispersions contained ammonium perfluorooctanoate (APFO) as a surfactant and processing agent in amounts that ranged from 0.1% to 1%.[6] An authoritative industry-wide study found that fluoropolymer processors like Taconic historically utilized PTFE dispersions containing an average of 0.28% APFO.[7] APFO was sometimes referred to as C8, the trade name for the chemical

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[1] Affidavit of James Bilsborrow (hereafter, "Bilsborrow Aff."), Ex. 1 (Dep. Tr. of Larry Carroll ("Carroll Dep.")), at 26.

[2] *Id.* at 27-28.

[3] *Id.* at 28.

[4] *Id.*, Ex. 2 (TAC-SEN-LTR-00005).

[5] *Id.*, Ex. 2 (TAC-SEN-LTR-00007); *id.*, Ex. 3 (Dep. Tr. of Kevin Stevens ("Stevens Dep")), at 25-26; Affidavit of Nicholas Cheremisinoff, Ph.D., dated April 30, 2019 ("Cheremisinoff Aff.") ¶ 25. The Affidavit of Dr. Cheremisinoff is submitted herewith in support of Plaintiffs' Omnibus Opposition to Defendant's Motions to Exclude Expert Testimony.

[6] Bilsborrow Aff., Ex. 2 (TAC-SEN-LTR-00006).

[7] Affidavit of Hyeong-Moo Shin, Ph.D. (hereafter, "Shin Aff."), Ex. D ("Dispersion Processor Material Balance Project draft final report) at p. 14 of 83. Dr. Shin's affidavit is submitted herewith in support of Plaintiffs' Omnibus Opposition to Defendant's Motions to Exclude Expert Testimony.

APFO, a man-made chemical.[8] When released into the environment, APFO undergoes chemical change and becomes PFOA.[9]

Taconic purchased PTFE dispersions from various suppliers, including DuPont, ICI, Daikin, Asahi, and Solvay.[10] After receiving a PTFE dispersion from a supplier, Taconic's staff mixed the dispersion with water and additives, such as ammonia, formic acid, surfactants, and pigments.[11] In this fashion, Taconic used a purchased PTFE dispersion as a base and added other ingredients to make a proprietary formulation.[12] [redacted]

PTFE dispersions were applied to fiberglass fabric in one of three oven rooms. Each oven room contained a number of ovens that were used to coat fiberglass fabric with PTFE dispersions. [redacted] Fiberglass fabric was then pulled into the dip pan, where the PTFE

[8] Shin Aff. ¶ 1; Affidavit of David A. Savitz ("Savitz Aff.") ¶ 10. Dr. Savitz's affidavit is submitted herewith in support of Plaintiffs' Omnibus Opposition to Defendant's Motions to Exclude Expert Testimony.

[9] Shin Aff. ¶ 1. For this reason, APFO and PFOA are sometimes used interchangeably.

[10] Bilsborrow Aff., Ex. 4 (Dep. Tr. of Carol Goodermote ("Goodermote Dep.")), at 25.

[11] *Id.*, Ex. 2 (TAC-SEN-LTR-00008).

[12] *Id.*, Ex. 3, Stevens Dep. at 26, 30; [redacted] 18 MSDS); Cheremisinoff Aff. ¶ 26 (explaining that the addition of FC[redacted]

dispersion coated the fabric. The fabric was then pulled vertically through the oven, where it was dried, baked, and then sintered, thus completing a "pass" of the fabric through the oven.[16] After each pass, the coated fiberglass was re-rolled back from the top of the oven and the process was repeated so that multiple coats of PTFE dispersion were applied to each fabric.[17]

[redacted][18] [redacted][19] [redacted][20] [redacted][21] [redacted][22] [redacted][23] [redacted][24] [redacted] By

[redacted]

[16] Bilsborrow Aff., Ex. 2 (TAC-SEN-LTR-00008).
[17] *Id.*

2005, for example, the Petersburgh facility was using approximately one million pounds of PTFE dispersion per year.[25] The facility used large volumes of PTFE dispersions since the 1960s.[26]

[redacted] These exhaust vapors contained APFO.[29] Once released into the environment, APFO vapors cool and condense to form fumes of fine particulate matter that are then carried by the wind until washed out of the air by precipitation (wet deposition) or settling down to the ground by gravity (dry deposition).[30] APFO released into the environment that becomes PFOA is highly resistant to further environmental degradation, and the chemical is extremely environmentally persistent.[31]

B. Taconic Underfunded Environmental Health and Safety Concerns and Typically Took Actions to Protect the Environment or Community Only if Required to by Law.

Although it is a sophisticated company with a global manufacturing presence, for decades Taconic underfunded and underemphasized environmental health and safety concerns. Taconic had no environmental compliance program until 2001, when it was forced by the New York State Department of Environmental Conservation (DEC) to adopt such a program as part of a consent order.[32] This consent order also required Taconic to hire an environmental health and safety

[25] Shin Aff. ¶ 13(f); Shin Aff., Ex. I (Taconic PFOA Q&A at p. 2).
[26] Shin Aff. ¶ 13(b).
[redacted]
[29] Shin Aff. ¶ 4.
[30] Shin Aff. ¶ 5.
[31] Shin Aff. ¶ 6.
[32] Bilsborrow Aff., Ex. 9 (Deposition Transcript of Andrew Kawczak ("Kawczak Dep.")) at 17-19.

manager for the first time in company history.[33] Even after it hired Andy Kawczak as manager of environmental health and safety in 2001, the environmental health and safety department was not allocated a budget.[34] Mr. Kawczak testified that he was required to independently justify all environmental health and safety expenditures and no such expenditures were authorized without the approval of Taconic's CEO, Andy Russell.[35] In general, Russell did not approve environmental health and safety expenditures absent a regulatory requirement or an impending requirement. On numerous occasions throughout the past twenty years, Taconic had opportunities to conduct testing that would have demonstrated that PFOA contamination was emanating from its facility and spreading throughout the community, but it opted not to do so because such testing was not strictly required and would cost money. As Andy Kawczak testified, "unless [a chemical] was regulated or nearly regulated, [Andy Russell] was not going to move on that."[36]

II. PRIOR TO 2000, TACONIC KNEW OR SHOULD HAVE KNOWN THAT PFOA CONTAINED IN PTFE DISPERSIONS POSED RISKS OF HARM TO THE ENVIRONMENT.

A. The Risk of Environmental Harm Posed by PTFE Dispersion Has Been Known to Sophisticated Polymer Processors for Decades.

The scientific literature on perfluorinated compounds (PFCs) stretches back to the 1940s.[37] Numerous PFCs manufactured by 3M, including fluorocarbon carboxylic acids and fluorocarbon sulfonic acids, such as PFOA and PFOS, readily dissolve when mixed with water.[38] As early as

[33] *Id.* 16, 18-19.

[34] *Id.* at 21; *see also id.* at 22 (stating that there was not an amount of money allotted to environmental health and safety that environmental manager had discretion to use without obtaining approval).

[35] *Id.* at 21-22. Kosto echoed this sentiment, testifying that at Taconic, all expenses are "individually justified" *Id.*, Ex. 5, Kosto Dep. at 150.

[36] *Id.*, Ex. 9, Kawczak Dep. at 68-69.

[37] Cheremisinoff Aff. ¶ 36.

[38] *Id.*

1964, 3M Company publications indicated that when dissolved, fluorocarbon carboxylic acids and fluorocarbon sulfonic acids dissociated to form highly stable perfluorocarboxylate and perfluorosulfonate ions.[39] 3M published information in the 1960s indicating that these surfactants had extremely limited reactivity and that the high thermal stability of the perfluorinated carbon chain inhibited degradation in the environment.[40] Accordingly, in natural environments, the surfactants do not undergo degradation of the carbon-to-fluorine bonds of the perfluorinated carbon chain.[41] Once APFO is released to the environment, it does not biodegrade.[42]

At least since the early to mid-1990s, Taconic's PTFE dispersion suppliers provided Material Safety Data Sheets (MSDS) disclosing that PTFE dispersions used by Taconic were toxic.[43] For example, an MSDS from January 1996 for DuPont "Teflon" PTFE fluoropolymer dispersion identifies ammonium perfluorooctanoate (APFO) and states that in animal studies, "[i]ngestion caused weight loss, gastrointestinal irritation and enlarged liver. Repeated exposures produced liver, kidney, pancreas and testes changes, anemia and cyanosis."[44] The MSDS identified similar human health effects:

> Ingestion may cause gastrointestinal tract irritation; abnormal liver function as detected by laboratory tests; or abnormal forming system function with anemia. Individuals with preexisting diseases of the liver or bone marrow may have increased susceptibility to the toxicity of excessive exposures. This compound is absorbed by the body and may be detected in the blood stream following ingestion, inhalation or skin contact. Animal and human experience indicate that this compound has a long half-life in the blood, and may be detected years after exposure.[45]

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[39] *Id.*
[40] *Id.* ¶¶ 36-37.
[41] *Id.*
[42] *Id.*
[43] *Id.* ¶ 29.
[44] Bilsborrow Aff., Ex. 10 (Material Safety Data Sheet, DuPont "Teflon" Fluoropolymer Dispersions).
[45] *Id.*

The MSDS advised that "[h]igh temperatures such as sintering operations may release ammonium perfluorooctanoate vapors. These vapors may condense as a solid or as a liquid solution in the oven, exhaust duct or stack, or on other cool surfaces."[46] [redacted]

The MSDS for PTFE dispersions provided detailed requirements for safe handling of the product, including the use of protective clothing, chemical resistant boots, and respirators.[47] The document further advised that users that

> Preferred options for [waste] disposal are: (1) Separate solids from liquids by precipitation and decanting or filtering. Dispose of dry solids in a landfill that is permitted, licensed or recognized by a state to manage industrial solid waste. Discharge liquid filtrate to a wastewater treatment system. (2) Incinerate only if incinerator is capable of scrubbing out hydrogen fluoride and other acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.[48]

Several MSDS published prior to 1996 for PTFE dispersions contained similar safety warnings; all of the MSDS dated later than 1996 provide similar, if not more detailed warnings.[49] Taconic employees testified that they were aware of the information contained in the MSDS for PTFE dispersions.[50]

MSDS from the mid-1990s further advise, "Before using read the Fluoropolymers Safe Handling Guide published by the Society of the Plastics Industry."[51] That publication states, in

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[46] *Id.*
[47] *Id.*
[48] *Id.*
[49] Cheremisinoff Aff. ¶ 33.
[50] *See, e.g.*, Bilsborrow Aff., Ex. 8, Hewitt Dep. at 105-06 (explaining that he learned PFOA was part of the PTFE dispersion by reading the MSDS); *see also id.*, Ex. 7, Green Dep. at 18.
[51] *See* Bilsborrow Aff., Ex. 10 (Material Safety Data Sheet, DuPont "Teflon" PTFE Fluoropolymer Dispersions).

pertinent part, PTFE dispersions "utilize a fluoropolymer processing aid (FPA) during their manufacture. Recent studies have revealed the FPAs are persistent in the environment and have exhibited toxicological effects in animals"; "An eight-carbon member of this family, ammonium perfluorooctanoate (APFO) is the FPA most commonly used in the production of many fluoropolymers and fluoroelastomers"; "Since APFO is a perfluorinated chemical, it is extremely stable, degrades slowly, and therefore persists in the environment. APFO also appears to be persistent in humans and has been found in trace amounts in the blood of workers exposed during manufacturing operations involving its use."[52]

Taconic had used PTFE dispersions for decades prior to the mid-1990s and, as a sophisticated polymer processor, knew or should have known all of the information set forth above. Indeed, Dr. Nicholas Cheremisinoff, an expert on the industry standard of care, examined the MSDS produced by Taconic in this matter, and testified,

> The MSDS provide sufficient warning that the PTFE dispersion products used in Taconic's manufacturing processes are or may be harmful to humans. The warnings on the MSDS sufficiently convey that the products and wastes require use of protective clothing, respirators, and good industry practices. There is sufficient warning to the user that air emissions and wastes containing these products should not be released to the environment where the general public may be exposed.[53]

Throughout the 1990s, however, Taconic did little to ensure its air emissions and wastes containing APFO were not released to the surrounding environment where the general public may be exposed.

B. Taconic Utilized Inadequate Pollution Controls to Contain Its Emissions.

[52] Cheremisinoff Aff. ¶ 35.
[53] *Id.* ¶ 34.

Prior to 1991, Taconic had no air pollution controls installed on its stacks and exhaust from the coating ovens, which contained APFO, was emitted straight to the atmosphere.[54] In 1991, Taconic installed its first air pollution control device, called a "Smog Hog."[55] Exhaust from the ovens in Building 4 was channeled through the Smog Hog, which was supposed to remove particles from the effluent.[56] There is little information regarding the control efficiency of the Smog Hog and there is no evidence Taconic ever tested its stack emissions to determine if the Smog Hog was capturing APFO emissions. That said, based on research into DuPont's processes during the C8 Health Project, "it is unlikely that any appreciable amount of the APFO in the exhaust stream was in the form of particulate matter that [wa]s large enough to be captured by the Smog Hog," meaning that all of the APFO exhausted during the coating process while the Smog Hog was in place was emitted to the Petersburgh community.[57]

In 1996, Taconic installed a device called a Fume Eliminator, which was connected to the ovens in Buildings 4 and 5.[58] When Building 6 was constructed in the late 1990s, a second Fume Eliminator was installed for the ovens there.[59] The Fume Eliminator passed exhaust from the ovens through a water vapor and then through two sets of fiberglass-type filters before exiting the stacks.[60] [redacted], the effluent was hot when it passed through the Fume Eliminator liquid, which caused some liquid to evaporate and, in turn, required the liquid to be regularly refilled.[61] The Fume Eliminator was a scrubber that worked

[54] Bilsborrow Aff., Ex. 11, (Deposition Transcript of Ray Guber ("Guber Dep.")), at 31.
[55] Shin Aff., Ex. K (Letter of March 4, 1991 re Smog-Hog system); *id.*, Ex. 12 (Deposition Transcript of Harvey Teal ("Teal Dep.")), at 111-12.
[56] Bilsborrow Aff., Ex. 7, Green Dep. at 28.
[57] Shin Aff. ¶ 13(h).
[58] Bilsborrow Aff., Ex. 8, Hewitt Dep. at 94.
[59] *Id.*, Ex. 3, Stevens Dep. at 21.
[60] *Id.*, Ex. 7, Green Dep. at 53-54.
[61] *Id.*, Ex. 3, Stevens Dep. at 144.

by capturing particulate solids from the oven exhaust as it passed through the device.[62] Any gas or vapor not captured by the Fume Eliminator was released out of the stack.[63]

When heated during the coating process, APFO vaporizes and only coagulates into particulate matter capable of capture by the Fume Eliminator once it has cooled sufficiently.[64] Taconic has produced no evidence to suggest all or most APFO cooled sufficiently and formed particulate matter while passing through the Fume Eliminator, though Plaintiffs' expert, Dr. Hyeong Moo Shin, testifies that some of the APFO was likely captured by the device.[65] According to Dr. Shin, at least 22% of the APFO that passed through the Fume Eliminators was likely emitted from the stacks to the environment.[66] This is a conservative calculation and the percentage of APFO that was not controlled by the Fume Eliminator is likely much higher.[67] Malcolm Green, who was corporate engineering manager when the Fume Eliminator was first installed, testified that he did not know if he even understood whether the Fume Eliminator was capable of removing APFO.[68] And, of course, until 2001 Taconic employed no environmental health and safety manager and had no environmental compliance program to ensure that the Fume Eliminator was properly capturing emissions.[69]

The Fume Eliminator is an impingement device, and like all scrubbers, it has a cut size. As Dr. Cheremisinoff explains, a "cut size" is defined as "the diameter of those particles collected

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[62] Cheremisinoff Aff. ¶ 43.
[63] Bilsborrow Aff., Ex. 3, Stevens Dep. at 145-46.
[64] Cheremisinoff Aff. ¶ 45.
[65] Shin Aff. ¶ 13(i).
[66] Shin Aff. ¶ 13(i).
[67] *Id.* (explaining that even using a conservative calculation, Taconic emitted nearly 2,000 pounds of APFO to the Petersburgh community between 1996 and 2005).
[68] Bilsborrow Aff., Ex. 7, Green Dep. at 55.
[69] *Id.*, Ex. 9, Kawczak Dep. at 17-18.

with 50% efficiency."[70] "Collection efficiency for particles larger than the cut size will be greater than 50% while that for smaller particles will be less."[71] Dr. Cheremisinoff explains that an impingement device like the Fume Eliminator was not as efficient as other devices available in the mid-1990s, such as a venturi scrubber or a Regenerative Thermal Oxidizer (RTO), which could have achieved control efficiencies of 99% in the submicron range.[72] Taconic could have purchased and installed either of these superior pollution control devices. After it was fined for improper emissions by the DEC in 2000, Taconic was forced to install an RTO on its adhesive coating line, but it never installed such a device on any of its fiberglass coating ovens.[73]

In March 1997, DEC representatives visited the Taconic facility to inspect the stacks. DEC explained, "They are concerned with ammonia in the Teflon dispersion," and instructed Taconic to test the stacks for APFO emissions.[74] Less than a week after this meeting, DEC forwarded Taconic a memorandum written by DEC's Toxic Assessment Section in regard to "neighborhood complaints of a disagreeable stink, reports of nausea and headaches, and visible bluish smoke" coming from the Taconic facility.[75] Although the DEC memo acknowledged that there were no current regulatory standards for "thermal degradation products of PTFE," it observed that the "American Council of Governmental Hygienists states that 'air concentrations should be controlled as low as possible.'"[76] Taconic, of course, had done no testing on its stacks at this point and was not utilizing the best available pollution control device on its fiberglass coating ovens.

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[70] Cheremisinoff Aff. ¶ 44.

[71] *Id.* (quoting U.S.EPA (1973b), Air Pollution Engineering Manual, 2nd Edition, Air Pollution Control District, County of Los Angeles, May 1973, p. 95).

[72] *Id.*

[73] *Id.* ¶¶ 80-81.

[74] Bilsborrow Aff., Ex. 13 (Memorandum of March 25, 1997 re Encon Visit).

[75] *Id.*, Ex. 14, (DEC Memorandum of March 21, 1997).

[76] *Id.*

The DEC Toxic Assessment Section further observed that at the temperatures at which Taconic operated its ovens,

> the possibility exists for production of thermal degradation products of PTFE of high toxicity. Thermal degradation products of high toxicity may be emitted at temperatures in excess of 300 °C or 572 °F (DuPont, 1992b). The toxicity of thermal degradation products of PTFE increases with increasing temperatures. . . . The MSDS on ICI Fluoropolymers cites a range of toxic and corrosive products due to thermal decomposition at temperatures greater than 380 °C or 716 °F and that exposure to these 'must be avoided.'[77]

[redacted][78] The DEC memo went on to review a number of health risks posed by APFO exposure, all of which were in the public domain and available to Taconic. DEC's Toxic Assessment Section concluded, "Our review indicates that the resident complaints associated with emissions from this facility may be related to the thermal decomposition products of PTFE. You should focus on working the facility to reduce all point and fugitive emissions of these products in an attempt to resolve the neighborhood complaints."[79] This memo prompted DEC's site visit the previous week.

DEC thereafter ordered Taconic to perform stack testing within six months.[80] Taconic failed to hire a testing company that was capable of measuring APFO emissions at the stack. Adirondack Environmental Services, Inc. ultimately performed the testing, but Adirondack advised Taconic that "there is no acceptable stack test method for the parameters ammonium perfluorooctanoate."[81] Taconic insisted Adirondack attempt a test anyway and, as expected, it did

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[77] *Id.*

[78] [redacted]

[79] Bilsborrow Aff., Ex. 14 (DEC Memorandum of March 21, 1997).

[80] Bilsborrow Aff., Ex. 15, (Taconic Letter of April 14, 1997 to DEC).

[81] Bilsborrow Aff., Ex. 16 (Adirondack Environmental Services Letter of April 23, 1997).

not detect APFO at the stack above its detection limit, which was 0.0002 lbs/hour.[82] Malcolm Green, Taconic's corporate engineering manager in 1997, acknowledged that Adirondack's testing methods were not capable of detecting APFO.[83] Even Taconic's own retained expert in this litigation, Stephen Washburn, testifies that the 1997 testing is not informative, stating, "It is acknowledged that at the time of the tests of the Fume Eliminator were conducted in 1997, standard, federally-approved analytical methods for PFOA were not available and thus there is increased uncertainty in the quantitative results of the testing."[84]

Although the 1997 APFO test result is not meaningful, Taconic was on notice from this point forward that the DEC was concerned about APFO emissions and that it had advised Taconic that APFO emissions, which the DEC's Toxic Assessment section linked to negative health outcomes, "should be controlled as low as possible."[85] Within six years, Taconic would be offered testing services that could accurately detect whether APFO was present in its stack emissions; it did not test its emissions at that time, despite encouragement to do so by DuPont. Indeed, as set forth in more detail below, Taconic was offered free stack admission testing by the Plastics Industry Association during an industry-wide study and Taconic refused, concerned that any emissions information may become public and draw negative publicity to its manufacturing operations. Taconic justifies its inaction by stating that it was at all times in compliance with its air permits. But air permits did not regulate APFO. As Andy Kawczak explained, the air permits were too "generic."[86] Taconic ultimately did not test its stack emissions for APFO until 2016 when

[82] Attorney's Affidavit of Thomas R. Smith ("Smith Aff.") Submitted in Support of Defendant's Motion for Summary Judgment, Ex. 17.

[83] Bilsborrow Aff., Ex. 7, Green Dep. at 224-25.

[84] Affidavit of Stephen Washburn ("Washburn Aff.") Submitted in Support of Defendant's Motion for Summary Judgment ¶ 22.

[85] Bilsborrow Aff., Ex. 14 (DEC Memorandum of March 21, 1997).

[86] Bilsborrow Aff., Ex. 9, Kawczak Dep. at 47.

it was under investigation by the DEC for spreading PFOA contamination throughout the Petersburgh community.

In 1999, DEC performed a surprise inspection of the Taconic facility and determined that Taconic had failed to properly report its emissions of volatile organic compounds (VOCs) coming from an adhesive coater.[87] Taconic was operating a new coating line for which it had no permit approval. Taconic had installed this new coating line without DEC's permission or knowledge. The new coating line was not equipped with any pollution control devices and the emissions from the new line were not accounted for. The DEC determined that the new coating line had the potential to emit 327,624 pounds per year (or 183 tons) of VOCs, none of which were reported by Taconic. These additional uncontrolled emissions qualified Taconic as a "major source" emitter under the Clean Air Act.[88] "Major source" emitters are required to obtain special Title V permits and to operate under strict requirements for monitoring emissions and maintaining pollution controls in good working order.[89] Taconic evaded these statutory requirements and, as a result, DEC imposed a fine of nearly $500,000 and issued a consent order requiring Taconic to take several remediating actions.[90] Thus, when Taconic claims in its motion papers that it always "operated in compliance with its permits," that statement is demonstrably false.

In addition to the monetary fine imposed, DEC required Taconic to install a thermal oxidizer—the best available pollution control technology—on its adhesive coating line.[91] At this point, Taconic was aware of DEC's concerns from 1997 regarding APFO emissions and it could have installed a thermal oxidizer on its PTFE coating ovens as well. It opted not to do so.

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[87] Bilsborrow Aff., Ex. 17 (Order on Consent dated August 17, 2000).
[88] *Id.*
[89] Cheremisinoff Aff. ¶ 53.
[90] Bilsborrow Aff., Ex. 17 (Order on Consent dated August 17, 2000).
[91] Cheremisinoff Aff. ¶¶ 80-81.

C. Taconic Utilized Inadequate Wastewater Controls Given Its Knowledge of APFO's Toxicity.

After fiberglass fabric is coated and run through an oven, the dispersion often must be changed and some or all of the oven components and the dip pan must be scrubbed clean.[92] [redacted] [93] For decades, process rinse water associated with this cleaning process was discharged directly to the ground, to leach fields, and to the septic system on Taconic's property.[94] Accordingly, for many years, Taconic was discharging process wastewater containing APFO directly to the ground outside the plant.

In 1988, Taconic applied for a State Pollution Discharge Elimination System (SPDES) permit to discharge industrial waste onsite; this application included a proposal for the septic system of Outfall 001.[95] Taconic proposed to discharge to the subsurface process rinse water generated from cleaning the ovens. The permit application identified no "pollutants" that Taconic anticipated to be discharged to the outfall, though it did identify "Teflon (PTFE) Resin Dispersion" as a "Chemical of Concern."[96] From 1989 to 1996, Taconic continued to discharge this wastewater to its onsite septic system and sent to a leach field without treatment. Taconic renewed its SPDES permit in 1994 and 1998, and in 1999, it started shipping wastewater offsite.[97] Taconic states in its

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[92] Bilsborrow Aff., Ex. 7, Green Dep. at 47; *id.*, Ex. 8, Hewitt Dep. at 87-88; [redacted].

[93] *Id.*, [redacted]; Affidavit of Donald I. Siegel, Ph.D. ("Siegel Aff.") ¶ 17. Dr. Siegel's affidavit is submitted herewith in support of Plaintiffs' Omnibus Opposition to Defendant's Motions to Exclude Expert Testimony.

[94] [redacted]; Siegel Aff. ¶ 17.

[95] Bilsborrow Aff., Ex. 56 (Permit Application Package).

[96] *Id.*

[97] Affidavit of Karen Toth ("Toth Aff.") Submitted in Support of Defendant's Motion for Summary Judgment ¶¶ 15-17.

motion for summary judgment, "Taconic's SPDES Permit authorized Taconic to discharge waste water that potentially contained PFOA onsite at the facility."

Between 1989 and 1996, there is no evidence that Taconic disclosed to the state or county the toxicity information it knew or should have known from the MSDS for PTFE dispersion. There is also no evidence that Taconic provided the state or county with a copy of an MSDS for PTFE dispersion. Taconic did not inform the state or county that the wastewater it was discharging to septic contained a chemical, PFOA, that was chemically stable in the environment and was likely to persist for long periods of time. It did not inform the state or county that MSDS in its possession advised processors to separate solids from liquids and then to "[d]ischarge liquid filtrate to a wastewater treatment system."[98] All of these details Taconic kept to itself not only in its initial SPDES application, but each time it sought to renew its permit. According to Dr. Donald Siegel, a hydrogeologist, the available historical records suggest, conservatively, that by 1996, Taconic released between 900 and 2800 pounds of PFOA into the ground.[99]

In 1996, Taconic installed a device called an Evaporator in Building 4 in an effort to reduce the volume of wastewater that was discharged to septic.[100] Process rinse water from the coating operations was pumped to the Evaporator, which first attempted to remove solids from the wastewater before evaporating water from the unit.[101] Water vapor generated in this process was then funneled to a stack and emitted from the facility. The water vapor did not pass through any pollution control device before it was emitted from the stack.[102] Before wastewater was pumped

[98] Bilsborrow Aff., Ex. 10 (DuPont "Teflon" PTFE Fluoropolymer Dispersions)

[99] Siegel Aff. ¶ 18.

[100] Bilsborrow Aff., Ex. 18 (Memorandum of January 24, 1996 re Installation of Evaporator).

[101] Bilsborrow Aff., Ex. 7, Green Dep. at 45.

[102] *Id.* at 45.

into the Evaporator, it was captured in an underground storage tank (UST). In 1996, Taconic learned that the UST holding process wastewater was not sealed and groundwater was seeping into the UST and wastewater was escaping the UST into the ground.[103] It is not clear from the record how long this situation persisted. This process wastewater contained APFO, meaning APFO was escaping Taconic's UST and seeping into the ground around it.

III. IN THE EARLY 2000s, TACONIC OBTAINED MORE INFORMATION ABOUT THE ENVIRONMENTAL HEALTH AND SAFETY RISKS ASSOCIATED WITH PFOA YET DID NOTHING TO MONITOR OR REDUCE ITS EMISSIONS OR PROTECT THE PETERSBURGH COMMUNITY FROM THESE EMISSIONS.

A. In 2001, Taconic Began to Have Regular Discussions with DuPont About Increasing Concern Over PFOA.

Beginning in 2001, representatives from DuPont, one of Taconic's primary suppliers of PTFE dispersions, started to warn Taconic of concerns being raised by the Environmental Protection Agency and the Society of Plastics Industry (SPI) about the use of PFOA (C8) and its presence in the environment. Between June 4, 2001 and February 6, 2003, DuPont representatives met with Taconic at least five times to discuss what they had come to refer to as the "C8 issue." During those discussions, which involved Taconic's CEO, Andy Russell, and co-CEO Jim O'Keefe, among others, DuPont conveyed the following advice:

- "SPI needs to understand who and how it [PFOA/C8] is being used. They plan to interview 8 companies, Taconic included." (June 13, 2001);[104]

- "Lots going on at SPI that affects PTFE dispersion users. If we are not in the loop, communicating with SPI, we should be. C8 continues to be a topic of discussion. 3M will be out of the C8

[103] Bilsborrow Aff., Ex. 7, Green Dep. at 66; Siegel Aff ¶ 17.

[104] Bilsborrow Aff., Ex. 19 (Memorandum of June 13, 2001 re Notes from Meeting with Doug Hayes and Danielle Lindner with DuPont 6/4/01).

> manufacturing business and DuPont will be in." (March 19, 2002);[105]
>
> - "Doug Hayes [DuPont] alerted us to some EPA discussions that are going on regarding a raw material used in the manufacture of PTFE. . . . According to Doug Hayes at DuPont, the EPA will be making some changes, requiring special reporting of usage and disposal amounts of C8. They will also require employee monitoring for C8 levels. . . . DuPont offered assistance with safety, environmental training and reporting to employees." (May 31, 2002).[106]

Taconic's purchasing manager, Carol Goodermote, was part of these meetings and explained that DuPont was informing Taconic that C8/PFOA was "something that we need to be concerned about."[107]

In late December 2002, Taconic understood that the EPA's interest in PFOA may affect its business practices and was likely to require environmental testing. After a meeting with DuPont on December 4, 2002, Taconic's purchasing manager, Ms. Goodermote, wrote to Taconic management:

> C8 issue – someone, if we haven't already done this, should probably be the coordinator of gathering and maintaining information around the C8 issue. . . . Sometime next year we will be required to track all quantities of C8 that enter our building and track where i[t] goes. At a minimum we will be required to maintain fence line, water and stack testing records. DuPont has offered assistance with suggestions on how to implement this monitoring, labs that can assist with necessary testing, discussions with employees, etc.[108]

Taconic took no action in response to DuPont's recommendations.[109]

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[105] *Id.*, Ex. 20 (Memorandum of March 20, 2002 re Notes from Meeting with Doug Hayes, DuPont 3/19/02).

[106] *Id.*, Ex. 21 (Email of May 31, 2002 re C8 environmental issues)

[107] *Id.*, Ex. 4, Goodermote Dep. at 107.

[108] *Id.*, Ex. 22 (Memorandum of December 5, 2002 re Notes from Meeting with Doug Hayes from DuPont on 12/4/02).

[109] *Id.*, Ex. 9, Kawczak Dep. at 37.

Less than two months later, DuPont's representative returned, urging Taconic to be proactive in dealing with "the C8 issue":

> The questions around C8 have escalated at EPA, there are political people involved now, not just technical people. DuPont expects EPA disclosure of the issue to the press in the very near future. . . . DuPont suggests we will be required to account for how much C8 is coming into the building, and w[h]ere it is going (to the air, the water or finished product)[.] This is called mass balance record keeping. According to DuPont, SPI should be contacting us in the near future, offering some stack and water testing at no charge. DuPont can also provide the same testing if for some reason SPI does not contact us and we are eager to be proactive in this area.[110]

Following this meeting, Taconic's recently-hired environmental manager, Andy Kawczak, recalled no conversation with management to discuss fence line testing or stack testing, nor did he suggest any such testing because he knew any funding request to perform such testing would be refused.[111]

After another meeting with DuPont representatives the next month, Kawczak obtained a comprehensive PFOA monitoring proposal from a company called TRC.[112] This proposal was largely consistent with DuPont's recommendations, including stack emissions, wastewater, indoor ambient air, and personal employee monitoring. Kawczak requested funding for the comprehensive proposal, but, just as he anticipated, his request was refused; instead, Andy Russell authorized only indoor ambient air testing in the oven rooms.[113] This testing was only funded "because DuPont was having serious problems at their locations" and Taconic management wanted to "get a better hold of the issue."[114] Pursuant to Taconic protocol, Kawczak took a

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[110] *Id.*, Ex. 23 (Memorandum of February 11, 2003 re Notes from Meeting with Doug Hayes, DuPont, 2/6/03).

[111] *Id.*, Ex. 9, Kawczak Dep. at 51-54.

[112] *Id.*, Ex. 24 (PFOA Monitoring Proposal of April 21, 2003).

[113] *Id.*, Ex. 9, Kawczak Dep. at 59-61, 71.

[114] *Id.*, Ex. 9, Kawczak Dep. at 170-71.

proposal to conduct indoor ambient air testing to Andy Russell for approval. Russell also rejected this proposal because it was too expensive, sending Kawczak back to the drawing board.[115]

B. Taconic Learns of Widespread PFOA Contamination Near DuPont's Washington Works Plant in Parkersburg, West Virginia and Acquires Additional Information About Environmental Health and Safety Risks Posed by PFOA from an Industry Trade Group.

Beginning in 2002, PFOA was discovered in the water supplies of approximately 70,000 people who lived along the Ohio River in Ohio and West Virginia. The source of this PFOA was determined to be DuPont's Washington Works facility, located in Parkersburg, West Virginia. The principal route of the contamination to the groundwater was from air deposition to the soil, where APFO transformed into PFOA, traveled down to the water table and contaminated the well fields of communities in the Ohio River Valley. Discharge of liquid waste containing APFO was also a route of contamination for some affected communities. PFOA was detected in soil and private well water located more than 5 miles from the Washington Works plant in the direction of prevailing winds.[116]

Upper management at Taconic was well aware of the developing situation around the Washington Works facility. Andy Kawczak and Tim Kosto both testified that as early as 2003 they knew that the drinking water in the communities around the DuPont facility was contaminated.[117] Kosto also testified that he understood around this time that PFOA had accumulated in the bodies of those exposed in West Virginia and Ohio.[118] In addition, Taconic began to receive more information regarding PFOA's health risks around this time. In March 2003, a Taconic employee sent Kawczak an article from the New York Times reporting that EPA scientists working with

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[115] *Id.*, Ex. 26 (Email of April 8, 2003 re C8 sampling/analysis).
[116] Shin Aff. ¶ 7.
[117] Bilsborrow Aff., Ex. 9, Kawczak Dep. at 42, 44; *id.*, Ex. 5, Kosto Dep. at 47.
[118] *Id.*, Ex. 5, Kosto Dep. at 48.

DuPont had become concerned that PFOA "accumulates in human blood and demonstrates toxic properties," and that it may pose heightened health risks to younger women and girls.[119] Kosto testified that in 2003, there "were many" discussions in the manufacturing and regulatory community about what risks PFOA exposure may pose.[120] He specifically recalled discussing PFOA's effect on child birthweight and cancerous growths caused by PFOA in some animal studies.[121]

Taconic also became more active with the Society of Plastics and its association for polymer processors, the Fluoropolymer Processors Group (FPG). Taconic's Technical Manager, Tim Kosto, started attending meetings of the FPG in 2003, where he learned that industry was raising concerns that warranted closer study of PFOA and its environmental health and safety effects.[122] At these FPG meetings, members discussed PFOA's persistence in the environment and that it bioaccumulates and has a long half-life in humans.[123] Kosto also became aware of the PFOA contamination concerns around DuPont's Washington Works facility, and that the drinking water outside the plant had also been contaminated.

In March 2003, another group associated with SPI, the Fluoropolymer Manufacturers Group (FMG), wrote to the EPA providing information about the efforts of FMG to develop information on the use of fluoropolymers made with APFO.[124] In its letter, the FMG committed to fund a study of the use of PTFE dispersions by fluoropolymer processors like Taconic. For the next several months, the FMG worked with industry stakeholders, including Taconic, to lay the

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[119] *Id.*, Ex. 26 (Email of March 31, 2003 re NYTimes.com Article: Chemical Might Pose Health Risk to Younger Women and Girls).

[120] *Id.*, Ex. 5, Kosto Dep. at 49.

[121] *Id.*, Ex. 5, Kosto Dep. at 50.

[122] *Id.* at 48-49.

[123] *Id.* at 48.

[124] *See* Shin Aff., Ex. D at p. 1 (Barr Report "Executive Summary").

groundwork for this study. Throughout this period, Tim Kosto was meeting with the FPG and receiving regular reports on scientific studies showing the environmental health and safety risks associated with PFOA.[125]

The warnings conveyed by DuPont and the information obtained through the FPG clearly gave Taconic reason for concern. On May 2, 2003, Taconic management met to discuss environmental health and safety issues posed by PFOA.[126] Taconic resolved to take several steps to provide its employees additional personal protective equipment, particularly those employees working directly with the PTFE dispersions in the oven rooms. In addition, "[t]he group discussed the need to keep contamination away from home and loved ones."[127] Policies were revised to prevent employees from taking uniforms home for cleaning. Taconic's discussion illustrates that it understood the dangers posed by exposure to those outside the facility, but management did not discuss at this time whether Taconic should share these concerns with the greater community.[128] At this meeting, Taconic's management also decided that although it would perform indoor ambient air testing for PFOA, it would not undertake efforts to tests its stacks, wastewater or perform fence line testing; instead, management agreed to wait "until SPI initiated the industry-wide testing" anticipated by the FMG's study.[129]

DuPont advised Taconic that at the time, there was only one laboratory with an accurate test methodology for measuring APFO/PFOA, a company called Exygen in State College, Pennsylvania.[130] After Andy Russell rejected the initial indoor air testing proposals as too costly,

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[125] Bilsborrow Aff., Ex. 5, Kosto Dep. at 42, 288.
[126] *Id.*, Ex. 27 (Memo re May 2, 2003 Meeting).
[127] *Id.*
[128] *Id.*, Ex. 9, Kawczak Dep. at 73.
[129] *Id.*, Ex. 27, (Memo re May 2, 2003 Meeting).
[130] *Id.*, Ex. 9, Kawczak Dep. at 48-49, 51.

Taconic ultimately did not hire Exygen, the only lab with an accurate test methodology at the time, and instead hired a local company, Adirondack Environmental Services.[131] Taconic had previously hired Adirondack to test its stacks for APFO, but Adirondack's test methods were insufficiently precise to detect the chemical. Adirondack performed the indoor air testing around June of 2003 but again could not detect PFOA inside the oven rooms.[132] Adirondack advised Taconic that its test methods—this time testing ambient indoor air—were not precise. In a July 2003 email, an Adirondack representative wrote:

> [P]lease keep in mind that there is no 'validated' sampling/analytical method for detecting PFOA in air. Adirondack's chemists used an analytical method that was developed "in-house" based on similar materials tested for in the past. Without further research, we cannot be sure how sensitive this method is at detecting PFOA in the way I sampled for.[133]

Taconic's environmental manager, Andy Kawczak, understood that Adirondack was telling them that its testing was not reliable.[134] Tim Kosto described Adirondack's testing methods as "too coarse" to detect APFO.[135] In a subsequent discussion with management, Tom McCarthy, Taconic's engineering manager, explained that when PFOA is heated in the ovens it will decompose to another chemical, perfluorocyclohexane, and that tests should be performed for that chemical both at the stack and in the lower area of the ovens where water vapor and formic acid are exhausted.[136] Taconic never pursued McCarthy's suggestion.

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[131] *Id.*, Ex. 9, Kawczak Dep. at 50.

[132] *Id.* at 79-80.

[133] Shin Aff., Ex. X (Email from Adirondack).

[134] Bilsborrow Aff., Ex. 9, Kawczak Dep. at 80.

[135] *Id.*, Ex. 28 (Email of July 27, 2004 re APFO tests).

[136] *Id.*, Ex. 29 (Email of July 22, 2003 re PFOA results – by Adirondack sampling & testing).

In October 2003, the SPI formally invited Taconic to participate in an industry-wide study of the use and disposal of APFO among fluoropolymer processors.[137] The purpose of this study was "to determine what happens to the APFO as the [fluoropolymer] dispersions are used to make products, in particular, whether and how the dispersions might become a source of potential human exposure to APFO or contribute to the presence of APFO in the environment."[138] To ensure the study results were informative, the FMG had developed an EPA-approved method of testing for APFO emissions at the stack. By participating in the study, Taconic could have obtained stack testing results free of charge.[139]

On October 31, 2003, Kosto attended a meeting of the FPG to discuss participation in the industry-wide materials balance study.[140] Following this meeting, Taconic opted not to participate in the study, in part because it was concerned about confidentiality of the study results. Kosto explained, "The development of publicity certainly around the presence of PFOA in the water supplies around the DuPont facility, presented for me, at the time frame, a concern about data being in places where it was going to be misused, used for inappropriate purposes, taken out of context and, otherwise, essentially taken to misrepresent situations and circumstances in our facility in Petersburg."[141] Kosto also indicated that he was concerned that information regarding the discharge of APFO to the environment could be misused if obtained by the public.[142] Taconic did not arrange to test its stack emissions on its own at this time.

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[137] *Id.*, Ex. 30 (October 17, 2003 Letter re Request for Participation in Dispersion Processors Material Study).

[138] *Id.*

[139] *Id.*

[140] *Id.*, Ex. 31 (November 5, 2003 Email re FPG Meeting).

[141] *Id.*, Ex. 5, Kosto Dep. at 184-85.

[142] *Id.* at 188-89.

In January 2005, Kosto received a copy of the results from the industry-wide materials balance study, titled "Dispersion Processor Material Balance Project" ("DPMBP Report" or the "Barr Report").[143] The Barr Report studied fiberglass fabric coating processes substantially similar to the processes conducted at Taconic and Kosto testified that he was "confident" that the study results sufficiently "simulated" Taconic's processes so as to provide "meaningful scientific information about how much of the PFOA was actually being consumed and exhausted" in Taconic's processes.[144] From this report, Kosto learned that between 9 and 19% of APFO was detected in the oven exhaust for ovens utilizing recirculating heat, [redacted][145] For ovens that used radiant heat, however, [redacted], 39 to 54% of APFO was detected in the oven exhaust.[146] Kosto did not know how much of the APFO in either of these scenarios was captured by the Fume Eliminator and he testified that making such a determination was Andy Kawczak's responsibility.[147] Andy Kawczak, in turn, testified that he did not know how much APFO was captured by the Fume Eliminator because it was not something that was ever measured.[148] Following receipt of the Barr Report, no one at Taconic performed any stack testing to determine how much APFO was being captured by the Fume Eliminator. In May 2005, DuPont offered to provide Taconic with pollution control technology royalty-free to reduce its APFO emissions.[149] Taconic did not accept this offer.

[143] Shin Aff., Ex. D (Barr Report).
[144] Bilsborrow Aff., Ex. 5, Kosto Dep. at 192.
[145] Shin Aff., Ex. D (Barr Report) at 46 of 83; Bilsborrow Aff., Ex. 5, Kosto Dep. at 212-13.
[146] Shin Aff., Ex. D (Barr Report) at 52 of 83; Bilsborrow Aff., Ex. 5, Kosto Dep. at 220-22.
[147] Bilsborrow Aff., Ex. 5, Kosto Dep. at 214-15.
[148] *Id.*, Ex. 9, Kawczak Dep. at 57-58.
[149] *Id.*, Ex. 32 (Email of May 7, 2005 from Allen Weidman re Royalty-free.doc).

The Barr Report made clear that APFO was exhausted during the fabric coating process. Kosto also learned, through his participation with the FPG, that air emissions of APFO were responsible for the widespread PFOA contamination around the Washington Works facility. Prior to his receipt of the Barr Report, Kosto forwarded Taconic management an EPA PowerPoint presentation titled, "Fluoropolymers in the Environment," which described a "Road Map" of the EPA's "current understanding of sources and environmental pathways" of PFOA.[150] This presentation depicts a number of pathways by which PFOA was entering the environment, including via air emissions. Page 17 of the presentation was titled, "Environmental Fate of Fluoropolymers" and shows that PFOA volatizes and is transported via particulates through the air and to the soil as wet deposition.[151] Plaintiffs' expert, Dr. Shin, testifies that this is precisely what occurred in Petersburgh,[152] and the DEC had been warning Taconic of this pathway since 1997.[153] Taconic understood this pathway of exposure and did nothing to ensure that its emissions were not contaminating the community and its drinking water.

Internal Taconic documents suggest that the facility used nearly one million pounds of PTFE dispersion in 2005.[154] Using the Barr Report's analysis for a fiberglass fabric coating operation like Taconic's, and considering the types of ovens that Taconic was utilizing for this process, Dr. Shin estimates that Taconic's ovens exhausted approximately 870.5 pounds of APFO annually in or around 2005.[155] Some of this APFO was likely captured by the Fume Eliminator

[150] *Id.*, Ex. 33 (Email of January 12, 2004 re EPA Roadmap); *id.*, Ex. 34 (Powerpoint titled "Fluoropolymers in the Environment")
[151] *Id.*, Ex. 34 (Powerpoint titled "Fluoropolymers in the Environment").
[152] Shin Aff. ¶ 13.
[153] Bilsborrow Aff., Ex. 14 (DEC Memorandum of March 21, 1997).
[154] Shin Aff. ¶ 13(f).
[155] Shin Aff. ¶ 13(f).

(though it is unlikely an appreciable quantity of APFO was captured by the Smog Hog[156]). But prior to 1991, Taconic used no pollution control devices on its coating ovens; from the data in the Barr Report, Taconic should have been able to conclude that it emitted several tons of toxic and environmentally persistent APFO to the Petersburgh community prior to 1991.[157]

C. Taconic Learns PFOA Has Contaminated Its Property and Nearby Residential Properties and an EPA Report Labels PFOA a "Likely Carcinogen."

After years of warnings from industry that it needed to test its waste streams, Taconic finally did so in September 2004. The results showed that APFO was present in Taconic's wastewater at levels of 88.8 ug/mL.[158] This discovery, in turn, prompted Taconic to begin testing groundwater beneath its facility since it had dumped its wastewater into the ground for over thirty years. In November 2004, Taconic took samples from its on-site production wells and sent them for testing to Exygen, the laboratory recommended by DuPont. These wells, which were estimated to be 300 feet deep, contained PFOA levels of 117 ng/ML (117,000 parts per trillion), 152 ng/mL (152,000 parts per trillion), and 2.3 ng/mL (2,300 parts per trillion).[159]

In January 2005, Taconic sent more samples to Exygen for testing. Two samples were taken from the taps at residences owned by Taconic and that were adjacent to Taconic's property. Each residence obtained drinking water from private wells located on its property. These

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[156] Shin Aff. ¶ 13(h).

[157] *See* Shin Aff. ¶ 13(g) (explaining that even using conservative estimates, "6.5 tons of highly environmentally persistent APFO was released from Taconic into the air prior to 1991 before any pollution control devices were installed").

[158] Bilsborrow Aff., Ex. 35 (September 2004 Analysis), at TACONIC_Paper-0024961.

[159] Bilsborrow Aff., Ex. 36 (November 2004 Analysis), at TAC-SEN_03637. To put these contamination levels in perspective, EPA issued a health advisory in 2009 for even short term use of drinking water in excess of 400 parts per trillion. In 2016 EPA set a long term limit of 70 parts per trillion. As set forth below, several states, including several of New York's neighbors, have set drinking water levels much lower than 70 parts per trillion.

residences, at 147 Coon Brook Road and 6 Russell Road, were leased to Taconic employees.[160] The tap water at 147 Coon Brook Road contained 4.2 ng/mL (4,2000 parts per trillion) and the tap water at 6 Russell Road contained 2.28 ng/mL (2,280 parts per trillion). Taconic also sampled water from a surface pond located onsite, which contained 0.562 ng/mL (562 parts per trillion).[161]

At this point, Taconic understood the groundwater beneath its facility was contaminated with PFOA, surface water on its property was contaminated, and that PFOA contamination had spread offsite to nearby residences. Taconic also learned in 2005 that the EPA Science Advisory Board labeled PFOA a "likely carcinogen."[162] The EPA's draft Risk Assessment on the potential effects of PFOA, which was sent to Kosto through his association with the FPG, also indicated that PFOA exposure posed a potential risk of developmental and other adverse effects, including immune deficiencies and increases in cholesterol levels. Shortly after publication of the risk assessment, DuPont agreed to fund a comprehensive biomonitoring study of the communities adjacent to the Washington Works facility whose drinking water was contaminated with PFOA. Approximately 70,000 individuals were expected to participate.[163]

On July 7, 2005, Taconic created a "PFOA Summary and Assessment," which set forth its own "risk assessment" regarding PFOA exposure.[164] The memo provided an overview of measures Taconic had taken to date to improve employee personal protective equipment; to answer customer inquiries "about the safety issues associated with PFOA and PTFE"; and its efforts to stay abreast of industry knowledge by maintaining contacts with the FPG. The document also identified

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[160] Bilsborrow Aff., Ex. 5, Kosto Dep. at 101-02.

[161] *Id.*, Ex. 37 (January 2005 Analysis), at TAC-SEN_03537.

[162] *Id.*, Ex. 5, Kosto Dep. at 267; *see also id.*, Ex. 38 (EPA Science Advisory Board Draft Report).

[163] *Id.*, Ex. 39 (Email of July 11, 2005 re WV health screenings).

[164] *Id.*, Ex. 40 (July 7, 2005 Taconic PFOA summary and assessment).

"Potential Interested Parties," including Taconic's suppliers, employees, customers, the general public, and media. Despite acknowledging that the general public would wish to know what Taconic was finding in the groundwater in and around its site, no one at Taconic took any steps to share PFOA-related information with the greater community at this time.[165]

In August 2005, more samples were sent to Exygen. Taconic sent four samples from shallow monitoring wells that were constructed as part of the 2000 consent order with DEC; one from a reservoir, and three samples from three additional residences owned by Taconic at 46, 66, and 85 Coon Brook Road.[166] Taconic also took a sample from a campground that Taconic owned across Route 22 and from the effluent of one of its Fume Eliminators. Results from the shallow monitoring wells ranged from 8,820 ng/mL (8,820,000 parts per trillion) to 15.6 ng/mL (15,600 parts per trillion).[167] The reservoir sample tested at 0.594 ng/mL (594 parts per trillion) and the campground contained 0.691 ng/mL (691 parts per trillion).[168] The tap at 85 Coon Brook Road contained 0.349 ng/mL (349 parts per trillion), while the other two residences were non-detect.[169] Effluent from the Fume Eliminator contained 172,000,000 ng/mL of PFOA.[170] Taconic also sent a soil sample for testing, which showed that the soil on site contained 4.71 ng/g of PFOA (4.71 parts per billion).[171] At this point, it was clear that the surface, subsurface, and deeper wells on

[165] *Id.*; *see also id.*, Ex. 8, Hewitt Dep. at 152-53 (acknowledging that the general public would have been interested in the presence of PFOA at Taconic's facility if they were aware of it).

[166] Smith Aff., Ex. 19; Bilsborrow Aff., Ex. 9, Kawczak Dep. at 99-101.

[167] Smith Aff., Ex. 19, at TAC-SEN_03428; Bilsborrow Aff., Ex. 9, Kawczak Dep. at 100.

[168] Smith Aff., Ex. 19, at TAC-SEN_03428.

[169] *Id.*; Bilsborrow Aff., Ex. 9, Kawczak Dep. at 99-100.

[170] Smith Aff., Ex. 19, at TAC-SEN_03428; Bilsborrow Aff., Ex. 9, Kawczak Dep. at 101.

[171] Smith Aff., Ex. 19, at TAC-SEN_03428. Kawczak testified that they took a soil sample to confirm that APFO was being emitted from the stack. Bilsborrow Aff., Ex. 9, Kawczak Dep. at 104.

Taconic's site were contaminated with PFOA and that PFOA had contaminated the drinking water wells of at least some nearby residences.

Taconic informed the individuals living in the leased properties on Coon Brook Road and Russell Road that PFOA was found in their drinking water, but did not share the actual test results or any of the information Taconic was learning through its association with the FPG.[172] Andy Kawczak told one resident, Suzanne Seymour—who was also a Taconic employee—that she did not need to worry about the contamination because she was "an old hen."[173] Kawczak intimated that PFOA only affected women young enough to have children, but he did not share any of the other information Taconic's management had accrued regarding potential health risks.[174]

Taconic understood that this contamination was not confined to its property. Indeed, Andy Kawczak created a number of maps depicting not only the Taconic properties, but residences in the vicinity of the Taconic property.[175] Kawczak placed question marks next to several of the properties near the facility, indicating that he was not sure the extent of PFOA contamination at these residences. Kawczak testified that he created these maps to try and visually capture the PFOA air emissions coming from the plant.[176] In other words, Taconic's environmental manager well understood that PFOA was not entirely captured by its pollution control devices, that PFOA was being emitted from its stacks, and that it was spreading to the community. No one from Taconic made any effort to inform the residents at the nearby properties identified by Kawczak's maps or to test their wells to determine the extent of the PFOA contamination.[177] As Kawczak explained,

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[172] Bilsborrow Aff., Ex. 9, Kawczak Dep. at 110-11.
[173] *Id.*, Ex. 41 (Deposition Transcript of Suzanne Seymour ("Seymour Dep.")), at 16-17.
[174] *Id.* at 17-18.
[175] *Id.*, Ex. 42 (Taconic and Surrounding Area Maps).
[176] *Id.*, Ex. 9, Kawczak Dep. at 106.
[177] *Id.* at 112.

there was no discussion among management whether to test these properties because Andy Russell would not approve payment for testing if that testing was not required by law.[178]

At this point, Taconic began to worry about its potential liability. [redacted], Taconic compiled information about PFOA-related class action lawsuits pending against DuPont in West Virginia, Ohio, and Iowa.[179] It studied the toxicology and epidemiology issues associated with PFOA and understood that PFOA was accumulating in the blood of residents of communities near PFOA manufacturers.[180] Although PFOA was not regulated as a hazardous waste, Taconic understood that action levels or thresholds had been promulgated by 3M (0.1 mg/m^3 for PFOA), the American Conference of Governmental Industrial Hygienists (0.01 mg/m^3), the West Virginia Department of Environmental Protection (150 parts per billion), and the state of Minnesota (7 parts per billion as maximum concentration in water that causes no harm).[181] Taconic also understood that DuPont was providing bottled water to residents of the Little Hocking Water District where PFOA exceeded 14 parts per billion in drinking water.[182] [redacted][183] Taconic placed its insurance carrier on notice.[184]

On August 3, 2005, Taconic management made a plan to notify the DEC, the state Department of Health (DOH), and the Rensselaer County Department of Health (RCDOH) of the onsite PFOA contamination. Taconic's CFO, Larry Carroll, explained in an email to management

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[178] *Id.* at 109-10.
[179] Shin Aff., Ex. I.
[180] *Id.*; *see also* Bilsborrow Aff., [redacted].
[181] Shin Aff., Ex. I.
[182] *Id.*
[183] [redacted]
[184] Bilsborrow Aff., Ex. 1, Carroll Dep. at 100-107.

that they would send each agency a letter and schedule follow-up meetings to discuss the results.[185] Taconic sent short letters to each of these agencies, stating,

> We have recently undertaken voluntary efforts to evaluate the presence and level of perfluorooctanoic acid (PFOA) at or near the Taconic facility. Attached please find copies of the laboratory analytical reports related to the presence of this compound in groundwater at or near the facility. After you have had a chance to look through the enclosed, would you please contact me at your earliest convenience so that we can arrange a meeting to discuss this information?[186]

Each letter attached the lab reports received from Exygen. However, Taconic did not provide any of the environmental or health information it had received from DuPont or the SPI; it did not explain that its air emissions were likely spreading PFOA throughout the community, nor did it highlight for the agencies that its testing confirmed that PFOA had moved offsite into the drinking water of nearby residences. The state agencies did not respond to Taconic's short letters, a fact Kawczak found only "mildly surprise[ing]" considering the agencies did not have the same knowledge as industry regarding PFOA.[187]

After notifying the agencies, Taconic's outside consultants recommended a number of actions to prevent further contamination of the community. At this time, Taconic was still engaged in fiberglass fabric coating using PTFE dispersions that contained APFO. Both Adirondack Environmental Services and another consultant, Clough Harbor, recommended that Taconic "[r]eview existing air emission points for emission sources," and "[r]eroute non-treated air emission sources to fume eliminator to install treatment."[188] Taconic did neither of these things. It also undertook no stack or fence line testing to confirm whether APFO was leaving its stack and

[185] *Id.*, Ex. 43 (Email of August 3, 2005 re communication strategy).
[186] *Id.*, Ex. 44, (Letter of August 3, 2005 to DEC)
[187] *Id.*, Ex. 9, Kawczak Dep. at 220, 260.
[188] Shin Aff., Ex. I.

spreading to the community and it did not make any effort to upgrade its pollution control devices, either by utilizing the technology offered royalty-free by DuPont or purchasing an RTO. Adirondack and Clough Harbor also advised that Taconic should "[o]ffer to sample residences in immediate area of off-site residences and provide bottled water if PFOA/APFO detected."[189] Taconic did not heed its consultants' advice.

Although it took no measures to protect the community outside its property line, Taconic took steps to protect itself. It installed granulated activated carbon (GAC) filters on each of its production wells to filter PFOA that entered the facility.[190] It also provided bottled water to its employees and provided lessees of its properties with bottled water.[191] Taconic explained to its employees that PFOA was found onsite, but it did not share the actual test results or the health determinations reached by the EPA Science Advisory Board.[192] Taconic now asserts that by informing its employees of the PFOA contamination, it was sharing information with the public. Its own employees disagree with their lawyers' characterization. Andy Kawczak testified that he did not expect this information to be communicated to the outside community and that very few employees took a copy with them of any informational sheets.[193]

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[189] *Id.*

[190] Bilsborrow Aff., Ex. 5, Kosto Dep. at 136.

[191] *Id.* at 136.

[192] *See id.*, Ex. 45 (PFOA white paper), at TACONIC_Paper-0041139. It is unclear whether Taconic shared this information with all or most of its staff or shared the information only with employees who worked in the oven rooms. Multiple high-level employees had little to no knowledge that PFOA was found in the groundwater that supplied Taconic's wells. *See id.*, Ex. 4, Goodermote Dep. at 165 (stating that she had "no knowledge that PFOA had been found in the water"); *id.*, Ex. 8, Hewitt Dep. at 124-25 (stating that he had no recollection of any employees becoming concerned about the presence of PFOA in the water onsite), 155 (stating that he believed GAC filters were installed to filter bacteria from the tap).

[193] *Id.*, Ex. 9, Kawczak Dep. at 192, 213.

Taconic's environmental manager acknowledged that while Taconic took steps to protect its employees from PFOA exposure, it took no similar steps to protect the families of Petersburgh from the risks associated with PFOA.[194] The reason: Taconic was not required by regulation to take any such measures.[195] Taconic understood that this approach was not reasonable. In a 2005 presentation to employees, Kawczak stated, "As such we (and the nation) do not know the hazards of PFOA[,] however when there are 'unknowns,' it is extremely important to protect one's self."[196] Kawczak agreed that this principle applied not only to Taconic's employees, but also to the community at large.[197] By withholding what it knew about the PFOA contamination it had caused, Taconic deprived the community of protecting itself from the "unknowns" related to PFOA.

IV. AFTER 2005, TACONIC CONTINUES TO LEARN MORE ABOUT THE RISKS POSED BY PFOA BUT DOES NOTHING TO PROTECT THE COMMUNITY.

A. The EPA Implemented a Program to Phase Out All APFO From PTFE Dispersions Due to Potential Health Concerns.

Due to the potential health concerns identified above, in 2006 the EPA initiated the 2010/2015 PFOA Stewardship Program.[198] Eight companies that used large quantities of PFOA in manufacturing agreed to reduce facility emissions and product content of PFOA and related chemicals on a global basis by 95 percent no later than 2010, with a goal of elimination of all PFOA use by 2015.[199] This meant that PTFE dispersion manufacturers like DuPont began reducing the quantity of APFO contained in the dispersions sold to processors like Taconic. Between 2006

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[194] *Id.*, Ex. 9, Kawczak Dep. at 265; *see also id.*, Ex. 5, Kosto Dep. at 142-43, 145 (stating that he does not recall a discussion among management about testing offsite or the cost of doing so, or any discussion of how to deal with PFOA that had already been released and contaminated the groundwater).

[195] *Id.*, Ex. 9, Kawczak Dep. at 265.

[196] *Id.*, Ex. 46 (Maintenance PFOA/PPE Review presentation).

[197] *Id.*, Ex. 9, Kawczak Dep. at 132-33.

[198] Shin Aff. ¶ 6.

[199] *Id.*

and 2013, Taconic transitioned from standard-level APFO dispersions to low-level APFO dispersions and eventually to APFO-free dispersions.

In its motion for summary judgment, Taconic refers to its transition to low-APFO dispersions as an act of social responsibility, but it had no actual choice in the matter. Taconic's suppliers were moving to low-APFO dispersions and, as former plant manager Tad Hewitt stated, "it was gonna be phased out anyway, so you better get on board with it."[200] One supplier, AGC, informed Taconic that as of January 1, 2007, only "low APFO" dispersions would be available for purchase.[201] Another supplier, Solvay Solexis, told Taconic that 100% of its dispersions will be APFO lite by the end of 2006.[202] A 2007 letter from Daikin explained that all of its PTFE dispersions were then "low in APFO content."[203] [redacted][204]

B. The Scientific Community Continues to Warn of the Dangers Posed by PFOA.

As a result of the settlement of one of the class action lawsuits brought against DuPont on behalf of communities in the Ohio River Valley, a panel of three independent epidemiologists was selected jointly by DuPont and class counsel to assess whether or not there was a probable link between PFOA exposure and various diseases.[205] This panel of epidemiologists—called the C8

[200] Bilsborrow Aff., Ex. 8, Hewitt Dep. at 150-51.

[201] *Id.*, Ex. 4, Goodermote Dep. at 157-58.

[202] *Id.*, Ex. 47 (December 27, 2005 Letter from Solvay Solexis re Conversion of PTFE Dispersion Grades to "Lite" APFO Grades).

[203] *Id.*, Ex. 48 (October 11, 2007 Letter from Daikin America, Inc. re Daikin PTFE Aqueous Dispersion Product Line).

[204] [redacted]).

[205] Savitz Aff. ¶ 10.

Science Panel—analyzed existing research regarding the health effects of PFOA, designed and implemented new research necessary to make an informed assessment of possible health effects, and assessed information and data gathered from approximately 69,000 people living near DuPont's Washington Works plant.[206] Between December 2011 and October 2012, the C8 Science Panel published its conclusion that there was a probable causal link between exposure to PFOA and six human diseases and conditions: kidney cancer, testicular cancer, ulcerative colitis, thyroid disease, hypercholestolemia (high cholesterol), and pregnancy induced hypertension (preeclampsia).[207] Taconic was actively tracking the C8 Science Panel's progress both as it was conducting its studies and as it issued its findings.[208]

C. Taconic Was Aware that Industry Was Eliminating PFOA and that the Scientific Community Continued to Warn of its Dangers, But Still Did Nothing to Protect the Petersburgh Community.

For the next several years after discovering PFOA on and around its property, Taconic continued to gather additional information about the environmental health and safety risks posed by PFOA, as well as protective measures being taken in other communities contaminated by PFOA. At no point during this time period did Taconic follow up with DEC or RCDOH to share this newly acquired information.

In 2009, Kawczak learned that the EPA was implementing a health advisory for drinking water containing 0.4 parts per billion of PFOA.[209] Taconic's onsite wells tested significantly higher than this standard in 2005, with one of its wells testing 152 parts per billion. Multiple residential properties owned by Taconic also tested above the new EPA health advisory. Although the

[206] *Id.* ¶¶ 10, 12. Dr. Savitz was one of the three C8 Science Panel members.
[207] *Id.* ¶ 15.
[208] Bilsborrow Aff., Ex. 49 (Emails tracking C8 findings).
[209] *Id.*, Ex. 50 (Email of January 15, 2009 re pfoa strategy meeting????).

company had provided bottled water to the residents of these properties that it owned, it had no idea how many other residences in the area were contaminated with PFOA at levels above the new EPA health advisory level of 0.4 parts per billion because, as Kawczak testified, his plan for testing was never approved.[210] Kawczak wrote to Carroll and Kosto and requested a meeting to "discuss strategy on PFOA."[211]

The three met in February "to review the current knowledge and regulatory changes associated with PFOA."[212] Kawczak explained that at this time, management was aware of a number of health indicators associated with PFOA; he presented his colleagues a slide at this time that identified "[n]egative C8 health indicators: elevated cholesterol, elevated uric acid, less fertility, delayed breast development, possible liver cancer issues."[213] In spite of the new EPA advisory and the other information they had acquired since 2005, Taconic's management decided to take no further action. According to Taconic's Carroll, Taconic opted not to do anything at this time because the new EPA level was only an "advisory," meaning that any action is "unregulated and unenforceable."[214] Kawczak echoed this sentiment, calling the EPA's action a "guideline" and stating that "until it got poured in concrete with an actual number, absolute number, it was informative but not necessarily mandated."[215] Again, Taconic would not act unless required to do so by law or regulation. There was no effort at that time to identify Petersburgh residents that had for years been drinking water in excess of the new health advisory.

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[210] *Id.*, Ex. 9, Kawczak Dep. at 138-39.
[211] *Id.*, Ex. 50 (Email of January 15, 2009 re pfoa strategy meeting????).
[212] *Id.*, Ex. 51 (Email of February 3, 2009 re strategy meeting).
[213] *Id.*, Ex. 45 (PFOA White Paper), at TACONIC_Paper-004115; *id.*, [redacted].
[214] *Id.*, Ex. 1, Carroll Dep. at 150.
[215] *Id.*, Ex. 9, Kawczak Dep. at 241.

Following this meeting, Taconic continued to accumulate scientific information that could have spurred it to action. In March 2011, Kawczak sent Carroll news that the EPA would soon require water authorities with large populations to test for PFOA.[216] The following month, Kawczak wrote that "EPA is proposing to monitor or regulate PFOA as a drinking water pollutant – probably to a value as low as **0.02 ppb**. If that happens, Taconic may need to sample more, test more and better monitor what is happening on the activated carbon canisters."[217] In January 2012, Kawczak sent Carroll and Tim Kosto an article reporting that childhood exposure to PFOA may reduce the effectiveness of vaccines.[218] The following June, Kawczak sent Carroll and Kosto the results of a study showing that exposure to PFOA caused liver damage.[219] And during this period, the Taconic team was closely monitoring the progress of the C8 Science Panel, which published its findings in 2011 and 2012. Kawczak, Kosto, and Carroll shared PFOA-related information amongst themselves as well as their outside attorneys, but after August 2005 (and until 2016), they never shared any PFOA-related information with state or county agencies.[220]

V. TESTING IN 2016 REVEALS PFOA CONTAMINATION THROUGHOUT THE PETERSBURGH COMMUNITY AND IN ITS RESIDENTS' BLOOD.

A. Taconic's Air and Wastewater Emissions Contaminated a Seven Mile Radius Around its Facility as well as the Blood of Many Petersburgh Residents.

In 2016, DEC determined that the Petersburgh Public Water System was contaminated with PFOA. The Public Water System is supplied by three source wells, all three of which tested

[216] *Id.*, Ex. 52 (Email from Andy Kawczak re pfoa/C8 and drinking water monitoring).

[217] *Id.*, Ex. 45 (PFOA white paper), at TACONIC_Paper-0041139. After installing GAC filters on its production wells in 2006, Taconic never changed the filters or even tested to ensure the filters were working properly. Kawczak testified that such upkeep or testing was not performed because it would cost money. *Id.*, Ex. 9, Kawczak Dep. at 150.

[218] *Id.*, Ex. 53 (Email of January 25, 2012 re vaccines).

[219] *Id.*, Ex. 54 (Email from Andy Kawczak re just fyi).

[220] *Id.*, Ex. 9 Kawczak Dep. at 148-49.

positive, with the main well measuring as high as 140 parts per trillion. Rensselaer County officials thereafter began testing private drinking water wells near the Taconic facility and found that many were also contaminated with PFOA. Testing continued with over 200 private wells located within a seven-mile radius of Taconic's facility testing positive for PFOA contamination. As Drs. Shin and Siegel explain, Taconic is the source of the PFOA that has contaminated both the Petersburgh Public Water System and all private wells within a seven-mile radius of the facility.[221] Between 1961 and 2017, Taconic emitted between 8 and 16 tons of APFO to the Petersburgh community, much of that within the past twenty years.[222] Virtually all of the APFO released from the facility to ambient air was transported to the soil, surface water, and groundwater in the area.[223] New York State has also named Taconic the party responsible for the PFOA contamination in and around its Petersburgh facility.[224] In its motion papers, Taconic has submitted no competent evidence to demonstrate that another entity is responsible for any of the PFOA found within a seven mile radius of its facility.

Some of the PFOA that contaminated private wells on and close to the Taconic property was likely contributed by Taconic's wastewater emissions prior to 1999.[225] During that time, Taconic discharged process wastewater containing APFO to a septic system and leach fields on the facility site. According to the Barr Report, APFO released in liquid waste averaged approximately 1-3% of total APFO in the dispersions utilized.[226] Timothy Kosto sent samples of

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[221] Shin Aff. ¶ 13(a); *see also id.* ¶ 13(n) (explaining that the "pattern of groundwater contamination from air emissions [in Petersburgh] is consistent with the pattern found in Little Hocking, Ohio from APFO emissions from the DuPont Washington Works facility"); Siegel Aff. ¶¶ 16, 23.

[222] Shin Aff. ¶ 13(k).

[223] Shin Aff. ¶ 13(k).

[224] Bilsborrow Aff., Ex. 55 (Order on Consent and Administrative Settlement).

[225] Siegel Aff. ¶¶ 21, 23; Shin Aff. ¶ 13(l).

[226] Shin Aff., Ex. D at p. 46 of 83.

Taconic's liquid waste to Exygen for testing, and determined in 2004 that Taconic's liquid waste contained 88.8 ug/mL of PFOA.[227] As Dr. Siegel, a hydrogeologist, observes, "[i]t is more likely than not that PFOA contaminated wells will remain contaminated in the foreseeable future even though PFOA is no longer being released by Taconic operations. Continued contamination, at lower or higher concentrations, will occur because of heterogeneities and dual porosity conditions which store and then release PFOA later within the aquifers in question."[228]

During the spring and summer of 2016, the RCDOH installed GAC filters on private wells that were contaminated by Taconic. A GAC filter was also installed on the Petersburgh Public Water System. Until the filters were installed and proved to be functioning, however, residents were instructed not to drink or cook with water from their taps and instead were advised to use bottled water for drinking and cooking.[229] Even after the GAC filters were installed on private wells, some residents continued to learn that PFOA was present in their drinking water.[230] The GAC filters are large appurtenances that are now semi-permanent installations in private residents' homes, requiring indefinite maintenance and upkeep.

The DOH began offering blood testing for PFOA in early 2016 and later in 2017. [redacted]

[227] Bilsborrow Aff., Ex. 36 (November 2004 Analysis), at TAC-SEN_03637.
[228] Siegel Aff. ¶ 22.
[229] Bilsborrow Aff., Ex. 57 (Plaintiff Affidavits).
[230] Bilsborrow Aff., Ex. 57 (Plaintiff Monette Affidavit ¶ 7).
[231] [redacted]

[redacted][233] The primary route of exposure of those Petersburgh residents with elevated PFOA blood serum levels is likely to be ingestion of contaminated drinking water, which is consistent with published research from the C8 Health Project.[234]

Since the EPA implemented the PFOA Stewardship Program in 2006, PFOA blood serum levels in the general US population have steadily declined.[235] The exception to this trend, however, are subpopulations, like Petersburgh's, that were exposed to PFOA released into the soil and drinking water by manufacturing facilities.[236] [redacted]

[232] [redacted]
[233] [redacted]
[234] Shin Aff. ¶ 13(p).
[235] Shin Aff. ¶ 6.
[236] *Id.*
[237] [redacted]

[redacted][238]

B. There is No Competent Evidence That Any Entity Other Than Taconic Is Responsible for the PFOA Contamination in the Class Area.

Taconic's lawyers attempt to point the blame for the PFOA contamination away from the Taconic facility by observing in their briefing papers that the "class geography includes a former manufacturing business in Pownal, Vermont . . . which also used products that contained PFOA," and that "the St. Gobain Facility in Hoosick Falls, New York, and the former Chem Fab/St. Gobain facility in Bennington, Vermont are also facilities in close proximity to the seven mile radius that are known to have used PFOA-containing products in their manufacturing operations." (Def. Br. at 23.) Taconic offers no evidence that any of these facilities in "close proximity" to the class geography was capable of or did emit PFOA into the class zone. None of Taconic's many hired experts offers an opinion that any contamination in the class zone is attributable to an entity other than Taconic. Taconic's environmental engineer, Stephen Washburn, simply states that there are three other sources "that ***have the potential*** to impact surface water and groundwater quality within the Little Hoosick Valley."[239]

Dr. Shin analyzed data from the three facilities with the so-called "potential" to have contributed to contamination within the class zone and he rebuts the speculative arguments proffered by Taconic.[240] The Warren Wire facility, in Pownal, Vermont, is to the east of Petersburgh and there is a mountain located between Petersburgh and Pownal that rises 1850 feet

[238] [redacted]

[239] Washburn Aff. ¶ 18.

[240] *See* Shin Aff. ¶¶ 17-22.

from the valley floor in Pownal. Prevailing winds are from the west, meaning that any airborne emissions from Pownal would need to travel against the prevailing wind direction and rise over the 1850 foot elevation to reach any wells within the class zone. Furthermore, although there are some contaminated wells close to the Warren Wire facility, there are no contaminated wells west of the valley floor near Pownal (in the direction of Petersburgh). In other words, the contamination pattern is not consistent with any spread west toward the class zone.[241]

The former Chemfab facility in North Bennington, Vermont was located northeast of the class zone. None of Taconic's experts provide any evidence that any PFOA emitted from that facility entered the class zone, nor do they explain how it could do so. Data from the Vermont Department of Environmental Conservation shows there were no wells found south or southwest (the direction of Petersburgh) of the former Chemfab facility located within the Town of Bennington that tested above the detection limit for PFOA. Furthermore, the prevailing winds in this area are from the west and south, with no strong winds over 10 miles per hour from the northeast being recorded over a five-year period from January 2008 to December 2012. This explains why the PFOA contamination extends only a short distance in a southwesterly direction from the former Chemfab facility.

Finally, there are significant topographical features that would inhibit APFO emissions from Chemfab to be carried southwesterly toward Petersburgh. The area of interest in North Bennington is more than 12 miles northeast of Petersburgh and there is a mountain that rises approximately 1500 feet that would impede any particulate matter even if the wind was likely to carry it that direction. There are no data showing any contamination between the northern most contaminated wells in Petersburgh and the southern most contaminated well in North Bennington,

[241] *Id.* ¶ 19.

a distance of over five miles. It is scientifically implausible for APFO to be carried by wind from North Bennington and not appear in some quantities in that five-mile gap. Taconic's speculative suggestions are without a factual basis.[242]

Taconic also suggests that the Saint-Gobain facility in Hoosick Falls may have contributed to some contamination in the class zone, but again, it presents no actual evidence beyond its speculative suggestion. The Saint-Gobain facility in Hoosick Falls is 12 miles north of Petersburgh. The topography and prevailing winds (southerly and west-northwest) make it unlikely that APFO from Hoosick Falls would migrate south to fall within the class zone. As Taconic's own consultant, O'Brien & Gere, explained when conducting an air modeling analysis for Taconic's VOC emissions, "the valley orientation at the [Petersburgh] site would likely create a dominance of southerly winds." To reach the class zone, air emissions from Hoosick Falls would have to flow against the gradient of the dominant southerly winds that would predominate until reaching the area north of Petersburgh. For these reasons, there is no data showing PFOA groundwater contamination in the area between North Petersburgh and Hoosick Falls. It is not plausible for APFO emissions to travel in a southerly direction from Hoosick Falls, but to not be present in the soil and wells between the two locations. Taconic's speculation is not based in fact.[243]

Taconic also suggests that the former Petersburgh Landfill may be a "potential" source of PFOA contamination in the class zone. According to the DEC Site Characterization Report, the Petersburgh Landfill was located on Cold Spring Road approximately 2 miles southeast of the Town of Petersburgh.[244] The landfill commenced operations in the early 1980s and no longer was

[242] Shin Aff. ¶¶ 20-21.
[243] Shin Aff. ¶ 22.
[244] Smith Aff., Ex. 15.

accepting waste in 1991. There is a small unnamed stream that drains the landfill and flows north where it meets the Little Hoosic River south of Route 2 near Jones Hollow Road. Taconic's engineer, Mr. Washburn, states that leachate contaminated with PFOA that enters that unnamed stream could potentially affect wells in the area.[245] Mr. Washburn provides no data to support this statement.

As Dr. Shin explains, recent DEC surface water sampling shows there is no evidence that PFOA from the unnamed stream that drains the landfill is having any significant effect on the PFOA level in the Little Hoosic River or that PFOA-contaminated water from the Little Hoosic River is recharging any contaminated private wells or municipal wells. Further, because the PFOA levels in the Little Hoosic River are virtually stable from the point of the Taconic property to the convergence of the Little Hoosic River into the Hoosic River, if water from the Little Hoosic River were recharging any of the contaminated wells, it would most likely be with PFOA that came from Taconic as historical air emissions that deposited in the soil and are now being carried by precipitation to the river as runoff.[246] Taconic's speculation is, again, not plausible.

VI. PFOA EXPOSURE CAUSES HUMAN HEALTH DISEASES AND CONDITIONS, PLACING EXPOSED POPULATIONS LIKE PETERSBURGH'S AT MEDICAL RISK.

Dr. David Savitz, one of three epidemiologists to serve on the C8 Science Panel, one of four peer reviewers for the Agency for Toxic Substances and Disease Registry (ATSDR) Toxicological Profile for Perfluoroalkyls, and Chair of the Michigan PFAS Science Advisory Panel, testifies that there is a "consensus view of epidemiologists" that exposure to PFOA causes both non-carcinogenic effects and cancer in communities with drinking water exposure.[247] Both

[245] Washburn Aff. ¶ 21.
[246] Shin Aff. ¶ 24.
[247] Savitz Aff. ¶ 2, 24.

Dr. Savitz and the C8 Panel concluded that exposure to PFOA is capable of causing thyroid disease, ulcerative colitis, kidney cancer, testicular cancer, preeclampsia, and pregnancy induced hypertension.[248] Dr. Savitz further testifies that it is probable that exposure to PFOA causes an increase in both total and LDL cholesterol and can affect the immune response to pathogens, and that exposure to PFOA is capable of causing increased uric acid levels and elevated liver enzymes.[249]

In addition, Dr. Savitz observes that there a number of other health conditions that further study may causally link to PFOA exposure, including prostate and ovarian cancers.[250] As Dr. Savitz explains,

> It is important to note that as more research is conducted on PFOA exposed populations, more evidence has accumulated suggesting associations between PFOA and human illness. Because drinking water has only recently become a focus of attention for PFOA contamination and because a testing of both public and private drinking water sources had detected significant levels of PFOA in many locations across the United States, it is highly likely that more research will be done that may add to support for an association between PFOA and adverse human health effects in the future.[251]

The risks associated with PFOA exposure are present at near-background levels. Dr. Savitz explains that biological effects on the immune system have repeatedly been observed both in exposed US populations as well as in studies of populations across the globe.[252] Dr. Savitz explains, "Because PFOA demonstrates adverse biological effects even near 'background' levels, evidence does not exist for establishing a level of PFOA exposure below which no negative effects

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[248] *Id.* ¶ 16.
[249] *Id.*
[250] *Id.* ¶ 17.
[251] *Id.* ¶ 18.
[252] *Id.* ¶ 19.

can be assured."[253] [redacted][254] Indeed, for "outcomes such as elevated cholesterol and ulcerative colitis, increased risks were present in the near-background exposure range."[255]

Dr. Savitz's conclusions are consistent with the June 2018 Draft Toxicological Profile for Perfluoroalkyls, published by the ATSDR, which states, "The available epidemiology studies suggest links between perfluoroalkyl exposure and several health outcomes," including hepatic effects, cardiovascular effects, endocrine effects, immune effects, reproductive effects and development effects linking PFOA exposure in each of these adverse health outcomes.[256] Dr. Savitz's conclusions are also consistent with the consensus among scientists working to protect state populations from PFOA-related harm. A 2018 report by the Health Effects Subcommittee of the New Jersey Water Quality Institute explained:

> [A]ssociations of PFOA with numerous health endpoints have been found in human populations with evidence supporting criteria for causality for some endpoints. These health endpoints include both non-carcinogenic effects in the general population and both non-carcinogenic effects and cancer in communities with drinking water exposure. The epidemiologic data for PFOA are notable because of the consistency between results among human epidemiologic studies in different populations, the concordance with toxicological findings from experimental animals, the use of serum concentrations as a measure of internal exposure, the potential clinical endpoints

[253] *Id.*

[254] [redacted]

[255] Savitz Aff. ¶ 19; [redacted].

[256] *Id.* ¶ 24; *See also* Toxicological Profile for Perfluoroalkyls, Draft for Public Comment, June 2018, at p. 25, *available at* https://www.atsdr.cdc.gov/toxprofiles/tp200.pdf (last visited Apr. 27, 2019).

> for which associations are observed, and the observation of associations within the exposure range of the general population.[257]

As a result of this scientific consensus, states have imposed ever-stricter standards for the amount of PFOA that may be present in drinking water. In 2016, Vermont lowered its standard to 20 parts per trillion. New Jersey has adopted a maximum contaminant level of 14 parts per trillion. In December 2018, the New York Drinking Water Quality Council, a committee appointed by state law, recommended that the state implement a maximum contaminant level for PFOA of 14 parts per trillion, making it one of the most protective standards in the country.[258] These are not the actions of governments that believe there are no human health risks posed by exposure to PFOA or that there is a lack of scientific consensus about such risks, as Taconic contends. Governments understand that PFOA is dangerous and exposures should be limited. There is no genuine dispute on this issue.

ARGUMENT

Defendant has filed what is essentially a dubious motion seeking summary judgment on various issues where either obvious questions of fact exist (*e.g.*, the reasonableness of Defendant's conduct after it discovered the extensive contamination in 2005), or where all of the evidence submitted supports the Plaintiffs' claims (*e.g.*, that defendant was the sole source of the PFOA contamination found in the drinking water in Petersburgh). Defendant has not only burdened the Plaintiffs with the obligation to respond to this unreasonable motion, but has burdened the Court in having to review the voluminous memoranda, affidavits and exhibits submitted by both sides.

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[257] Savitz Aff. ¶ 23 (quoting New Jersey Water Quality Institute Executive Summary report).

[258] *See* Drinking Water Quality Council Recommends Nation's Most Protective Maximum Contaminant Levels for Three Unregulated Contaminants in Drinking Water, https://www.health.ny.gov/press/releases/2018/2018-12-18_drinking_water_quality_council_recommendations.htm (last visited May 3, 2019).

To be frank, there are clearly disputed factual issues that warrant trial by jury on Plaintiffs' claims. New York law does not permit a sophisticated corporation to contaminate the property around it, expose an entire community to a carcinogenic chemical, and then simply wash its hands of any responsibility for the matter.

"[T]he proponent of a summary judgment motion must make a prima facie showing of entitlement to judgment as a matter of law, tendering sufficient evidence to demonstrate the absence of any material issues of fact." *Alvarez v. Prospect Hosp.*, 68 N.Y.2d 320, 324 (1986); *Winegrad v. N.Y. Univ. Med. Ctr.*, 64 N.Y.2d 851, 853 (1985) ("The proponent of a summary judgment motion must make a prima facie showing of entitlement to judgment as a matter of law, tendering sufficient evidence to eliminate any material issues of fact from the case"); *see also Zuckerman v City of New York*, 49 N.Y.2d 557, 562 (1980). Defendant has failed to establish a prima facie case for summary judgment for most, if not all, of the issues it raises. Failure to make such showing requires denial of the motion, regardless of the sufficiency of the opposing papers. *Winegrad*, 64 N.Y.2d at 853; *Matter of Redemption Church of Christ v Williams*, 84 A.D.2d 648, 649 (1981); *Greenberg v Manlon Realty*, 43 A.D.2d 968, 969 (1974). Therefore, for instance, Defendant's arguments that it is entitled to summary judgment because Plaintiffs cannot show that Taconic is responsible for all PFOA present on their properties or in their blood (Def. Br. at 55-56) fail automatically because Defendant has failed to present a prima facie case (or for that matter, any evidence at all) that Taconic is not the source of the PFOA found in the class geography's drinking water and in Plaintiffs' blood. This is but one example.

Defendant seeks for this Court to be the first in New York to proclaim that landowners engaging in practices that could cause injury to neighboring properties and residents owe no duty of reasonable care to their neighbors, (Def. Br. at 39), in spite of clear New York Court of Appeals

precedent that holds the exact opposite. *See, e.g.*, *532 Madison Ave. Gourmet Foods, Inc. v. Finlandia Ctr., Inc.*, 96 N.Y.2d 280, 290 (2001). Defendant also advances procedurally nonsensical arguments, pursuing summary judgment to dismiss claims of any of Defendant's employees under the Workers' Compensation law when none of its employees are representative plaintiffs and it has failed to identify a single employee who would even meet the definition for inclusion in the PFOA Bodily Invasion Class. (*See* Def. Br. at 47). Defendant apparently seeks some sort of advisory opinion without presenting any facts for the Court to even evaluate on this issue. Further, Defendant seeks summary judgment on an issue that has already been decided against it by this Court, (*see* Def. Br. at 45), arguing toxic invasion of PFOA into the body is not a legally cognizable injury in spite of this Court's previous rulings to the contrary. (*See* Decision and Order dated April 14, 2017, *Burdick v. Tonoga, Inc.*, 60 Misc. 3d 1212(A), 2018 WL 3355239 at *10 (Sup. Ct. Rensselaer Cty July 3, 2018)). All of these arguments are patently frivolous and not based upon any "reasonable argument for an extension, modification or reversal of existing law."[259]

Under CPLR § 3212(b), a party moving for summary judgment must "recite all the material facts" of the case and demonstrate "there is no defense to the cause of action or that the cause of action or defense has no merit." When reviewing a summary judgment motion, the court "is not to resolve disputed questions of fact but only to determine whether, as to any material issue, a genuine factual dispute exists." *Kaytor v. Elec. Boat Corp*., 609 F3d 537, 545 (2d Cir 2010) (*citing Anderson v. Liberty Lobby, Inc.*, 477 U.S. 242, 249-250 [1986]). "[I]f any party shall show

[259] 22 NYCRR § 130-1.1 provides, in relevant part: "(c) For purposes of this Part, conduct is frivolous if: (1) it is completely without merit in law and cannot be supported by a reasonable argument for an extension, modification or reversal of existing law; (2) it is undertaken primarily to delay or prolong the resolution of the litigation, or to harass or maliciously injure another; or (3) it asserts material factual statements that are false."

facts sufficient to require a trial of any issue of fact," the court must deny the motion. *Id*. It is well settled in New York that in deciding a summary judgment motion the court must view all of the evidence in the light most favorable to the party opposing the motion. *Henderson v. City of New York*, 178 A.D.2d 129 (1st Dep't 1991); *McLaughlin v. Thaima Realty Corp.*, 161 A.D.2d 383, 384 (1st Dep't 1990). Moreover, summary judgment is a "drastic remedy" that must not be granted if there is "any doubt" about the existence of a triable issue of fact. *Reid v. Georgia Pacific Corp.*, 212 A.D.2d 462 (1st Dep't 1995); *Nicholas Di Menna & Sons v. City of New York*, 301 N.Y. 118 (1950); *Moskowitz v. Garlock*, 23 A.D.2d 943 (3d Dep't 1965); CPLR 3212.

Even where undisputed facts are susceptible to more than one permissible inference, the choice between inferences should not be made as a matter of law, but instead should be submitted to the trier of fact. *Ace Wire & Cable Co. v. Aetna Casualty & Surety Co.*, 60 N.Y.2d 390, 401 (1983). The court's function is "issue finding, not issue determination." *Missan v. Schoenfeld*, 95 A.D.2d 198, 206 (1st Dep't 1983) (citing *Sillman v. Twentieth Century-Fox Film Corp.*, 3 N.Y.2d 395 (1957); *see also Stankowski v. Kim*, 730 N.Y.S.2d 288, 293 (1st Dep't 2001) (ruling that issues that "turn largely on witness credibility are inappropriate for summary judgment treatment")).

Defendant has failed to meet it burden for entitlement to summary judgment on any of the issues raised, and accordingly, this Court must deny defendant's motion in its entirety.

POINT I

DEFENDANT IS NOT ENTITLED TO SUMMARY JUDGMENT DISMISSING PLAINTIFFS' NEGLIGENCE CLAIMS.

A. Defendant Has a Legal Duty To Take Reasonable Precautions to Prevent Its Activities from Injuring its Neighbors.

As the Court of Appeals made clear in *532 Madison Avenue Gourmet Foods, Inc. v. Findlandia Center, Inc.*, 96 N.Y.2d 280, 290 (2001), "[a]landowner who engages in activities that

may cause injury to persons on adjoining premises surely owes those persons a duty to take reasonable precautions to avoid injuring them."

> The existence and scope of a tortfeasor's duty is, of course, a legal question for the courts, which "fix the duty point by balancing factors, including the reasonable expectations of parties and society generally, the proliferation of claims, the likelihood of unlimited or insurer-like liability, disproportionate risk and reparation allocation, and public policies affecting the expansion or limitation of new channels of liability" (*Hamilton v Beretta U.S.A. Corp.*, 96 N.Y.2d 222, 232 [quoting *Palka v Servicemaster Mgt. Servs. Corp.*, 83 NY2d 579, 586]).

Id. at 288-89.

Defendant's reliance on *Hamilton v. Beretta U.S.A. Corp.*, 96 N.Y. 2d 222, 232 (2001), and the policy considerations underlying it – the prevention of "unlimited or insurer-like liability...and the expansion...of new channels of liability" – is misplaced. *Hamilton* was not an environmental contamination case and the policy considerations were entirely different. *Hamilton* involved a suit against a gun manufacturer for injuries sustained by the public due to the proliferation of illegal guns. *Id.* The court in *Bah v. Nordson Corp.*, No. 00CIV9060DAB, 2005 WL 1813023 (S.D. N.Y. Aug. 1, 2005), explained why this significant difference is dispositive:

> [*Hamilton*] involved a negligent marketing claim rather than a failure to warn claim, and the New York Court of Appeals held only that handgun manufacturers do not owe victims of handgun violence and their families a duty to exercise reasonable care in the *marketing* of their products…. The *Hamilton* court actually distinguished the case before it from a product liability action based on a failure to warn theory, apparently seeing more justification in the latter case for the imposition of a duty of care that extended beyond mere users of the product at issue.

Id. at *15 (citing *Hamilton*, 96 N.Y. 2d at 230-31 (emphasis supplied)).[260]

This case is neither a product liability action nor a negligent marketing action. It is a negligence claim against a landowner, Taconic, for contamination of nearby properties caused by

[260] Indeed, *Hamilton* explicitly states that cases involving the "distribution or handling of hazardous materials" are distinguishable from the highly specialized considerations arising in handgun litigation. 96 N.Y. 2d at 235.

Taconic's manufacturing activities which allowed PFOA to be released and contaminate the community and its neighbor's properties. The *532 Madison* decision, which discussed *Hamilton* in another context, was decided after *Hamilton* and reiterated the long-standing New York law that landowners must take reasonable precautions to avoid injuring neighboring properties and residents. 96 N.Y.2d at 290. Several New York cases have held that contamination of drinking water by the activities on a neighboring property is actionable, recognizing the duty restated in *532 Madison*. *See Murphy v. Both*, 84 A.D.3d 761, 761-763 (2d Dep't 2011) (defendant may be liable in negligence where he causes chemicals to leak into groundwater that migrate onto plaintiffs' property and contaminate their drinking water); *see also In re Methyl Tertiary Butly Ether (MTBE) Prods. Liab. Litig*., 725 F.3d 65, 119 (2d Cir. 2013); *Ivory v. International Business Machines*, 116 A.D.3d 121, 130 (3d Dept. 2014); *Fetter v. DeCamp*, 195 A.D.2d 771, 772-73 (3d Dep't 1993) (defendant may be liable in negligence where improperly functioning septic system caused fecal contamination to migrate into neighboring properties' drinking water); *Flick v. Town of Steuben*, 199 A.D.2d 970, 970 (4th Dep't 1993) (defendant may be liable in negligence when improperly stored salt allowed to dissolve in soil and migrate to neighbor's drinking water). This Court also recognized that Taconic had a duty to refrain from contaminating neighboring properties when it denied Taconic's motion to dismiss.

Defendant's misplaced reliance on *Aqua NY of Sea Cliff v. Buckeye Pipeline Co., L.P.,* 2012 WL 12905049, 2012 N.Y. Misc. LEXIS 6851 (Sup. Ct. Nassau Cty, 2012), is telling about the strength of its argument. *Aqua NY of Sea Cliff* involved a suit brought by a water provider against two pipeline companies that transported gasoline to various "downstream handlers." *Id.* at *5. Plaintiffs alleged that the storage tanks of the downstream handlers (not the defendants) leaked gasoline contaminating the groundwater with the gasoline additive MTBE and sought to hold the

pipeline companies responsible under a failure to warn theory. *Id.* at *12-13. The court dismissed claims based on strict product liability holding that the pipeline companies were not "sellers" or "marketers" of the gasoline containing MTBE. *Id.* The court dismissed the negligence claims because the pipeline defendants, as mere transporters of the gasoline, owed no duty to the plaintiffs because there were no allegations that the contamination occurred as a result of defendants, as defendants had no control over "the negligent handling of the gasoline by third-parties – the downstream handlers" where the actual discharge took place.[261] *Id.* at *26. Clearly, this case has no relevance to the case at hand. Taconic itself handled the dangerous chemical at issue here, Taconic itself understood that it was discharging this dangerous chemical into the environment, and Taconic itself chose to do nothing to prevent this dangerous chemical from being discharged on its neighbors' properties. Defendant's use of certain quotations from *Aqua Sea Cliff* taken out of context is misleading at best.

The law in New York is clear that Defendant had a duty to take reasonable precautions to avoid allowing its manufacturing operations to injure the persons and properties nearby. It is this duty that defendant breached based upon voluminous evidence submitted in opposition to this motion by Plaintiffs. Accordingly, Defendant's motion for summary judgment cannot be granted on the ground that defendant did not have a duty to plaintiffs.

B. Plaintiffs Submit Sufficient Evidence to Preclude Summary Judgment on Defendant's Breach of Its Duty.

1. There is Ample Evidence that Defendant Breached its Duty of Care.

Defendant argues that "plaintiffs lack any admissible or reliable evidence that Taconic

[261] It should be noted that verdicts based upon claims of negligence against the manufacturers of the gasoline and owners of various storage facilities that leaked causing MTBE groundwater contamination to the City of New York were upheld by the Second Circuit. *In re MTBE Prods. Liab. Litig.*, 725 F.3d 65, 117-18 (2d Cir. 2013).

breached [its] duty." (Def. Br. at 41). To the contrary, **P**laintiffs have submitted voluminous evidence from which a jury could reasonably conclude that Defendant failed to take reasonable precautions to prevent injury to Plaintiffs from its emissions of PFOA. Defendant's MSDS informed it that PTFE dispersions contained a toxic chemical that should not be discharged to the environment, APFO. (*See* Statement of Facts ("SOF") § II(A)). At least by 1997, Defendant knew that APFO contained in PTFE dispersions was a toxic substance and that emissions of such chemical "should be controlled as low as possible." (SOF § II(B)). Defendant not only failed to employ the best available technology to control its emissions, but failed to adequately test its emissions to determine how much of this toxic chemical it was releasing into the environment through the air. (*See* SOF § II(B); Cheremisinoff Aff. ¶¶ 70-86).

Defendant was advised numerous times in 2002 of concerns about APFO escaping into the environment through air emissions by suppliers of the PTFE dispersions it utilized, including DuPont [redacted], and was offered assistance by these suppliers in conducting testing and utilizing technology to control the APFO emissions; Defendant failed to accept this assistance and continued its operations as before. (SOF § III(A)). By 2003, Defendant became aware of the massive drinking water contamination with PFOA that had occurred as a result of air emissions of APFO from DuPont's Washington Works plant. (SOF § III(B)). Defendant was also invited to join an effort to quantify the amount of APFO being emitted by PTFE processors performing similar manufacturing operations but chose not to in order to avoid any further scrutiny of its emissions by the public. (*Id.*). Defendant subsequently received the report of this study, (Shin Aff., Ex. D), showing a large percentage of the APFO (9-54%) contained in the PTFE dispersions was being released to the atmosphere and still failed to take any actions to test its emissions, reduce its emissions, implement best available control technology, or notify the community of the tons of

toxic APFO that had been released from the facility since the 1960s. (SOF § III(B)).

By early 2005, Defendant received test results indicating that its production wells, which at the time also provided drinking water for its employees, were heavily contaminated with PFOA at levels in the hundreds of thousands of parts per trillion. (SOF § III(C)). This was hardly surprising since from the early 1960s through late 1990s Defendant had been discharging wastewater containing APFO into its septic system and leach field without treatment. (SOF § II(C)). Defendant also tested the wells providing drinking water to several residences located on its property that it owned and found that they were also heavily contaminated with PFOA. (SOF § III(C)). Defendant chose at that time to provide bottled water to its employees and the lessees of the residences without sharing the test results or their significance. (*Id.*) Defendant's Environmental Health and Safety Manager, Andrew Kawczak, created documents which identified offsite properties that needed to be tested for PFOA drinking-water contamination but no testing was ever authorized by defendant's CEO Andrew Russell. (*Id.*)

Plaintiffs have submitted the affidavit of Nicholas Cheremissinoff, Ph.D., a chemical engineer specializing in the industry standard of care and best practices. Dr. Cheremisinoff has significant experience counseling industry on pollution control practices. (Cheremisinoff Aff. ¶¶ 2-13). After reviewing information gleaned from various documents produced by Defendant in discovery, Dr. Cheremissinoff provides numerous opinions on how Taconic failed to meet the industry standard for pollution control and waste management at the time, including its failure to utilize best practices to control air emissions, failure to appropriately test its air emissions, failure to prevent improper wastewater discharges, and failure to take action after learning of likely community drinking water contamination in 2005. The result of these failures was decades of environmental contamination and eleven years of additional exposure to PFOA by class members

after Taconic itself knew and understood that PFOA had contaminated the community. (*Id.* ¶¶ 70-156).

Defendant states that "[a]t all times, Taconic operated in compliance with government regulations and the standard of care in the industry." (Def. Br. at 42). As an initial matter, Dr. Cheremisinoff's opinions make clear that Taconic did not at all times act within the standard of care in the industry. However, as the Appellate Division made clear in *Baity v. General Electric Co.*, even if this were true, it would not entitle Defendant to summary judgment.

> The statements of defendant's experts that defendant "comported with industry standards [do] do not establish as a matter of law that [defendant] was not negligent" [*quoting Gardner v. Honda Motor Co.*, 214 AD2d 1024, (4th Dept. 1995)]. Moreover, '[i]rrespective of the absence of a statutory [or regulatory] obligation, [defendant] remain[ed] subject to [its] common-law duty" [*quoting Jacqueline S. v. City of New York*, 81 N.Y.2d 288, 293 (1993).

Baity, 86 A.D. 3d 948, 951 (4th Dep't 2011).

Defendant cites *Trimarco v. Klein*, 56 N.Y.2d 98 (1982), and *Cruz v. New York City Tr. Authority,* 136 A.D.2d 196 (2d Dep't 1988) in support of their argument. However, again, the reliance is misplaced and the cases actually do the opposite. *Trimarco* and *Cruz* stand for the proposition that proof of conformance with industry practice is admissible to show due care just as proof of failure to comply with industry practice may show absence of due care, but in neither case is such proof determinative. *Trimarco*, 56 N.Y.2d at 105-106; *Cruz*, 136 A.D.2d 199-200. These cases hold that such proof can be considered by a jury as evidence of negligence or its absence, but such proof does not entitle either party to judgment of negligence as a matter of law. Defendant has, at best, mischaracterized the holding of these cases.

Defendant also cites to *Smart v. Zambito*, 85 A.D.3d 1721 (4th Dep't 2011), and *Hotaling v. City of New York*, 55 A.D. 3d 396, 398 (1st Dep't 2008), quoting language out of context in a desperate attempt to bolster its argument. *Smart* involved a fall down a flight of stairs where the

decedent could not specify what caused her to fall. 85 A.D.3d at 1721. The court held that summary judgment was appropriate, dismissing the claim "because it is just as likely that the accident could have been caused by some other factor [unrelated to any alleged negligence on defendant's part]." *Id*. *Smart* has no bearing on this case.

Hotaling involved a guidance counselor at a school who hit his head on a door while exiting the building after a fire alarm. 55 A.D.3d at 397. The defendant's expert established that the design of the door fully complied with the Building Code at the time it was constructed, and plaintiff's expert opined that the design of the door violated an industry standard. *Id.* at 398. The language quoted in defendant's memorandum was directed at what was required of plaintiff's expert to create a question of fact regarding the door's design *after* defendant established code compliance and therefore, prima facie entitlement to summary judgment. *Id.* Here, unlike *Hotaling*, Defendant has not established that it complied with the industry standard of care at all times. But even if it had, Plaintiffs have submitted sufficient evidence creating a question of fact on this issue both through Dr. Cheremisinoff's affidavit and the factual record detailed above. Neither of these cases support granting Defendant summary judgment as to liability in this case.

2. *Defendant's Single-Page Letters to Regulatory Agencies in 2005 Are Not a Defense to Plaintiff's Negligence Claims.*

Even after Defendant learned of extensive PFOA contamination of the groundwater under its facility and the drinking water of various nearby properties that it owned by 2005, which led to installation of filtration systems on its own wells and provision of bottled drinking water to its employees and to the lessees of these residences, it failed to act to protect other nearby residents from further PFOA exposure until widespread contamination was discovered in 2016. (SOF § III). This alone is sufficient to create a question of fact as to not only negligence, but also gross negligence and reckless indifference.

Defendant argues that "[n]umerous courts declined to impose liability on defendants for failing to warn the community of potential risk of harm when the defendant did not manufacture the offending product or have superior knowledge regarding the risk of harm." (Def. Br. at 43). Although this is an accurate statement in other contexts, it does not apply here. The cases defendant references involve drastically different factual and legal circumstances and are inapplicable. *Aqua NY of Sea Cliff*, 2012 WL 12905049 (an additive to gasoline that was only transported by defendants, not manufactured and not released into the environment by defendants); *Rabon-Willimack v. Robert Mondavi Corp.*, 73 A.D.3d 1007 (2d Dep't 2010) (plaintiff injured by wine bottle that broke while she attempted to remove cork); *Martin v. Hacker*, 156 A.D.2d 914 (3d Dep't 1989) (distributor of drug alleged to have caused suicide granted summary judgment); *Mulvey v. Cuviello*, 180 Misc. 2d 139 (Sup. Ct. Nassau Cty. 1999) (claim against defendant who volunteered to act as designated driver, but allowed co-defendant to drive while intoxicated dismissed for lack of duty). None of these cases support summary judgment for Defendant here.

Moreover, Defendant clearly had superior knowledge both about the risks of PFOA generally, and the extent of the contamination it discovered at its facility in 2005; it disclosed none of these risks in its one page letter to the regulatory agencies in 2005 and it certainly disclosed no known risks to the community. (SOF §§ II and III). Defendant failed to disclose to the agencies: (1) that the PFOA was not only found in the groundwater but was found in the drinking water of residences that it owned close to its facility; (2) that it had emitted tons of APFO into the environment prior to 2005, which it knew or should have known from the results of the Barr study; (3) that PFOA in the environment was persistent and did not break down; (4) that there were serious health concerns related to exposure to PFOA; (5) that similar APFO air emissions had caused contamination of drinking water to over 70,000 people in the Ohio River Valley; and (6)

that Taconic suspected that PFOA emitted from its stacks had likely contaminated properties throughout the community. (SOF §§ II and III).

Defendant's argument that its one page letter to the DEC and DOH advising these agencies of the discovery of contamination in its production wells and/or its attempts to prevent further employee exposure to PFOA somehow exonerates it from all liability as a matter of law is preposterous. The issue of what a reasonably prudent company would do under the circumstances to prevent harm to the classes based upon all of the knowledge Defendant possessed of both the likely scope of the contamination and the risk that PFOA potentially posed to its neighbors is clearly a question for the jury to determine. *See*, *e.g.*, *Ugarriza v. Schmieder,* 46 N.Y.2d 471, 475-76 (1979) (discussing whether defendant or plaintiff acted reasonably under the circumstances in negligence cases can rarely be decided as a matter of law); *Cullipher v. Traffic Markings, Inc.*, 259 A.D.2d 992, 992 (4th Dep't 1999) ("[N]egligence actions do not ordinarily lend themselves to summary disposition because, even if the parties agree on the facts, the reasonableness of defendant's conduct is a question for the jury.").

C. Plaintiffs Submit Evidence Of Injury To Person And Property Precluding Summary Judgment.

Finally, Defendant contends Plaintiffs have not suffered any damages so summary judgment must be granted on their negligence claims. Defendant fails to provide any legal or factual support for this argument.

Initially, Defendant contends the PFOA Invasion Injury Class plaintiffs have not suffered an injury sufficient to sustain a negligence action under *Caronia v. Phillip Morris*, 22 N.Y.2d 439 (2013). This very argument has already been rejected by this Court when it denied defendant's motion to dismiss (*see* Order dated April 14, 2017) and again in its decision granting class certification. *Burdick v. Tonoga, Inc.*, 60 Misc. 3d 1212(A), 2018 WL 3355239, at *10. These

decisions are law of the case and cannot be relitigated here.

Defendant next incredibly contends Plaintiffs failed to prove devaluation of their property despite the fact that Plaintiffs' expert Jeffrey Zabel, Ph.D., provides an opinion that property values in the contaminated area have decreased by 20% based upon his hedonic valuation analysis. (Zabel Aff. ¶¶ 16-21). Defendant also contends Plaintiffs have not lost their "potable water supply." However, it is undisputed Plaintiffs were deprived of potable water for a definitive period of time until filtrations systems were provided and are now reliant on mitigation systems that are not effective if power is lost or if they malfunction. Moreover, Dr. Shin has opined PFOA is present in the soil of the property damage class members' properties. (Shin Aff. ¶ 13(o)). And Dr. Siegel opines that this PFOA will remain present "for the foreseeable future." (Siegel ¶ 22). The New York Court of Appeals has held that "injury to property" embraces damage caused by exposure to any substance. *Jensen v. General Elec. Co.*, 82 N.Y.2d 77, 81 (1993) (construing the application of CPLR 214-c to claim for damage to property caused by contamination). Accordingly, Defendant cannot obtain judgment as a matter of law upon its argument that its contamination of the property and drinking water of the plaintiffs does not constitute an injury.

POINT II

DEFENDANTS ARE NOT ENTITLED TO SUMMARY JUDGMENT ON CAUSATION.

A. There is no Evidence in the Record Supporting any Source of the PFOA Contamination in Plaintiffs' Drinking Water and on their Properties Other than Taconic.

Defendant asserts it is entitled to summary judgment because "to prevail under any of their causes of action, plaintiffs must prove that *any* contamination on their property originated from Taconic's activities." (Def. Br. at 55 (emphasis added)). Defendant goes on to argue that in this context "any" contamination means "all" contamination. (*Id.*) Defendant cites to no legal authority

for this bold proposition because there is no New York case that supports it. Once again, Defendant relies on cases that stand for the opposite proposition.

As a preliminary matter, under New York law there can be more than one proximate cause of an injury and multiple parties can be held jointly liable based upon their contributions to the injury. *See Argentina v. Emery World Wide Delivery Corp.*, 93 N.Y.2d 554, 560 n.2 (1999) (citing *Foote v. Albany*, 279 NY 416, 422 (1939), and NY Pattern Jury Instructions 2:270; *see also* CPLR Art. 14. Thus, there is no requirement that in order to prevail, Plaintiffs would have to prove that *all* of the contamination on their properties and in their drinking water came from Taconic.

Regardless, a review of the evidence establishes that the *only* source of the contamination in the class area is Defendant. Plaintiffs submitted the affidavits of qualified experts Hyeong-Moo Shin, Ph.D. and Donald I. Siegel, Ph.D. who have opined, based upon the testing data and other evidence, that Taconic is the source of all of the contamination in the class area. (Shin Aff. ¶¶ 13, 17-24; Siegel Aff. ¶ 23). Defendants countered with the affidavit of Paul Hare, who fails to provide any opinions regarding the source of the contamination, and Stephen Washburn, who also fails to opine on the source of the contamination stating only that there are "other" sources that "would have the potential to impact surface water and groundwater quality within the Little Hoosick [sic] Valley including areas within a 7-mile radius of the Taconic Facility." (Washburn Aff. ¶ 18 (emphasis added)). Mr. Washburn does not opine that any of these other potential sources *actually* contributed to the contamination found, only that they had "*potential*" impact. Nor does Mr. Washburn provide any data to back up this *potential* contribution or state how great that potential might be. He also fails to make any statements exonerating Taconic as a source of the contamination.

In addition, Taconic entered into a Consent Order with the New York State Department of Environmental Conservation that requires it to install and maintain filtrations systems for both the Petersburgh municipal supply wells as well as all of the private wells that are contaminated with PFOA in the class area. (SOF § V(A)). No other entity has been identified by the State as a source of the contamination other than Taconic. Accordingly, to the extent summary judgment is appropriate here it should be granted for Plaintiffs because Defendant failed to raise a question of fact as to the source of the contamination.

Defendant cites *Baumfield v. State*, 107 A.D.2d 927 (3d Dep't 1985), in purported support of the proposition that Plaintiffs must exclude all other possible sources in order to recover. However, the court in *Baumfield* stated the opposite of defendant's argument:

> In order to sustain their burden, claimants must establish by credible evidence that it is more likely than not that the State's conduct was a substantial cause of their damage (Koester v. State of New York, 90 AD2d 357, 361-362). ***It is not required that claimant must exclude every other possible cause of damage,*** but rather it is sufficient that circumstances are shown from which causation may be reasonably inferred (supra, at p. 361)**.**

Id. at 927-928 (emphasis added).

Accordingly, the *only* evidence before the Court is that Defendant caused the contamination complained of and Defendant's argument that it is entitled to summary judgment on this issue is specious.

B. Plaintiffs Submit Sufficient Evidence Supporting their Claims that their Elevated PFOA blood levels were caused by Defendant

Defendant next argues that it is entitled to summary judgment because Plaintiffs have not proven that the PFOA measured in their blood also came from Taconic. As described above, the only proof before the Court is that the PFOA in the drinking water of the class members came

from Taconic. As such, Defendant fails to provide any evidence to support its proposition so Plaintiffs have no burden at all on this issue. *See generally Winegrad*, 64 N.Y.2d 851 at 853.

Regardless, Plaintiffs submit substantial evidence supporting the conclusion that the PFOA in their bodies came from the drinking water that was contaminated by Taconic. The class definition requires Plaintiffs to consume contaminated drinking water from the class zone. Taconic is the source of the contamination. Dr. Shin testified the major source of PFOA exposure and accumulation was from drinking contaminated water. (Shin ¶ 8). [redacted] There is simply no evidence to support Defendant's argument and it should be rejected.

C. Plaintiffs Meet Their Burden of Demonstrating that Incurring Medical Monitoring Expenses is Reasonably Certain.

Defendant goes on to argue that in order to recover consequential medical monitoring damages Plaintiffs must establish it is reasonably certain that each Plaintiff will contract a *disease* caused by PFOA. This is not and has never been the law in New York.

The seminal medical monitoring case in New York, *Askey v. Occidental Chemical Corp.*, 102 A.D.2d 130 (4th Dep't 1984), was cited with approval by the Court of Appeals in *Caronia* when reviewing the law of medical monitoring in New York and determining it would preserve the status quo and not create a new equitable cause of action. *Caronia,* 22 N.Y.3d at 448. *Askey* was a class action in which the plaintiffs sought medical monitoring damages based upon exposure to toxic chemicals. In affirming denial of a motion to dismiss the plaintiffs' claim, the Fourth Department emphasized, in accord with the Court of Appeals' precedent in *Schmidt v. Merchants Despatch Transportation Co.*, that "[t]he defendant is liable for 'reasonably anticipated'

consequential damages which may flow later from that [toxic] invasion although the invasion itself is 'an injury too slight to be noticed at the time it is inflicted.'" *Askey*, 102 A.D.2d at 136 (quoting *Schmidt,* 270 N.Y. 287, 300-01 (1936)) (emphasis added).

The *Askey* court set forth succinctly what a plaintiff must establish with "reasonable certainty" to recover consequential medical monitoring damages:

> Damages for the prospective consequences of a tortious injury are recoverable only if the prospective consequences may with reasonable probability be expected to flow from the past harm. Consequences which are contingent, speculative, or merely possible are not properly considered in ascertaining damages (*Strohm v. New York, Lake Erie & Western R. R. Co.*, supra, p 306). If a plaintiff seeks future medical expenses as an element of consequential damage, he must establish with a degree of reasonable medical certainty through expert testimony that ***such expenses*** will be incurred (see *Beyer v. Murray*, 33 AD2d 246).

Id. at 136-137 (emphasis added). This Court cited *Askey* with approval in its order certifying the four classes under CPLR Article 9. *See Burdick v. Tonoga, Inc.*, 60 Misc.3d 1212(A), 2018 WL 3355239, at *4.

In *Baity v. General Electric*, 86 A.d.3d 948, 950 (4th Dept. 2011), the court affirmed the trial court's denial of summary judgment to defendant General Electric, stating: "defendant failed to submit any evidence establishing to a reasonable degree of medical certainty ***that the costs of future medical monitoring*** are not reasonably likely to be incurred as a result of plaintiffs'' exposure…." (emphasis added). Defendant's motion before this Court is no different.

Thus, the law is clear that Plaintiffs need to prove with reasonable certainty that future medical monitoring expenses are "reasonably likely to be incurred." *Id.* Moreover, as *Baity* makes clear, in order to establish entitlement to summary judgment, Defendant must submit evidence to the contrary, which Defendant has failed to do here. *Id.* at 494-495. Regardless, the affidavit of Dr. Ducatman and the medical monitoring plan described therein, in addition to the costs of that program submitted with the Plaintiffs' Expert Disclosure (*see* Smith Aff., Ex. 1), at the very least

create a question of fact as to whether Plaintiffs are reasonably likely to incur future medical monitoring damages. Plaintiffs have presented a reasonable medical monitoring protocol based on expenses the exposed population is reasonably likely to incur. Whether the class is entitled to that relief is a question for the jury. Defendant's argument in support of summary judgment dismissing plaintiffs' medical monitoring claims fails.

POINT III

DEFENDANT IS NOT ENTITLED TO SUMMARY JUDGMENT ON PLAINTIFFS' TRESPASS AND PRIVATE NUISANCE CLAIMS

In its April 14, 2017, opinion denying Defendant's motion to dismiss Plaintiffs' trespass and private nuisance claims, this Court clearly delineated the legal elements of each cause of action and, by implication, the facts that must be proved to sustain them. In its present motion for summary judgment, Taconic has simply reasserted the legal arguments already rejected by the Court, and has failed utterly to meet its burden of establishing a lack of factual disputes material to the claims, relying solely on its self-serving, conclusory and mistaken characterizations of the evidence. As detailed below, these failures compel the denial of Taconic's motion.

A. Trespass

Taconic rests its argument on the assertion that there are no material factual disputes regarding three aspects of Plaintiffs' trespass claim: (1) Taconic's "intention" to cause an intrusion onto Plaintiffs' property; (2) the "harmfulness" of the PFOA Taconic permitted to enter Plaintiffs' property, and (3) the negative effect on Plaintiffs' property values caused by the presence of PFOA. (Def. Br. at 50-54). Taconic is wrong on all three counts.

1. Intent

It is beyond cavil that New York law does not require specific intent to intrude upon another's land to be liable for trespass. Rather, a defendant is liable if it engages in an act that is

"such as 'will to a substantial certainty result in the entry of foreign matter' [onto another's property]." *Phillips v. Sun Oil Co.,* 307 N.Y. 328, 331 (1954) (citing *Restatement of Torts* § 158, comment h); *see also Scribner v. Summers*, 84 F.3d 554, 557-8 (2d Cir. 1996).

Here, ample factual evidence has been adduced to support Plaintiffs' intent-related allegations which, in its 2017 opinion, this Court identified as integral support for the trespass claim. (Order of Apr. 14, 2017 at 6). These allegations include the averment that "as early as 2004, defendant learned that it had contaminated not only the groundwater underlying its own facility with PFOA, but [also] that of nearby residents." (*Id.*) The factual evidence supporting this allegation is summarized in plaintiffs' Statement of Facts § III(C). The evidence also supports another allegation cited by the Court as probative of intent: "defendant had installed filtration systems on its own wells in 2005, but continued to release PFOA into the environment thereafter." (*Id.*) As detailed above, Defendant installed GAC filters on its own wells and provided its own employees with bottled water, but continued using PTFE dispersions that were releasing harmful APFO to the environment.

Moreover, the sufficient culpability of Taconic's intent is reflected in its deliberate maintenance of inadequate pollution controls and waste handling procedures, despite its actual knowledge – for years – of the environmental harms and human health risks of PFOA, much of it compiled by trade groups with which Taconic caucused. (SOF §§ III(A), (B)).

2. "Harmfulness"

Taconic's assertion that there are no material factual disputes regarding the harmfulness of PFOA at the levels found in Plaintiffs' wells finds no support in the evidence and is premised solely on its hope that the Court will grant its motion to exclude plaintiffs' experts and ignore the

voluminous body of medical knowledge attesting to the health risks posed by PFOA.[262] (*See generally* Savitz Aff.)

In reality, Plaintiffs' experts [redacted] and David Savitz, Ph.D. have carefully explained the well-established toxicity of PFOA and the harms and risks it engenders,[263] including carcinogenicity. (SOF § V(A)). These dangers are well documented in the scientific literature and have been recognized by the U.S. EPA and multiple state governments including Vermont, New York and New Jersey (which have set "maximum contaminant levels" well below the concentrations found in the Petersburgh Public Water System and private wells of class members), as well as suppliers of the PTFE dispersions used by Taconic. (SOF ¶¶ II(A), III(C)).

3. Property Value

The prerequisite harm in a trespass claim is an interference with the plaintiff's "right to possession of real property." *In re Methyl Tertiary Butyl Ether (MTBE) Prods Liab. Litig.*, 725 F. 3d 65, 119 (2d Cir. 2013). New York courts have routinely held that permitting toxic or noxious contaminants to enter another's property constitutes such interference. *Scribner*, 84 F.3d at 557-58; *see also Fitzgibbon v. City of Oswego,* No. 5:10-CV-1038, 2011 WL 6218208 at *15-16 (N.D.N.Y. 2011).

Here, Plaintiffs have introduced clear evidence that class members' property, including their soil, their wells and household fixtures receiving PFOA – containing groundwater have been invaded by contaminants negligently released by Taconic.[264]

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[262] Plaintiff rely herein on the arguments made in their response to Taconic's Motion to Exclude Experts for the admissibility of their experts' opinion.

[263] The members of Plaintiffs' PFOA Invasion Injury Class, for example, by definition have blood serum levels of PFOA in excess of any acceptable "background levels." (See SOFacts § V(A)).

[264] Shin Aff.; Cheremisinoff Aff.; Siegel Aff., passim.

The contamination is persistent and will remain in the environment for the foreseeable future and cannot feasibly be removed, requiring at a minimum the maintenance of filtration systems to ameliorate their related risks.[265] The unpermitted interferences with a plaintiff's possessory interest in her water well alone constitutes actionable trespass, *Kiley v. State*, 74 A.D.2d 917, 917 (2d Dep't 1980); *Meehan v. State*, 408 N.Y.S. 2d 652, 653 (N.Y. Ct. Cl. 1978), but in the present case, Plaintiffs have also introduced evidence that the PFOA contamination of their properties has resulted in a significant diminution in their market value, as summarized in the affidavit of their real estate expert, Jeffrey E. Zabel, Ph.D. Using standard methodology and examining data from more than 6,000 real estate transactions, Dr. Zabel has estimated that the impact of the contamination on plaintiffs' properties has resulted in a 20% diminution of value. (Zabel Aff. ¶¶ 12-21).

The evidence summarized above should make it plain that there are ample material issues of fact regarding Plaintiffs' trespass claim, and compels denial of Taconic's motion.

B. Nuisance

Taconic's attack on Plaintiffs' private nuisance claim suffers from many of the same defects as their trespass argument, and should suffer the same fate, as should be apparent from even a cursory examination of the three arguments it advances.

First, its wishful assertion notwithstanding, the evidence that Taconic conducted operations on its own facility negligently and recklessly is clear. (See Argument, Point I, *supra*). Taconic's alleged compliance with then-existing governmental regulations is no defense of its breach of the common law duty of due care, a duty particularly incumbent on Taconic, a sophisticated industrial user of a dangerous substance. (*Id.*)

[265] Siegel Aff. ¶¶ 36, 37.

Second, Taconic's deliberate conduct, which it knew or should have known was substantially certain to affect the property of Plaintiffs and the members of the class, easily meets the standard of "intent" required for nuisance. *See Copart Indus., Inc. v. Consol. Edison Co. of N.Y.*, 41 N.Y.2d 564, 569 (1977); *See also Restatement (2d) of Torts* § 825 (2018).[266]

Third, as outlined in Point II, *supra*, there is simply no credible evidence to support Taconic's assertion that the PFOA contamination of Plaintiffs' property and drinking water originated from any source other than Taconic.

Thus, this case features significant evidence that Taconic's unreasonable use of its own property caused a substantial interference with the ability of Plaintiffs to enjoy and use their own property, including their drinking water wells. Since there remain in dispute multiple factual issues regarding Taconic's liability for nuisance, the members of the private nuisance class[267] should be permitted to present their claims to a jury.

POINT IV

DEFENDANT IS NOT ENTITLED TO SUMMARY JUDGMENT ON PLAINTIFFS' STRICT LIABILITY CLAIMS

Plaintiffs claim that Defendant's decades-long use of the carcinogenic, man-made chemical APFO in close proximity to residential housing constitutes an ultrahazardous activity. For years, Defendant understood that it was exhausting this dangerous chemical through its stacks and spreading the chemical to the Petersburgh community. Throughout the time, it neglected to install best available pollution control technology and did nothing to prevent the spread of its emissions,

[266] Of course, negligent conduct is by definition "unreasonable."

[267] The members of this class are comprised of owners or lessors of real property serviced by a private domestic well.

even though the DEC warned Taconic that its emissions "should be controlled as low as possible." (SOF II(B)).

In *Doundoulakis v. Town of Hempstead*, 42 N.Y.2d 440 (1977), the Court of Appeals set forth the criteria for proof of a strict liability claim based on ultrahazardous activity:

> Imposing strict liability upon landowners who undertake abnormally dangerous activities is not uncommon. The policy consideration may be simply put: those who engage in activity of sufficiently high risk of harm to others, especially where there are reasonable even if more costly alternatives, should bear the cost of harm caused the innocent. Determining whether an activity is abnormally dangerous involves multiple factors. Analysis of no one factor is determinative. Moreover, even an activity abnormally dangerous under one set of circumstances is not necessarily abnormally dangerous for all occasions.

Id. at 448 (internal citations omitted). Given the fact-specific nature of the inquiry, the Court of Appeals set forth six criteria that should determine whether an activity is ultrahazardous under the circumstances of the case:

> (a) existence of a high degree of risk of some harm to the person, land or chattels of others; (b) likelihood that the harm that results from it will be great; (c) inability to eliminate the risk by the exercise of reasonable care; (d) extent to which the activity is not a matter of common usage; (e) inappropriateness of the activity to the place where it is carried on; and (f) extent to which its value to the community is outweighed by its dangerous attribute.

Id. (quoting Restatement Second § 520). No factor is dispositive and instead they must be "weighed." *Id.*

As the discussion in *Doundoulakis* makes clear, whether an activity is ultrahazardous depends on a variety of circumstances; the inquiry is necessarily fact-specific. Thus, contrary to Defendant's assertion, it is not "for the court to decide" as a matter of law. (Def. Br. at 31 (citing unpublished decision from the Southern District of New York)). Rather, New York precedents make clear that whether an activity is ultrahazardous is a question of fact for the jury. *See, e.g.*,

Christie v. Ranieri & Sons, 194 A.D.2d 453, 454 (1st Dep't 1993) (whether activity is inherently dangerous "is normally a question of fact to be determined by the jury"); *State of N.Y. v. Fermenta ASC Corp.*, 162 Misc.2d 288, 293 (Sup. Ct. Suffolk Cty. July 28, 1994) (explaining that whether an activity is abnormally dangerous is a "factual question"). In *Doundoulakis*, the Court of Appeals remanded the case for fact-finding and an inquiry about the nature of the activity, the extent of the danger posed to land, and other factors. *Doundoulakis*, 42 N.Y.2d at 449-51. That said, the Court suggested that strict liability was appropriate where an activity "poses a great danger of invasion of the land of others." *Id.* at 449.

The evidence in the record is more than sufficient, especially when viewed in the light most favorable to Plaintiffs, that coating fiberglass fabric in close proximity to a number of residential homes and a public water system posed a high degree of risk of harm to land and people. Taconic knew for years that its emissions were a likely source of contamination and yet it still chose not to utilize best available control technology. It knew that if PFOA escaped its stacks, it was highly persistent in the environment and would bioaccumulate in human blood. It took few measures to ensure that the APFO it was using would not contaminate the community around it. Given the extensive factual record in this regard, summary judgment on this claim is inappropriate. To the extent Defendant has emphasized various other factors, such as the value of the fiberglass fabrics it manufactured, it will have ample opportunity to present its argument to the jury and advocate for the jury to weigh the factors accordingly. Summary judgment should be denied.

POINT V

DEFENDANT IS NOT ENTITLED TO SUMMARY JUDGMENT ON THE BASIS OF WORKERS COMPENSATION LAW

Defendant has submitted an affidavit from Dawn Ramasco, an employee of Taconic and its Director of Human Resources, which states of the 230 people Taconic employs currently, "over

fifty" reside in Petersburgh. Defendant makes this assertion in support of its argument that some people that fit the class definition for the medical monitoring class are barred from recovery by the New York Workers' Compensation Law, and seeks summary judgment of the claims made by these unidentified individuals. (*See* Def. Br. at 47).

Defendant's argument is factually and procedurally flawed. First, the class definition for the PFOA Invasion Injury Class requires two things: (1) a blood PFOA level at or above 1.86 ug/L, and (2) proof that the person consumed water from a source contaminated with PFOA within seven miles of the Taconic facility. *Burdick*, 2018 WL 3355239, at *13-14. Neither the affidavit of Ms. Ramasco nor any other information provided by Defendant allow the Court to assess whether the "over fifty" people employed by Taconic that reside in Petersburgh meet the two class requirements. This alone defeats Defendant's argument as questions of fact are clearly presented. Simply put, Defendant is asking for summary judgment on an affirmative defense against unknown individuals who are not before the Court and may never be before the Court. This is inappropriate.

Additionally, the false premise of Defendant's argument is that any PFOA found in an employee's blood must have come from occupational exposure at work, and therefore, these employees are precluded from suit against Taconic. However, Defendant failed to provide any factual support for this argument. To the contrary, the record demonstrates:

- Taconic instituted policies in 2003 to protect workers from PFOA exposure during the manufacturing process (Statement of Facts, § III(B));
- Taconic began filtering water to remove PFOA from its contaminated wells in 2005 and provided its employees with bottled water to drink at that time. (Statement of Facts, § III(B));
- Taconic began using low-PFOA dispersions in 2007 and switched entirely to APFO-free dispersions by 2013 (Shin Affidavit, Exhibit J).

Accordingly, workers employed at Taconic after 2003 are much less likely to have been occupationally exposed to APFO/PFOA at Taconic, and those employed after 2013 would be

unlikely to be exposed at all at work. Ms. Ramasco does not provide any information in her affidavit as to when the "over fifty" people employed at Taconic who reside in Petersburgh began their employment at Taconic or whether their employment involved any of the manufacturing operations as opposed to administrative or other duties.

Finally, the class definition requires both consumption of water contaminated with PFOA from a residence within the class zone and an elevated PFOA blood level. Even if a class member was a current or former employee of Taconic employed before 2003, the consumption of contaminated water in his or her home is not "within the scope of their employment" and thus, would not prohibit them from pursuing a civil claim against defendant based upon this exposure. *See Matias v. City of New York*, 127 A.D.3d 1145, 1146 (2d Dep't 2015) (employee is not precluded from civil suit against employer for negligence causing injury outside the scope of employment, even if such injury is a mere aggravation of work-related injury); *Baldwin v. City of New York*, 43 A.D.3d 841, 842 (2d Dep't 2007); *see also Malavenda v. N.Y. Tel.*, 188 A.D.2d 962 (3d Dep't 1992). Because the half-life of PFOA in the body is from 2-8 years (Shin Affidavit, ¶ 8), any employee's PFOA blood level in 2016 is likely to have been largely the result of their consumption of contaminated water in their residence, as drinking contaminated water is a major contributor to PFOA blood levels. (Shin Aff. ¶ 7).

Thus, even if some class members were shown to have some occupational exposure in addition to their exposure at home, the workers' compensation bar does not apply. The addition to their body burdens of PFOA caused by the negligence of Defendant outside the scope of employment is actionable, and, in that respect, they will not be treated differently from other class members. Defendant failed to establish a prima facie case for summary judgment on this ground

and even if it had, plaintiffs present evidence establishing questions of fact that preclude summary judgment.

POINT VI

DEFENDANT IS NOT ENTITLED TO SUMMARY JUDGMENT ON PLAINTIFFS' LIMITED REQUEST FOR INJUNCTIVE RELIEF

Defendant argues that it is entitled to summary judgment under the doctrine of primary jurisdiction for any claims for injunctive relief pled in the Second Amended Complaint. According to Defendant, any such relief is prohibited because state agencies are "actively exercising their jurisdiction and technical expertise to investigate the area, determine what remedial measures are necessary, and conduct the remediation." (Def. Br. at 28-29).

In the Second Amended Complaint, Plaintiffs seek the following injunctive relief:

> [A]n injunction to require preventative measures to limit the damage to class members' health and property values, the cleanup and mitigation of harm to class members' homes and personal property to the extent possible, including remediation of the aquifer upon which plaintiffs and class members depend for their drinking water, and an order requiring Defendant Taconic to institute remedial measures sufficient to permanently prevent PFOA or PFOS from contaminating class members' drinking water and/or properties and requiring Defendant Taconic to fund a medical monitoring and surveillance program for all persons injured by PFOA/PFOS accumulation in their bodies. Plaintiffs seek injunctive relief for mitigation and remediation only to the extent such injunctive relief is not duplicative of or contrary to remediation and mitigation measures put in place by State and Federal regulatory agencies through Consent Orders or other means.

(Attorney's Affidavit of Ann Marie Duffy ¶ 1, Ex. 1 at ¶ 157). By its plain terms, Plaintiffs' pleading does not seek any injunctive relief that is being provided by state or federal agencies. Thus, there is conflict between Plaintiffs' request and the state's jurisdiction. But even if Plaintiffs had not limited their request for injunctive relief, Defendant's characterization of primary jurisdiction is overbroad and does not preclude what Plaintiffs seek.

Primary jurisdiction is a judicially-created doctrine that courts apply narrowly in circumstances where "enforcement of [a] claim requires the resolution of issues which, under a regulatory scheme, have been placed with the special competence of an administrative body." *In re Methyl Tertiary Butyl Ether ("MTBE") Prods. Liab. Litig. ("MTBE II")*, 476 F. Supp. 2d 275, 276 (S.D.N.Y. 2007) (quoting *In re Methyl Tertiary Butyl Ether ("MTBE") Prods. Liab. Litig. ("MTBE I")*, 175 F. Supp. 2d 593, 616 (S.D.N.Y. 2001)).[268] After analyzing the four-part test for application of primary jurisdiction under Second Circuit law,[269] and in circumstances similar to those presented here, the district court in the Southern District of New York, in two separate water contamination cases, found that application of the doctrine was inappropriate. Because the plaintiffs in the MTBE cases were not seeking remediation of the spills themselves, but rather remediation of the contamination *in their wells* and other injunctive relief to protect against future MTBE intrusion *of their wells*, the court reasoned:

> [W]here there is "ample room for injunctive relief beyond [the DEC's] efforts," a court need not defer to the administrative process. Here the DEC's remedial measures may not go far enough and there remains "ample room" for this Court's involvement. While the DEC plays a significant role in crafting an overall response to a petroleum release and the resulting contamination, the DEC's activities are largely focused on abatement and remediation of the spill source and

[268] The court addressed primary jurisdiction in both the *MTBE I* and *MTBE II* cases. In *MTBE I*, plaintiffs, like those here, were plaintiffs whose drinking water wells were contaminated with a chemical, in that case MTBE, and they were seeking costs associated with removing MTBE from their drinking water. *See MTBE I*, 175 F. Supp. 2d at 599. In *MTBE II*, the plaintiffs were municipal water providers seeking well treatment and operation and maintenance costs for that treatment from defendant petroleum companies to pay for the costs of removing MTBE, rather than having to pass that cost to consumers. *See MTBE II*, 476 F. Supp. 2d at 277-78.

[269] The four factors are (1) whether the question is particularly within the agency's discretion; (2) whether the question at issue is within the conventional experience of judges or whether it involves technical or policy considerations within the agency's particular field of expertise; (3) whether there exists a substantial danger of inconsistent rulings; and (4) whether prior application to the agency has been made." *MTBE I*, 175 F. Supp. 2d at 617 (citing *Nat'l Comm. Assoc. v. Am. Tel. & Tel. Co.*, 46 F.3d 220, 222-23 (2d Cir. 1995)).

> surrounding areas—rather than remediation of plaintiffs' wells or protecting those wells from future contamination.

MTBE II, 475 F. Supp. 2d at 281-82 (citations omitted).[270] Just as in *MTBE I* and *MTBE II*, the primary jurisdiction doctrine does not require dismissal of Plaintiffs' claims for injunctive relief because Plaintiffs are not seeking any injunctive relief that is being provided by the state or federal agencies.

To the extent the Court disagrees, Plaintiffs are willing to limit their claims for injunctive relief to those, like the plaintiffs' claims in the MTBE cases, that concern remediation of their private wells. Although the state is currently paying to maintain the GAC filters on those wells, there is no guarantee that the state will continue this upkeep into the future. PFOA contamination, in contrast, is not going away. If the state stops maintaining the GAC filters, it will fall to Plaintiffs to pick up the slack. Further, Plaintiffs plead for injunctive relief to fund a medical monitoring program. No state or federal agency is providing a medical monitoring program and there is no indication that a state or federal agency will do so. Thus, there is no conflict here.

In sum, Plaintiffs' injunctive relief claims do not implicate the primary jurisdiction doctrine. The Court should deny Defendant's motion for summary judgment.

POINT VII

DEFENDANT IS NOT ENTITLED TO SUMMARY JUDGMENT ON PLAINTIFFS' REQUEST FOR PUNITIVE DAMAGES

[270] The *MTBE II* court further reasoned that "[m]uch of the relief plaintiffs are seeking such as the installation of sentinel or recovery wells does not require this Court to engage in a level of detailed technical and policy analysis for which it is not particularly well-suited. While remediation at the well site may be best left to the expertise of the DEC and its sister agencies, this fact need not concern the Court because plaintiffs are not seeking remediation of spill sites." 476 F. Supp. 2d at 282-83. So too here.

Punitive damages may be awarded where there is proof of recklessness, or a conscious disregard for the rights of others. *Hartford Acc. & Indem. Co. v. Hempstead*, 48 N.Y. 2d 218 (1979). While punitive damages are not available where only ordinary negligence is alleged, *Rice v. University of Rochester*, 46 A.D.3d 1421, 1423 (4th Dep't 2007), punitive damages are available when the conduct of the defendant rises above ordinary negligence to gross negligence and recklessness. *Matter of 91st Street Crane Collapse Litigation*, 154 A.D.3d 139 (1st Dep't 2017) (failure to properly maintain construction crane leading to catastrophic accident); *Bondi v. Bambrick*, 308 A.d.2d 330 (1st Dep't 2003) (reckless driving while intoxicated); *Guariglia v. Price Chopper Operating Co., Inc.*, 38 A.D.3d 1043 (3d Dep't 2007) (leaving vials of valium and codeine accessible to child); *In re Seventh Judicial Dist. Asbestos Litig.,* 190 A.D.2d 1068 (4th Dep't 1993) (sale of asbestos containing products without proper warnings)).

The purpose of punitive damages is not to compensate the plaintiff but to punish the defendant for wanton and reckless or malicious acts and thereby to discourage the defendant and other people from acting in a similar way in the future. *Marinaccio v. Clarence*, 20 N.Y.3d 506, 512 (2013) "The determination whether a plaintiff is entitled to an award of punitive damages 'should reside in the sound discretion of the original trier of facts,' i.e., at the time of trial." *Baity*, 86 A.D.3d at 950.

The evidence cited throughout this brief and in the accompanying record is more than sufficient to allow the trier of fact to determine whether Taconic may be liable in punitive damages. Plaintiffs have proffered evidence that for decades, Taconic chose to ignore its APFO emissions even when it was being warned not to do so by the DEC and by other chemical suppliers. It discharged liquid APFO waste into the ground around its facilities even though its MSDS advised it not to do so. When it learned that it had likely contaminated the Petersburgh community in 2005

with PFOA, it did nothing, afraid that it may be sued like DuPont was being sued in West Virginia. As a result of that inaction, the people of Petersburgh were exposed to a cancer-causing chemical for at least 11 unnecessary years. There is no excuse for this behavior. There is ample evidence to present punitive damages to the trier of fact.

CONCLUSION

For the foregoing reasons, Defendant's motion for summary judgment should be denied.

Respectfully submitted,

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