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Indivisible Injury Negligence and Nuisance Cases – Proving Causation Among Multiple-Source Polluters: A State-by-State Survey of the Law for New England, and a Proposal for a New Causation Framework

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I. INTRODUCTION

The skies, soil, and water of every state are polluted every day. Whether the pollutants enter the atmosphere from coal plants or the waterways from large farms, materials abnormal to the "natural" environment are regularly emitted by a variety of sources over wide regions of the nation. To some extent, such emissions are normal and acceptable activities in modern society.

At times, however, the discharges from energy production plants, cars, factories, and other sources cumulate to damage not only the appearance or condition of our natural resources, but also the conditions of our health, economy, and society at large.[1] While the Environmental Protection Agency ("EPA") has traditionally served as a watchdog of polluters and a protector of citizens, assuring that air, water, and soil quality improve through gradually increasing standards, there are other available methods of protection. Some states have taken a more active role in protecting their environments, most recently because the EPA under the Bush Administration has modified environmental regulations in ways that some assert are

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1. *See e.g.* William Booth, *Study: Pollution May Cause Asthma; Illness Affects 9 Million U.S. Children*, Wash. Post A02 (Feb. 1, 2002) (causally linking polluted air to asthma cases); Amanda Sue Niskar et al., *Estimated Prevalence of Noise-Induced Hearing Threshold Shifts Among Children 6-19 Years of Age: The Third National Health and Nutrition Examination Survey, 1988-1994, United States*, 108 Pediatrics 40, 40-41 (2001) (estimating 12.5% of U.S. children suffer hearing loss in one or both ears from continued exposure to excessive noise); U.S. Envtl. Protec. Agency, *About Air Toxics*, http://www.epa.gov/ttn/atw/allabout.html (accessed Sept. 3, 2004) (providing information on health and environmental effects of toxic air pollutants throughout the United States).

detrimental to citizens.[2] In addition to state actions by Attorneys General, citizens and corporations have the right to protect their health and environments through lawsuits when polluters damage their personal health, safety, or environment through negligence or nuisance.[3] That right becomes more tenuous, however, as the number of polluters increases.

If a person develops asthma through exposure to pollutants emitted by several (or a dozen) power producers, should the producers be liable for that person's illness? Even if the emissions of one power producer alone would not have been enough to cause the asthma? Even if one of the producers only created a small fraction of the total amount of pollution that eventually caused the physical harm?

More generally, if an individual develops a health condition from exposure to emissions or discharges that come from a variety of similar sources, whether from multiple power plants, farms or manufacturers, should all the contributors be held liable for the harm? Is it legally valid in a negligence or nuisance suit to hold that one of many producers *caused* the harm, though that single producer may only have contributed a small portion of the harm-causing pollutant? At present, the answers vary by jurisdiction.

The purpose of this paper is to survey the law of causation in the New England States as it relates to negligence and nuisance claims in which multiple-tortfeasors act to produce a single, indivisible harm.[4] Specifically, when the cumulative effects of multiple-source polluters cause an individual to suffer harm, can the causation element in a negligence or nuisance claim be satisfied through their collective contributions, though individually each may add only a small percentage to the total output? If not, it is time for New England courts to reconsider causation in the context of multiple source pollution.

As the discussion and cases below clarify, New England courts have generally either rejected theories that loosen causation requirements, or not addressed them at all, at least as they relate to multiple-source polluters. Considering the widespread effects of pollutants on our health, communi-

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2. *See e.g.* Christopher Drew & Richard A. Oppel, Jr., *How Power Lobby Won the Battle of Pollution Control at E.P.A.*, N.Y. Times A1 (Mar. 6, 2004) (discussing changes in EPA policies in the last several years that benefit power producers by reducing pollution controls); *Ten States Ask EPA To Scrap Draft Mercury Emissions Rule*, Dow Jones Intl. News (Apr. 1, 2004).

3. *See e.g. D & W Jones, Inc. v. Collier*, 372 So. 2d 288, 288, 294 (Miss. 1979) (allowing a corporation to file suit against a group of farmers for damages resulting from agricultural chemicals that spread to the corporation's fish population, contaminating or killing the fish).

4. There are a number of complicating factors that may be relevant to such litigation that this paper will not consider. Examples include state cut-off points for comparative negligence claims, jurisdictional issues between states, Clean Air Act provisions, legally accepted methods of tracking and measuring pollutants, state statutes that may protect certain industries, etc.

ties, and environments, in combination with a federal government that may be either unwilling, or unable, to protect citizens through regulations or litigation, state courts should rethink traditional causation requirements to allow such litigation. If they fail to do so, they tacitly endorse a system that burdens the innocent plaintiff rather than the tortious defendant.

II. PROVING CAUSATION AMONG MULTIPLE TORTFEASORS – BACKGROUND

Traditionally, litigators proved causation in negligence and nuisance claims utilizing the "but for" concept: "but for" the individual defendant's action, the plaintiff would not have been harmed.[5] Later, courts expanded the concept, allowing plaintiffs to prove causation if the defendant's action was a "substantial factor" in the plaintiff's resulting harm.[6] Any plaintiff using either of these concepts would fail to satisfy the causation element given the scenario above; both concepts require at least substantial input on the part of the individual producer.[7] In cases where the actions of multiple polluters have combined to produce a single detrimental effect, it may be difficult if not impossible to prove that any one of the producers individually caused the alleged damages.

Many courts later recognized that injustice could result when multiple tortfeasors caused a single, indivisible harm, but the party harmed was incapable of proving exactly *which* of the tortfeasors caused the injury and to what *degree*. Alternative liability arose as a theory from the landmark case of *Summers v. Tice*, where it was impossible to determine which of two quail hunters negligently hit a third hunter when they simultaneously shot their guns in the direction of the third hunter.[8] The court held that when (1) two or more parties act in concert to cause a single injury; and (2) all responsible parties are present at trial; and (3) they have greater knowledge than the plaintiff concerning who committed the tortious act causing the harm, the defendants should be held jointly and severally liable for the damage, thus shifting the burden of apportioning fault to the defendants.[9]

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5. *See e.g. N.Y. C. R.R. Co. v. Grimstad*, 264 F. 334, 335 (2d Cir. 1920); *Sowles v. Moore*, 26 A. 629, 630 (Vt. 1893).

6. *See e.g.* Dominick Vetri et al., *Tort Law and Practice* 416-17 (2d ed., LexisNexis 2002) (referencing also *Corey v. Havener*, 182 Mass. 250, 251-52 (1902), which found it impossible to determine which cyclist was "more" responsible when the cyclists simultaneously passed on either side of a carriage, spooking the horses and causing damage, but it was clear that their combined actions caused the damage).

7. *Id.* at 416.

8. *Summers v. Tice*, 199 P.2d 1, 1-2 (Cal. 1948) (holding that causation in the alternative was sufficient to prove causation since only one of the actors caused the harm, not both).

9. *Id.* at 4-5.

Courts further expanded methods to prove causation among multiple tortfeasors through the creation of market share liability for cases where the plaintiff could not determine which manufacturer, among several, produced the product that caused the harm.[10] To apply market share liability, courts held that (1) multiple defendants had to (2) produce identical products in a parallel manner to (3) cause identical injuries which came about (4) latently because of some characteristic of the product.[11]

Additionally, courts relaxed causation requirements in "toxic torts"[12] cases by applying the enterprise theory of liability when multiple producers create nearly identical products and one of those products harms a plaintiff, but it is impossible to determine the source of the harm.[13] A hybrid of alternative liability and concert of action tort theories,[14] enterprise liability effectively shifts the burden of proof to the defendants, requiring them to exonerate themselves in cases where all the potentially responsible parties engaged in the hazardous group activity are joined as defendants.[15] When the injury cannot be clearly traced to one defendant, enterprise liability places responsibility on the industry as a whole so long as the following seven elements are met:

(1) Plaintiff is not at fault for his inability to identify the causative agent and such inability is due to the nature of the defendants' conduct.

(2) A generically similar defective product was manufactured by all the defendants.

(3) Plaintiff's injury was caused by this product defect.

(4) The defendants owed a duty to the class of which the plaintiff was a member.

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10. *Hymowitz v. Eli Lilly & Co.*, 539 N.E.2d 1069, 1071-72 (N.Y. 1989) (Manufacturers are held liable based not on the number of their own pills the plaintiff took, for example, but rather on the company's "market share" of business in the product, either nationally or in some other, smaller market.).

11. *Id.* at 1075. The court additionally required that for the market share theory to apply, the legislature must also have acted to specially allow litigation against the tortfeasors, though the statute of limitations may have passed, since the damaging effects of DES invariably took some time to appear. Holding such strict requirements for its application has limited the application of market share liability to relatively few cases, including primarily drug cases such as DES. *See generally* Dan B. Dobbs, *The Law of Torts* § 176 (West 2000).

12. "Injury caused by a toxic substance for which a lawsuit can be brought for damages under strict liability or negligence theories." *Modern Dictionary for the Legal Profession* (3d ed., William S. Hein & Co., Inc. 2001).

13. Lawrence G. Cetrulo, *Toxic Torts Litigation Guide* § 3:9 (West 2003).

14. Concert of action theories require that plaintiffs "prove (1) parallel conduct or assistance; and (2) knowing participation in such conduct on the part of each defendant in accordance with some agreement or plan." *Id.* at § 3:7. Such a theory is of limited use in the multiple polluter context.

15. *Id.* at § 3:9.

(5) There is clear and convincing evidence that plaintiff's injury was caused by the product of some one of the defendants. For example, the joined defendants accounted for a high percentage of such defective products on the market at the time of plaintiff's injury.

(6) There existed an insufficient, industry-wide standard of safety as to the manufacture of this product.

(7) All defendants were tortfeasors satisfying the requirements of whichever cause of action is proposed: negligence, warranty, or strict liability.[16]

This theory posits that industry actors who willingly engage in activities that involve inherent dangers to society should be responsible for any harmful consequences.[17] To shift the burden to the defendants, the plaintiff must "prove joint awareness of the risks and joint capacity to reduce them."[18]

Finally, some courts further relaxed traditional causation requirements by applying aspects of joint and several, alternative, and market share liability concepts to negligence and nuisance claims where multiple, uncoordinated parties act either simultaneously or successively to create conditions that cause a single, indivisible harm.[19]

III. SURVEYING INDIVISIBLE INJURY AND CAUSATION LAW

The *Restatement (Second) of Torts* illustrates some of the complexities present in multiple tortfeasor, indivisible injury tort law as it relates to causation. Section 433 states that to determine whether a defendant's actions were a "substantial factor" in causing harm, courts should consider (1) the number of other factors that contributed to produce the harm; (2) whether the actor's conduct continuously operated to cause the harm, or merely

16. *Id.* (quoting Naomi Sheiner, Student Author, *DES and a Proposed Theory of Enterprise Liability*, 46 Fordham L. Rev. 963, 995 (1978)).

17. *Id.*; *see e.g. Hall v. E. I. Du Pont De Nemours & Co., Inc.*, 345 F. Supp. 353, 359-60, 371-74, 378 (E.D.N.Y. 1972) (holding that six manufacturers may be held jointly liable for defective blasting caps that injured children when the plaintiffs were unable to identify the particular manufacturer, but were able to show that each defendant manufactured the caps in the same way, all were similarly defective, and the industry shared a common safety standard).

18. Cetrulo, *supra* n. 13, at § 3:9 (citing *Hall*, 345 F. Supp. at 378-79).

19. *See e.g. Michie v. Great Lakes Steel Div.*, 495 F.2d 213, 215-17 (6th Cir. 1974) (indicating multiple-source polluters may be held jointly and severally liable for an indivisible injury caused by their joint emissions); *Collier*, 372 So. 2d at 288, 294 (holding that multiple defendants, acting independently, may be liable for indivisible injury when separately polluting ponds and contaminating plaintiff's wildlife). For a more complete discussion of *Michie*, see *infra* part IV(A)(1).

created a harmless situation until acted upon by another party or force; and (3) how much time had lapsed between the action and harm to the plaintiff.[20] Additionally, a negligent actor may be prevented from contributing a "substantial" amount of causation where factors, not within the control of the actor, "dilute" the effects of the negligence.[21] Sections 433A and 433B further specify that when multiple tortfeasors concurrently act to produce a single, indivisible harm, each actor can be held liable for the entire injury and it is *not* essential that all liable parties be joined as defendants.[22] Many courts have made the policy decision that it is better to burden the defendant who committed *some* degree to tortious act than the innocent plaintiff.[23]

For pollution cases, Dobbs points out in *The Law of Torts* that there are several different theories that may satisfy causation in instances where a group of polluters collectively cause harm, but otherwise would not cause harm individually.[24] Depending upon the facts and the jurisdiction, these include (1) the substantial factor test; (2) the indivisible injury rule; and (3) a "but-for" test that finds causation if the sum of the pollution contributes to cause the harm, and any one polluter could have avoided the harm by not polluting.[25]

Any survey of the common law of indivisible injury and multiple polluter cases is fraught with difficulties and complications. In examining the language of holdings, it is often difficult to separate the concepts of damages and causation in multiple tortfeasor, indivisible injury negligence and nuisance claims.[26] The concepts of indivisible injury and fault can intimately intermingle, making it difficult to discern whether a court is discussing them as related to causation, damages, or both.[27] Also, cases that may seem most parallel to pollution cases in terms of the number of potential producers, or the nature of the harm caused, often fail to fit neatly into one of the theories above, such as market share liability or alternative liability. The courts have generally not applied these limited theories to multiple tortfeasor pollution cases, as is discussed below.

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20. *Restatement (Second) of Torts* § 433 (1965).

21. *Id.* at cmt. d.

22. Here, the burden falls on the defendant to prove that the harm can be apportioned. *Restatement (Second) of Torts* §§ 433A cmt. i; 433B cmt. c, cmt. d.

23. *Restatement (Second) of Torts* § 433B cmt. d.

24. Dobbs, *The Law of Torts* at § 171.

25. *Id.* Dobbs also notes that by statute, a number of people may be liable for releasing hazardous materials. *See e.g.* 42 U.S.C.S. § 9607 (2004) (citing the Superfund statute).

26. *See e.g. Arctic Structures, Inc. v. Wedmore*, 605 P.2d 426, 434-35 (Alaska 1979).

27. *See e.g. Bobrow/Thomas & Assocs. v. Super. Ct.*, 50 Cal. App. 4th 1654, 1662-63 (1996).

IV. MULTIPLE TORTFEASOR, INDIVISIBLE INJURY CAUSATION LAW: A STATE-BY-STATE ANALYSIS

What follows is a common law analysis of indivisible injury and multiple tortfeasor cases organized alphabetically by New England state jurisdictions. The cases presented were selected for either (1) their factual similarity to the hypothetical scenario above, involving multiple tortfeasors, contributing in various degrees to an indivisible injury; (2) language in the courts' decisions that most clearly indicates their approach to the issue; or (3) ideally, both of the above.

As the following analysis will clarify, no New England state has yet expressly liberalized their causation requirements in multiple-tortfeasor pollution cases, and few have faced the issue at all. Because of the absence of such language and case law in New England, this analysis contains information that would otherwise not be considered "on point." First, it begins with examples of case law from Michigan and Texas. Obviously neither qualifies as a traditional New England state. They are included to serve as models to indicate what kind of language courts use when they choose to liberalize causation requirements for multiple polluter scenarios. The New England state analyses follow directly behind them.

Additionally, the New England state analyses include information concerning alternative, product, enterprise, and market share liability theories that if strictly applied would probably *not* fit the multiple source polluter scenarios represented above. They are included, however, for two reasons: (1) since there is often no analogous case law addressing the topic directly on point, these are the most closely related causation issues available; and (2) they may be used to indicate the state courts' willingness to accept or reject novel legal theories when presented with novel problems. Finally, because many courts have not addressed this novel issue, many of the following cases contain factual scenarios completely unrelated to questions of multiple source pollution, but are nonetheless used to clarify each States' approach to causation in the absence of analogous facts and case law.

A. *Michigan and Texas*

1. *Michigan*

Michigan relaxes standards of proof for plaintiffs in cases involving multiple polluters and tortfeasors, either if the producers' harm-causing products are extremely similar, or if they work together to create one indi-

visible harm.[28] In *Michie v. Great Lakes Steel Division*, a number of Canadian citizens sued seven U.S. plants for nuisance because their property was allegedly damaged by a culmination of toxic air emissions.[29] The court held that, as a matter of policy and law, it would not be fair to burden the innocent plaintiff with the "impossible burden of proving the specific shares of harm done by each."[30] Even though there was no "concert of action" between the polluting tortfeasors, their cumulative effects caused a single, indivisible injury that would not have resulted *but for the concurrence of the acts*, therefore the court held that the defendants could be held jointly liable.[31] *Oakwood Homeowners Assn. v. Ford Motor Co.* reaffirmed *Michie* when a group sued four industrial companies, ranging from an auto plant to a salt extraction mine, for negligence, arguing that the defendants' emissions interacted "synergistically" to damage the plaintiffs' property.[32] The court held that so long as the group could show general liability, the burden fell on the defendants to establish the degree of damage attributable to their particular emissions.[33] In *Abel v. Eli Lilly & Co.*, the children of mothers who had ingested identical and sometimes indistinguishable diethylstilbestrol ("DES") products from several companies, sued when they later suffered from vaginal cancer or legions from the DES exposure.[34] Again, interpreting the law generously for plaintiffs, the court decided to adopt alternative liability in cases such as this, where "all defendants have acted tortiously, but only one unidentifiable defendant caused the plaintiff's injury."[35] The plaintiff must make a genuine attempt to identify and bring every possible defendant into court and establish the other elements of the underlying cause of action, but is not *required* to bring all parties to court.[36] If this is done, Michigan courts shift the burden of causation in fact to the defendants, forcing them to exonerate themselves by a preponderance of facts, or be held jointly and severally liable.[37]

Because Michigan does not require that polluters act in concert, because the Michigan Supreme Court has expressly stated a preference to burden defendants rather than plaintiffs in multiple tortfeasor pollution and

28. *Michie*, 495 F.2d at 218; *Abel v. Eli Lilly & Co.*, 343 N.W.2d 164, 167 (Mich. 1984); *Oakwood Homeowners Assn., Inc. v. Ford Motor Co.*, 77 Mich. App. 197, 221 (1977).

29. 495 F.2d at 215.

30. *Id.* at 216.

31. *Id.* at 215-16.

32. 77 Mich. App. at 202, 217-21.

33. *Id.* at 218-19.

34. 343 N.W.2d at 166-67.

35. *Id.* at 174.

36. *Id.* at 173. Note that whether or not the defendant has access to evidence of causation is irrelevant, unlike the assumed circumstances in *Summers*, 199 P.2d at 1-2.

37. *Id.* at 174. This is actually a lesser requirement than in *Summers v. Tice*, where the plaintiff *had* to bring *all* the potential tortfeasors to court. 199 P.2d at 1-2.

product liability cases, because it permits plaintiffs to join, in a single action, defendant polluters from a variety of industries, and because it applies alternative liability to DES cases without requiring that plaintiffs join *every* possible party to the suit, Michigan may be considered a plaintiff-friendly state.

2. *Texas*

Texas has relaxed its causation principles to permit liability in environmental cases where the actions of tortfeasors combine to create a harm in which it is impossible to separate individual responsibility among the parties.[38] In *Landers v. East Texas Salt Water Disposal Co.*, two companies allowed their pipelines to pollute the plaintiff's lake with salt water and oil.[39] The court held that when several defendants pollute the same body of water, and the injury could not be apportioned with reasonable certainty to the individual wrongdoers, all defendants should be held jointly and severally liable.[40] If the plaintiff failed to join a potential wrongdoer, the joint defendants could simply bring in those omitted parties.[41]

In contrast to its decision to expand causation in *Landers*, in *Kramer v. Lewisville Memorial Hospital* the Texas Supreme Court rejected an argument to adopt the "Loss of Chance" doctrine[42] when a hospital's staff failed to diagnose the decedent's cervical cancer, consequently decreasing the patient's chance of survival.[43] *Kramer* cited *Landers* in confirming that "[t]he only exception we have recognized to our longstanding causation principles is where the inextricable combination of joint tortfeasors combines to cause harm in a manner where individual responsibility cannot be fixed."[44] Likewise, *Gaulding v. Celotex Corp.* confirmed that *Landers* represented the court's only variation from traditional causation requirements when it refused to adopt either alternative liability or enterprise liability theories for asbestos-manufacturing cases.[45] In *Gaulding*, the chil-

38. *Kramer v. Lewisville Meml. Hosp.*, 858 S.W.2d 397, 405-06 (Tex. 1993); *Gaulding v. Celotex Corp.*, 772 S.W.2d 66, 70 (Tex. 1989); *Landers v. E. Tex. Salt Water Disposal Co.*, 248 S.W.2d 731, 734-35 (Tex. 1952).

39. 248 S.W.2d at 731-32.

40. *Id.* at 734-35.

41. *Id.* at 734.

42. For an example of the Loss of Chance doctrine, *see e.g. Herskovits v. Group Health Coop. of Puget Sound*, 664 P.2d 474, 476-78 (Wash. 1983) (holding that a reduction in the probability of a patient's survival, even if original chance is under 50%, can provide sufficient evidence of causation to send to a jury to decide whether a Dr.'s actions constituted "proximate cause").

43. 858 S.W.2d at 398-99, 407.

44. *Id.* at 406.

45. 772 S.W.2d at 69-70.

dren of a woman who died from exposure to a cabinet containing asbestos sought to impose collective liability upon five possible asbestos producers.[46] The court insisted that the plaintiffs join *all* possible defendants to prove causation when adopting alternative liability.[47] *Gaulding* rejected enterprise liability theories,[48] reasoning that the theories are only applicable to cases involving "five or ten" producers in a centralized industry, not to cases composed of potentially "thousands" of smaller producers.[49]

In short, Texas has declined to expand its causation theories to simplify the proof of causation in multiple tortfeasor cases, but it *has* expanded its theories in cases where the effects of multiple polluters combine inextricably to create an indivisible harm defying individual responsibility. Because plaintiffs have a cause of action to prove causation against multiple-source, concurring polluters in Texas, though the plaintiffs may be unaware of *all* potentially tortious parties or the amount of damage that each contributed, Texas must be considered a plaintiff-friendly State.

B. *The New England States*

1. *Connecticut*

Connecticut generally requires, in negligence cases, that the plaintiff prove "but for" causality; that the negligence is "causally linked" to the harm, and that the defendants' actions were "proximate" to the resulting injury.[50] When a man who worked with asbestos and smoked cigarettes for thirty years died of lung cancer, *Champagne v. Raybestos-Manhatten, Inc.* held that it was reasonable for a jury to find that the defendant's asbestos products partially caused his death, taking into consideration duration of employment, selling location, the total quantity of asbestos sold ($130,000), and typical job functions.[51] In *Zuchowicz v. United States*, the court discussed how other courts have embraced alternative and market share liability systems, but declined to adopt either theory.[52] In its opinion about a naval hospital that over-prescribed drugs to a woman who consequently contracted a fatal lung condition, the court clarified its "but for"

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46. *Id.* at 67.

47. *Id.* at 69. This is a "traditional" requirement when applying the *Summers v. Tice* alternative liability theory. *See Summers*, 199 P.2d at 4-5.

48. For elements of enterprise liability, review *supra* note 16 and accompanying text.

49. 772 S.W.2d at 70.

50. *Zuchowicz v. U.S.*, 140 F.3d 381, 388-89 (2d Cir. 1998); *Champagne v. Raybestos-Manhattan, Inc.*, 562 A.2d 1100, 1112 (Conn. 1989); *Doe v. Saracyn Corp.*, 82 A.2d 811, 815 (Conn. 1951).

51. 562 A.2d at 1104, 1112. The court also held that the lower court appropriately considered his smoking when assigning comparative responsibility to the decedent for his death. *Id.* at 1121-22.

52. 140 F.3d at 388-91.

and "causal link" requirements stating "[c]ausal link says that, even if defendant's wrong was a *but for* cause of the injury in a given case, no liability ensues unless defendant's wrong increases the chances of such harm occurring in general."[53]

Doe v. Saracyn illustrates a limited circumstance where Connecticut courts expanded causation to accommodate plaintiffs harmed by pollutants that accumulated over time. In *Saracyn*, the plaintiff suffered from arsenic poisoning shortly after moving to an apartment, where arsenic had leached into the well water as a result of a neighboring manufacturing plant's poor safety practices.[54] Though *Saracyn* affirmed the indivisible injury rule where concurrent negligent tortfeasors, acting independently, combined to proximately poison the plaintiff, it specified that the rule should be applied "even though [one defendant's] act alone might not have caused the *entire* injury."[55]

Despite using indivisible injury language and contemplating alternative and market share liability concepts, the above relatively disparate cases indicate that Connecticut courts probably would require a traditional showing of "but for" to prove causation. The indivisible injury language suggests that a defendant acting alone must cause *some* injury individually. Since *Champagne* only clarifies the court's standards for proving causation by a single defendant, and *Zuchowitz* affirms Connecticut's traditional means of proving causation, it will be difficult for plaintiffs to prove causation in cases involving multiple polluters.

2. *Maine*

Maine permits plaintiffs to sue jointly certain defendants who, though acting independently, cause an indivisible injury.[56] State courts require, however, that each defendant's individual actions be sufficient to have caused some injury, and they have yet to apply alternative liability theories to causation.[57] In both *Swan v. Andrew Crowe & Sons, Inc.* and *Kidder v. Coastal Construction Co.*, an employee suffered successive, disabling injuries while working for two different employers, but the injuries damaged the same part of the plaintiff's body and were thus considered indivisible.[58]

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53. *Id.* at 383, 389.

54. *Saracyn*, 82 A.2d at 812-13.

55. *Id.* at 815 (emphasis added).

56. *See e.g. Swan v. Andrew Crowe & Sons, Inc.*, 434 A.2d 1008, 1010 (Me. 1981); *Kidder v. Coastal Constr. Co.*, 342 A.2d 729, 734 (Me. 1975).

57. *Kinnett v. Mass. Gas & Elec. Supply Co.*, 716 F. Supp. 695, 699-700 (D.N.H. 1989); *Swan*, 434 A.2d at 1010; *Kidder*, 342 A.2d at 734; *Daigle v. Yesbec*, 134 A.2d 548, 549 (Me. 1957); *Allison v. Hobbs*, 51 A. 245, 246 (Me. 1901).

58. *Swan*, 434 A.2d at 1009-10; *Kidder*, 342 A.2d at 734.

Since, for example, both injuries in *Swan* damaged the plaintiff's back, one could only guess which of the two events necessitated the corrective surgery, and thus each employer was held fifty percent liable for the damages.[59] The court determined that the indivisible injury rule should apply to employers only when damages cannot be apportioned.[60]

For one hundred years, Maine courts have held that courts should only apply the indivisible injury rule when the action of each defendant *individually* would have been sufficient to have caused the entire damage.[61] In *Allison v. Hobbs*, Hobbs was arrested simultaneously on two separate tax warrants, one of which was illegal.[62] The court held that he sustained no additional injury as a result of the defendant's illegal warrant, since he could have rightfully been arrested based upon the other, valid warrant.[63] In *Kinnett v. Massachusetts Gas & Electric Supply Co.*, a plaintiff brought claims against a retailer and three retail suppliers of heat tape when one of the three suppliers provided faulty tape that caused the plaintiff's house to burn down.[64] Although the plaintiff was unable to identify which supplier manufactured the tape that had allegedly caused the fire, the *Kinnett* court declined to apply alternative liability, since Maine had yet to adopt it.[65] According to the court, adopting the theory of alternative liability would require that each defendant be negligent, and in this case, only one of the possible three heat tape manufacturers was potentially at fault.[66] *Kinnett* noted that alternative liability was appropriate only when the plaintiff was exposed to *each* of the defendants' negligences, not just one.[67] The court reasoned that it would apply alternative liability only where the manufacturer who caused the harm could not be identified because the effects of the negligence take time to cause injury, or where science and technology created products that harmed consumers but could not be traced to specific producers.[68]

Considering Maine's adherence to traditional causation rules, its failure to adopt alternative liability, and its requirement even under indivisible injury applications that each defendant's actions be sufficient to cause the whole damage, it is unlikely that the state would support plaintiff's litigation involving multiple polluters, where each contributed a small portion of

59. 434 A.2d at 1009.
60. *Id.* at 1010; *Kidder*, 342 A.2d at 734.
61. *Hobbs*, 51 A. at 246.
62. *Id.* at 245-46.
63. *Id.* at 246.
64. 716 F. Supp. at 696-97.
65. *Id.* at 698-99.
66. *Id.*
67. *Id.* at 698.
68. *Id.* at 699-700.

the alleged harming agents. The greatest support for such an application may come from *Kinnett's* discussion, determining that alternative liability appropriately applies in cases of delayed effects, or technological impediments to tracing producers. But a federal district court applying Maine law wrote *Kinnett*, and the weight and value of the discussion, however logical it may seem, is limited. Additionally, *Kinnett* considered applying alternative liability to a case involving only several manufacturers, and thus any pollution scenario with more than a few producers would have to overcome additional hurdles to application. A plaintiff-favorable outcome in Maine would appear unlikely.

3. *Massachusetts*

The Massachusetts Supreme Judicial Court has maintained the traditional "substantial factor" requirements in multiple tortfeasor cases, though it recognizes that the standard may be relaxed in appropriate cases, and lower courts in the Commonwealth of Massachusetts have been willing to apply alternative and market share liability in limited circumstances.[69] The Supreme Judicial Court in *Payton v. Abbott Labs* was "unable to give a definitive answer," but held that it "might" be able to hold manufacturers liable to a mother whose baby was physically harmed when the mother took DES while pregnant.[70] The court held that it could apply market share liability, even though the plaintiff could not assure that the particular company that produced the pills she took was named as a defendant.[71]

Russo v. Material Handling Specialities Co. presented the superior court with a similar legal question arising in painfully different circumstances. The plaintiff flight attendant in *Russo* lost his right testicle when a rolling in-flight beverage tray, produced by one of two possible manufacturers, smashed into him.[72] He alleged that the accident occurred because of the tray's negligent design and sale, and the companies' failure to warn, and to honor warranties of merchantability.[73] The court denied the manufacturers' motion for summary judgment, and adopted the State of Washington's market share liability standard.[74] That standard requires that

69. *Spencer v. Baxter Intl., Inc.*, 163 F. Supp. 2d 74, 81 (D. Mass. 2001); *Payton v. Abbott Labs*, 437 N.E.2d 171, 190 (Mass. 1982); *Russo v. Material Handling Specialities Co.*, 4 Mass. L. Rptr. 288, 1995 Mass. Super. LEXIS 436, **21-23 (Aug. 29, 1995).

70. 437 N.E.2d at 190.

71. *Id.*; *see Hymowitz*, 539 N.E.2d at 1071-72 (for elements necessary to prove market share liability).

72. 1995 Mass. Super. LEXIS 436 at *2.

73. *Id.* at **15-19.

74. *Id.*

plaintiffs unable to identify the particular defendant that caused the harm prove the following:

> (a) that the plaintiff used the product; (b) that the product caused the plaintiff's subsequent injuries; (c) that the defendant produced or marketed the type of product used by the plaintiff; and (d) [that] the defendant acted negligently in producing or marketing the product.[75]

Once applied, market share liability requires that the *defendant* prove that the product was *not* in the area, relieving the plaintiff of the burden of proving that it was.[76] *Russo* also adopted the alternative liability theory, shifting the burden of proving causation to multiple defendants who act independently "when *only one of them caused harm to the plaintiff* and it is impossible to identify the specific wrongdoer."[77] The court adopted the theory as a means to prevent wrongdoers from escaping liability just because plaintiffs could not definitively identify them.[78]

In contrast, the district court in *Spencer v. Baxter International, Inc.* rejected alternative liability because the Massachusetts's Supreme Judicial Court had previously rejected market share liability in *Payton* and considered the theory only appropriate for DES cases.[79] *Spencer* also rejected the alternative liability theory because it was not firmly established in the Commonwealth.[80] In *Spencer*, the plaintiffs brought suit on behalf of their deceased daughter, alleging that she was infected with the human immunodeficiency virus ("HIV") by a blood clotting factor concentrate when she was being treated for hemophilia; however, the plaintiffs could not be sure that the manufacturer who developed the particular device causing the infection was present in court.[81] The plaintiffs were thus unable to prove the "more probable than not" burden of proof standard that any individual defendant had caused the girl's death.[82] Additionally, the plaintiffs failed to present evidence about how each of the defendants made the factor concentrates that allegedly injured the girl, thus failing to establish that the defendants engaged in "substantially the same conduct resulting in substantially

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75. *Id.* at *16.

76. *Id.* The court argued that defining the market in the smallest possible geographic region would increase the likelihood that liability would be imposed only on those defendants who actually caused harm. *Id.* at *18.

77. *Id.* at **20-22 (emphasis added).

78. *Id.*

79. 163 F. Supp. 2d at 77.

80. *Id.* at 80-81 (notwithstanding the other Superior Court's ruling in *Russo*, 1995 Mass. Super. LEXIS 436 at **21-23).

81. *Id.* at 77-78.

82. *Id.* at 78.

the same risk of harm."[83] Furthermore, the plaintiffs failed to join all possible defendants involved in the procedure, they could only show that the defendants *probably* caused the harm through "naked statistical proof," and were unable to rule out other possible causes.[84]

The Massachusetts Supreme Judicial Court has maintained traditional "substantial factor" causation requirements, while the Commonwealth's lower courts have conflicted over whether and when to adopt the alternative causation requirements in market share and alternative liability theories. There is little likelihood of convincing the Massachusetts Supreme Court to relax its causation requirements in multiple polluter cases, unless a plaintiff can show that: (1) all possible defendants are present; (2) each defendant acted tortiously; (3) it is difficult or impossible for the plaintiff to identify which specific tortfeasor is responsible for causing the harm; (4) the nature of the harm each caused was substantially the same; (5) whatever harm the plaintiff suffered was actually caused by the polluters and not other actors (or nature, genetics, etc.); and (6) it would create greater injustice to disregard the suit than permit it. Considering its past reticence to apply market share liability to cases other than DES cases, its strict standards for "substantial similarity" of harm, and its failure to formally adopt alternative and market share liability standards, it would be difficult for plaintiffs in the hypothetical scenario above to sustain a case before the Massachusetts Supreme Judicial Court.

4. *New Hampshire*

While New Hampshire has expressly adopted indivisible injury rules as they relate to damages, the state has thus far rejected alternative liability theories to prove causation.[85] In *Trull v. Volkswagen of America, Inc.*, a family sued Volkswagen for design defects after one child died and two more family members suffered severe brain injuries in an accident.[86] The two children were wearing their lap belts, but the family alleged that their Vanagan was not crashworthy because it had inadequate seat belts and lacked sufficient protection in cases of frontal impact.[87] The court held that plaintiffs may only establish proximate cause if the cause is a substan-

83. *Id.* at 79-80.

84. *Id.* The two manufacturers may have had different methods of screening blood donors, testing and treating their products, and warning of risks. The use of naked statistical proof fails to "create 'actual belief' in the truth of the proposition to be proved." The court recognized limited circumstances when statistical proofs may be used, but this case was not one of them. *Id.*

85. *U. Sys. of N.H. v. U.S. Gypsum Co.*, 756 F. Supp. 640, 653-55 (D.N.H. 1991); *Trull v. Volkswagen of Am., Inc.*, 145 N.H. 259, 267 (2000).

86. 145 N.H. at 260.

87. *Id.*

tial factor in bringing about the harm, and the harm would not have occurred without that conduct.[88]

In design cases, however, the court held that "the plaintiff need not show that the defendant's design was the sole or dominant cause of the injuries," merely that they were a substantial factor in increasing the injuries over and above what they would have been otherwise.[89] Once the plaintiff proves causation in indivisible injury defective design cases, the burden of proof shifts, and the defendants are required to apportion the damages among themselves.[90] Otherwise, the innocent plaintiff would be burdened with the almost impossible task of dividing fault, and, as the court recognized, it is better to so burden the tortfeasors.[91]

When the plaintiff in *University System of New Hampshire v. United States Gypsum Co.* sued United States Gypsum Co. and several other asbestos-containing product manufacturers for the costs and damages associated with removing asbestos from several of its buildings, the United States District Court for the District of New Hampshire rejected the university's alternative liability, enterprise liability, and market share liability claims as inappropriate to asbestos claims.[92] New Hampshire had not previously recognized the alternative liability theory and the district court refused to apply the theory in this case because the plaintiff could not name *every* possible tortious defendant who could have caused the harm.[93] The court further noted that the theory should apply to cases where the defendants' actions created "a substantially similar risk of harm," and not where different types of asbestos-containing products are used in various quantities, thus creating dissimilar levels of risk.[94]

Moreover, *University System* rejected the market share theory, particularly in asbestos cases, since asbestos is not a single identical product, and thus does not cause identical harms or have identical effects, as market share products should.[95] Additionally, the court refused to apply the enterprise liability theory, reasoning that it should be imposed only "when

88. *Id.* at 264.
89. *Id.* at 264-65.
90. *Id.* at 265, 267.
91. *Id.* at 265-66.
92. *U. Sys.*, 756 F. Supp. at 643, 654-55. University's asbestos claim, involving an action against multiple producers of relatively similar, harmful products, is factually similar to multiple pollutants cases but not identical. The case also included a succinct overview of New Hampshire law regarding several alternative causation theories. Because asbestos cases are not factually identical to other multiple pollutant cases, however, one should be wary of too confidently drawing conclusions from the case.
93. *Id.* at 653-55.
94. *Id.* at 654-55.
95. *Id.* at 655-56 (The court notes that, though the theory has been applied to drug cases, many courts have refused its application there. Additionally, most have refused to apply it to asbestos cases.).

manufacturers are few in number, are jointly aware of the risks, and jointly have the capacity to reduce or affect those risks, such as operating through a trade association."[96] Though appropriate in cases where there are only five or ten producers, the theory is inappropriate in a decentralized industry with hundreds or thousands of smaller producers.[97]

In each instance, the New Hampshire Supreme Court and the United States District Court, interpreting New Hampshire law, refused to expand New Hampshire's alternative causation theories. The Supreme Court showed a willingness to apply indivisible injury concepts to damage assessment, and recognized that burdening plaintiffs to divide fault may in some circumstances be both impossible and unfair. It reaffirmed, however, its "substantial factor" standards for causation. For its part, the district court refused to expand causation theories to asbestos cases.

While New Hampshire courts may treat multiple air or water polluters similarly, it is unlikely that they will embrace any lowered standard for causation. To justify a change, the courts will have to find, at least, that (1) all potential tortfeasors are joined in the action; (2) the harm is produced by extremely similar products; (3) the defendants are all part of a small, controlling, insular community of producers; and (4) as a matter of policy it would be unfair to burden the innocent plaintiff with impossible standards of proof while allowing wrongdoers to take no responsibility.[98] Absent these factors, a pro-plaintiff judgment would seem unlikely.

5. *Rhode Island*

Rhode Island courts find causation where several possible causes occur concurrently and cause a single harm.[99] In special circumstances, courts may permit causes of action even when many years have passed between the injury and the suit, so long as the defendant only recently discovered the harm.[100] *Anthony v. Abbott Laboratories* held that a mother and eleven daughters who discovered the ill effects of DES years after their exposure to the drug could still sue the drug manufacturers, since some injuries only reveal themselves years later.[101] In *Hueston v. Narragansett Tennis Club*, a woman suffered a severe avulsion of the little finger when her ring caught on a girder as she retrieved her tennis ball; the Rhode Island Supreme

96. *Id.* at 656-57.
97. *Id.*
98. *See supra.* nn. 86-97 and accompanying text.
99. *See Hueston v. Narragansett Tennis Club*, 502 A.2d 827, 830 (R.I., 1986); *Anthony v. Abbott Laboratories*, 490 A.2d 43, 46 (R.I., 1985); *Totman v. A. C. & S.*, 2002 R.I. Super. LEXIS 23, at **11-12 (Feb. 11, 2002).
100. *Anthony*, 490 A.2d at 46-47.
101. *Id.*

Court stated that proximate cause "need not be the sole and only cause."[102] It may occur with other causes that also contribute to the injury and still be proximate, so long as the other causes do not intervene to such a degree that they render the original negligent conduct "totally inoperative as a cause of the injury."[103] In *Totman v. A. C. & S., Inc.*, Mr. Totman alleged that General Electric's marine turbines contributed to his asbestos exposure and related illnesses.[104] The court confirmed its *Hueston* holding, stating,

> [I]t is for a jury to determine whether the GE product was a *substantial factor* in causing Mr. Totman's illness. While there may be several possible causes of Mr. Totman's alleged injuries, a proximate cause need not be the sole and only cause if it concurs and unites with some other cause which, acting at the same time, produces the injury.[105]

Rhode Island courts would probably consider multiple tortfeasor pollution cases using traditional substantial factor standards. *Anthony* indicates that the courts may find valid causation despite the passage of years between the onset of the polluters' actions and the discovery of the negative effects by a plaintiff years later.[106] *Hueston* establishes that the courts are not averse to combining independent but concurrent actions to find proximate cause.[107] In upholding *Hueston*, however, *Totman* also confirms that Rhode Island courts apply the substantial factor test to determine causation in cases involving more than one possible tortfeasor or cause of injury.[108] Beyond this, it is difficult to say how Rhode Island courts would consider the hypothetical scenario above involving multiple polluters and an individual suffering an indivisible, health-related injury. In the absence of decisions specifically considering alternative standards to prove causation, any argument to extend causation would have to be made on a policy basis, and on the basis of previous case law from other states, like *Michie* and *Landers*.

6. *Vermont*

Vermont has a traditionally held that when several, uncoordinated parties combine to produce a single, indivisible injury that would not have

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102. 502 A.2d at 828, 830.
103. *Id.* at 830.
104. 2002 R.I. Super. LEXIS 23 at *1.
105. *Id.* at **11-12 (emphasis added) (citing *Hueston*, 502 A.2d 827).
106. *See* 490 A.2d 43.
107. *See* 502 A.2d 827.
108. *See* 2002 R.I. Super. LEXIS 23.

occurred but for their concurrence, the parties may be joined in litigation, and each party may be found causally responsible for the entire injury.[109] The courts have not held, however, that standards of causation should be relaxed in such circumstances, or in any other.[110] In *Sharon v. Anahma Realty Corp.*, one corporation built a dam across a river, and another corporation subsequently built higher piers on which ice flow jammed, causing the obstructed waters to damage highways.[111] *Sharon* held that both parties could be held jointly liable, since the harm could not have taken place without both parties' actions.[112] The court reasoned that though each of the actions separately would have been innocuous, since the injury could only have resulted from a combination of the defendants' actions, the defendants could be joined in chancery, and both be held liable.[113] Likewise, when a negligent driver hit a boy after sliding on street ice caused by a leaking water pipe that the city negligently failed to repair, *Wagner v. Waterbury* held that both the driver and the city could be held responsible for the entire injury.[114]

> Whenever the separate and independent acts or negligence of several persons, by concurrence, produce a single and indivisible injury which would not have occurred without such concurrence, each is responsible for the entire result, and they may be sued jointly or severally, at the election of the party injured. In such cases, the act or neglect of each is a proximate and an efficient cause, and when several proximate causes contribute to an injury, and each is an efficient cause, without the operation of which the injury would not have been caused, it may be attributed to any or all of such causes. This has come be the established doctrine of this Court.[115]

While the Vermont Supreme Court firmly established an indivisible injury rule in the sense that uncoordinated parties can be held jointly responsible if their otherwise innocuous actions combine to cause injury, the court at no point expressly relaxes causation requirements beyond this concession. Vermont has not expressly adopted alternative liability, market share liability, or any other variations in causation requirements. Each of the preceding decisions involved, at most, two or three responsible parties,

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109. *See e.g. Wagner v. Waterbury*, 109 Vt. 368, 376-77 (1938); *Sharon v. Anahma Realty Corp.*, 97 Vt. 336, 338 (1924).
110. *See e.g. Wagner*, 109 Vt. at 377; *Sharon*, 97 Vt. at 339-40.
111. 97 Vt. at 337-38.
112. *Id.* at 338-40.
113. *Id.* at 338.
114. 109 Vt. at 370-71, 376-77.
115. *Id.* at 376-77.

and required that each responsible party be an "efficient" cause. One may argue that the court's willingness to hold responsible parties whose uncoordinated actions combined to create harm indicates that there is precedence for holding multiple polluters responsible. Perhaps so, but only if the causal field can be limited to several parties, each of which individually contributed an "efficient," or substantial, cause to the harm. To infer more from previous case law would be unfounded.

V. A SYNTHESIS OF THE STATE OF THE LAW IN NEW ENGLAND

Generally speaking, the plaintiff in the above scenario[116] will need a lot of luck and an excellent advocate to win. New England state courts have relatively consistently refused to liberalize causation requirements, and adopt any of a variety of alternative techniques, including alternative liability, market share liability, enterprise liability, or indivisible injury rules as applied in both Michigan and Texas.[117] A number of New England states have long embraced the concept of indivisible injury as a way to more fairly allow indivisible plaintiffs to sue multiple defendants, but only as the concept relates to damages.[118] While courts in the region have considered the theoretical value of lowering the standards of causation to benefit plaintiffs suing multiple tortfeasors,[119] none of the states' supreme courts have been willing to take the leap.

Though the New England states are united in their relatively conservative causation standards, they vary by matters of degree. Connecticut adopts indivisible injury language for *damage* assessment, but it adheres most strictly to traditional *causation* requirements of all the states in the region. Not far behind, Vermont has long supported indivisible injury principles as they relate to damages, but has never expressly relaxed causation requirements under any alternative theory.

At the opposite end, Massachusetts' lower courts are split over whether to adopt alternative and market share liability theories, which indicates some willingness within the state's court system to adopt novel causation theories. Similarly, a federal district court, applying Maine law in *Kinnett*, indicated that alternative liability made the most sense in cases of delayed effects, or technological impediments to tracing producers, circumstances that would likely be present in the hypothetical pollution scenario posited

116. *Supra* pt. I.

117. *See supra* pt. IV.

118. *See e.g. supra* pt. IV(B) (discussion of *Saracyn Corp.*, 138 Conn. 69; *Swan*, 434 A.2d 1008; *U. Sys. of N.H.*, 756 F. Supp. 640; *Sharon*, 97 Vt. 336).

119. *See e.g. supra* pt. IV(B) (discussion of *Kinnett*, 716 F. Supp. 695; *Payton*, 437 N.E.2d 171).

above.[120] Therein lies the hope, but it must be balanced against the knowledge that Maine courts have only contemplated, at most, several manufacturers as defendants.

The lack of on-point case law in Rhode Island involving multiple polluters, indivisible injuries, or alternative causation theories makes it difficult to know where to place Rhode Island on any continuum.[121] Finally, the analysis of New Hampshire law in *Trull* and *University System* indicates that though the state may consider alternative causation theories, it will adopt them only when the circumstances of the case precisely fit within the elements of a preexisting alternate causation theory, such as alternative liability or market share liability, and the inequities that might result from failing to adopt the change are compelling.[122]

VI. THE RATIONALE FOR NEW ENGLAND STATES TO RELAX STANDARDS OF CAUSATION FOR INDIVISIBLE INJURY CASES INVOLVING MULTIPLE POLLUTERS

An advocate will have to appeal to two factors to argue that the States should alter existing causation law to improve conditions for plaintiffs suing multiple source polluters: (1) other states' case law and (2) public policy benefits.

A. *Other States' Case Law*

It is neither impossible nor unreasonable to revisit and amend causation requirements. Hundreds of cases in a variety of states involving multiple polluters and manufacturers of dangerous products illustrate that courts can readily adopt different liability and causation theories without upsetting their legal foundations.[123] As discussed above, those alternative theories have taken a variety of different forms and names, including but not limited to alternative liability, market share liability, enterprise liability, and combinations of those three.

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120. *See supra* pt. IV(B)(2) (*Kinnett* discussion).

121. It may be that the lack of on-point case law, not only in Rhode Island but throughout New England, indicates that such cases are dismissed at early stages of the trial process. Any such conclusion, however, would constitute pure conjecture on the author's part.

122. *See supra* pt. IV(B)(4).

123. *See e.g. Hall,* 345 F. Supp. at 359-60, 371-74, 378; *Summers*, 199 P.2d at 1-2; *Michie*, 495 F.2d at 215-17; *Collier,* 372 So. 2d at 290-94; *Hymowitz,* 539 N.E.2d at 1071-72; *Landers*, 248 S.W.2d at 734-35. *See also* Cetrulo, *supra* n. 13 (for hundreds more examples and a variety of different causation theories).

Applied strictly, none of the three fits multiple-source pollution cases perfectly. Alternative liability, for example, requires that all responsible parties be at trial, and plaintiffs may not be able to say with 100% certainty, for example, that air particles that have traveled distances to their land and lungs came from one among a specifically limited field of power producers.[124] Courts generally apply enterprise liability only in cases involving inherently dangerous products and few possible manufacturers.[125] Carbon dioxide produced as a byproduct of an unknown number of power stations may not be considered sufficiently "toxic," nor the field limited enough, to apply this toxic tort theory. Likewise, market share liability requires that the manufacturers have produced identical products that cause identical injuries.[126] Here, the agricultural runoff, particulate emissions, or other industry-wide discharges that cause indivisible harms may be similar, but not identical, and may cause a variety of different indivisible injuries.

From each of these alternative theories, however, we gain models for adaptation. There is no reason that New England courts could not further adapt these alternatives, taking some pieces from traditional theories and others from more progressive ones, to craft an alternative causation theory specifically designed to provide the greatest degree of justice possible given the scenario above. Decisions in Michigan, Texas, and other states have shown us how.[127] Tradition, after all, is a poor excuse for injustice.

B. *Public Policy Benefits*

Courts will certainly rely in part upon judicial precedent throughout the country to adopt any changes in causation requirements. Any argument for change, however, should equally draw upon policy concerns. Air and water pollution pose particular problems of proof for plaintiffs, since they are released and move over time and space in larger and not always predictable patterns and environments.[128] New England courts must ask the

124. *See supra* pt. II ("Background" discussion).

125. *Id.*

126. *Id.*

127. *See e.g. City of Tulsa v. Tyson Foods, Inc.*, 258 F. Supp. 2d 1263, 1297 (N.D. Okla 2003) ("The injury alleged herein is a single, indivisible injury - the eutrophication of the lakes from excess phosphorus loading. Under Oklahoma and Arkansas law . . . where there are multiple tortfeasors and the separate and independent acts of codefendants' concurred, commingled and combined' to produce a single indivisible injury . . . each defendant may be liable even though his/her acts alone might not have been a sufficient cause of the injury."); *Michie*, 495 F.2d 213; *Collier*, 372 So. 2d 288; *Landers*, 248 S.W.2d 731.

128. For an excellent discussion of new technological and legal methods to more accurately track and determine legal responsibility for pollution from multiple sources, *see* Anna M. Michalak, *Environmental Contamination with Multiple Potential Sources and the Common Law: Current Approaches and Emerging Opportunities*, 14 Fordham Envtl. L.J. 147 (2002).

question "[i]s it better to punish the innocent plaintiff because, through no fault of her own, she is unable to identify the exact tortfeasor who caused her injury,[129] or to burden a group of defendants who acted to some degree tortiously?"[130]

The courts need to be mindful of the role of torts litigation in protecting individuals, their property, their health, and their environments. While citizens may have other forms of redress (*i.e.* through government regulations or legislative action), in some cases they may not. In depriving the injured plaintiff of the opportunity to sue for damages because of the technical difficulties of assuring that every possible defendant is present, because they are unable to prove the exact degree to which any of the defendants contributed to their injury, or because any of the defendant's actions individually would not have caused the harm, New England courts are depriving their citizens of an essential means to check and balance industrial activity and to protect their communities from harm. The courts must realize that as pollutants continue to fill our skies, soil, and water, the process of proving their precise pathways and quantities remains difficult. In the meantime, plaintiffs suffer harm. The courts cannot change the patterns of the wind or the currents of the water, but they can change their causation standards to better incorporate more technically and environmentally complex litigation.

VII. A PROPOSAL TO SHAPE NEW ENGLAND MULTIPLE POLLUTER INDIVISIBLE INJURY LAW

Let us begin with some obvious considerations, dangers, and difficulties. Changing existing law to encourage a fairer administration of justice risks that the new legal standard will have unintended consequences beyond the courts' consideration. In liberalizing causation law to more fairly deal with multiple source pollution cases, courts have a responsibility to protect the rights and interests of defendants both within and outside the context of the negligence and nuisance pollution cases. The courts' goal should be to tweak traditional causation just enough in certain specific circumstances, to restore a greater sense of balance and justice between the parties in multiple source pollution cases, while avoiding creating greater injustice elsewhere.

The most difficult task in creating an alternative causation analysis for negligence or nuisance cases involving multiple source pollution is defin-

129. (and the exact percentage of damage that each tortfeasor caused)

130. *See Michie*, 495 F.2d at 216; *Restatement (Second) of Torts*, § 433B cmt. d.

ing its borders and limitations. The very nature of pollution and the environment make determining cause-in-fact difficult. A variety of disparate actors have polluted and will continue to pollute the air, water, and soil over long periods of time. Pollutants may take years to accumulate, and injuries may take further years to develop. Many of the small particles causing injury move through the atmosphere and other media in patterns that are difficult or impossible to precisely track. Exposure to the pollutants may have disparate effects upon similarly situated plaintiffs. Finally, there are so many potential sources to cause environmental or health injuries[131] that any system must include a means to fairly account for other possible factors that contribute to the plaintiff's injury.[132]

Thankfully, other courts have taken the lead, and New England could easily develop a framework to deal with these issues by adopting the language and rationales in their law.[133] Combining elements from several of the alternative causation theories and cases above, any new indivisible injury causation rule should be restricted by the following guidelines:

(1) As a matter of policy and law, it is better to burden the defendants, who have committed some degree of tortious act, than the innocent plaintiff, to prove the precise degree of injury that each defendant contributed to causation.

(2) The indivisible injury rule applies to causation, in addition to damages.

(3) As a threshold matter, to pursue an indivisible injury lawsuit against joined defendants in an industry,[134] the court or jury must

131. For example, did the plaintiff develop asthma from the gases coming out of the coal plant in a neighboring town? From the cars on the highway next to her home? From the paper factory just up the jet stream in Vermont? From the cigarette smoke at the bar in which she works? From her genetic disposition?

132. When a variety of sources potentially cause an injury, from the plaintiff's smoking habits to a genetic disposition, courts and juries have demonstrated that they are capable of considering complicated and layered causal arguments. *See e.g. supra* nn. 104-08 and accompanying text (discussing *Totman*, 2002 R.I. Super. LEXIS 23 at **11-12 (holding in an asbestos exposure case that the jury could "determine whether the GE product was a substantial factor in causing Mr. Totman's illness. While there may be several possible causes of Mr. Totman's alleged injuries, a proximate cause need not be the sole and only cause if it concurs and unites with some other cause which, acting at the same time, produces the injury.")).

133. *See e.g. supra* pt. IV(A).

134. Specifying that plaintiffs may only join defendants within an industry (or with "extremely similar" products or byproducts, *see infra* element (4)) theoretically limits the types of cases that can be brought, so that individuals can not bring enormously complicated suits against, *e.g.*, car manufacturers, coal power plants, and cigarette producers all at once. Courts may discover occasions, however, when it is appropriate to allow suits of multiple polluters in different industries when the actions of those producers combine uniquely to cause indivisible injuries, or are bound factually by other factors. Such decisions should be left to the discretion of the courts. *See e.g. Oakwood Homeowners*, 77 Mich.

be able to find that the combined contributions of all of the potential defendants could have contributed "substantially" to the plaintiff's injury.[135]

(4) Plaintiffs may join polluter-defendants in suits either if the polluters' harm-causing products or byproducts are extremely similar, or if they work together to create one indivisible harm. Defendants need not have acted concurrently nor in concert to be joined in an action.

(5) Plaintiffs need not join *every* possible defendant, but must make an effort to join all potentially responsible parties within an industry. If the plaintiffs fail to name a party that defendants argue should be named, defendants are free to join that party to the suit.

(6) Any individual defendant's contribution to the injury need not be sufficient to have independently produced the plaintiff's injury in order for the defendant's actions to be considered causal.

(7) When defendants' specific contributions to the injury can be reasonably determined through accepted means, they must be. When this is not possible, all defendants will be held jointly and severally liable.

(8) When the court lacks evidence of particular contributions to the plaintiff's injury, it may choose to apportion polluters' causal and damage assessments through "pollution market share" allocation.[136]

VIII. CONCLUSION

Any decision by New England courts to adopt guidelines similar to those above in cases where multiple polluters contribute to an indivisible injury would have several positive effects. It would reestablish balance in

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App. at 202-03, 217-21, discussed *supra* pt. IV(A)(I), in which plaintiffs sued four companies in unrelated industries for their indivisible contributions to pollution.

135. For an example of the "substantial" contribution rule, *see e.g. Purcell v. Asbestos Corp.*, 153 Or. App. 415, 424-25 (1996) (holding that when the plaintiff cancer victim was exposed to airborne asbestos from different sources over 35 years, the court should inquire whether the defendants substantially contributed to the plaintiff's injuries).

136. Similar to a market share theory, courts can allocate causal responsibility to polluters based not on the market percentage of their output of goods, but rather on the market percentage of their output of pollutants. For example, if the court finds a group of ten defendant power plants 40% causally responsible for the plaintiff's asthma, and one of the ten plants produced 20% of the total regional pollutant output, that defendant would be held 8% causally responsible for the injury (and damages).

negligence and nuisance litigation by recognizing the complicated methods by which citizens are injured by polluters, and incorporating methods to accommodate just claims for injury that today would be denied. It would empower citizens to challenge tortfeasors in court and protect their essential health, well-being, and their local environments. It would act to deter polluters from negligent actions, and encourage them to act responsibly and encourage cleaner, safer production methods rather than risk increased litigation costs. Finally, it would more appropriately balance the burden in society onto parties responsible for pollution-related injuries, and take some of that burden off the innocent, injured plaintiff.