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GARRISON, LINDA CRAWFORD, TED)	
CRAWFORD, and BILLY J. KNIGHT,)	
ndividually, and on behalf of a Class of)	
persons similarly situated,)	
Plaintiffs,)	
v.) Case 1	No. 5:16-cv-125
SAINT-GOBAIN PERFORMANCE PLASTICS CORPORATION,)	

DECISION ON PLAINTIFFS' MOTION FOR SUMMARY JUDGMENT REGARDING THE REMEDY OF MEDICAL MONITORING AND DEFENDANT'S MOTION FOR SUMMARY JUDGMENT (Docs. 310, 321)

Defendant.

In this groundwater contamination class action, Plaintiffs seek to recover the expense of medical monitoring in future years to determine whether class members who currently test positive for exposure to PFOA have contracted an illness or medical condition associated with exposure to the substance. Defendant opposes the claim on several grounds. These include arguments that the medical monitoring remedy is unavailable under Vermont law and that it is not supported by the particular facts of this case.

FACTS

The court will not repeat the statements of the facts which appear in its prior rulings on the *Daubert* motion to exclude expert witnesses (Doc. 300) and the ruling on the motion for class

certification (Doc. 303). The facts of particular importance to the medical monitoring issue are described below.

PROCEDURAL HISTORY

Following the filing of the complaint in May 2016, the defendant filed a motion to dismiss on abstention grounds (Doc. 8). The court denied that motion in December 2016. (Doc. 29.) In January 2017, the defendant filed its answer and a motion for judgment on the pleadings. (Doc. 34, 35.) The motion sought judgment for Defendant on multiple grounds, including the assertion that "the Court should not permit medical monitoring damages unless the plaintiff can demonstrate a present physical injury." (Doc. 35-1 at 14.) In May 2017, the court declined to rule on the availability of medical monitoring damages at such an early juncture:

The court defers any consideration of the potential remedy of medical monitoring to a time when the factual record is developed. Medical monitoring is not itself a cause of action. It is a form of relief. The court has insufficient information about the need and appropriateness of medical monitoring. The motion to dismiss all claims related to medical monitoring is denied without prejudice to the right of the defendant to renew the motion or to bring the issue back before the court as a motion for partial summary judgment following discovery.

(Doc. 74 at 14.)

Discovery commenced in February 2017. (Doc. 43.) The issue of medical monitoring arose again in the context of Defendant's motion to compel the production of medical records of the individual plaintiffs. (Doc. 83.) In September, the court granted the motion to compel, only limiting the length of time for which records must be produced. (Doc. 83.) The court described the dispute over the availability of medical monitoring and again declined to issue a ruling on the scope of the potential remedy:

The discovery motion before the court provides an inadequate basis on which to make a decision which will affect the rest of the case. It is too early to make a fundamental mistake, and there is no need to do so. There are good reasons to wait before committing to one theory of the case.

(Doc. 105 at 6.) Over Plaintiffs' objection, the court permitted discovery into Plaintiffs' primary care records for 20 years with a provision for additional requests if these records provided any basis for a belief that other records might contain information about "potential exposure to toxins or treatment for conditions related to PFOA exposure." (*Id.* at 8.) Discovery is now virtually complete. (*See* Doc. 323.) The time has arrived for a ruling on the availability of a medical monitoring remedy at trial.

In the course of a pre-trial conference in September 2019, the court ordered the parties to complete briefing on the medical monitoring issue by November 1, 2019, with Defendant's summary judgment motion due on the same date. The parties have been helpful in complying with this request. Plaintiffs have filed a timely motion for summary judgment on the medical monitoring issue. (Doc. 310.) Defendant has filed a response as well as its own motion for summary judgment. (Docs. 320, 321.) Plaintiff filed a response to Defendant's motion for summary judgment (Doc. 329.) Defendant filed a reply. (Doc. 333.)

ISSUES PRESENTED

The issues raised by the parties and addressed by the court are:

- Does Vermont law permit the remedy of medical monitoring?
 This issue is primarily addressed by the parties in the context of Plaintiffs' motion for summary judgment.
- As to medical monitoring, does the factual record permit entry of summary judgment in favor of either party?

This issue is raised in both parties' motions for summary judgment.

The court will issue a separate ruling on Defendant's motion for summary judgment regarding proof of diminution of property value.

I. Remedy or a New Cause of Action?

The court analyzes the availability of medical monitoring as a form of injunctive relief available (or not) under existing Vermont law, not as a new cause of action. This is consistent with the original complaint which seeks "an injunction requiring Defendant to . . . [establish and implement] a long-term medical testing protocol for Plaintiffs and Class Members to monitor their health and diagnoses at an early stage any ailments associated with exposure, inhalation or ingestion of PFOA." (Doc. 1 at 26.) It is also consistent with the defendant's position that physical injury is a necessary element of medical monitoring claims and that "[n]either the Vermont Supreme Court nor any other reported decision in Vermont has previously authorized medical monitoring damages as a form of relief for asymptomatic plaintiffs." (Doc. 35-1 at 20.)

In the most recent round of briefing, the plaintiffs describe medical monitoring as a proposed remedy. They assert that "[c]onsistent with *Stead* and Vermont Supreme Court decisions, Vermont would recognize the remedy of medical monitoring." (Doc. 310 at 9.) The defendant argues against permitting medical monitoring either as a remedy for existing torts or as an independent cause of action. (Doc. 320 at 9–25.) Its principal objection is that Vermont common law requires physical injury as an element for damages in tort causes of action. This argument applies equally to existing and to as-yet-unrecognized causes of action.

Focusing on whether medical monitoring is a permissible remedy under causes of action already recognized by the Vermont state courts is consistent with principles of federalism which guide a district court applying state law in a diversity case. The federal courts do not serve as engines for change of state common law. *See City of Johnstown v. Bankers Std. Ins. Co.*, 877 F.2d 1146, 1152 (2d Cir. 1989) ("Our role as a federal court sitting in diversity is ... not to adopt innovative theories that may distort established state law."). There is no need to predict whether

the Vermont Supreme Court would recognize a new tort theory when the same question can be answered by considering existing tort law in Vermont. The court is satisfied that analyzing medical monitoring in the light of a remedy for existing causes of action does not foreclose arguments made by either side and fairly addresses the physical injury rule upon which Defendant relies.

II. Scope and Purpose of the Physical Injury Rule in Vermont

Defendant's primary objection to recognition of a medical monitoring remedy arises from the application of the physical injury rule in Vermont law. Defendant argues that because the individual plaintiffs and the members of the exposure class have suffered no damages from an illness caused by exposure to PFOA, they cannot recover the cost of medical monitoring to detect its future onset.

Vermont follows the majority rule in the United States by requiring physical injury for many torts. Exceptions include reputational torts such as libel and slander, business torts such as interference with contractual relations, and claims of professional negligence. Defendant is correct in observing that for most claims of negligence, physical injury has long been a required element.

The physical injury rule is not a shibboleth to be honored without understanding its purpose and origin. It serves two primary functions—neither of which is relevant here. In applying the physical injury rule, it is important to consider why the rule exists and whether these purposes are at work in this case.

First, the rule operates as one of the means to express and enforce the rule that in most circumstances, parties to a contract have no tort duty to protect one another from economic loss. See O'Connell v. Killington, Ltd., 164 Vt. 73, 665 A.2d 39 (1995) (ski area has no duty to protect the litigation interest of a skier injured in a collision on the slopes). In this setting, we know the physical injury rule as the "economic loss rule." Because parties to a contract have the opportunity to apportion the risk of economic loss through bargaining, they cannot recover in tort in the absence of physical damage. *See Long Trail House Condo. Ass'n v. Engelberth Constr.*, *Inc.*, 2012 VT 80, ¶ 10, 192 Vt. 322, 59 A.3d 752 ("The economic loss rule 'prohibits recovery in tort for purely economic losses." (quoting *EBWS*, *LLC v. Britly Corp.*, 2007 VT 37, ¶ 30, 181 Vt. 513, 928 A.2d 497)).

The distinguishing factor between economic and non-economic loss is the opportunity to allocate risk through a contract. In *Walsh v. Cluba*, 2015 VT 2, 198 Vt. 453, 117 A.3d 798, the Vermont Supreme Court affirmed the dismissal of claims for physical damage to leased premises because "any duty [the tenant] had concerning the subject property was established by virtue of the lease agreement." *Id.* ¶ 29. More commonly, physical damage is viewed as unexpected and therefore its costs are less readily distributed and assigned by contract.

The basis for the economic loss rule is not present here. The parties are strangers to one another. They never negotiated an agreement or signed a contract. They owe no contractual duty to one another. But it would violate basic principles of negligence and nuisance law to state that Defendant owes no tort duty to prevent harm to its neighbors. Particular elements of damage may be disputed, but this is not a case like *Walsh v. Cluba* in which the parties' contract preempted any separate duty in tort. There is no strong policy reason to extend to these defendants the *ex ante* immunity from tort liability for economic harm which the law provides for parties to a contract.

Vermont cases applying the economic loss rule are generally confined to claims between parties to a contract. The economic loss cases cited by defendant in its briefing include

Wentworth v. Crawford & Co., 174 Vt. 118, 126, 807 A.2d 351, 357 (2002) (rehabilitation services contract) ("[O]ur caselaw prohibits a claimant from seeking damages for contractual losses through tort law."); O'Connell, 164 Vt. at 77, 665 A.2d at 42 (ski ticket) ("Negligence law does not generally recognize a duty to exercise reasonable care to avoid intangible economic loss to another unless one's conduct has inflicted some accompanying physical harm."); Breslauer v. Fayston Sch. Dist., 163 Vt. 416, 422, 659 A.2d 1129, 1132 (1995) (employment contract) ("If we find a duty here, we create a new tort theory available in any breach of contract case where an economic entity acts through employees."). See also Springfield Hydroelectric Co. v. Copp, 172 Vt. 311, 779 A.2d 67 (2001) (power purchase contract); Gus' Catering, Inc. v. Menusoft Sys., 171 Vt. 556, 762 A.2d 804 (2000) (purchase of software package). These cases have little application to this case in which there was no contract.

A second purpose of the physical injury rule is to limit cases of emotional distress which could otherwise become speculative and excessive in number. Like most states, Vermont imposes a "zone of danger" requirement on such claims. *Vaillancourt v. Med. Ctr. Hosp. of Vt., Inc.,* 139 Vt. 138, 425 A.2d 92 (1980). In the absence of a physical injury requirement, anyone witnessing an accident, even perhaps later on television, might bring a lawsuit against the at-fault party for emotional distress. The rule serves to limit potential liability to people who suffered injury or were close enough to be at risk. Like the economic loss rule, it can be expressed as a rule of duty excluding any obligation to protect observers and bystanders not in the zone of danger. This is not a line of cases on which Defendant relies. But this second purpose of the physical injury rule illustrates again that the rule exists to serve policy purposes not present in this case.

III. Definition of Physical Injury

One reason the court is cautious about applying the physical injury rule to bar the medical monitoring remedy is that its application is not consistent with the two purposes for which Vermont courts have commonly invoked the rule. *Supra*, Part II. A second reason is that in the absence of case law defining "physical injury," it is very likely that the Vermont Supreme Court will adopt the definition developed in section 15 of the Restatement (Second) of Torts. The injury claimed by members of the exposure class satisfies this definition.

In Chapter 2 of the Restatement ("Intentional Invasions of Interests in Personality"), the drafters identified five "interests" in physical safety and freedom for which the common law provides some measure of protection. The first and most highly protected is "the interest in freedom from harmful bodily contacts." The introductory note to Chapter 2 states that this interest "is protected not only against intentional invasion but against invasions caused by negligence [and activities giving rise to strict liability.]"

Section 15 of the Restatement defines "bodily harm" in uncompromising terms: "Bodily harm is any physical impairment of the condition of another's body, or physical pain or illness." Comment a develops the point further: "There is an impairment of the physical condition of another's body if the structure or function of any part of the other's body is altered to any extent even though the alteration causes no harm."

The illustration offered by the reporters is the painless and beneficial removal of a wart by a doctor without permission. In permitting a claim for bodily harm based upon any demonstrable alteration of an individual's body, the Restatement establishes a low threshold for

¹ Other interests, not necessarily in order of importance, include interest in freedom from offensive bodily contacts, freedom from apprehension of harmful or offense contact, interest in freedom from confinement, and interest in freedom from disagreeable emotions. Restatement (Second) of Torts, Ch. 2, Intro. Note.

the physical injury rule. Were Vermont to adopt the Restatement position, there can be little doubt that a plaintiff could recover damages upon proof that defendant was responsible for the introduction of a persistent chemical into his body even if the chemical had not caused present illness or disability.

The Vermont Supreme Court has frequently followed the Restatement (Second) of Torts.² It seems likely that it will do so in the case of § 15. The Court is unlikely to extend the limitation of tort recovery which gives rise to the physical injury to defendants who are alleged to have contaminated ground water. By statute through the Groundwater Protection Act, 10 V.S.A. § 1390 et seq., and at common law, liability for damage to ground water has long been recognized in Vermont law. It is more likely that the Vermont Supreme Court will follow the definition of bodily harm developed in the Restatement and apply it to latent injuries caused by chemical exposure. By defining bodily harm to include any alteration to a person's body, the Restatement includes changes such as abnormal blood serum results showing the presence of an unusual and potentially harmful chemical.

The court must also consider whether the Vermont Supreme Court will follow the American Law Institute in subsequently seeking to remove the medical monitoring issue from its analysis of physical harm. The Restatement (Second) is not the last word on this particular issue.

² See Sheldon v. Ruggiero, 2018 VT 125, ¶ 24, 202 A.3d 241 (noting adoption of § 286 (elements of a safety statute)); Couture v. Trainer, 2017 VT 73, ¶ 13, 205 Vt. 319, 174 A.3d 1245 (§ 587 and other provisions related to defamation); Ring v. Carriage House Condo. Owners' Ass'n, 2014 VT 127, 198 Vt. 109, 112 A.3d 754 (§ 909 (punitive damages against a principal)); McGee v. Vt. Fed. Bank, 169 Vt. 529, 726 A.2d 42 (1999) (§ 552(1) (negligent misrepresentation)); Estate of Fleming v. Nicholson, 168 Vt. 495, 724 A.2d 1026 (1998) (§ 913 (interest)); Derosia v. Liberty Mut. Ins. Co., 155 Vt. 178, 583 A.2d 881 (1990) (§ 324A (undertaking to render services to one party may result in liability to another)); Zaleskie v. Joyce, 133 Vt. 150, 333 A.2d 110 (1975) (§ 402A (strict liability)). If there is an occasion when the Court chose not to follow the Restatement (Second) of Torts, it did so in silence.

The Restatement (Third) of Torts: Liability for Physical and Emotional Harm § 4 defines "physical harm" as "physical impairment of the human body ("bodily harm")...Bodily harm includes physical injury, illness, disease, impairment of bodily function, and death." This definition does not address whether "impairment" includes the asymptomatic structural alteration also recognized as a bodily injury in the Restatement (Second). The other shoe drops in the final paragraph of Comment C to § 4:

A number of courts have addressed claims seeking payment for medical monitoring of persons who had been exposed to risk-creating agents or behavior but who had not suffered any current physical harm at the time of suit. Since those cases do not involve claims for physical harm, they are beyond the scope of the physical-harm Chapters in this Restatement.

The purpose of the change is made explicit in the Reporter's Note. Comment C states that "§ 4 of this Restatement does not include Comment a of the Restatement Second of Torts § 15, which states that there is bodily impairment whenever 'the structure... of any part of the ... body is altered to any extent even though the alteration causes no other harm." The Reporters connect this change to "[a]n unfortunate and aberrational exception to the self-correction of small or trivial harms explained in this Comment [represented by] asbestos claims by plaintiffs who suffer no clinical symptoms but who have abnormal lung X-rays, a condition known as pleural plaque." The Comment concludes the discussion by identifying a range of cases and academic writing on the issue.

The court views the Restatement (Third) as equivocal in its application to this case. A primary purpose of the change in the definition of "bodily injury" was to exclude claims of emotional distress based upon minor and asymptomatic alterations of the body. The example provided for a physical alteration is trivial: brief tanning or toning of the body (Reporters' Note

to § 4, Comment C). This case includes no claim for emotional distress. These would be damages for personal injury which are excluded from the class action.

In the case of medical monitoring as a result of toxic exposure, the reporters to Restatement (Third) cited cases on both sides of the argument. While it is fair to say that the definition in § 4 of the Restatement (Third) of Torts: Physical and Emotional Harm represents a more nuanced position than the simpler proposition in the Restatement (Second) that any alteration of the body may constitute an injury, it would exaggerate the ALI position to say that it excluded recovery for medical monitoring. Rather, the revised definition chooses not to provide a definitive answer to the question of whether medical monitoring is appropriate for asymptomatic exposure. The issue on which § 4 (Restatement(Third) differs from the stronger position in § 15 (Restatement)(Second) is whether all cases of bodily alteration are bodily injuries. Trivial changes such as minor sunburn are not. As it concerns medical monitoring, the definition in § 4 of the Restatement(Third) no longer provides guidance because of the reporters' concerns about the proliferation of asbestos claims and other mass torts. Their retreat on this issue seems unlikely to strand Vermont plaintiffs exposed to environmental contamination without a remedy in Vermont law.

A single federal district court case in Vermont has considered these questions. In *Stead* v. F.E. Myers Co., 785 F. Supp. 56 (D. Vt. 1990), the district court denied a motion in limine to exclude expert testimony concerning an increased risk in cancer for homeowners who drank water contaminated by oil which leaked from their submersible pump. As the court wrote in that case:

[Plaintiffs] seek to offer proof of an increased risk of cancer that, while admittedly unquantifiable, is substantial enough to require medical monitoring for many years, the cost for which they seek recovery. When offered for this purpose, quantification of the increased risk to a reasonable degree of medical certainty is not required.

Id. at 57.3 Almost three decades ago, the *Stead* decision supports the availability of a medical monitoring remedy. The decision recognized the necessary limits of what can be known and what can be proved in the case of an asymptomatic plaintiff. In permitting the case to proceed in the absence of testimony about the specific increase in the cancer risk to the homeowners, the court showed the way towards the adoption of a standard of general causation in toxic exposure cases. *Stead* is consistent with subsequent decisions in other states which permit the medical monitoring remedy upon proof of an increased risk to an exposed population.

IV. Other Areas of Guidance—Equitable Remedies Under Vermont Law

With little direct guidance available from toxic contamination cases within Vermont, there are three places to turn for assistance in predicting the direction of Vermont law concerning medical monitoring. One is the law of equitable remedies in Vermont. The Vermont Supreme Court has described these remedies as flexible in light of changing conditions. "Courts may exert equitable powers based upon common-law, statutory, or constitutional rights, or upon judicial acknowledgement of public-policy considerations establishing an as-yet-unrecognized legal right." *Titchenal v. Dexter*, 166 Vt. 373, 377, 693 A.2d 682, 684 (1997). Equitable remedies are available to fill gaps and shortcomings in the law in particular cases. *In re Beach Props., Inc.,* 2015 VT 130, ¶ 23, 200 Vt. 630, 133 A.3d 854 ("The essence of equity is that it applies *only* in those exceptional cases 'wherein the law (by reason of its universality) is deficient." (quoting *Bucklin v. Beals*, 38 Vt. 653, 662 (1866))); *MacGowan v. Gaines*, 127 Vt.

³ In Soutiere v. BetzDearborn, Inc., No. 2:99-cv-299, 2002 WL 34381147 (D. Vt. July 24, 2002), the court denied a medical monitoring claim for increased risk of cancer on the ground that the evidence of causation was insufficient. "Regardless of whether Vermont would recognize medical monitoring as a cause of action or an element of compensable damages, the Plaintiffs have not provided a basis for concluding that there is reliable evidence that plaintiffs are at increased risk of developing cancer." Id. at *4.

477, 481, 253 A.2d 121 (1969) ("Courts of equity are created . . . to reach and correct mistakes in which courts of law have no jurisdiction."). The courts exercise discretion in fashioning remedies which meet current needs and conditions. *Huard v. Henry*, 2010 VT 43, 188 Vt. 540, 999 A.2d 1264 (mem.) (affirming an injunction requiring property owners to comply with amendments to wastewater permit). Injunctive relief may be available in cases in which money damages cannot address the loss. *Appeal of Gadhue*, 149 Vt. 322, 326, 544 A.2d 1151, 1153 (1987) ("Thus, plaintiff's ability to request a mandatory injunction was in no way impaired by the absence of special damages.").

The equitable powers of our courts are available to address important public policy concerns, especially those which have not been resolved through statutory or common-law damages remedies. The equitable authority is interstitial. It fills gaps and repairs unfairness in particular cases. As the *Tichenal* case demonstrates, the substantive basis for an equitable ruling may be drawn from existing legal rights or from public policy which supports the recognition of a new right. These principles support the extension of the court's authority to issue an injunction to protect public health, even in the absence of existing common-law authority for such an order.

V. Other Areas of Guidance—Vermont Statutory Law

A second place to look is Vermont statutory law. To date no statute concerning medical monitoring has been passed. Both houses of the Vermont legislature passed a bill in the 2019 session. 2019 Vt. Senate Bill No. 37. This bill would have provided a statutory remedy, apparently tailored for the facts of this case. The governor vetoed it in June 2019. The governor's veto message raised concerns about the availability of insurance for Vermont employers and "unknown legal and financial risks, and increased liability, [which are] problematic for continued investment in Vermont." Governor's Veto Message for S.197

(June 17, 2019), https://governor.vermont.gov/sites/scott/files/S.37%20veto%20%206-17-19.pdf. The governor expressed his willingness to sign the bill if the legislature accepted an amendment previously offered by certain House members. *Id.* at 2. Since both legislative bodies voted in favor of a statutory medical monitoring remedy and the executive expressed support for a different version of the bill, it overstates the case to say that the legislative and executive branches have rejected medical monitoring. These inconclusive events of the 2019 legislative session tell the court very little about the likely direction of a statutory remedy and even less about the availability of a common law remedy.

The Vermont legislature has long been aware of the danger of latent injury to our population. Section 518 of Title 12, enacted in 1967, established a discovery rule and a 20-year period of repose for "actions to recover for injury for ionizing radiation injury or injury from other noxious agents medically recognized as having a prolonged latent development."

See Campbell v. Stafford, 189 Vt. 567, 570 (2011) (a noxious agent is "something that acts upon the body, causing a disease or illness such as cancer"). In 1999, the legislature enacted a similar discovery rule for occupational injuries such as asbestosis which may have a latent period before symptomatic onset. 21 V.S.A. § 660(b). These statutes of limitations do not directly address the issue of remedy that is before this court, but they do illuminate the continuing concern of the legislature with providing legal recourse for individuals injured through exposure to toxic substances.

VI. Other Areas of Guidance—The Law of Other States

The third place to look is the body of case law from other states which accept or reject the proposed remedy of medical monitoring. State and federal courts have frequently addressed this issue. There is consensus on some issues such as the unavailability of a money damage award.

See Metro-North Commuter R.R. Co. v. Buckley, 521 U.S. 424 (1997). Courts are divided about whether there should be an equitable remedy to detect health problems which are not yet symptomatic but could be detected at an early stage through testing. Screening for illness is hardly a radical concept. Many forms of cancer are detected at early stages despite the absence of symptoms. Blood tests, pap smears, mammograms, and colonoscopies are all common examples of tests provided to asymptomatic people.

In considering case law from other states, the court has considered decisions which permit as well as those which reject the medical monitoring remedy. Cases across the country have been decided along a few identifiable fault-lines. The court will seek to identify the specific legal issues which have motivated courts to permit or deny a medical monitoring remedy.

A. Cases Rejecting Medical Monitoring

The court begins by discussing leading cases *rejecting* medical monitoring in cases of toxic exposure.

1. Rhodes v. E.I. du Pont de Nemours & Co., 636 F.3d 88 (4th Cir. 2011), cert. denied, 565 U.S. 977 (2011)

In *Rhodes*, residents whose water supply was contaminated with PFOA released by a DuPont manufacturing facility sought "injunctive relief to obtain long-term diagnostic testing (medical monitoring) for latent diseases on behalf of a class of Water Department customers exposed to PFOA." 636 F.3d at 93. As in this case, the named plaintiffs and the proposed class "do not suffer from any illness or disease caused by their exposure to PFOA. Instead, the plaintiffs assert that they are injured because PFOA has accumulated in their blood." *Id.* at 95. They sought monitoring for substantially the same conditions identified by plaintiffs here: "liver disease, cholesterol abnormalities, and certain cancers." *Id.*

The district court granted summary judgment to DuPont. On appeal, the plaintiffs argued that the West Virginia law of battery was likely to follow Section 15 of the Restatement (Second) of Torts in identifying a harmful bodily contact when there is a "physical impairment of the condition of [the] body, or physical pain or illness." Plaintiffs invited the appeals court to follow Comment a, which extended the definition of "physical impairment" to any alteration in the structure or function of any part of the body, even when such structural change does not cause other harm.

The appeals court declined the invitation and followed West Virginia precedent that required actual physical impairment as an element of the tort. See Funeral Servs. by Gregory, Inc. v. Bluefield Cmty. Hosp., 413 S.E.2d 79 (W. Va. 1991) (mere exposure accompanied by fear of contracting disease is not battery), overruled on other grounds by Courtney v. Courtney, 437 S.E.2d 436 (1993). The court described its role in defining state decisional law in the absence of authority from the state supreme court as limited and conservative. It declined to adopt Section 15 of the Restatement (Second) of Torts. It dismissed trespass claims in the absence of evidence of damage or interference with use or possession of plaintiff's homes. It rejected private nuisance claims on the ground that the injury was to the public water supply. It ruled that plaintiffs were unable to pursue a public nuisance remedy because there was no evidence of that they had suffered a unique and enhanced "special injury."

The *Rhodes* decision is remarkable in its cursory dismissal of the decision of the West Virginia Supreme Court of Appeals in *Bower v. Westinghouse Elec. Corp.*, 522 S.E.2d 424 (W. Va. 1999). In *Bower*, the court sought to answer the following question in a medical monitoring case certified by the Northern District of West Virginia: "Whether, under West Virginia law, a plaintiff who does not allege a present physical injury can assert a claim for the

recovery of future medical monitoring costs where such damages are the proximate result of defendant's tortious conduct?" *Id.* at 429.

The state supreme court expressly rejected "the contention that a claim for future medical expenses must rest upon the existence of present physical harm." *Id.* at 430. It also rejected the contention that a plaintiff is "required to demonstrate the probable likelihood that a serious disease will result from the exposure." *Id.* at 431. Instead, the *Bower* court followed *In re Paoli Railroad Yard PCB Litigation*, 916 F.2d 829 (3d Cir. 1990) ("*Paoli I*"), in defining the appropriate inquiry as "whether medical monitoring is, to a reasonable degree of medical certainty, necessary in order to diagnose properly the warning signs of disease." *Paoli I*, 916 F.2d at 851.

The court in *Bower* identified six necessary elements of a claim for medical monitoring:

(1) plaintiff has, relative to the general population, been significantly exposed; (2) to a proven hazardous substance; (3) through the tortious conduct of the defendant; (4) as a proximate result of the exposure, plaintiff has suffered an increased risk of contracting a serious latent disease; (5) the increased risk of disease makes it reasonably necessary for the plaintiff to undergo periodic diagnostic medical examinations different from what would be prescribed in the absence of the exposure; and (6) monitoring procedures exist that make the early detection of a disease possible.

Bower, 522 S.E.2d at 432–33. None of these elements includes a requirement of present diagnosis or symptoms of disease. Instead, exposure is the signal event triggering potential liability for monitoring costs.

[T]he plaintiff is not required to show that particular disease is certain or even likely to occur as a result of exposure. All that must be demonstrated is that the plaintiff has a significantly increased risk of contracting a particular disease relative to what would be the case in the absence of exposure.

Id. at 433 (internal citation omitted). In a footnote, the *Bower* decision criticizes federal court decisions which construe the law of West Virginia to require a physical injury element in cases

of latent injury and medical surveillance. "Federal courts continue to apply [Ball v. Joy Tech., Inc., 958 F.2d 36 (4th Cir. 1991)] to reject medical monitoring claims arising under West Virginia law. As will be explained anon, the Ball decisions do not accurately reflect West Virginia law." Id. at 427 n.2 (internal citations omitted).

Bower authorizes a medical monitoring remedy in West Virginia which is consistent with plaintiff's claims in this case. The effort in the *Rhodes* decision to avoid the holding by characterizing *Bowers* as applying only to cases in which plaintiffs assert a new cause of action for medical monitoring is unpersuasive. In seeking to limit medical monitoring claims to people who no longer need medical monitoring because they are now known to suffer from illness or injury, the *Rhodes* opinion does not accurately describe the state of decisional law in West Virginia.

2. Caronia v. Philip Morris USA, Inc., 22 N.Y.3d 439 (2013)

Closer to home, the New York Court of Appeals held that New York law continues to require physical injury as an element of tort recovery even when the remedy sought is medical monitoring. As in *Bowers*, the question was certified by a federal court: "Under New York Law, may a current or former longtime heavy smoker who has not been diagnosed with a smoking-related disease, and who is not under investigation by a physician for such a suspected disease, pursue an independent equitable cause of action for medical monitoring for such a disease?" *Caronia*, 22 N.Y.3d at 446.

Subsequent questions concerned the elements of proof and the statute of limitations. The New York Court of Appeals answered the first question in the negative. "We conclude that the policy reasons set forth above militate against a judicially-created independent cause of action for medical monitoring." *Id.* at 452. These concerns included opening the floodgates to "tens of

millions" of potential plaintiffs, flooding the court with claims, and exhausting the tortfeasor's resources before people who actually sustained injury could be paid. *Id.* at 451. The court also expressed concerns about whether courts had the technical expertise required to administer such a program.

Caronia is different from this case. Plaintiffs in that case were people over 50 who had smoked the equivalent of one pack of Marlboro's per day for 20 years or more. They had a history of exposure to cigarette smoking but no evidence of the presence of a toxic substance in their bodies. In defining what evidence could be sufficient to demonstrate physical harm, the Court of Appeals followed a line of prior cases which identified "an injury too slight to be noticed at the time it is inflicted" as supporting the accrual of a cause of action for toxic exposure. See Schmidt v. Merchants Despatch Transp. Co., 270 N.Y. 287, 300 (1936) (superseded by statute) (claim for inhalation of dust causing lung disease accrued at employee's first exposure even though "the injured party may be ignorant of the existence of the wrong or injury"). Schmidt barred recovery for later-discovered injuries outside the three-year statute of limitations until the passage of N.Y. C.P.L.R. 214-c, providing a three-year discovery rule in cases of latent injury caused by exposure to harmful substances. In Askey v. Occidental Chemical Corp., 102 A.D.2d 130 (N.Y. App. Div. 1984), the court opened the door to a potential medical monitoring claim on the ground that an invisible genetic damage was a sufficient physical injury to support a traditional tort-based recovery of consequential damages. "The future expense of medical monitoring, could be a recoverable consequential damage provided that plaintiffs can establish with a reasonable degree of medical certainty that such expenditures are "reasonably anticipated" to be incurred by reason of their exposure." *Id.* at 137.

In discussing *Schmidt* and *Askey*, the *Caronia* decision recognizes the continued viability of the holding in both courts that a physical injury sufficient to support a claim for damages may be present even though it is invisible and undetectable. In toxic tort cases, this requirement has developed into a requirement of evidence of testing or other evidence that the toxin is present in the body. Cases cited by *Caronia* include *Abusio v. Consolidated Edison Co. of N.Y.*, 238 A.D.2d 454 (N.Y. App. Div. 1997) (fear of future illness insufficient in the absence of evidence of a clinically demonstrable presence of toxins in the body), *Allen v. General Electric Co.*, 32 A.D. 3d 1163 (N.Y. App. Div. 2006) (in order to obtain medical monitoring damages, plaintiff must establish clinically demonstrable presence of toxins in the body), and *Dangler v. Town of Whitestown*, 241 A.D. 2d 290 (N.Y. App. Div. 1998) (medical monitoring considered as damages). In a footnote, the Court of Appeals cautioned that these cases do not support the recognition of a new cause of action for medical monitoring. *Caronia*, 22 N.Y.3d at 449 n.2.

The question for the present case is whether the principles expressed in *Caronia* would entirely bar a medical monitoring claim. *Caronia* does not apply directly because it construes New York law. But if it applied, it would likely permit these plaintiffs to seek to prove their case under traditional tort theories premised upon the presence of PFOA in their bodies. *Schmidt* established that an injury could occur even though the plaintiff had no knowledge of it. *Askey* recognized the steep burden of proof (which was not met on the particular facts of that case) but recognized that a plaintiff who could demonstrate the occurrence of genetic damage could make a claim for medical monitoring. The subsequent decisions, considered in the context of existing tort causes of action and avoiding any mention of an independent cause of action, established the requirement of objective evidence of the presence of toxins. That evidence was not present in *Caronia*. The smokers sought millions of low-level CT scans to find out if there was evidence of

injury. This case is different—the plaintiff exposure class is made up of people who test positive for PFOA at elevated levels. It remains for Plaintiffs to prove at trial that the test levels are of clinical significance and other elements of their damage claim. But for purposes of summary judgment, if these plaintiffs had been subject to New York law, the *Caronia* decision would permit them to proceed to trial.

In *Baker v. Saint-Gobain Performance Plastics Corp.*, 232 F. Supp. 3d 233 (N.D.N.Y. 2017), the district court, presiding over a water contamination case substantially identical to the present case, considered the application of *Caronia* to a claim for medical monitoring. That court reached very similar conclusions. "[U]nder case law cited favorably by *Caronia*, a plaintiff may show an injury sufficient to seek medical monitoring damages through the accumulation of a toxic substance within her body." *Id.* at 250. In Judge Kahn's view, New York law would permit the recovery of medical monitoring damages on proof of a rational basis for the fear of future injury supported by some manifestation of toxin contamination. *See id.* at 252 (citing *In re World Trade Ctr. Lower Manhattan Disaster Site Litig.*, 758 F.3d 202, 213 (2d Cir. 2014)). The decision in *Baker v. Saint-Gobain* is currently on appeal to the Second Circuit.

3. Metro-North Commuter Railroad Co. v. Buckley, 521 U.S. 424 (1997)

Metro-North concerns the availability of a medical monitoring program for a railroad worker under the Federal Employers' Liability Act (FELA), 45 U.S.C. § 51 et seq. In a portion of the decision not relevant here, the Court declined to permit recovery of emotional damages in a FELA case arising from on-the-job exposure to asbestos dust. The plaintiff also sought to recover future medical monitoring costs attributed to his exposure to asbestos-laden insulation dust. The majority opinion rejected the plaintiff's claim for lump-sum money damages for future monitoring costs in the absence of disease or symptoms. After reviewing the state law decisions

on medical monitoring, the majority concluded "that the cases authorizing recovery for medical monitoring in the absence of physical injury do not endorse a full-blown, traditional tort law cause of action for lump-sum damages" *Id.* at 441. The Court identified policy reasons for exercising caution. These included difficulties in identifying extra monitoring costs above the treatment that would be provided to a plaintiff in any event, the sheer number of potential plaintiffs ("tens of millions of individuals"), *id.* at 442, and the existence of other sources of payment.

It is now largely accepted that a cash damage award paid directly to plaintiffs for future medical monitoring expenses is an inappropriate remedy. See Ayers v. Twp. of Jackson, 525 A.2d 287, 314 (N.J. 1987) ("In our view, the use of a court-supervised fund to administer medical-surveillance payments in mass exposure cases . . . is a highly appropriate exercise of the Court's equitable powers."); see also Potter v. Firestone Tire & Rubber Co., 6 Cal. 4th 965, 1009 (1993) ("Moreover, toxic exposure plaintiffs may recover 'only if the evidence establishes the necessity, as a direct consequence of the exposure in issue, for specific monitoring beyond that which an individual should pursue as a matter of general good sense and foresight."" (quoting Miranda v. Shell Oil Co., 17 Cal. App. 4th 1651, 1660 (Cal. Ct. App. 1993))). The Metro-North decision joins in this view. "[W]e do not find sufficient support in the common law for the unqualified rule of lump-sum damages recovery that is, at least arguably, before us here." Metro-North, 521 U.S. at 444. The decision does not foreclose a future medical monitoring remedy in FELA cases which is better focused on addressing unmet medical needs directly. Instead, it invites consideration of the issue in future cases. "We need not, and do not, express any view here about the extent to which the FELA might, or might not, accommodate medical cost recovery rules more finely tailored than the rule we have considered." *Id.*

4. Henry v. Dow Chemical Co., 701 N.W.2d 684 (Mich. 2005)

The *Henry* majority decision and the dissent illustrate the choice the Vermont Supreme Court must make when a medical monitoring case reaches it. The case concerns the broad release of dioxin over many years across the Tittabawassee River floodplain in Saginaw County, Michigan. The plaintiffs sought certification of a class of thousands of individuals. The Michigan Supreme Court held that in the absence of proof of actual injury, a claim for medical monitoring is not permitted by Michigan law. The majority decision advances four primary bases for that holding.

- The pool of plaintiffs who can assert claims based on exposure alone is potentially limitless and may cause great economic harm.
- 2. The legislative and executive branches are better suited to make decisions about who needs monitoring. Michigan law already provides an administrative remedy.
- 3. Courts are in a poor position to judge whether medical monitoring of thousands of people will result in improved health.
- 4. Calling the relief an "equitable remedy" changes little.

These are all legitimate concerns which any court must consider. But these concerns are largely absent or of limited concern in this case.

1. Here, the exposure class is limited to people who actually demonstrate increased levels of PFOA in their bloodstream. The Vermont Department of Health has already tested a significant percentage of the population. The numbers of people with elevated PFOA number in the hundreds, not thousands. This number will likely increase, but it is unlikely to reach the many thousands feared in *Henry* or the tens of millions described in *Metro-North*.

- 2. In Bennington, the executive branch has been very active in requiring the provision of clean municipal water to residents in the affected area. Neither the legislature nor the Department of Environmental Conservation have addressed the medical monitoring issue. If the judiciary defers to the other branches, it would be deferring to a vacuum. Michigan presented a very different picture in which state environmental regulations authorized regulators to develop appropriate monitoring.
- 3. This case presents less complex medical issues than those described in the *Henry* decision. Plaintiffs seek to prove an association between PFOA and a small set of specific illnesses, including certain cancers. They do not seek to screen an entire population for cancer.
- 4. The court agrees that calling the relief an "equitable remedy" does not change the outcome. For reasons explained already, it is prudent for a federal court to remain within the lines of existing tort doctrine. But the elements of proof are likely to be identical whether the remedy is called a new tort or an injunction based on a familiar cause of action.

In sum, the cases denying medical monitoring share several characteristics. All concern a very large potential exposure class—thousands or millions of claimants with potentially ruinous economic consequences. Few concern chemicals which can be measured in the blood as readily as the PFOA in this case. The *Caronia* case is typical in denying medical monitoring to a potential class consisting of everyone who smoked regularly even if they appeared to be in good health at present.

The facts in this case are different. The exposure class is limited to people who provide objective tests showing significantly elevated blood levels of PFOA. Plaintiffs' expert proposes

two micrograms per liter. The court sees the appropriate level as a trial issue. It can be set at a higher level if the medical testimony supports it. But whatever level is chosen, the exposure class members all have objective evidence of an alteration of their bodies. In this sense, their claim for medical monitoring is more persuasive than the claim of smokers, for example, who can prove only an increased risk of cancer without any present changes in their bodies.

A second difference is the absence in this case of potentially ruinous economic consequences. A common theme in all of the cases denying medical monitoring is the unknown size of the total cost. Here the plaintiffs seek approximately \$20 million for their proposed plan. (Doc. 278 at 15, Ducatman testimony, Apr. 23, 2019.) The court has expressed doubts about whether all its features are actually necessary. The questions of cost and the exact form of the remedy are trial issues. But it is clear that the expense is finite and significantly less than the amount already paid by the defendant to install town water mains and alternative sources of supply to all affected households.

B. Cases Permitting the Medical Monitoring Remedy

The court turns to the cases *permitting* the remedy of medical monitoring.

1. Avers v. Twp. of Jackson, 525 A.2d 287 (N.J. 1987).

Ayers is the seminal case permitting a medical monitoring claim. Following a jury trial, the municipal defendant was held liable under a nuisance theory for damages to residents' groundwater caused by a landfill. Over half of the \$16 million verdict was awarded for the cost of future "medical surveillance expenses." *Id.* at 565. In affirming the award, the Supreme Court of New Jersey framed the issue as a question of the timing of a judicial remedy:

At what stage in the evolution of a toxic injury should tort law intercede by requiring the responsible party to pay damages?

Id. at 579. The court recognized the absence of a statutory or regulatory response to claims arising from exposure to chemical contamination. The court identified causation as the most difficult problem of proof in claims of latent injury and delayed onset. The majority opinion denied damages for unquantified enhanced risk of disease. Id. at 598. In the court's view, "[t]he claim for medical surveillance stands on a different footing from the claim based on enhanced risk." Id. at 599. It described the claim as consistent with well-accepted legal principles and "consistent with the important public health interest in fostering access to medical testing for individuals whose exposure to toxic chemicals creates an enhanced risk of disease." Id. at 603. The court also recognized separate public policy concerns such as deterrence of polluters and consistency with other causes of action in which recovery of medical expenses alone were permitted. Id. at 605. The court – like virtually every court to follow which has permitted a medical monitoring claim – favored a court-supervised fund in place of a lump-sum cash award. Id. at 609.

Ayers makes a full-throated argument in favor of medical monitoring on public policy grounds. As in this case, the facts were favorable to the remedy. A limited number of residents attributed their exposure to an identifiable source. The court had no reason to explore the outer reaches of the remedy such as the claims for monitoring millions for exposure of consumers to hazards like tobacco. The majority acted with caution in denying recovery for enhanced risk as a stand-alone and unquantified measure of damages. Despite the cries from academic critics of medical monitoring that the sky is falling, Ayers remains the law in New Jersey which must rank high among states most gravely affected by industrial and chemical pollution. See Sinclair v.

Merck & Co., 948 A.2d 587 (N.J. 2008) (recognizing the continuing application of Ayers in cases

of environmental contamination while denying medical monitoring in pharmaceutical case involving New Jersey statute).

2. The three Paoli decisions by the Third Circuit: In Re Paoli R.R. Yard PCB Litigation, 916 F.2d 829 (3d Cir. 1990) (Paoli I); In re Paoli R.R. Yard PCB Litigation, 35 F.3d 717 (3d Cir. 1994) (Paoli II); and In re Paoli R.R. Yard PCB Litigation, 113 F.3d 444 (3d Cir. 1997) (Paoli III)

Medical monitoring under Pennsylvania law was an important feature of each appellate decision in this decade-long saga which finally ended in a defendants' verdict after a jury trial. In *Paoli I*, the appeals court reversed the trial court's decision to grant summary judgment to the defendant after excluding the expert testimony on *Daubert* grounds. In the course of the decision, the appeals court recognized the existence of a medical monitoring remedy under Pennsylvania law for latent injury and identified four elements of what the court described as the medical monitoring cause of action. These were:

- Significant exposure to a proven hazardous substance through negligence of the defendant;
- Causation through exposure of a significantly increased risk of contracting a serious latent disease;
- c. Medical necessity of periodic diagnostic medical examinations; and
- d. Monitoring procedures which make early detection and treatment of the disease possible and beneficial.

In *Paoli II*, the case returned primarily for further consideration of the exclusion of expert testimony under *Daubert*. The panel also returned to the issue of medical monitoring and refined the previous elements by adding a requirement that the monitoring regime be different from that which a plaintiff would receive in the normal course of care absent any exposure to the alleged toxic chemical. The court also added a requirement that the benefits of the proposed medical

monitoring include its costs, including frequency, price and risk of harm. The panel remanded the case for trial.

The trial resulted in a defendants' verdict. On appeal, the Third Circuit reexamined the medical monitoring remedy, including the jury instructions, and upheld the verdict. *Paoli III*.

All three *Paoli* decisions rest on the court's conclusion that Pennsylvania law would recognize a claim for medical monitoring for latent injury while likely rejecting a claim for money damages based on fear of contracting a disease. "[The enhanced risk claim] is inherently speculative because courts are forced to anticipate the probability of future injury. [The medical monitoring claim] is much less speculative because the issue for the jury is the less conjectural question of whether the plaintiff needs medical surveillance." *Paoli I*, 916 F.2d at 850–51. Having set up this choice, the Third Circuit predicted that the Pennsylvania Supreme Court would embrace the latter. To date its judgment has proved correct. *See Redland Soccer Club, Inc. v. Dep't of the Army & Dep't of Defense of the United States*, 696 A.2d 137 (Pa. 1997); *Simmons v. Pacor, Inc.*, 674 A.2d 232 (Pa. 1996). This court anticipates that the common law analysis of the Third Circuit in the *Paoli* cases will remain highly persuasive when the Vermont Supreme Court considers these issues under Vermont common law.

3. Sadler v. PacifiCare of Nevada, Inc., 340 P.3d 1264 (Nev. 2014)

The *Sadler* decision is relatively recent. It follows an outbreak of hepatitis C caused by unsafe injection practices at health-care facilities in Nevada. Patients with no symptoms of the illness sued for the cost of medical monitoring. In permitting the remedy, the Nevada Supreme Court recognized the social policies favoring early detection of possible disease.

[T]here are significant policy reasons for allowing a recovery for medical monitoring costs, not the least of which is that early detection can permit a plaintiff to mitigate the effects of a disease, such that the ultimate costs for treating the disease may be reduced. If medical monitoring claims are denied plaintiffs who

cannot afford testing may, through no fault of their own be left to wait until their symptoms become manifest, losing valuable treatment time. Rather than allowing this result, it is more just to require the responsible party to pay for the costs of monitoring necessitated by that party's action.

Id. at 1271 (internal citations omitted). The Sadler decision rests upon similar statements in Friends for All Children, Inc. v. Lockheed Aircraft Corp., 746 F.2d 816 (D.C. Cir. 1984); Potter v. Firestone Tire & Rubber Co., 863 P.2d 795 (Cal. 1993); Ayers v. Twp. of Jackson, 525 A.2d 287, 314 (1987); and Hansen v. Mountain Fuel Supply Co., 858 P.2d 970 (Utah 1993). The Sadler decision also recognizes the force of the Restatement (Second) of Torts, which "specifically contemplates the 'invasion of any legally protected interest of another' as an injury." Sadler, 340 P.3d at 1270 (quoting Restatement (Second) of Torts § 7(1) (1965) (emphasis omitted)).

C. Summary

The choice between permitting and excluding a medical monitoring remedy for potential future illness is a choice between competing values. The jurisdictions which do not permit the remedy do so on the basis of concerns about unforeseen economic consequences to the defendant. The jurisdictions which allow the remedy value the potential saving of lives which may be achieved through early detection and treatment. The cases lie along a continuum from the smokers' cases in which medical monitoring is consistently denied—see, for example, Lowe v. Philip Morris USA, Inc., 183 P.3d 181 (Or. 2008)—to cases like Save the Children and Sadler, in which victims of a catastrophic accident or negligent health care seek follow-up monitoring for potential illness. This case falls much closer to the cases in which medical monitoring has been permitted by the highest courts in other states because of the presence of an objective test for exposure and the relatively small, defined class of people who tested positive for PFOA after consuming water within the affected area. For these reasons, the court anticipates that this is the

type of case in which Vermont decisional law will follow cases permitting proof of the elements of a medical monitoring remedy.

VI. Plaintiffs' Motion for Summary Judgment

The court turns now to the parties' motions for summary judgment which seek judgment on the basis of the record evidence before the court. Applying the familiar summary judgment standard, the court begins with Plaintiffs' motion.

Plaintiffs seek a ruling that they are entitled to the medical monitoring remedy as a matter of law. The short answer is that they are required to prove their case at trial. It is hardly an exaggeration to observe that almost every fact in the case is in dispute. These include the facts necessary to support a medical monitoring claim.

The court follows the *Bower* and *Paoli* line of decisions in identifying these six elements as:

Exposure at a rate significantly greater than the general population;

To a proven hazardous substance;

As the result of tortious conduct of the defendant;

As a proximate result of the exposure, plaintiffs have suffered an increased risk of contracting a serious disease;

The increased risk makes it medically necessary for the plaintiffs to undergo periodic medical examination different from that prescribed for the general population in the absence of the exposure; and

Monitoring procedures exist which are reasonable in cost and safe for use.

See Hansen v. Mountain Fuel Supply Co., 858 P.2d 970, 979 (Utah 1993) (identifying similar factors under Utah law). It is premature to define the exact requirements. Trial evidence will be

significant. The court and the parties have not yet resolved the issue of which questions are for the court and which will be decided by jury verdict. But the list of factors above provides a clear guide to the plaintiffs' burden of proof.

The *Daubert* hearings provided an account, not yet complete, of Defendant's challenge on the facts and the science to each of these elements. These include claims by the defense that Plaintiffs' exposure is in many cases no greater than background, that PFOA is generally harmless, at least at the concentrations found in Bennington, that the PFOA found in well water in Bennington originated from sources other than Chem-Fab, that Plaintiffs have no increased risk of disease, that they already receive monitoring for the relevant conditions as part of their primary care, and that monitoring will cause more harm than good. Defendant has identified experts who are prepared to testify in support of these claims and others.

Cases in which there are substantial material factual disputes require a trial. See, e.g., Dufort v. City of New York, 874 F.3d 338, 349 (2d Cir. 2017) ("[D]isputed questions of material fact . . . should be resolved by a jury at trial, not by a court at summary judgment.").

VII. Defendant's Motion for Summary Judgment

In addition to its argument that medical monitoring is not available as a matter of law, Defendant offers a separate reason why the facts developed in this case, particularly as they relate to the medical histories of the named plaintiffs, preclude a medical monitoring remedy. In its motion for summary judgment, Defendant argues that "Plaintiffs have not adduced any admissible expert evidence as to the essential element of specific causation as to any of the named Plaintiffs—that is, that exposure to PFOA from the Chemfab facility caused **them** an increased risk of adverse health conditions, as opposed to whether it can do so in general."

(Doc. 321 at 1.) Plaintiffs respond that it is their burden to prove general causation—but not that

Defendant has caused an identifiable health problem in any individual. They seek medical monitoring to avoid or reduce exactly that outcome.

The court considers the facts in the light most favorable to the plaintiffs. The record evidence submitted by Plaintiffs, if believed by the fact-finder, would demonstrate the following:

- 1. The two Chem-Fab plants in Bennington and North Bennington are the primary source of the high level of PFOA found in the ground water within the affected zone.
- 2. PFOA is associated with an increased risk of liver and thyroid disorders, kidney cancer, ulcerative colitis, gout, testicular cancer and pregnancy-related conditions.
- 3. Six of the eight class members have blood tests showing PFOA levels in their bodies that exceed the background levels found in the general population. Hundreds of residents of Bennington and North Bennington, residents of the affected area, have similar test results.
- 4. PFOA above the background level of 2.1 micrograms per liter of blood gives rise to an increased health risk.
- Testing is available for early detection of the conditions associated with exposure to PFOA.
- An appropriate testing program for a person with elevated PFOA results exceeds in scope and cost the routine care provided by primary care physicians.
- 7. Early detection improves the subject's chances of a better outcome.

Absent from this summary is any assertion that the class representatives or other class members currently suffer from illness caused by PFOA. Plaintiffs have excluded such claims from this litigation. The only relief sought by Plaintiffs for the effects of PFOA on the bodies of class members is medical monitoring to detect illness in the future.

The court has rejected Defendant's legal argument that medical monitoring is unavailable to asymptomatic individuals. The remaining issues concern the nature of the proof required to prove causation of increased risk of illness. In addition, Defendant seeks to rule out any relief to the named plaintiffs because they receive equivalent and sufficient monitoring through their existing physicians.

A. General v. Specific Causation

There is no question that under Vermont law, a plaintiff seeking money damages for personal injury due to exposure to a toxic substance must prove specific causation. In *Blanchard v. Goodyear Tire and Rubber*, 2011 VT 85, ¶ 5, 190 Vt. 577, 30 A.3d 1271 (mem.), the Court held that in order to defeat a summary judgment motion, a plaintiff seeking damages for toxic exposure must produce "evidence suggesting a probability, rather than a mere possibility, that (1) he was exposed to the specified chemical at a level that could have caused his physical condition (general causation); and (2) the exposure to that chemical did in fact result in the condition (specific causation)."

The causation question changes when the claim is for medical monitoring. In cases like this one, there is no present illness or condition, only an elevated risk. No plaintiff in a medical monitoring case can prove specific causation, because he or she has no specific condition. The claim relates to an increased risk for a population, not to the experience of individual members. Courts have differed on the wisdom and propriety of crafting a monitoring remedy for a population. But if the remedy is not barred as a matter of law, proof of causation must also be at the population level. It is for this reason that courts which have permitted medical monitoring claims to go forward have not required proof of specific causation.

The Manual for Complex Litigation addresses the difference in the burden of proof between medical monitoring and personal injury claims.

Plaintiffs [in a medical monitoring case] must show that the defendant caused the exposure to the substance and the consequent increase in risk. Courts generally require plaintiffs to show that diagnostic tests exist, that the increased risk has made testing reasonably necessary, and that early detection can significantly improve medical treatment of the disease. However, courts have not, to date, required plaintiffs to show that the increase in risk constitutes the proximate cause of any injury that might follow, leaving that issue for any personal injury damage actions that might ensue.

Manual for Complex Litigation (Fourth) § 22.74 (2004). The initial element described by the Manual—exposure and consequent increase in risk—is equivalent to the general causation element in *Blanchard*—exposure to a specified chemical that could have caused his physical condition. As the Manual points out, courts which permit the medical monitoring remedy have not required proof of specific causation for a latent injury. Proving the specific cause of something which has not occurred presents insuperable difficulties even if sound epidemiological evidence of the increased risk and reasonable ameliorative measures are present.

If believed by the factfinder, the factual claims made by Plaintiffs through their experts are sufficient to establish general causation and meet the elements of the medical monitoring remedy developed above. In the context of the *Daubert* ruling, the court has already discussed the testimony of the three "transfer" experts. If believed, their testimony provides a potential basis for a factual determination that Defendant is responsible for the elevated PFOA levels in the affected zone.

Plaintiffs offer Alan Ducatman, M.D. and Philippe Grandjean, M.D. on the issues of general causation and remedy for the exposure class. Both have passed their *Daubert* examination. In reaching an opinion that PFOA is associated with a population-wide increase in specific diseases, both used an accepted "weight of the evidence" process to consider the state of

research to date. Defendant and its experts disagree with the manner in which Dr. Ducatman and Dr. Grandjean selected and weighed the available studies. Defendant accuses the experts of "cherry-picking" the outcomes which support Plaintiffs. That is a significant trial issue. The existence of a dispute over methodology and conclusion does not result in summary judgment. It highlights the factual dispute between the parties.

The defendant also criticizes the two medical experts for their failure to review and consider the individual plaintiffs' medical records. Dr. Ducatman explains that this was a considered decision:

[Review of individual records is] not only unnecessary, it's actually inappropriate and a barrier . . . I want medical records when I'm dealing – and I want them all, and I insist on them all when I'm dealing with the topic of individual causation. I do not need 200,000 Navy employees' medical records to put in place their asbestos medical surveillance program.

(Doc. 279 at 205, Ducatman Testimony, Apr. 29, 2019.) At trial, the court will determine as a matter of law the level of causation which forms part of the plaintiffs' burden of proof. Since general causation appears at this time to be the correct legal standard, the absence of an expert report on specific causation of a health risk documented in each plaintiff's medical history does not result in summary judgment for the defendant.

A. Differences Among Class Members; Existing Monitoring

The defendant seeks summary judgment in the individual cases of the class representatives on the ground that two representatives do not have elevated PFOA levels, some of them already have the more common ailments associated with PFOA such as high cholesterol, and all of them have some form of primary medical care in place. Plaintiffs respond that after certification, the issues before the court are limited to common issues with common answers. In

Plaintiffs' view, it is no longer appropriate to seek out differences among the representative plaintiffs who have been accepted as the standard bearers for the class as a whole.

The court agrees with the plaintiffs. Assuming that Plaintiffs meet their burden of proof on general causation, differences among individual class members are resolved through the remedy and not by entering partial summary judgment against one named plaintiff or another. The simplest example is testing for conditions limited to one gender such as pregnancy complications. Any medical monitoring injunction would limit the test to women of childbearing age. It is unnecessary to enter partial summary judgment against the male plaintiffs on this issue.

Similarly, access to primary care and annual checkups varies. It is an accepted element of the medical monitoring remedy that it covers costs not already borne as a matter of routine by a class member. There is no need to consider each case on an individual basis to determine what level of care the named plaintiff is receiving now. It is the remedy which must be fashioned to exclude currently available care and testing.

The defendant has other remedies if it believes the class is significantly compromised by the inclusion of two members who do not have above-background PFOA levels or by members who are receiving primary care which overlaps with a potential medical monitoring remedy. These would include motions to remove or substitute class representatives or decertification. The two class representatives who do not have elevated PFOA tests would be candidates for a motion seeking their removal as representatives of the exposure class. But the motion for summary judgment seeking piecemeal determination of individual plaintiffs' claims revisits the decisions the court has already made about common questions and answers and the ability of the named plaintiffs to represent the class.

Conclusion

The court DENIES both motions for summary judgment (Docs. 310, 321). The court will permit Plaintiffs to seek a medical monitoring remedy at trial.

Dated at Rutland, in the District of Vermont, this 27 day of December, 2019.

Geoffrey W. Crawford, Chief Judge United States District Court