

11-1-1999

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Recommended Citation

Rebecca M. Bratspies, *Splitting the Baby: Apportioning Environmental Liability Among Triggered Insurance Policies*, 1999 BYU L. Rev. 1215 (1999).

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Splitting the Baby: Apportioning Environmental Liability Among Triggered Insurance Policies

*Rebecca M. Bratspies**

*“Though this be madness, Yet there is method in ‘t.”*¹

*“The only thing on which all parties agree is that there is a need for us to arrive at an administratively manageable interpretation of the insurance policies—one that can be applied with minimal need for litigation.”*²

In 1980, the Comprehensive Environmental Responsibility, Compensation and Liability Act³ (“CERCLA” or “Superfund”) won congressional approval by an overwhelming majority. CERCLA was to be the answer to the nation’s hazardous waste disposal problems. Not only would the new law clean up hazardous waste sites, but, through retroactive strict liability,⁴ it

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1. WILLIAM SHAKESPEARE, *HAMLET* act 2, sc. 2.

2. *Insurance Co. of North America v. Forty-Eight Insulations*, 633 F.2d 1212, 1218 (6th Cir. 1980), *reh’g granted, in part, clarified*, 657 F.2d 814 (6th Cir. 1981).

3. Comprehensive Environmental Response, Compensation and Liability Act of 1980, Pub. L. No. 96-510, 94 Stat. 2767 (codified as amended at 42 U.S.C. §§ 9601-9657 (1988)); reauthorized and amended in part by Superfund Amendments and Reauthorization Act of 1986, Pub. L. No. 99-499, 100 Stat. 1613). There are numerous state analogs to CERCLA. Although these state statutes are beyond the scope of this paper, many of the same analytical issues arise in that context as well.

4. CERCLA imposes retroactive strict liability for the costs of cleaning up hazardous waste sites on the generators and transporters of the waste and on owners and operators of the sites. Liability attaches regardless of when the hazardous waste was generated and disposed of and despite the fact that the now sanctionable conduct was entirely legal at the time. *See generally*, *United States v. Northeastern Pharm. and Chem. Co. [NEPACCO]*, 810 F.2d 726, 732 (8th Cir. 1986) (imposing retroactive strict liability under CERCLA); *United States v. Shell Oil Co.*, 605 F. Supp. 1064, 1072-79 (D. Colo. 1985) (imposing retroactive strict liability under CERCLA does not violate due process). For an outline of some of the constitutional questions raised by retroactive

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would also make polluters pay the costs associated with this cleanup. To that end, CERCLA gave the federal government the authority to cleanup a site using the Superfund⁵ and then seek reimbursement from the Potentially Responsible Parties⁶ ("PRPs"); or to require PRPs to undertake the cleanup themselves.⁷ Either way, the private-sector PRPs would finance the cleanup of polluted sites.

The costs associated with these CERCLA cleanups are staggering. Indeed, the Congressional Budget Office ("CBO") estimates that the total costs for cleaning up all sites currently listed on the National Priorities List ("NPL")⁸ will exceed seventy-four billion in 1994-constant dollars.⁹ Of that sum, fifty-eight percent, or forty-three billion dollars, will be born by the PRPs.¹⁰ The average cost per Superfund site can exceed thirty million dollars.¹¹

legislation, see Maria G. Bianchini, Comment, *The Tobacco Agreement that Went up in Smoke: Defining the Limits of Congressional Intervention into Ongoing Mass Tort Litigation*, 87 CAL. L. REV. 703, 739-43 (1999).

5. 42 U.S.C. § 9607(a)(4)(A)-(B).

6. CERCLA § 107(a) defines responsible parties as: (1) the owner and operator of a vessel or a facility; (2) any person who, at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of; (3) any person who arranges for the disposal of hazardous substances at any vessel or facility owned by another person and containing such hazardous substances; and (4) any person who accepts any hazardous substances for transport to sites selected by such persons. See 42 U.S.C. § 9607(a). PRP refers to someone who might be liable for money spent by the government for corrective action at a site but has not yet been deemed liable under the statute. See, e.g., *Pacific Resins & Chems., Inc. v. EPA*, 654 F. Supp. 249 (W.D. Wash. 1986) (using the term PRP). The numbers and types of PRPs who potentially face claims under § 107 run the gamut of private and public enterprise in this country. PRPs facing environmental liability include (but are not limited to): real property owners; building managers; contractors; states, cities, and counties; school systems; industrial manufacturers; transportation companies; processors of hazardous waste; gasoline stations; electric utilities; railroads; and banks.

7. 42 U.S.C. § 9606(a). PRPs have typically found it more economical to clean up the sites under consent decrees with the EPA rather than to pay the costs incurred by a governmental cleanup.

8. CERCLA authorized the EPA to evaluate contamination problems and identify the worst sites by listing them on the NPL for cleanup under Superfund. 42 U.S.C. § 9605. (1988). In 1994, there were nearly 1,300 sites on the NPL, and the number has remained roughly constant since then. CONGRESSIONAL BUDGET OFFICE, THE TOTAL COSTS OF CLEANING UP NONFEDERAL SUPERFUND SITES 1 (1994) [hereinafter CBO REPORT].

9. CBO REPORT, *supra* note 8, at 13, 36.

10. See *id.* at 10. The Congressional Budget Office further estimates that 38% of the costs, or \$28 billion, will be paid by the federal government, and 4%, or \$3 billion, by the states. See *id.*

11. Kenneth S. Abraham, *Cleaning up the Environmental Liability Mess*, 27 VAL.

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In the face of these huge numbers, PRPs look to spread the burden of paying CERCLA cleanup costs. Specifically, PRPs seek to invoke their insurers' duties to defend and indemnify them (PRPs) under Comprehensive General Liability ("CGL") insurance policies.¹² Unfortunately, CERCLA cleanup costs typically arise from long-tail injuries that fit awkwardly into existing insurance models.¹³

Long-tail injuries are progressive—that is, they take place slowly, over an extended period of time. Because these long-tail injuries occur gradually, PRPs often claim coverage under multiple insurance policies issued over the course of many years. Frequently, insurers are reluctant to pay these atypical claims, and disclaim coverage. PRPs respond with coverage suits. The resulting litigation can be inordinately complex, involving scores of insurance policies covering numerous industrial sites for the better part of the century. A policyholder might have purchased intricate layers of insurance coverage within each policy period. As an added complexity, a policyholder will often have gaps in its insurance coverage. As a result, parties frequently spend more time and money litigating responsibility for cleanup costs than in actually cleaning up the sites.¹⁴

U. L. REV. 601, 613 (1993), *cited in* Northern States Power Co. v. Fidelity & Cas. Co. of N.Y., 523 N.W.2d 657, 660 (Minn. 1994). The EPA estimates that as many as 2,000 of the 30,000 to 50,000 waste disposal sites in this country pose a potential threat to public health or the environment. *See* Mealey's Litigation Reports - Superfund, Vol. 3, No. 17 (Dec. 12, 1990), at 16-18 [hereinafter *Mealey Superfund*].

12. The CGL policy is a standard policy form drafted by the ISO, an insurance industry trade organization. These policies have covered most commercial entities in the United States since the 1940s. In addition to drafting the form, the ISO appears before state regulatory agencies to secure approval of the forms on behalf of its members. Virtually every major American insurance company that issues general liability insurance uses or follows the basic ISO form policy. The insured typically has no input into drafting the terms of the CGL contract. In some cases, the insured does not even see the contract until after it has paid the premium. *See* Nancer Ballard & Peter M. Manus, *Clearing Muddy Waters: Anatomy of the Comprehensive General Liability Pollution Exclusion*, 75 CORNELL L. REV. 610 (1990).

13. Most insurance policies issued before the mid-1980s provided "occurrence" based coverage rather than "claims-made" coverage. As a result, the insurance policies were said to have a "long-tail" of coverage that applied to claims brought long after the occurrence that gave rise to the claim of liability. Occurrence-based coverage is described in detail in Part I of this article.

14. Protracted litigation over coverage for environmental losses can, and frequently does, delay site cleanups. *See* Stephen Mountainspring, Comment, *Insurance Coverage of CERCLA Response Costs: The Limits of Damages in Comprehensive General Liability Policies*, 16 ECOLOGY L.Q. 755, 758 (1988) (coverage disputes between insurers and policyholders delay CERCLA cleanups). According to a detailed study published by the RAND Corporation in 1991, up to 88% of the monies insurers paid out

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Fashioning a remedy under these circumstances involves reconciling otherwise unrelated insurance contracts. The CGL policies themselves provide no guidance on apportioning liability for a long-tail injury, nor does CERCLA address the question of insurance coverage. In the absence of clear statutory or contractual authority, common law must fill the gaps and chart the interplay between state insurance law and federal environmental law. Unfortunately, the few jurisdictions to confront the long-tail allocation question have responded fitfully and unsystematically. While nominally applying the same principles of insurance contract interpretation, they have reached disparate, if not downright contradictory, results.¹⁵ An almost uniform failure to articulate the reasoning driving a particular allocation remedy further amplifies the confusion, making it virtually impossible to project future outcomes. PRPs and insurers are left without predictable guidelines: facing enormous but uncertain liabilities.¹⁶

for environmental coverage in 1989 went solely to cover transaction costs. *See* JAN PAUL ACTON & LLOYD S. DIXON, SUPERFUND AND TRANSACTION COSTS 32 (1991) (analyzing 1989 expenditures). Of that sum, roughly 42% went toward coverage disputes with policyholders, 37% to defending policyholders in CERCLA actions, while the remaining 21% presumably paid for the cleanups. *See id.* This percentage of monies attributable to transaction costs is much higher than for CGL policies as a whole at that time. *See id.* Of course CERCLA's liability principles are more settled than they were in 1989. It is therefore likely that a larger percentage of monies currently paid to cover environmental claims is attributable to site cleanups. Moreover, it appears that RAND defined transaction costs as "the costs that do not go to the understanding or cleanup of particular sites. Instead, they are related to the apportionment of cost[s] among [third] parties and are essentially frictional in character." *Id.* at 6. However, some courts have found the Remedial Investigation/Feasibility Study (RI/FS), a necessary preliminary to any cleanup, to be a defense cost rather than a cleanup cost. *See, e.g.,* Aerojet-General Corp. v. Transp. Indem. Co., 948 P.2d 909 (Cal. 1997) (characterizing RI/FS as a defense cost). To the extent that insurers and PRPs who provided information to RAND may have classified RI/FS costs as transaction costs, the RAND report may present an overly pessimistic view of expenditures at Superfund sites.

15. All courts claim that their goal is to give effect to the mutual intentions of the parties to an insurance contract. To that end, courts typically first look to the terms of insurance contracts to resolve disputes. If the policy language is clear and explicit, it will govern the outcome of any dispute. Unfortunately, CGL policies do not have clear (or even vague) language explaining how to allocate losses suffered as a result of long-tail injuries. Therefore, courts look to canons of construction, notably the policyholder's reasonable expectations and *contra preferentem*.

16. A "rational defendant" should calculate a settlement figure by considering the "cost of an adverse trial judgment multiplied by the percentage chance of losing the case, plus trial costs, minus out-of-court settlement costs." Russell Kirobkin & Chris Guthrie, *Psychological Barriers to Litigation Settlement: An Experimental Approach*, 93 MICH. L. REV. 107, 111 (1994). Because allocation law is so uncertain in environmental insurance coverage cases, the cost of an adverse judgment is almost impossible to esti-

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This article examines several core questions in the allocation process. When is insurance triggered to cover a loss? How should responsibility for covering a loss be divvied up? Should the policyholder be assigned any share of the loss? If so, under what circumstances—any time there is a gap in coverage, or only when that gap is rooted in a decision to self-insure? These questions implicate fundamental assumptions of existing insurance jurisprudence, particularly assumptions about the nature of the contract between the parties. The answers will necessarily reflect policy choices about fairness and about the purpose of insurance.¹⁷

Using CERCLA liability as a vehicle, this article builds a theoretical framework to make sense of existing allocation approaches. I contend that the existing law can be resolved into two fundamentally different allocation models that all courts have implicitly employed: vertical and horizontal allocation.¹⁸

After constructing these theoretical models, this article then explores the fundamental goals of the allocation process

mate. Similarly, the likelihood of losing at trial is unquantifiable in the great majority of states that have not yet adopted an allocation scheme. *See generally* Samuel R. Gross & Kent D. Syverund, *Getting to No: A Study of Settlement Negotiations and the Selection of Cases for Trial*, 90 MICH. L. REV. 319 (1991) (identifying uncertainty as to scope of liability as a key circumstance that decrease the likelihood of settlement). The unsettled state of environmental insurance coverage creates an additional incentive toward fully litigating each and every claim by discouraging partial settlements. Policyholders cannot safely settle with some, but not all, of their insurers. Any policyholder who so settles risks that the court will ultimately allocate a greater percentage of the liability to the settled policies, thus creating an additional gap in coverage.

17. Too often, scholars approaching the question of allocation in the long-tail context have been interested parties. Writing from either the policyholder or insurer litigation camp, their articles jockey for strategic position with a clear eye to influencing the judiciary in existing or future litigation. *See, e.g.*, Jeffrey W. Stempel, *Domtar Baby: Misplaced Notions of Equitable Apportionment Create a Thicket of Potential Unfairness for Insurance Policyholders*, 25 WM. MITCHELL L. REV. 769 (1999) (taking a strongly pro-policyholder perspective, and identifying various scholarly articles as either pro-insurer or pro-policyholder). Such extreme partisanship only further muddies the already murky water. This article attempts to avoid this problem by taking what courts are actually doing as the departure point for analysis and by building a theoretical framework from the case law, rather than from a set of *a priori* assumptions.

18. For convenience, I have termed these two approaches horizontal and vertical allocation. Other writers have used the terms horizontal and vertical allocation to refer to different portions of the allocation process. *See, e.g.*, Gillespie, *infra* note 64; Thomas M. Jones, *An Introduction to Insurance Allocation Issues in Multiple Trigger Cases*, 10 VILL. ENVTL. L.J. 25, 31 (1999) (defining horizontal allocation to be exhaustion by layer of insurance coverage and vertical allocation to be exhaustion by year). My use of the terms differs in that I segregate the allocation process into a two-step analysis, and horizontal or vertical refers only to the first step of this two-step analysis.

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and identifies the shortcomings inherent in both allocation models as currently understood. Taking a holistic approach, this article seeks to reconcile, to the extent possible, the competing models advanced by interested parties and adopted by various jurisdictions. Finally, this article proposes a new allocation system that maximizes the identified goals of the allocation process, while minimizing any disadvantages. In doing so, this article provides a roadmap of the allocation process designed to be useful in future long-tail coverage disputes. Because claims of long-tail injuries are burgeoning, most notably in environmental and toxic tort cases, schemes to standardize results and to minimize litigation will be of ever-increasing importance.

To that end, Part I provides a foundational discussion of insurance issues as they relate to the long-tail allocation question. This section explains the various contractual provisions at issue in allocation lawsuits and provides a summary of coverage issues that courts wrestle with before reaching the allocation question.

Part II constructs a theoretical framework for what I claim are the two basic approaches to the allocation process. This section also provides an in-depth analysis of both horizontal and vertical allocation, identifying two sub-strands for each allocation method and closely examining the strengths and weaknesses of each approach. This section then argues that all courts implicitly engage in a two-step analysis to allocate long-tail liability. Under this two-step process, liability is first allocated along either the horizontal time axis or the vertical coverage axis. This allocation choice determines liability vis-à-vis the various insurers and the policyholder. Only after this fundamental allocation step are individual shares of the cleanup costs secondarily apportioned to the triggered insurance policies themselves.

Part III proposes a new method of secondary apportionment, one which best effectuates the stated goals of each allocation approach while minimizing the disadvantages. In particular, this section examines existing modes of secondary allocation and proposes coupling certain secondary apportionment methods with specific primary allocation methods.

Finally, Part IV explores the differing approaches the two allocation models take to allocating responsibility for any gaps in coverage, or "orphan shares." Orphan shares often represent

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a significant percentage of the liability at a site. This section examines the rationales that support assigning orphan shares to one party or another and identifies some serious policy concerns that have not yet been addressed by either horizontal or vertical allocation. This section then proposes several solutions in the form of additional analytical steps for the allocation process. If implemented, these proposed changes to the allocation process could alleviate some of the shortcomings identified in this section and in Part II.

I. HISTORY OF INSURANCE COVERAGE FOR ENVIRONMENTAL INJURIES

The advent of CGL insurance dates back over fifty years. During the 1940s, the Insurance Service Organization ("ISO") developed standard CGL policies for use by its member domestic property and casualty insurance companies.¹⁹ These comprehensive policies were trumpeted as meeting a business's entire insurance needs under the rubric of a single policy.²⁰ These new CGL policies covered all risks of liability for third-party bodily injury or property damage, unless specifically excluded.²¹ Such comprehensive coverage marked a clear break from past insurance marketing practices in which policyholders purchased separate coverage for each hazard, such as fire or theft.

For each covered hazard, CGL policies contained two essential promises. In exchange for payment of a premium, the insurer promised: (1) to defend the insured from suits alleging claims potentially covered under the policy, and (2) to indem-

19. The predecessor organizations to the ISO were the Insurance Rating Board ("IRB") and the Mutual Insurance Rating Bureau ("MIRB"). For convenience, I refer to the ISO and its predecessors collectively as the ISO. For an explanation of the central role ISO plays in drafting CGL forms and in providing support services necessary for writing CGL insurance, see *Hartford Fire Ins. Co. v. California*, 509 U.S. 764, 772 (1993).

20. Standardization was intended to increase industry efficiency and to eliminate confusion in policy interpretation. Standardization did not, however, resolve all interpretation disputes. See, e.g., Tung Yim, Comment, *Nailing Jello to the Wall: A Uniform Approach for Adjudicating Insurance Coverage Disputes in Products Liability Cases with Delayed Manifestation Injuries and Damages*, 83 CAL. L. REV. 1243 (1995).

21. A typical CGL policy begins with a "Declarations" page. The Declarations page lists the different coverages combined under the policy and identifies the portions of the premium attributable to each coverage. This portion of the policy also specifies any overall or per occurrence liability cap and any deductible. For a more detailed discussion of the various portions of the CGL policy, see Eugene R. Anderson, *Liability Insurance: A Primer for Corporate Counsel*, 49 BUS. LAW. 259, 266-69 (1993).

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nify the policyholder for liability to another arising from property damage or bodily injury caused by an occurrence. Policies were then individualized through endorsements that modified or supplemented the standard language.

A. Damages Caused by an Occurrence

Prior to 1966, CGL coverage was “accident-based” rather than “occurrence-based.” In 1966, the CGL form was revised to ground coverage on an “occurrence” during the policy period.²² As a result, between 1966 and 1986, most CGL policies provided that the insurer would pay “all sums which the [policyholder] shall become legally obligated to pay as damages because of bodily injury or property damage to which this [insurance] applies, caused by an occurrence.”²³ Occurrence was defined as “an accident, including injurious exposure to conditions, which results, during the policy period, in bodily injury or property damage neither expected nor intended from the standpoint of the insured.”²⁴

Because “occurrence” was generally believed to have a broader scope than “accident,” this change in language was intended to reflect the broad nature of risks insured by the new policies.²⁵ Specifically, many courts narrowly interpreted the

22. Most insurers do not have the resources to offer insurance coverage on terms other than those detailed in CGL forms. *Hartford Fire Ins. Co.* provides an explanation of the central role CGL forms play in insurance underwriting:

ISO develops standard policy forms and files or lodges them with each State's insurance regulators; most CGL insurance written in the United States is written on these forms For each of its standard policy forms, ISO also supplies actuarial and rating information: it collects, aggregates, interprets, and distributes data on the premiums charged, claims filed and paid, and defense costs expended with respect to each form and on the basis of these data it predicts future loss trends and calculates advisory premium rates. Most ISO members cannot afford to continue to use [an ISO] form if ISO withdraws these support services.

Hartford Fire Ins. Co., 509 U.S. at 772 (citations omitted).

23. John J. Tarpey, *The New Comprehensive Policy: Some of the Changes*, 33 INS. COUNS. J. 223, 234 (1966) (reproducing, as an addendum, a copy of the new general comprehensive liability policy).

24. *Id.* at 230-31.

25. This 1966 CGL form revision explicitly recognized that CGL policies provided coverage for all accidents as long as the insured did not expect or intend to cause damage. This language was a response to a number of decisions which had concluded that “accidental” should be construed from the perspective of the injured party. *See id.* at 223. This revision also explicitly extended coverage to a continuous condition which would cause injury. *See, e.g.*, WILLIAM H. RODDA, PROPERTY AND LIABILITY INSURANCE 384-85 (1966.) The new language clarified that to be covered, property damage must be “neither expected nor intended” from the standpoint of the insured. The notion that

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term “accident” to mean that the policies only covered those injuries that happened accidentally.²⁶ “Occurrence,” on the other hand, simply meant something that had happened. Thus, adoption of the term “occurrence,” although plainly covering accidents as well, sent a message that the policies covered any negligent act as long as the resulting injury was “neither expected nor intended.”²⁷

1. Damages

CGL policies predicated coverage on “damages caused by an occurrence.” The term “property damage,” as used in these policies, included physical “injury to or destruction of tangible property,”²⁸ including “the loss of use thereof at any time resulting therefrom or loss of use of tangible property which has not been physically injured or destroyed, provided such loss of use is caused by an occurrence during the policy period.”²⁹ As a preliminary matter, courts have typically found contamination of the environment to fall within the ambit of the property damage clause.³⁰ Similarly, most courts conclude that any non-

public policy prevents indemnity for intentional losses is central to insurance law. *See generally* ROBERT E. KEETON & ALAN I. WIDISS, *INSURANCE LAW: A GUIDE TO FUNDAMENTAL PRINCIPLES, LEGAL DOCTRINES, AND COMMERCIAL PRACTICES* §5.3(a) (1988). In interpreting these policies in the environmental context, however, many courts have distinguished between an intentional act and an intentional result. Unless the policyholder expected or intended the environmental harm, courts typically find coverage under CGL policies.

26. *See* Sam P. Rynearson, *Exclusion of Expected or Intended Personal Injury or Property Damages Under the Occurrence Definition of the Standard Comprehensive General Liability Policy* 4-7, reproduced in AMERICAN BAR ASSOCIATION, *THE COMPREHENSIVE GENERAL LIABILITY POLICY: A CRITIQUE OF SELECTED PROVISIONS* (Arthur J. Liederman ed., 1985).

27. Many contemporaneous articles written by important ISO figures reflected this understanding of the reasons behind the change in wording. For accounts of the drafters, see Norman Nachman, *The New Policy Provisions for General Liability Insurance*, 18 *THE ANNALS* 197 (Fall 1965). *See also* Richard Elliot, *The New Comprehensive General Liability Policy*, *INS. ADVOC.* (Oct. 23, 1965); Tarpey, *supra* note 23, at 224 (explaining the 1966 CGL policy drafters’ intentions).

28. Tarpey, *supra* note 23, at 231.

29. *Id.*

30. The vast majority of state courts that have addressed the issue construe the term “damages” to include CERCLA response costs. *See* *Farmland Indus. Inc. v. Republic Ins. Co.*, 941 S.W.2d 505 (Mo. 1997) (en banc); *AIU Ins. Co. v. Superior Court*, 799 P.2d 1253 (Cal. 1990); *Hazen Paper Co. v. United States Fidelity & Guar. Co.*, 555 N.E.2d 576 (Mass. 1990); *Minnesota Mining & Mfg. Co. v. Travelers Indem. Co.*, 457 N.W.2d 175 (Minn. 1990); *C.D. Spangler Constr. Co. v. Industrial Crankshaft & Eng’g Co.*, 388 S.E.2d 557 (N.C. 1990); *Boeing Co. v. Aetna Cas. & Sur. Co.*, 784 P.2d 507 (Wash. 1990). *But see* *Patrons Oxford Mut. Ins. Co. v. Marois*, 573 A.2d 16 (Me. 1990).

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ies a PRP pays to comply with government orders under CERCLA constitute property damages covered under CGL policies.³¹ This holds true even when the government orders cleanup of the PRP's own property.³²

In 1973, the CGL form was amended to add a "sudden and accidental" pollution exclusion clause.³³ This pollution exclusion provided, in relevant part:

For an excellent discussion of the drafting history of this CGL policy provision, see Jordan S. Stanzler & Charles A. Yuen, *Coverage for Environmental Cleanup Costs: History of the Word "Damages" in the Standard Form Comprehensive General Liability Policy*, 1990 COLUM. BUS. L. REV. 449 (1990).

31. See, e.g., *Bituminous Cas. Corp. v. Vacuum Tanks, Inc.*, 75 F.3d 1048, 1053 (5th Cir. 1996) (Texas law); *Anderson Dev. Co. v. Travelers Indem. Co.*, 49 F.3d 1128, 1133 (6th Cir. 1995) (Michigan law); *Independent Petrochem. Corp. v. Aetna Cas. & Sur. Co.*, 944 F.2d 940, 946-47 (D.C. Cir. 1991) (Missouri law); *Aetna Cas. & Sur. Co. v. Pintlar Corp.*, 948 F.2d 1507, 1511-15 (9th Cir. 1991) (Idaho law); *New Castle County v. Hartford Accident & Indem. Co.*, 933 F.2d 1162, 1188 (3d Cir. 1991) (Delaware law); *Gerrish Corp. v. Universal Underwriters Ins. Co.*, 947 F.2d 1023, 1029-30 (2d Cir. 1991) (Vermont law); *Hays v. Mobil Oil Corp.*, 930 F.2d 96, 100-02 (1st Cir. 1991) (Massachusetts law); *Avondale Indus. Inc. v. Travelers Indem. Co.*, 887 F.2d 1200, 1207 (2d Cir. 1989) (New York law); *Port of Portland v. Water Quality Ins. Syndicate*, 796 F.2d 1188, 1194 (9th Cir. 1986) (Oregon law). See also David W. Miller, *Whether Governmentally Compelled Cleanup Costs Constitute "Damages" Under CGL Policies: The Nationwide Environmental Liability Dilemma and a California Model for Its Resolution*, 16 COLUM. J. ENVTL. L. 73 (1991). Indeed, if a policyholder could not cooperate with the EPA under a PRP letter without jeopardizing its insurance coverage, policyholders would have a significant disincentive to cooperate. Such a rule would strike at the heart of voluntary cleanups, forcing the EPA to resort to the Superfund at each and every site and to sue each PRP in a cost recovery action. The loss of efficiency would be devastating to the cleanup process—no model of efficiency to begin with.

32. CGL policies typically contain an owned-property exclusion and cover only damage to a third party's property. Despite this clear exclusion in the CGL policy language, an insurer can still be liable for measures taken on the policyholder's own property if those measures are designed and intended to prevent, or to mitigate injury to the groundwater, which is typically owned by the state. See *Reliance Ins. v. Armstrong World Indus. Inc.*, 678 A.2d 1152 (N.J. Super. Ct. App. Div. 1996); *AIU Ins. Co. v. Superior Court*, 799 P.2d 1253 (Cal. 1990). But see *Bausch & Lomb v. Utica Mut. Ins. Co.*, 625 A.2d 1021 (Md. 1993) (holding that Maryland's broad regulatory power over groundwater did not constitute a property interest within the contemplation of the insurance policy in dispute). In addition, many courts have held that the owned-property exclusion does not preclude coverage for costs incurred to clean up contaminants on the policyholder's own property if those costs are incurred in order to remedy or to prevent further damage to third-party property. See, e.g., *Allstate Ins. Co. v. Quinn Constr. Co.*, 713 F. Supp. 35, 41 (D. Mass. 1989) (applying Massachusetts law), *vacated*, 784 F. Supp. 927 (D. Mass. 1990); *Intel Corp. v. Hartford Accident & Indem. Co.*, 692 F. Supp. 1171, 1185 (N.D. Cal. 1988) (applying California law).

33. This amendment was a joint project between the ISO's two predecessor organizations, the IRB and the MIRB. See Ballard & Manus, *supra* note 12, at 625. In addition to drafting the exclusion, these organizations obtained regulatory approval to amend the standard CGL form on behalf of their members.

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[This] insurance does not apply to bodily injury or property damage arising out of the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants or pollutants into or upon land, the atmosphere or any watercourse or body of water; but this exclusion does not apply if such discharge, dispersal, release or escape is sudden and accidental.³⁴

When proposing this new language to state insurance commissioners, ISO representatives, speaking on behalf of the insurance industry, portrayed it as a mere “clarification” of the fact that existing CGL policies did not include intentional acts of pollution by the policyholder.³⁵ ISO representatives also explicitly stated that the “sudden and accidental” clause did not narrow or limit coverage and that coverage would continue to be provided for unintended pollution.³⁶ From 1970 through 1986, virtually every CGL policy issued in the United States

34. Robert S. Soderstrom, *The Role of Insurance in Environmental Litigation*, 11 FORUM 762, 766 (1976). This language was introduced as a mandatory endorsement in 1970 and was incorporated into the standard CGL policy as exclusion (f) in 1973. In this version of the CGL policy, the definition of “occurrence” was modified to be “an accident, including continuous or repeated exposure to conditions which results, during the policy period, in bodily injury or property damage neither expected nor intended from the standpoint of the insured.” *Id.* at 764. See also Stephen Smirti, Jr. & James Stewart, *Recent Developments in Insurance Law*, in 622 PRACTISING LAW INSTITUTE COMMERCIAL LAW AND PRACTICE COURSE HANDBOOK SERIES 51, 55 (1992).

35. Insurance is not available for intentional acts. One hotly contested issue in most environmental insurance cases is whether the contamination that forms the basis of the coverage claim was “expected or intended” and is thus excluded as an intentional act. Because CERCLA imposes retroactive strict liability for pollution that resulted from acts that were entirely legal and were part of a PRP’s ordinary course of business, “intentionality” becomes a complex question. As a result, many courts have refined the “intentional act” exclusion in the environmental context. Rather than merely asking whether the act of disposal was intentional, these courts find the exclusion applicable only if the resulting pollution was the expected and intended result of the intentional acts. For an in-depth description of the ISO representations that the “sudden and accidental” exclusion merely clarified the “intentional act” exclusion, see Carl A. Salisbury, *Pollution Liability Insurance Coverage, The Standard-Form Pollution Exclusion and the Insurance Industry: A Case Study in Collective Amnesia*, 21 ENVTL. L. 357 (1991) (describing the insurance industry representations throughout the drafting and approval process). See also Ballard & Manus, *supra* note 12, at 624-27; *United States v. Northeastern Pharm. & Chem. Co.*, 810 F.2d 726, 734 (8th Cir. 1987).

36. See G. Plews & J. Clafin, *The Drafting and Regulatory History of the Standard Pollution Exclusion*, in 691 PRACTISING LAW INSTITUTE COMMERCIAL LAW AND PRACTICE COURSE HANDBOOK SERIES 9 (1994) (citing statements of the ISO representatives); George Pendency et al., *Who Pays for Environmental Damage: Recent Developments in CERCLA Liability and Insurance Coverage Litigation*, 21 IND. L. REV. 117, 141 (1988).

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included this “sudden and accidental” pollution exclusion.

The meaning of the “sudden and accidental” pollution exclusion was widely litigated in the late 1970s and the 1980s as policyholders sought coverage for environmental liability claims. In response to this litigation, and particularly in light of significant insurer losses on this point, in 1986, standard CGL policies began including an “absolute” pollution exclusion. This new policy language provided that “[t]his insurance does not apply to ‘bodily injury’ or ‘property damage’ arising out of the actual, alleged or threatened discharge, dispersal, seepage, migration, release or escape of pollutants”³⁷ In this “absolute” pollution exclusion, pollutants are broadly defined as “any solid, liquid, gaseous or thermal irritant or contaminant, including smoke, vapor, soot, fumes, acids, alkalis, chemicals and waste. Waste includes materials to be recycled, reconditioned or reclaimed.”³⁸

While courts have typically interpreted the “absolute” pollution exclusion to preclude coverage for environmental claims,³⁹ interpretations of the “sudden and accidental” exclusion have been mixed. Many courts have found that the insurers’ earlier representations about the nature of the 1973 changes estop them from now arguing that this clause excludes coverage for

37. Michelle I. Schaffer, *The Evolution of the Pollution Exclusion: From “Sudden and Accidental” to Absolute and Unambiguous*, in REFERENCE HANDBOOK ON THE COMPREHENSIVE GENERAL LIABILITY POLICY: COVERAGE PROVISIONS, EXCLUSIONS, AND OTHER LITIGATION ISSUES 209, 225 (Peter J. Neeson ed., 1995). After ISO obtained regulatory approval of the 1986 form, including this absolute pollution exclusion, it eliminated its support services for the 1973 CGL form thus rendering it impossible for most ISO members to continue to use the format. This change in language was the subject of a successful antitrust suit. *See Hartford Fire Ins. Co. v. California*, 509 U.S. 764, 775 (1993). For a thorough discussion of the evolution of CGL language, see Melody A. Hamel, Comment, *The 1970 Pollution Exclusion in Comprehensive General Liability Policies: Reasons for Interpretation in Favor of Coverage in 1996 and Beyond*, 34 DUQ. L. REV. 1083 (1996).

38. Schaffer, *supra* note 37, at 226. *See also* Jeffrey W. Stempel, *Reason and Pollution: Correctly Construing the “Absolute” Exclusion in Context and in Accord with its Purposes and Party Expectations*, 34 TORT AND INS. L.J. 1 (1998).

39. *See, e.g.*, *Heyman Assocs. No. 1 v. Insurance Co. of Pa.*, 653 A.2d 122 (Conn. 1995); *Deni Assocs. v. State Farm Fire & Cas. Ins. Co.*, 711 So. 2d 1135 (Fla. 1998); *Economy Preferred Ins. Co. v. Grandadam*, 656 N.E.2d 787, 789 (Ill. App. Ct. 1995) (listing cases); *McGuirk Sand & Gravel, Inc. v. Meridian Mut. Ins. Co.*, 559 N.W.2d 93, 97 (Mich. Ct. App. 1996); *Tri County Serv. Co. v. Nationwide Mut. Ins. Co.*, 873 S.W.2d 719, 721 (Tex. Ct. App. 1993). *But see* *Western Alliance Ins. Co. v. Gill*, 686 N.E.2d 997 (Mass. 1997) (concluding that the so-called absolute pollution exclusion did not bar claims for carbon monoxide poisoning from defective installation and maintenance of equipment); *American States Ins. Co. v. Koloms*, 687 N.E.2d 72 (Ill. 1997) (same).

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all long-tail environmental claims.⁴⁰

2. Caused by an occurrence

Under their express terms, CGL policies are occurrence-based, providing coverage for damages that “occurred” during a policy period. In non-long-tail insurance cases, the parties typically can point to a specific event as the focal point to any coverage determination. Long-tail injuries, because they take place slowly, over an extended period of time, do not fit neatly into this occurrence-based framework.

Gradual pollution might continue undetected for five, ten, or thirty years. At the time of cleanup, years, or even decades of slow, constant contamination may have produced one environmental injury that “occurred” over a spectrum of insurance policy periods. Under these circumstances, each policy covers only a portion of the injury timeline. It is frequently impossible to pinpoint a share of a long-tail injury that “occurred” during any given policy period. If such proof were required, a policyholder that purchased insurance coverage for every year during which a long-tail injury took place might still find itself unable to recover. Because the CGL language plainly provides coverage for gradual and progressive injuries,⁴¹ most courts have re-

40. See *Alabama Plating Co. v. United States Fidelity Guar.*, 690 So. 2d 331, 334-35 (Ala. 1996) (per curiam) (relying on the industry’s representations about the meaning of the “sudden and accidental” clause to determine scope of coverage); *Morton Int’l Inc. v. General Accident Ins. Co.*, 629 A.2d 831, 872 (N.J. 1993) (same); *Joy Techs., Inc. v. Liberty Mut. Ins. Co.*, 421 S.E.2d 493, 497-500 (W. Va. 1992) (finding that it would violate public policy to permit insurers to advance a restrictive interpretation of the “sudden and accidental” pollution exclusion in light of the industry’s earlier contrary representations to insurance regulators); *Hecla Mining Co. v. New Hampshire Ins. Co.*, 811 P.2d 1083 (Colo. 1991) (en banc); *Just v. Land Reclamation, Ltd.*, 456 N.W.2d 570 (Wis. 1990) (same); *New Castle County v. Hartford Accident & Indem. Co.*, 933 F.2d 1162 (3d Cir. 1991) (applying Delaware law); *Claussen v. Aetna Cas. & Sur. Co.*, 380 S.E.2d 686, 688 (Ga. 1989). But see *Independent Petrochem. Corp. v. Aetna Cas. & Sur. Co.*, 654 F. Supp. 1334 (D.D.C. 1986).

41. In *Uniroyal Inc. v. Home Insurance Co.*, for example, Judge Weinstein observed: “The insurance industry developed this newer ‘occurrence’ definition in order to provide clearly for coverage of gradual, continuous, and prolonged events that might have been excluded by the instantaneous connotation of ‘accident.’ ” 707 F. Supp. 1368, 1381 (E.D.N.Y. 1988). Richard Elliot, the former Secretary of the National Bureau of Casualty Underwriters wrote in 1968 about the scope of “occurrence” coverage: “Although it is most common that the injury takes place simultaneously with the exposure, there are many instances of injuries taking place over an extensive period of time before they become evident. For example, slow ingestion of foreign substances or inhalation of noxious fumes.” Richard Elliot, *The New Comprehensive General Liability Policy*, LIAB. INS. DISP. LIT. SER., PLI 12-3, 12-5 (1968), cited in THE COMPREHENSIVE

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fused to permit insurers to escape liability on this burden of proof ground. Instead, in asbestosis cases, for example, courts have typically required that the plaintiff produce evidence of the etiology of the disease to demonstrate that bodily injury likely occurred during the policy period.⁴² Similarly, in environmental contamination cases, there must be evidence of the means and timing of the escape of contaminants and of the resulting damage.⁴³

While CGL policies limit coverage to their policy period, the policies do not require that covered damage occur entirely within that policy period. Nor must the damage commence or terminate during the policy period.⁴⁴ Rather, CGL policies require only that some damage occur during the policy period. Therefore, CGL policies act like the more familiar automobile insurance policy under which a policy in effect at the time of an accident covers injuries from the accident, as well as any subsequent claims arising from those injuries, even if the injuries later intensify or change in nature.⁴⁵ The accident or event, for purposes of insurance coverage is deemed to have "occurred" when the injury was first sustained. Unfortunately, CGL policies leave unanswered the crucial question for long-tail injuries: when does a continuous condition become an "occurrence"

GENERAL LIABILITY POLICY—A CRITIQUE OF SELECTED PROVISIONS 26 (1985).

42. See *Owens-Illinois, Inc. v. United Ins. Co.*, 650 A.2d 974, 983-85 (N.J. 1994) (describing etiology of asbestos-related disease); *J.H. France Refractories Co. v. Allstate Ins. Co.*, 626 A.2d 502, 505-07 (Pa. 1993) (same).

43. *Koppers Co. v. Aetna Cas. & Sur. Co.*, 98 F.3d 1440, 1445-46 (3d Cir. 1996) (describing evidence that sufficed as proof of environmental injury within the policy period).

44. Norman Nachman, manager of the Casualty Insurance and Multiple Line Insurance Division of the National Bureau of Casualty Underwriters explained treatment of long-tail cases as follows:

The definition [of occurrence] embraces an injurious exposure to conditions which results in injury. Thus, it is no longer necessary that the event causing the injury be sudden in character. In most cases, the injury will be simultaneous with the exposure. However, in some other cases, injuries will take place over a long period of time before they become manifest. The slow ingestion of foreign matters and inhalation of noxious fumes are examples of injuries of this kind. The definition serves to identify the time of loss for application of coverage in these cases, viz., the injury must take place during the policy period. This means that in exposure-type cases, cases involving cumulative injuries, more than one policy contract may come into play in determining coverage and its extent under each policy.

Nachman, *supra* note 27, at 199-200.

45. This rule is typically called the process of nature rule. See, e.g., GEORGE J. COUCH, *CYCLOPEDIA OF INS. LAW*, § 62 (1929); *National Life & Accident Ins. Co. v. Edwards*, 174 Cal. Rptr. 31, 34 (Ct. App. 1981) (citing cases).

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for the purposes of insurance coverage?

B. Trigger of Coverage

Because CGL policies provide no guidance on this point, it was left to evolving principles of common law to determine the type of environmental activities that would constitute an occurrence triggering coverage under a CGL policy.⁴⁶ Starting in the asbestos context, courts began defining different notions of a trigger of coverage, based on the facts of the case before them. Ultimately these courts articulated four basic triggers: (1) exposure,⁴⁷ (2) manifestation,⁴⁸ (3) injury in fact,⁴⁹ and (4) continuous trigger.⁵⁰ The first three triggers attempt to define a

46. The term "trigger" does not appear in the CGL policy; it is wholly a creation of the courts. *See, e.g.,* *Montrose Chem. Corp. v. Admiral Ins. Co.*, 913 P.2d 878, 880 n.2 (Cal. 1995) (en banc) ("The word 'trigger' is not found in the CGL policies themselves, nor does the Insurance Code enumerate or define 'trigger of coverage.' Instead, 'trigger of coverage' is a term of convenience used to describe that which, under the specific terms of an insurance policy, must happen in the policy period in order for the *potential* of coverage to arise. The issue is largely one of timing—what must take place *within the policy's effective dates* for the potential of coverage to be 'triggered?").

47. The exposure trigger defines an occurrence at the earliest possible time—when the exposure to the injurious condition occurs. Because a progressive injury may result from a condition that recurs over time, the exposure trigger may result in multiple insurers being liable for the loss.

48. The manifestation trigger is the narrowest determination of insurer liability. Under this theory, liability is limited to the policy or policies in force when the injury manifested itself in an ascertainable form. *See* *Insurance Co. of North America v. Forty-Eight Insulations, Inc.*, 633 F.2d 1212, 1214 (6th Cir. 1980) (describing manifestation theory), *reh'g granted, in part, clarified*, 657 F.2d 814 (6th Cir. 1981). But, *Forty-Eight Insulations* purported to apply both New Jersey and Illinois law. Both states have subsequently rejected the manifestation trigger theory. *See* *Owens-Illinois, Inc. v. United Ins. Co.*, 650 A.2d 974 (N.J. 1994) (adopting a continuous trigger for New Jersey); *Zurich Ins. Co. v. Raymark Indus., Inc.*, 514 N.E.2d 150, 165 (Ill. 1987) (adopting a continuous trigger for Illinois). Because this theory assumes a timelag between exposure and manifestation, it has rarely been employed in the long-tail environmental context. *But see* *Independent Petrochem. Corp. v. Aetna Cas. & Sur. Co.*, 654 F. Supp. 1334 (D.D.C. 1986) (only insurer whose policy was in effect when release of contaminant resulted in diagnosable and compensable injury has triggered duty to indemnify policyholder); *Unigard Mut. Ins. Co. v. McCarty's, Inc.*, No. 83-1441, 1989 U.S. Dist. LEXIS 17566 (D. Idaho Aug. 4, 1989).

49. The injury-in-fact trigger requires a finding of actual injury. This trigger, which developed in the context of asbestos litigation, is triggered by a real but undiscovered injury proven in retrospect to have existed at the relevant time period. A few courts have adopted an injury-in-fact trigger in the environmental context. *See* *Triangle Publications, Inc. v. Liberty Mut. Ins. Co.* 703 F. Supp. 367, 370 (E.D. Pa. 1989) (plain language of the CGL contract supports an injury-in-fact construction); *Cortland Pump & Equip., Inc. v. Firemen's Ins. Co.*, 604 N.Y.S.2d 633, 636 (App. Div. 1993); *Sentinel Ins. Co. v. First Ins. Co. of Haw.*, 875 P.2d 894, 917 (Haw. 1994).

50. First articulated in the context of asbestos and drug exposure cases, the con-

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particular stage of the long-tail injury process as “the occurrence.” The fourth trigger abandons that particular task as hopeless and instead identifies the entire process as an occurrence that happened continually throughout the relevant time period.

As defined in the 1966 and 1973 CGL policies, an occurrence clearly could be a continuous process. Defining the trigger for long-tail coverage as a particular snapshot of time within that continuous process, such as exposure to the harmful condition or the ultimate manifestation of injury, therefore seems incongruous. A more logical reading of “occurrence” in the context of the promised continuous process coverage would trigger every policy in effect from the first exposure through manifestation of a long-tail injury. For that reason, a continuous trigger is probably closer to what the parties intended at the time the CGL policies were issued.⁵¹

A growing majority of courts facing insurance coverage questions for long-tail environmental injuries have adopted a “continuous trigger” of liability.⁵² With a continuous trigger, a

tinuous trigger, also called “triple trigger” or “multiple trigger,” affords the broadest coverage because it deems liable all policies that covered the policyholder from the initial exposure to the ultimate discovery of the injury. *See* Keene Corp. v. Insurance Co. of North America, 667 F.2d 1034 (D.C. Cir. 1981) (asbestos); Pacific Indem. Co. v. Bunker Hill Co., Nos. 79-2010, 82-3082, 1984 U.S. Dist. LEXIS 15240 (D. Idaho July 3, 1984); Montrose Chem. Corp. v. Admiral Ins. Co. (“Montrose II”), 913 P.2d 878 (Cal. 1995). The rationale behind the continuous trigger is that injury may have occurred at any point, or at any number of points, during the coverage periods.

A number of courts have noted that there is no contradiction between an injury-in-fact trigger and a continuous trigger. *See* United States Gypsum Co. v. Admiral Ins. Co., 643 N.E.2d 1226, 1253-54 (Ill. App. Ct. 1994); *Sentinel*, 875 P.2d at 917. Instead, the two notions are complementary.

51. ISO explanatory materials buttress such an interpretation:

[P]resently the standard general liability policies provide coverage for injury which occurs during the policy period, regardless of when the exposure to harmful condition takes place, or when [the] injury become [sic] known or manifest. Under this concept, if an injury results from the cumulative exposures over a period of time, it will be covered by all policies providing coverage during the period of exposure.

Minutes of the General Liability Rules and Forms Committee Meeting of March 28, 1978 at 14, *quoted in* Marcy Louise Kahn, *Looking for “Bodily Injury”: What Triggers Coverage Under a Standard Comprehensive Liability Insurance Policy?*, 532 THE FORUM 30 n.39 and accompanying text (1984).

52. *See* United Techs. Co. v. American Home Assurance Co., 989 F. Supp. 128 (D. Conn. 1997) (applying Connecticut law); Koppers Co. v. Aetna Cas. & Sur. Co., 98 F.3d 1440 (3d Cir. 1996) (applying Pennsylvania law); Chemical Leaman Tank Lines, Inc. v. Aetna Cas. & Sur. Co., 817 F. Supp. 1136 (D.N.J. 1993) (applying New Jersey law); Outboard Marine Corp. v. Liberty Mut. Ins. Co., 670 N.E.2d 740 (Ill. App. Ct. 1996); United States Gypsum Co. v. Admiral Ins. Co., 643 N.E.2d 1226 (Ill. App. Ct. 1994);

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long-tail injury is deemed to have “occurred” at each and every point of time at which there was contributing contamination. Essentially, the courts create a rebuttable presumption that one injury or occurrence happened every year from the date the gradual injury began to the date of the claim. As a result, every insurance policy in effect during the course of the environmental injury is potentially liable on the claim. A continuous trigger has the effect of maximizing coverage because property damage that is continuous throughout successive policy periods will implicate all policies in effect during those periods.

II. ALLOCATION METHODS

From the earliest asbestos cases, there has been an almost uniform failure to articulate legal theories that justify allocative strategies in the long-tail context. This paper argues that despite the apparent incoherence of the case law, these allocative strategies can all be resolved into one of two theoretical frameworks. The core difference between the two approaches grows from one fundamental choice: the initial decision to treat long-tail injuries as *sui generis* or to fit long-tail injuries into existing insurance frameworks.

Courts either ground the allocation squarely within the horizontal long-tail timeline from the beginning,⁵³ or ignore the horizontal timeline and treat the long-tail injury as though it occurred entirely within one insurance period.⁵⁴ Imagine a grid with years of an injury on the horizontal axis and dollar amounts of insurance coverage on the vertical axis. In horizontal allocation, liability is assigned along a horizontal time axis to all policy periods on the risk over time; in vertical allocation, liability is assigned along a vertical coverage axis to all insurers within a selected policy period.

In an ideal world, all jurisdictions would adopt a single model of allocation. Unfortunately, federalism complicates the situation because insurance law is within the province of state governance. In the absence of federal legislation to standardize long-tail insurance coverage (an extremely remote possibility), the states are free to devise their own allocation schemes as a

Hatco Corp. v. W.R. Grace & Co., 801 F. Supp. 1334, 1345-48 (D.N.J. 1992); Montrose Chem. Corp. v. Admiral Ins. Co., 913 P.2d 878, 880 (Cal. 1995).

53. See *Forty-Eight Insulations*, 633 F.2d at 1214-15.

54. See *Keene*, 667 F.2d at 1034.

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matter of state common law. To date, most states have not definitively ruled on which allocation approach to take. Of the several state supreme courts that have resolved this allocation question, roughly half have employed horizontal allocation and half vertical allocation. The choice between the two methods is not trivial; the two allocation schemes result in vastly different liability implications for the parties involved. This section identifies the fundamentals of the two allocation approaches and explores the strengths and weaknesses of both approaches.

A. Horizontal Allocation

Horizontal allocation starts from the premise that long-tail injuries are *sui generis*. This approach emphasizes that part of a long-tail injury will occur outside any particular policy period. Rather than requiring any one policy to cover the entire long-tail loss, horizontal allocation instead attempts to produce equity across time. Thus, each policy period would be liable only for a share of the loss. To reach that conclusion, horizontal allocation reduces the policyholder's entitlement to indemnification from its insurers to merely one aspect of a broader allocation of liability among multiple insurers. The court's first determination is not indemnification of the policyholder by the insurer but, instead, involves assigning each year its share of the entire long-tail liability.⁵⁵ These shares of liability are assigned, moreover, without regard for the amount of insurance for any given year. The policyholder is allocated the burden for any gaps in coverage, or "orphan shares."⁵⁶ In short, horizontal allocation finds the policyholder to be self-insured for any years it did not have any, or enough, insurance.

I have defined two sub-forms of horizontal allocation—straight and weighted. Straight-horizontal allocation assigns

55. This assignment is referred to as "time-on-the-risk" allocation. It assumes, as a first step, that it would be impossible to allocate damages for any given year with any degree of certainty. Of course the same starting point leads some vertical allocation jurisdictions to impose joint and several liability on all triggered policies. *See Koppers Co. v. Aetna Cas. & Sur. Co.*, 98 F.3d 1440, 1451 (3d Cir. 1996) ("[G]iven that 'because each [policy] has been triggered to provide coverage against liability for a single indivisible injury, there is no basis for apportioning responsibility among them.' ") (citation omitted).

56. *See Forty-Eight Insulations*, 633 F.2d at 1214-15; *Owens-Illinois, Inc. v. United Ins. Co.*, 650 A.2d 974, 987 (N.J. 1994); *Domtar, Inc. v. Niagara Fire Ins. Co.*, 552 N.W.2d 738, 742 (Minn. Ct. App. 1996) *aff'd in part, rev'd in part*, 563 N.W.2d 724, 732 (Minn. 1997).

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shares of liability on a pro rata basis to all triggered insurance policies. Weighted-horizontal allocation, as its name suggests, attempts to weight the allocated shares to reflect changing perceptions of risk over time.

1. Straight-horizontal allocation

Straight-horizontal allocation employs a straightforward calculation to assign shares of long-tail insurance liability.⁵⁷ These courts simply add up the number of years over which a continuous injury occurred and then assign each year an equal share of the loss. To assign liability to each policy period, a court calculates a fraction—with the number of years during which the injury occurred as the denominator and the number of years of coverage provided by an insurance policy period as the numerator.⁵⁸ Based on this fraction, each policy period would then be assigned its fractional share of the total liability. The policyholder would be included in the allocation scheme for any orphan shares.⁵⁹

For example, assume a long-tail environmental injury occurred continuously over eighteen years. During the first six years, the PRP had no liability insurance. For each of the middle six years, the PRP had purchased five-million dollars of coverage. In the final six years, the PRP was again uninsured. Under a straight-horizontal allocation, which would allocate the risk evenly over each of the eighteen years, the policies purchased during the middle six years would each cover one-

57. See *Forty-Eight Insulations*, 633 F.2d at 1214-15. In this case, an asbestos manufacturer sued five insurers for indemnification for its asbestosis liability. The manufacturer had produced asbestos-containing products for the 47 years between 1923 and 1970. From 1955 through the date of the lawsuit, the manufacturer had been continuously insured, albeit by different insurers. The manufacturer had also claimed that it had insurance prior to 1955. Noting that any such policies had been lost or destroyed, the Sixth Circuit found that the manufacturer failed to prove coverage before that date and was self-insured. See *id.* at 1215. Thus, the manufacturer had insurance coverage for roughly half its exposure period. See *id.* at 1214. This case is unique among long-tail insurance allocation cases because the issue of liability allocation was not before the court. The insured conceded that it had to bear a share of liability for the 22 years in which it had no insurance and only contended that it ought not be allocated a share of defense costs.

58. See *id.*; see also *Stonewall Ins. Co. v. Asbestos Claims Mgmt. Corp.*, 73 F.3d 1178, 1202-03 (2d Cir. 1995) (detailing the calculation method), *modified on denial of reh'g*, 85 F.3d 51 (2d Cir. 1996); *Public Service Co. v. Wallis & Co.*, No. 97SC792, 1999 WL 711848, at *17 (Colo. Sept. 13, 1999).

59. See *Forty-Eight Insulations*, 633 F.2d at 1214-15; see also *Outboard Marine Corp. v. Liberty Mut. Ins. Co.*, 670 N.E.2d 740 (Ill. App. Ct. 1996).

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eighteenth of the loss, and would collectively pay one-third of the total liability. The remaining two-thirds of liability would be allocated to the insured.

In making this distribution, straight-horizontal allocation assigns a dual purpose to the phrase "during the policy period" in the CGL policy's definition of "occurrence."⁶⁰ The phrase serves both as a trigger of coverage and as a limitation on the promised "all sums" coverage.⁶¹ Straight-horizontal allocation thus interprets the phrase to mean that any insurer contracts to pay only those costs that arise during its policy period, and not costs incurred outside the covered policy period, regardless of whether those costs contributed to, or arose from, damage within the covered policy period.

Simplicity is straight-horizontal allocation's greatest strength.⁶² But simplicity comes at the price of ignoring real world complexities. For example, over time the foreseeability of risk differs dramatically. Indeed, in response to an increased perception of risk that roughly tracked the development of strict tort liability for consumer goods, many policyholders began purchasing greater amounts of insurance coverage. Straight-horizontal allocation does not, and indeed cannot, account for the increased perceptions of risk over time that rising insurance limits reflect. Given horizontal allocation's focus on the degree of risk that the policyholder elected to transfer, and that the insurer intended to cover, this flaw is particularly troubling.

60. See Tarpey, *supra* note 23, for definition of "occurrence."

61. See, e.g., *Forty-Eight Insulations*, 633 F.2d at 1224-25; *Stonewall*, 73 F.3d at 1202-03; *Outboard Marine Corp.*, 670 N.E.2d at 750-751; *Chemical Leaman Tank Lines Inc. v. Aetna Cas. & Sur. Co.*, 817 F. Supp. 1136 (D.N.J. 1996); *Northern States Power Co. v. Fidelity & Cas. Co.* 523 N.W.2d 657 (Minn. 1994).

In *Forty-Eight Insulations*, the court employed an exposure trigger. It makes intuitive sense that if the triggering occurrence for liability is exposure to asbestos fibers, rather than manifestation of disease, or the continual progression of disease, an insured should not be liable for exposures that occur prior to coverage. The resulting analysis is thus of questionable value for long-tail environmental cases, which typically employ a continuous trigger analysis which assumes that prior acts contribute to the cumulative injury that occurs within each policy period. Moreover, both states whose law the Sixth Circuit purported to apply in *Forty-Eight Insulations* have subsequently rejected an exposure trigger. See *supra*, note 48.

62. See Michael G. Doherty, Comment, *Allocating Progressive Injury Liability Among Successive Insurance Policies*, 64 U. CHI. L. REV. 257 (1997) (advocating this allocation method as a simple, litigation-reducing process).

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2. Evolving notions of horizontal allocation

Fourteen years after the first application of straight-horizontal allocation, the New Jersey Supreme Court introduced a substantial modification to this method.⁶³ The court retained horizontal allocation's conceptual foundation, but rejected a straight-annual allocation as inappropriately ignoring the degree of risk transferred by the purchase of insurance.⁶⁴ Mindful that perceptions of risk change over time, the court instead proposed to allocate each insurer's liability on the basis of policy limits multiplied by years of coverage; I have termed this method weighted-horizontal allocation.⁶⁵

Weighted-horizontal allocation assigns varying shares of liability across the horizontal-time axis depending on the amount of coverage purchased in each year. Policy limits become a proxy for perception of risk, and a year-by-year increase in policy limits is construed to "reflect[] an increasing awareness of the escalating nature of the risks sought to be transferred."⁶⁶

For example, assume the same eighteen-year, long-tail environmental injury mentioned previously. For the first six years, the PRP had two million dollars per year in liability insurance, and for the next six had three million dollars of coverage. In the final six years, the PRP was uninsured. Based on the weighted-horizontal allocation's focus on the escalating nature of risk over time, the last six years would typically be treated as though the policyholder had purchased four million dollars of coverage per year during that period. Therefore, fifty-four million dollars, the total coverage either purchased or im-

63. See *Owens-Illinois, Inc. v. United Ins. Co.*, 650 A.2d 974 (N.J. 1994).

64. See Garrett G. Gillespie, Comment, *The Allocation of Coverage Responsibility Among Multiple Triggered Commercial General Liability Policies in Environmental Cases: Life After Owens-Illinois*, 15 VA. ENVTL. L.J. 525 (1996). *Owens-Illinois* articulated the horizontal method of allocation based on the question it framed—whether the policyholder could recover “the sum of all the triggered policies or only some allocated portion of each policy.” *Owens-Illinois*, 650 A.2d at 975. The first choice amounts to joint and several liability; the second is the method employed in *Owens-Illinois*. There was a third choice that *Owens-Illinois* ignored: the choice of vertical allocation without stacking as articulated in *Armstrong World Industries v. Aetna Casualty & Surety Co.*, 52 Cal. Rptr. 2d 690 (Ct. App. 1996), and *Keene Corp. v. Insurance Co. of North America*, 667 F.2d 1034 (D.C. Cir. 1981). See *infra* Part II.B.1.

65. See *Owens-Illinois*, 650 A.2d at 993.

66. *Id.* Note that the court does not reconcile this recognition of changing risk with the continuous trigger presumption that an injury occurred equally in every year for the date of injury to the date of the claim.

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puted across those eighteen years, would be the base number from which each year would be allocated its weighted-share of the total loss. The first six years would bear roughly twenty-two percent (12/54ths); the middle six years thirty-three percent (18/54ths); and the last six years forty-four percent of the risk (24/54ths).⁶⁷ Under this scenario, the PRP would be allocated almost half of the total liability—the share attributable to the six uninsured years—while the various insurers would be responsible for the rest of the loss.

Rarely will a policyholder's past insurance purchasing behavior readily lend itself to a weighted-horizontal scheme. Faced with the challenges of applying this theoretical model to real world situations, including unknown quantities of "self-insurance," weighted-horizontal allocation recognizes that the calculations central to the allocation method are extremely complex. Thus, weighted-horizontal allocation turns for guidance to a special master skilled in the economics of insurance. This master would have substantial discretion to develop a workable formula that fairly reflected the risks assumed or transferred by the parties.⁶⁸

Weighted-horizontal allocation explicitly identifies fairness and the efficient use of resources as goals for the allocation process.⁶⁹ Like straight-horizontal allocation, it rejects imposition of joint and several liability, and refuses to interpret insurance contracts solely with an eye towards maximizing coverage.⁷⁰ Both versions of horizontal allocation instead focus on the countervailing issue of moral hazard.⁷¹

To that end, both straight- and weighted-horizontal allocation highlight the inequity of permitting a policyholder that

67. Example adapted from *Owens-Illinois*, 650 A.2d at 994.

68. *See id.*

69. *See id.*

70. *See Stonewall Ins. Co. v. Asbestos Claims Mgmt. Corp.*, 73 F.3d 1178, 1202-1204 (2d Cir. 1995) (adopting *Owens-Illinois* pro rata by year allocation); *Sharon Steel Corp. v. Aetna Cas. & Sur. Co.*, 931 P.2d 127 (Utah 1997) (defense costs at issue); *Outboard Marine Corp. v. Liberty Mut. Ins. Co.*, 670 N.E.2d 740, (Ill. App. Ct. 1996); *Northern States Power Co. v. Fidelity & Cas. Co. of N.Y.*, 523 N.W.2d 657 (Minn. 1994) (pro rata by year).

71. *See* Kenneth Abraham, *Environmental Liability and the Limits of Insurance*, 88 COLUM. L. REV. 942, 952-55 (1988) (describing moral hazard). In this context, moral hazard refers to the possibility of a loss arising from the characteristics of the insured, and more particularly from any perverse incentives created by the existence of insurance. For example, policyholders do occasionally set fire to their own buildings in order to collect insurance.

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chose to “go bare” for part of a long-tail injury to recover as though it had been fully and continually covered.⁷² They emphasize that “[n]either logic nor precedent support[s]” permitting an insured who purchased insurance for only one of twenty years to recover as though it had purchased coverage for all twenty of those years.⁷³ Implicit in this reasoning is a refusal to import tort notions of joint and several liability into an insurance contract and instead a conclusion that each insurer’s liability must be individual and proportional.⁷⁴

Both horizontal approaches are plainly concerned with maintaining an incentive for companies to minimize their own environmental carelessness. By forcing companies to internalize part of the costs of long-tail liability, the theory goes, companies will be prompted to use better practices in the future. Although CERCLA deals with retroactive liability for conduct that has long since ceased, courts rightly view themselves as setting a precedent for unnamed, and as yet unnamable, future long-tail liabilities.⁷⁵ Horizontal allocation concludes that forcing policyholders to bear a share of the losses will minimize future moral-hazard risks. These jurisdictions reason that horizontal allocation will preserve the incentive for policyholders to operate with care to minimize their potential exposure to all future claims, and to purchase adequate insurance.⁷⁶ Horizontal

72. See *Owens-Illinois*, 650 A.2d at 992 (“Because insurance companies can spread the costs throughout an industry and thus achieve cost efficiency, the law should, at a minimum, not provide disincentives to parties to acquire insurance where available to cover their risks.”); see also *Uniroyal, Inc. v. Home Ins. Co.*, 707 F. Supp. 1368, 1392 (E.D.N.Y. 1988) (“A firm that fails to purchase insurance for a period, however, is self-insuring for all the risk incurred in that period; otherwise it would be receiving coverage for a period for which it paid no premium. Self-insurance is called ‘going bare’ for a reason.”).

73. *Insurance Co. of North America v. Forty-Eight Insulations, Inc.*, 633 F.2d 1212, 1225 (6th Cir. 1980), *reh’g granted, in part, clarified*, 657 F.2d 814 (6th Cir. 1981).

74. See *id.* The court in *Forty-Eight Insulations* drew a clear line between the PRP’s tort liability for long-tail asbestos injuries, which is typically joint and several, and the insurers’ contract liability to indemnify, which the court concluded to be several.

75. See *Owens-Illinois*, 650 A.2d at 992 (“Our job . . . is not just to solve today’s problems but to create incentives that will tend to minimize their recurrence. ‘[T]o send the correct signals to the economic system, a judge must appreciate the consequences of legal decisions on future behavior.’ Future actors would know that if they do not transfer to insurance companies the risk of their activities that cause continuous and progressive injury, they may bear that untransferred risk.”) (citation omitted).

76. Horizontal allocation apparently does not find a need for incentives to ensure that insurers write clear insurance contracts to begin with. For example, CGL policies

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allocation thus attempts to eliminate any incentive to gamble without insurance.⁷⁷ Weighted-horizontal allocation, as I have defined it, differs from its straight-horizontal counterpart by incorporating changing perceptions of risk over time into the allocation mix in order to more accurately reflect the degree of risk transferred or retained during the years at issue.

3. Weaknesses of the horizontal allocation approach

A fundamental flaw of horizontal allocation is that both methods implicitly read a pro rata allocation clause into the CGL policies. Pro rata clauses, which serve to limit an insurer's indemnity obligation to a policyholder, are typically considered exclusionary provisions.⁷⁸ As such, they must be clear and unequivocal and cannot be imputed to the insurance contract.⁷⁹ Concurrent policies that are silent as to proration are typically held jointly and severally liable to the full extent of the policyholder's liability.⁸⁰ In the absence of an express pro rata provision, a policyholder may recover the full amount of a loss from any insurer, leaving the latter to seek subrogation from the other liable insurers.⁸¹

(renamed Commercial, rather than Comprehensive, General Liability policies) now regularly include aggregate limits, claims-made provisions and/or include defense costs within the total payout available under the policy. Some of these provisions were discussed and rejected during earlier modifications to the CGL policy. Because horizontal allocation often gives insurers the benefit of these provisions that were not included in the policies, it may create a perverse incentive for insurers.

77. Insurance is the opposite of gambling. A gambler creates a risk in the hope of making a profit. No risk exists prior to the gambler's actions. In the insurance model, by contrast, risk exists and the insured eliminates or reduces this risk through the purchase of insurance. Insurance provides indemnity for the insured should this existing risk result in a financial loss. An insured thus exchanges the risk of a possible but potentially large loss for the smaller, certain loss of an insurance premium. The insurer agrees to accept this risk in exchange for a set fee.

78. See, e.g., *Monsanto Co. v. C.E. Health Compensation and Liab. Ins. Co.*, 652 A.2d 30, 33 (Del. 1994) (holding that in the absence of an explicit pro rata clause, insurance companies cannot limit their obligations to a pro rata share of liability).

79. See, e.g., *Royal Indem. Co. v. Providence Wash. Ins. Co.*, 707 N.E.2d 425, 428 (N.Y. 1998) (refusing to read exclusion into policy); *Liberty Mut. Ins. Co. v. Tabor*, 553 N.E.2d 909 (Mass. 1990) (refusing to impute limitations of liability into automobile insurance policy).

80. See *Monsanto*, 652 A.2d at 34. To the extent horizontal allocation is premised on the notion that each insurer is responsible only for the portion of a long-tail injury that occurs during its policy period, it appears to contradict both the "all sums" language of the policy and the conventional insurance rules on proration.

81. See *Alcazar v. Hayes*, 982 S.W.2d 845, 851-52 (Tenn. 1998) (finding that insurance policies are contracts of adhesion that should be construed liberally to provide

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Under either straight- or weighted-horizontal allocation, a policyholder with enough insurance in one or several policy periods to cover a loss in full would still be allocated a share if there were any periods of no insurance or under-insurance.⁸² The lack of insurance at a contractually unrelated point in time becomes grounds for denying a policyholder access to the full coverage purchased within a policy period. Moreover, to reach this end, horizontal allocation determines that “occurrence” and “property damage”—terms that prescribe the circumstances under which the policy will be triggered—are also contractual limitations on the coverage owed by each insurer once its policy is triggered. This approach violates a well-established principle of insurance law—limitations are not to be imputed into insurance contracts.⁸³

Weighted-horizontal allocation also begs the question of what should happen if the policyholder did not increase its insurance coverage over time. When policyholders cooperated by purchasing insurance policies with regularly escalating limits, filling in any coverage gaps is certainly feasible. But what of the situation in which insurance limits jump erratically or do not increase at all? Under these circumstances, creating self-insurance for periods without insurance becomes an exercise of judicial creative writing.

Most troubling is weighted-horizontal allocation’s inability

coverage).

82. This method, at least theoretically, can lead to a bizarre outcome. For example, if an environmental injury occurs entirely within one year, the policyholder with insurance for that year will recover in full. If, however, that same injury occurred over a slightly longer period of time (same money damages, same harm to the environment, arising from the same continuous occurrence but spilling over into January of the next year) and the policyholder did not have insurance for the next year, the policyholder’s recovery for the identical injury would be halved.

83. See *State Farm Mut. Auto. Ins. Co. v. Villicana*, 692 N.E.2d 1196, 1199 (Ill. 1998) (holding that provisions that limit or exclude coverage are to be construed liberally in favor of the insured and against the insurer); *Hubred v. Control Data Corp.*, 442 N.W.2d 308, 310 (Minn. 1989) (“[E]xclusions in insurance contracts are read narrowly against the insurer.” (quoting *Atwater Creamery Co. v. Western Nat’l Mut. Ins. Co.*, 366 N.W.2d 271, 276 (Minn. 1985))); *J & W Foods Corp. v. State Farm Mut. Auto. Ins. Co.*, 723 So. 2d 550, 552 (Miss. 1998) (same); *Richards v. Hanover Ins. Co.*, 299 S.E.2d 561, 563 (Ga. 1983) (same); *McDonald Indus., Inc. v. Rollins Leasing Corp.*, 631 P.2d 947, 949 (Wash. 1981) (same); *Goldberger v. Paul Revere Life Ins. Co.*, 165 F.3d 180, 182 (2d Cir. 1999) (applying New York Law); *Pekin Ins. Co. v. Willett*, 704 N.E.2d 923, 925 (Ill. Ct. App. 1998); *Anderson v. Southern Guar. Ins. Co. of Ga.*, 508 S.E.2d 726, 730 (Ga. Ct. App. 1998); *DePaolo v. Leatherstocking Coop. Ins. Co.*, 681 N.Y.S.2d 686, 688 (Sup. Ct. 1998).

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to cope with a policyholder that maintained constant levels of insurance over time. The logic behind weighted-horizontal allocation, that awareness of risk increased over time, would dictate that an increased share be allocated to later years regardless of the policyholder's actual insurance purchasing behavior. By maintaining a constant level of insurance in light of increased risk, the policyholder has functionally retained a greater proportion of the risk. But, because weighted-horizontal allocation assigns shares of liability in accordance with a ratio of years of coverage and policy limits, it cannot assign an increased share of liability to later policy periods if the policyholder did not increase coverage. An allocation system that purports to divide liability according to degree of risk assumed ought to be able to take degree of risk retained into account, as well as degree of risk transferred. Weighted-horizontal allocation is thus vulnerable to the accusation that it creates a sliding scale of liability based on perception of risk but provides no yardstick by which to measure that perception.⁸⁴

Finally, because both horizontal allocation methods focus on each insurer's prorated duty to the policyholder, rather than on indemnifying the policyholder and allocating the loss among the triggered policies, they may create a perverse disincentive to settling long-tail insurance claims without protracted litigation. The longer the litigation continues, the longer the insurers can delay paying anything on the claim. Meanwhile, the policyholder is left without indemnity, liable to the government or to third parties for cleanup costs but unable to recover from its insurance providers. Delay can also work to deprive the policyholder of the certainty and peace of mind that are part of the value that they intend to purchase with their insurance premiums.

84. *Owens-Illinois* "put[] aside for a moment the problem[s] of periods of self-insurance." *Owens-Illinois, Inc. v. United Ins. Co.*, 650 A.2d 974, 993 (N.J. 1994). Unfortunately, the court never returned to the issue and provided no guidance as to whether, or how, courts should create "self-insurance policies" for periods without, or with too little, insurance. It is worth noting that *Owens-Illinois* relied extensively on the analysis of an intermediate California court opinion in *Armstrong World Industries v. Aetna Casualty & Surety Co.*, which was ultimately vacated by the California Supreme Court. On remand, the California court reached a result directly contrary to *Owens-Illinois*. See *Armstrong World Indus. v. Aetna Cas. & Sur. Co.*, 52 Cal. Rptr. 2d 690 (Ct. App. 1996).

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B. Vertical Allocation

Vertical allocation starts from a radically different premise.⁸⁵ Where horizontal allocation grounded itself in the chronological sequence of coverage, vertical allocation makes long-tail liability parallel conventional insurance liability as closely as possible. By initially allocating along a vertical coverage axis, vertical allocation separates the question of insurer liability to the policyholder from the question of allocation among triggered insurance policies. Because all triggered policies provide coverage for a single, continuous injury, this approach finds no basis for apportioning liability among triggered years of coverage. Vertical allocation thus draws a bright line between the event that triggers coverage and the scope of coverage once triggered. Once triggered, regardless of whether a long-tail or conventional injury did the triggering, a policy is liable for all losses up to its limits.

The policyholder may select a policy period, and that period's insurance limits are applied to the claim. As long as the selected policy period has enough insurance coverage, the policyholder would be fully indemnified for its loss.⁸⁶ Thus, for the hypothetical eighteen-year progressive injury described previously, the PRP would be able to select any one of those eighteen years to be primarily liable for the loss. As long as the loss did not exceed the insurance coverage in the selected year, the policyholder would be fully indemnified.

Vertical allocation explicitly rejects the suggestion that a policyholder be allocated a share of liability for any uninsured periods. Calling such an approach a judicial fiction that deprives the policyholder of coverage for which it had paid, vertical allocation refuses to create self-insurance policies for periods without insurance.⁸⁷ Instead, vertical allocation would

85. See *Armstrong*, 52 Cal. Rptr. 2d at 710 ("[W]e conclude that a distinction must be drawn between apportionment among multiple insurers and apportionment between an insurer and its insured."); *CNA Lloyds of Tex. v. St. Paul Ins. Co.*, 902 S.W.2d, 657, 661 (Tex. Ct. App. 1995) (emphasizing the distinction between policyholder-insurer indemnification and insurer-insurer subrogation); *Owens-Corning Fiberglass Corp. v. American Centennial Ins. Co.*, 660 N.E.2d 770, 795-96 (Ohio Ct. C.P. 1995) (same).

86. See, e.g., *Armstrong*, 52 Cal. Rptr. 2d at 711; *Keene Corp. v. Insurance Co. of North America*, 667 F.2d 1034, 1047-48 (D.C. Cir. 1981).

87. See *Keene*, 667 F.2d at 1048-49 ("We have no authority upon which to pretend that [the manufacturer] also has a 'self-insurance' policy that is triggered for periods in which no other policy was purchased. Even if we had the authority, what would we pre-

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require any triggered policy to provide full coverage for all long-tail damages, up to its policy limits. Thus, vertical allocation interprets literally the CGL policy's promise to pay "all sums which the [policyholder] shall become legally obligated to pay as damages."⁸⁸

Vertical allocation reasons that permitting an insurer to transfer a pro rata share of liability to the policyholder contravenes the clear "all sums" promise at the heart of the CGL policies and deprives the policyholder of coverage for which it had paid.⁸⁹ This reasoning derives from the conventional insurance principle that, once triggered, coverage extends to the policyholder's entire liability for damages attributable to an occurrence.⁹⁰

Because each insurer's duty to indemnify the policyholder remains intact under vertical allocation, regardless of any other insurers' duties and liabilities, the amount of insurance in other time periods is irrelevant.⁹¹ No part of the allocation can be based on facts, such as a lack of insurance, that occur outside the policy period.⁹² Underlying this approach is the notion that such an allocation best protects the policyholder's reasonable expectation that, within a policy period, the entire

tend that the policy provides? What would its limits be?"). *See also* J.H. France Refractories Co. v. Allstate Ins. Co., 626 A.2d 502, 508 (Pa. 1993); *Owens Corning*, 660 N.E.2d at 795. Like horizontal allocation, vertical allocation theory developed in the context of asbestos litigation. Drawing from *Forty-Eight Insulations*, decided the year before, the *Keene* insurer-defendant argued for allocating a pro rata share to the policyholder for any periods without insurance. *See Keene*, 667 F.2d at 1048-49.

88. Tarpey, *supra* note 23, at 234.

89. *See* Monsanto Co. v. C.E. Health Comp. & Liab. Ins. Co., 652 A.2d 30, 31 (Del. 1994) (describing horizontal allocation as effecting an unintended forfeiture of insurance coverage); *CNA Loyds*, 902 S.W.2d at 600; *American Physicians Ins. Exch. v. Garcia*, 876 S.W.2d 842 (Tex. 1994). *See also Keene*, 667 F.2d at 1042.

90. Indeed, even *Owens-Illinois* acknowledged that "[t]hese are 'occurrence' policies which, by their nature, provide coverage for pre-policy occurrences (acts) which cause injury or damage during the policy period." *Owens-Illinois*, 650 A.2d at 993 (citation omitted).

91. *See Armstrong*, 52 Cal. Rptr. 2d at 710 (holding that apportionment among multiple insurers has no bearing upon the obligation of the insurers to the insured); *FMC v. Plaisted & Cos.*, 72 Cal. Rptr. 2d 467, 499-500 (Ct. App. 1998) ("[T]he availability of allocation among multiple insurers is essentially irrelevant to each individual insurer's obligation to its insured under the terms of the parties' insurance contract."). *See also American Nat. Fire Ins. Co. v. B & L Trucking & Const. Co.*, 951 P.2d 250, 257 (1998). The targeted insurers can then pursue any subrogation rights against other triggered insurance policies.

92. *See Keene*, 667 F.2d at 1047; *FMC*, 72 Cal. Rptr. 2d at 499; *B & L Trucking*, 951 P.2d at 257.

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amount of insurance coverage would be available to cover a loss.⁹³ Vertical allocation thus emphasizes that a policyholder expects insurance to cover “all sums” of liability during the policy period, not a proportionate share.⁹⁴ Any allocation method that prorates an insurer’s liability within a policy period, on the basis of the policyholder’s insurance coverage outside that policy period, would defeat those reasonable expectations by converting the paid-for certainty of “all sums” coverage into contingent coverage.⁹⁵ As a logical consequence of this reasoning, courts using vertical allocation find that the policyholder is covered up to its policy limits for the full extent of its liability and need not pay a pro rata share.⁹⁶ The twin goals of vertical allocation theory are thus to place liability for long-tail injuries on par with liability for ordinary injuries and to provide a policyholder with access to all of the insurance it has purchased in a policy period.

The most frequently raised accusation against vertical allocation is that it impermissibly converts the several liability of successive insurers into joint and several liability.⁹⁷ While it is true that both straight- and weighted-horizontal allocation carefully keep the various insurers’ obligations to a policyholder separated, claiming that vertical allocation imposes joint and several liability is an oversimplification. Like many oversimplifications, this description is not entirely incorrect, merely incomplete.

Were vertical allocation to truly impose joint and several liability, the policy limits would become irrelevant once liability attached. Like the PRP who can be liable for the entirety of a Superfund site cleanup, regardless of how many other PRPs

93. See *Keene*, 667 F.2d at 1047-48 (noting that policyholder purchased insurance to transfer the risk of liability for latent injury and concluding that policyholder was purchasing certainty and plainly did not contemplate that this purchased security could be undermined by the existence of prior periods in which it was uninsured and in which no known or knowable injury occurred).

94. See *B & L Trucking*, 951 P.2d at 257 (“[An] insurance obligation is interpreted in a fashion consistent with the undertaking described in the policy label. [Policyholders] are not purchasing ‘almost comprehensive’ coverage. CGL policies are marketed by insurers as comprehensive in their scope and should be strictly construed when the insurer attempts to subtract from the comprehensive scope of its undertaking.” (quoting *Olds-Olympic Inc. v. Commercial Union Ins. Co.*, 918 P.2d 923, 927 (1996))); *Keene*, 667 F.2d at 1047.

95. See *B & L Trucking*, 951 P.2d at 257.

96. See *FMC*, 72 Cal. Rptr. 2d at 467.

97. See *Pendygraft*, *supra* note 36, at 145.

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could have been named, each insurer would be jointly and severally liable for the ultimate dollar value of a loss, despite the limited amount of insurance it provided. But, absent bad faith, no insurer can ever be liable for more than its policy limits. An insurer who provided one million dollars in coverage can at most be liable for that one million dollars, regardless of the magnitude of loss suffered by the policyholder. By selling a policy, the insurer knows itself to be at risk for the full policy limits. Requiring an insurer to cover a policyholder's loss up to the policy limits thus merely holds the insurer to the full terms of its bargain with the policyholder—a far cry from joint and several liability.

There are, however, two clear strands of vertical liability. Some vertical-allocation jurisdictions plainly contemplate that, up to their respective policy limits, insurers will be jointly and severally liable.⁹⁸ These jurisdictions permit a policyholder to recover seriatim from as many insurers as necessary to obtain full compensation for a long-tail loss. Others explicitly reject imposition of this modified form of joint and several liability.⁹⁹ These latter jurisdictions emphasize that a policyholder's recovery cannot exceed the policy limits within one single policy period.¹⁰⁰

1. *Serial-vertical allocation*

Pennsylvania represents the major forum for what I call “serial-vertical” allocation.¹⁰¹ In an unabashed attempt to maximize recovery for the policyholder,¹⁰² serial-vertical allocation permits a policyholder to obtain indemnity from any selected

98. See *Rubenstein v. Royal Ins. Co. of America*, 694 N.E.2d 381 (Mass. App. Ct. 1998); *Koppers Co. v. Aetna Cas. & Sur. Co.*, 98 F.3d 1440, 1449 (3d Cir. 1996); *B & L Trucking*, 951 P.2d at 257.

99. See *Keene*, 667 F.2d at 1048-49; *Armstrong World Indus. v. Aetna Cas. & Sur. Co.*, 52 Cal. Rptr. 2d 690, 710 (Ct. App. 1996) (finding “the doctrine of joint and several liability has no application to the obligations of successive insurers of a single policyholder”). But see *J.H. France Refractories Co. v. Allstate Ins. Co.*, 626 A.2d 502, 509 (Pa. 1993) (imposing joint and several liability).

100. See, e.g., *Keene*, 667 F.2d at 1049-50. *Keene* involved only primary insurance so the decision is cast in terms of one policy, as opposed to the policies in one policy period. See also *American Physicians Ins. Exch. v. Garcia*, 876 S.W.2d 842, 853-54 (Tex. 1994).

101. See *J.H. France*, 626 A.2d at 509; *Rubenstein*, 649 N.E.2d at 381 (imposing joint and several liability as described in Pennsylvania law).

102. See *Koppers Co. v. Certain Underwriters at Lloyd's*, 146 PITT. LEGAL J., 159, 160 (1998) (identifying maximization of coverage as the goal of the allocation process).

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year of coverage. If the loss exceeds the limits of all policies in force during that period, the policyholder can then select another and, if necessary, still another policy period to indemnify it for the remainder of the loss. Revisiting the hypothetical discussed previously, assume again that during an eighteen-year continuous environmental injury a policyholder had two million dollars of coverage per year for the first six years, three million for the next six years, and no coverage for the final six years. Under serial-vertical allocation, a policyholder would be able to recover far more than the three million dollars of coverage purchased in years seven through twelve. For example, if the cleanup costs amounted to five million dollars, the policyholder could recover the first three million dollars from policies purchased in year seven and could then target any of the remaining policy periods for the balance of the cleanup costs.

Under this version of vertical allocation, the policyholder may exhaust each policy period *seriatim*.¹⁰³ All the insurance a policyholder ever purchased is available to cover any loss. Until the cleanup costs exceeded thirty million dollars—the combined policy limits purchased during the eighteen-year period—the hypothetical policyholder would be entirely covered for the loss.

Serial vertical allocation thus effectively stacks the insurance coverage from different policy periods to form one giant “uber-policy” with a coverage limit equal to the sum of all purchased insurance policies. Instead of treating a long-tail injury as though it occurred in one policy period, this approach treats all the triggered insurance as though it were purchased in one policy period. The policyholder has access to far more insurance than it would ever be entitled to within any one period. The clear purpose of such an approach is to permit a policyholder to maximize coverage. In doing so, serial vertical allocation defeats both goals of vertical allocation: treating long-tail injuries as if they occurred in one policy period and permitting the policyholder access to all insurance purchased within a given policy period. Such an approach provides the policyholder with a troubling windfall in the form of more coverage than the policyholder could ever have reasonably expected for one injury.

103. See *J.H. France*, 626 A.2d at 509 (“When the policy limits of a given insurer are exhausted, J.H. France is entitled to seek indemnification from any of the remaining insurers which [were] on the risk.”); see also *Koppers Co. v. Aetna Cas. & Sur. Co.*, 98 F.3d 1440 (3d Cir. 1996) (applying similar reasoning to environmental cleanup liability).

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Because the policyholder has access to all triggered policies to cover any long-tail loss, there is no incentive to purchase sufficient insurance with any particular insurance period.

2. *Single-vertical allocation.*

What I have termed “single-vertical” allocation, reflects the judicial concern that an insurer’s liability for a single occurrence be the same regardless of whether the damage stems from long-term exposure or from an immediate occurrence. Both types of claims involve only one insurable event. Single-vertical allocation attempts to match this single insurable event to the available coverage by permitting a policyholder to select one policy period from which to recover for its loss. Only the policy limits of the selected policy period may be applied to a long-tail loss, regardless of the number of policy periods triggered.¹⁰⁴ Policyholders have access to all the insurance purchased within a single policy period but cannot increase the available coverage by accessing insurance across policy periods. Any loss that exceeds the policy limits of the selected policy period must be born by the policyholder. For example, in the eighteen-year hypothetical discussed above, the policyholder would be able to select the year to respond to the claim in the first instance. The policyholder would be able to obtain full indemnification (up to three million dollars of liability) by selecting one of the middle six years to provide coverage. The fact that the policyholder had no insurance for part of the injury would be irrelevant.¹⁰⁵

Under the logic of single-vertical allocation, a long-tail injury triggers multiple funding sources but does not alter the total amount of insurance available to cover a loss.¹⁰⁶ Thus, any cleanup costs that exceeded the three-million-dollar policy limits would be borne by the policyholder. Any other result, this theory reasons, would construe insurance policies differently

104. See *FMC v. Plaisted & Co.*, 72 Cal. Rptr. 2d 467 (Ct. App. 1998); *American Physicians*, 876 S.W.2d at 853-54.

105. The selected policy period would not have to bear the entire burden of the loss, however. Instead, the insurer will pay the claim and then seek contribution from other liable insurers. See, e.g., *In re Prudential Lines, Inc.*, 158 F.3d 65, 84 (2d Cir. 1998).

106. See *American Physicians*, 876 S.W.2d at 842 (concluding that for indemnity purposes, coverage under consecutive insurance policies cannot be stacked to multiply coverage for a single claim involving an indivisible injury).

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for long-tail injuries than for other contexts and would defeat the insured's expectation that insurance will cover "all sums" of liability up to the policy limits.

When coverage for an occurrence is triggered in more than one policy period, single-vertical allocation permits a policyholder to select the policy period that will respond to the claim. But single-vertical allocation leaves the risk of inadequate insurance within a policy period squarely with the policyholder.¹⁰⁷ The incentive therefore remains to have insurance coverage.

Both forms of vertical allocation are vulnerable to the accusation that they create insurance for years when the policyholder purchased little or no coverage. Vertical allocation permits the policyholder to select a single policy period to be liable initially for the entire ultimate loss, up to its policy limits. The decision that no share should be allocated to a policyholder because the insurer is liable for "all sums" ignores the fact that some damage may have occurred in periods without insurance. By permitting a snapshot in time to substitute for the actual timeline (i.e. by excising the selected policy period out of its horizontal time context), vertical allocation denies the uniqueness of long-tail injuries and ignores their cumulative nature. A policyholder that had little or no insurance in all but one policy period would still fully recover for its loss and a policyholder that purchased small amounts of insurance every year would not.

Even acknowledging this problem, however, single-vertical allocation's strengths far outweigh its weaknesses, while the opposite is true of horizontal allocation and of serial-vertical allocation. Moreover, the single-vertical approach is more consistent with the rest of insurance jurisprudence than is horizontal allocation and has fewer and more remediable flaws. This is so particularly in light of the basic insurance law principle of *contra preferentem*,¹⁰⁸ and in light of the fact that this entire problem derives from a failure to draft the insurance contract to

107. The insurers in the selected policy period will bear the risk of being unable to spread their loss among other insurance periods (for example, due to insurer insolvency or to a policyholder's failure to purchase insurance) but do not bear the risk that the insured purchased inadequate insurance within a policy period.

108. *Contra preferentem*, literally "against the offeror," refers to the general rule of construction in insurance disputes that ambiguities in policy language are construed against the insurance company. See generally, BARRY R. OSTRAGER & THOMAS R. NEWMAN, HANDBOOK ON INSURANCE COVERAGE DISPUTES §1.03[b] (8th ed. 1995).

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deal with the foreseeable problems of long-tail injuries.¹⁰⁹ Ultimately, the equities favor adoption of single-vertical allocation.

III. SECONDARY APPORTIONMENT

The allocation remedies outlined in the prior section presuppose that allocation of long-tail liability necessarily occurs in two conceptual stages. During the primary allocation phase, liability is either assigned horizontally to policy periods or vertically to policies within a selected policy period. Merely stating that allocation will be vertical or horizontal does not end the analysis, however. A secondary apportionment is needed to equitably spread shares of liability to all the triggered policies. In vertical allocation, the primary allocation is an indemnification proceeding between the policyholder and its insurers, with a secondary proceeding to apportion among the other triggered insurers based on contribution and subrogation rights. For horizontal allocation, the primary allocation assigns shares of liability to triggered years while the secondary analysis apportions the assigned share of liability among the policies within each triggered time period. Although few jurisdictions have addressed the question of secondary apportionment, all have referred to the need for some such apportionment to complete the allocation process.

A. *“Other Insurance” Clauses Do Not Provide Guidance for Secondary Apportionment*

To the extent they have considered the issue, both horizontal and vertical allocation start from the same point for phase two apportionment—the CGL contract itself.¹¹⁰ The only contract language that could possibly be relevant to this determination is the “other insurance” clause. “Other insurance”

109. Even assuming that retroactive strict liability under CERCLA was not foreseeable as such, the ISO considered drafting CGL policies to clearly allocate shares of long-tail injuries but elected instead to let the ambiguities remain. *See* Nachman, *supra* note 27 (indicating awareness of the problem in 1966); Gillespie, *supra* note 64 (arguing that *contra preferentem* weighs in favor of rejecting horizontal allocation).

110. In particular, both methods carefully deconstruct the coverage provision of the standard CGL policy providing that an insurer will pay “all sums which the [policyholder] shall become legally obligated to pay” for damages direct and consequential on account of property damage caused by or arising out of each occurrence during the policy period. *Chemical Leaman Tank Lines, Inc. v. Aetna Cas. & Sur. Co.*, 817 F. Supp. 1136, 1141 (D.N.J. 1993); *see also* *Outboard Marine Corp. v. Liberty Mut. Ins. Co.*, 670 N.E.2d 740, 746 (Ill. App. Ct. 1996) (citing various insurance policy language).

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clauses purport to divide liability among multiple insurance policies. In the conventional insurance context, “other insurance” clauses allocate liability among insurers within a single insurance period.¹¹¹ It is therefore not surprising that courts have looked to “other insurance” clauses to guide secondary apportionment for long-tail claims. The greatest appeal of this approach is that the court could claim to be enforcing the bargain between the parties. In practice, however, such extensions distort “other insurance” clauses past all recognition.

There are three basic types of “other insurance” clauses: pro rata,¹¹² excess,¹¹³ and escape.¹¹⁴ Policies without any form of “other insurance” clause must pay before policies containing “other insurance” clauses. Excess “other insurance” clauses purport to limit a policy’s liability to providing additional coverage once the policy limits of all other available insurance are exhausted. Pro rata provisions attempt to allocate financial responsibility between policies based on the percentage of coverage each policy bears compared to the net amount of coverage under all applicable policies. Escape clauses attempt to release the insurer from all liability to the insured if other coverage is available.

The problem with “other insurance” clauses is that, unless all the relevant policies contain pro rata “other insurance” clauses, literal application of the “other insurance” clauses would result in under-recovery. A pro rata “other insurance”

111. See generally GEORGE J. COUCH, CYCLOPEDIA OF INSURANCE LAW, § 62 (1929). “Other insurance” clauses provide for allocation among insurers, not between the insurer and a policyholder.

112. Pro rata “other insurance” clauses typically follow one of two patterns. Some clauses provide that the insurer will pay a pro rata share of a loss in proportion to the ratio of its policy limits to the total policy limits of all insurance covering the same loss. Other pro rata clauses provide that the insurer will contribute equally with all other policies covering a loss until the first policy limit is exhausted. Then the insurer will contribute equally with the remaining carriers to cover the rest of the loss up to the next policy limit, and so on.

113. An excess “other insurance” clause directs that any other insurance contract which covers the same loss must be exhausted before the policy containing the excess “other insurance” clause will pay on a loss. See *Western Cas. & Sur. Co. v. Trinity Universal Ins. Co.*, 764 P.2d 1256 (Kan. Ct. App. 1988). If all of the triggered insurance policies contain “excess other insurance” clauses, courts routinely find these excess clauses mutually repugnant.

114. An escape “other insurance” clause states that the policy will not be liable for any loss covered by “other insurance.” This language purports to permit a particular carrier to escape any liability for a loss if the policyholder has any other insurance. Courts do not favor escape clauses.

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clause would always pay only a pro rata share, and those policies with excess and/or escape clauses, if interpreted literally, would pay nothing. Coverage under these policies would be illusory because a policyholder would never be able to collect for a loss if it had any other insurance. Moreover, literal interpretation of these clauses would create a clear incentive not to purchase much insurance—a policyholder with multiple insurance policies would be worse off than a policyholder that purchased only one policy.

To resolve this problem, a complex body of common law determines how the different “other insurance” clauses interact. Thus, even when nominally implementing “other insurance” clauses, courts are really exercising equitable powers to harmonize the clauses in a way that permits recovery for the policyholder. Frequently, “other insurance” clauses are deemed mutually repugnant¹¹⁵ and are disregarded.

The basic problem with resort to “other insurance” clauses in the long-tail context is the undeniable fact that “other insurance” clauses are intended to prevent double recovery, not to allocate liability over multiple policy periods.¹¹⁶ Unlike the conventional insurance scenario, an insurer has absolutely no way to predict, guess, or prophesy what insurance its policyholder will purchase in the future, let alone what sort of “other insurance” clauses those policies will have. Nothing in the “other insurance” clauses themselves indicates any intention that these provisions might be enforced across multiple policy periods. Under these circumstances, looking to “other insurance” clauses to allocate liability neither implements the intent of the parties, nor produces an equitable result.

As long-tail insurance allocation methods have been refined and developed, they have moved away from reliance on “other insurance” clauses. Thus, vertical and horizontal jurisprudence increasingly recognize the impropriety of resort to “other insurance” clauses in the long-tail context. Instead, courts typi-

115. This rule is known as the *Lamb-Weston* doctrine. This doctrine provides that any conflict between contradictory insurance clauses, of whatever type, renders all such clauses mutually repugnant. See *Lamb-Weston, Inc. v. Oregon Auto Ins. Co.*, 341 P.2d 110 (Or. 1959) (en banc). See generally, BARRY & NEWMAN, *supra* note 108, § 11.03.

116. See *St. Paul Fire & Marine Ins. Co. v. Vigilant Ins. Co.*, 919 F.2d 235, 241 (4th Cir. 1990) (noting that “other insurance” clauses apply only to concurrent insurance policies). When many of these insurance policies were written, the notion of a continuous trigger did not exist.

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cally acknowledge that they are acting in equity, set aside “other insurance” clauses, and then develop an equitable allocation scheme for all of the triggered policies.¹¹⁷

*B. Solving the Horizontal Phase-Two Problem: “Fill-the-Glass”
Secondary Apportionment*

Within each policy period, a policyholder may have purchased a complex array of primary and excess policies. Horizontal allocation dodges the question of how to divide shares of liability among the policies within each triggered period. Straight-horizontal allocation refers vaguely to “other insurance clauses,”¹¹⁸ while weighted horizontal allocation places its faith entirely in the “specialized procedures” to be developed by the proposed special masters.¹¹⁹ Because neither method finishes the allocation task, let alone offers the predictability that would facilitate settlement, neither method alone is particularly satisfactory.

Once “other insurance” clauses are set aside, the logic behind either method of horizontal allocation leads to a single approach in phase two apportionment—what I call “Fill-the-Glass” secondary apportionment.¹²⁰ Fill-the-Glass secondary apportionment rejects resort to “other insurance” clauses on the ground that those clauses make no sense when dealing with an injury that occurred across policy periods.¹²¹ Instead, Fill-the-Glass secondary apportionment refines horizontal allocation to account for the structure of insurance coverage within a policy period.

Liability is first assigned across the horizontal time axis.¹²²

117. See *Armstrong World Indus. v. Aetna Cas. & Sur. Co.*, 26 Cal. Rptr. 2d 35 (Ct. App. 1993); *Signal Cos. v. Harbor Ins. Co.*, 612 P.2d 889 (Cal. 1980) (en banc).

118. See *Insurance Co. of North America v. Forty-Eight Insulations, Inc.*, 633 F.2d 1212, 1225 (6th Cir. 1980), *reh'g granted, in part, clarified*, 657 F.2d 814 (6th Cir. 1981).

119. See *Owens-Illinois, Inc. v. United Ins. Co.*, 650 A.2d 974, 993 (N.J. 1994).

120. This method is employed (albeit without the name fill-the-glass) in *Chemical Leaman*. See *Chemical Leaman Tank Lines, Inc. v. Aetna Cas. & Sur. Co.*, 817 F. Supp. 1136 (D.N.J. 1996). While I would love to be able to claim to have invented this term, I am not its author. I do not know its exact origins, but I was first introduced to the term by Fred Nemeth at Dechert Price and Rhoads in Philadelphia.

121. For a discussion of “other insurance” clause jurisprudence, see *supra* Part III.A. Similarly, *Outboard Marine* soundly rejected resort to “other insurance” clauses as “illogical” in the context of long-tail liability. See *Outboard Marine Corp. v. Liberty Mut. Ins. Co.*, 670 N.E.2d 740, 746 (Ill. App. Ct. 1996)

122. Under weighted-horizontal, a larger percentage of any loss will be attributed

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Then, within each policy period, shares of liability are apportioned vertically along the coverage axis in a bottom-up fashion, much the way water "fills a glass."¹²³ As a result, this method produces an equitable allocation across the horizontal time axis while still respecting the bottom-up structure of coverage liability within each policy period.¹²⁴

Within each policy period, the primary insurers must pay first. When primary coverage is exhausted, the secondary insurers must then pay, and so on up the coverage ladder within each policy period. Primary insurers will thus pay before overlying excess insurers, but not necessarily before excess insurers from other policy periods. For example, in Year One, a policyholder might have one million dollars of primary insurance and ten million dollars of overlying excess insurance. If in Year Two, the policyholder had two million dollars of primary insurance, the excess policy in Year One would be triggered before the primary policy in Year Two is exhausted. As each excess insurer has a contractual obligation to provide coverage once the underlying layer of insurance has been exhausted, this method conforms to the existing contractual relationships between the parties.¹²⁵

By following the frequently elaborate layers of coverage issued by the various insurers, this apportionment nicely harmonizes the insurance contract regime established by the parties with the unforeseen circumstance of retroactive environmental liability. Moreover, the resulting apportionment mimics allocation of liability for conventional insurance, thereby achieving one of the identified goals of vertical allocation, in addition to furthering the efficiency and fairness sought by horizontal allocation. As importantly, fill-the-glass secondary apportionment can offer a predictability that serves to

to the years after products liability law began to develop in earnest. *See Owens-Illinois*, 650 A.2d at 992.

123. *See Chemical Leaman*, 817 F. Supp. 1136; *Outboard Marine*, 670 N.E.2d at 746; *Northern States Power Co. v. Fidelity & Cas. Co.*, 523 N.W.2d 657 (Minn. 1994).

124. Because the *Chemical Leaman* court was faced with a situation in which all primary insurers had settled, the court did not have to address the question of the relative liability between primary and excess policies; this secondary apportionment method works equally well, however, if both primary and excess policies are involved. *See Carter-Wallace, Inc. v. Admiral Ins. Co.*, 712 A.2d 1116, 1124 (N.J. 1998) (adopting *Chemical Leaman's* reasoning and expanding it to situations involving primary and excess insurance).

125. *See Iolab Corp. v. Seaboard Sur. Co.*, 15 F.3d 1500, 1504 (9th Cir. 1994).

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minimize litigation.

While fill-the-glass secondary apportionment has many strengths, it has one fundamental weakness: its inability to consistently and equitably deal with orphan shares of liability. Section IV explores this problem in detail and suggests a series of modifications that can mitigate, though not eliminate, this weakness.

C. Vertical Allocation Methods of Secondary Apportionment

Because vertical allocation does not adjudicate rights between triggered policy periods as a matter of primary allocation,¹²⁶ secondary apportionment raises the most interesting questions of the vertical allocation process. Like horizontal allocation, courts employing vertical allocation typically reject resort to “other insurance” clauses. Instead, these jurisdictions approach secondary apportionment primarily through two methods: Policy Limits or Time-on-the-Risk apportionment.

1. Policy limits apportionment

The majority approach for apportioning conventional insurance is to assign shares of liability based on a ratio of each triggered policy limit to the total limits of all the triggered policies.¹²⁷ In the long-tail context, each triggered policy, across all

126. Allocation claims can arise in one of three contexts: (1) policyholder sues insurer for coverage; (2) insurer sues other insurers for contribution; and (3) policyholder that has settled with some insurers sues remaining insurers for indemnity. This third scenario presents an additional challenge to vertical allocation jurisprudence. When the policyholder has settled with one or more insurers, the initial vertical allocation question of necessity involves resolution of the secondary horizontal allocation question. In apportioning a share of total liability to the settled policies, the court must simultaneously conduct both inquiries.

127. See *CNA Cas. of Cal. v. Seaboard Sur. Co.*, 222 Cal. Rptr. 276 (Ct. App. 1986); *Guaranty Nat'l Ins. Co. v. American Motorists Ins. Co.*, 758 F. Supp. 1394 (D. Mont. 1991), *aff'd*, 981 F.2d 1108 (9th Cir. 1992). As a modification of the policy limits approach, parties sometimes advocate allocating equal shares of liability to all triggered insurance policies. This allocation method shares the ease of administration but also the flaws of the policy limits approach. See *Sharon Steel Corp. v. Aetna Cas. & Sur. Co.*, 931 P.2d 127 (Utah 1997) (rejecting equal shares allocation). The argument underlying an equal shares allocation is that all insurers have agreed to cover a loss up to the limits of their policies. For example, if in four triggered policy periods, the insured has insurance that provides coverage in amounts ranging from one to four million dollars, all four policies have equally promised to cover the first million dollars of liability. Until the million-dollar limit of the smallest policy is reached, policy-limits allocation is in effect a subsidy from the three larger policies to the smaller policy. But, while such an allocation might make some sense within layers of coverage, applying it equally to

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triggered time periods will be assigned a share of liability based on a ratio of its policy limits to the total of the combined triggered policy limits.¹²⁸ The great advantage of this method is its ease of administration. The calculations are straightforward and can be performed quickly and easily by the parties or the court. This approach, however, completely ignores the layers of coverage a policyholder may have purchased and assumes that all insurers retain the same risk of loss vis-à-vis a claim by the policyholder.¹²⁹

The *Koppers* decision, as applied by the district court on remand,¹³⁰ typifies the shortcomings of policy limits apportionment in the long-tail context. On remand, the *Koppers* district court rejected “other insurance” clauses and instead employed what I have termed “serial-vertical” allocation, coupled with policy limits apportionment. First, the court held that all triggered policies were jointly and severally liable. Then, because the mutually repugnant “other insurance” clauses cancelled out, the court concluded that “all [remaining] policies [were] on an equal footing as though they all provided primary coverage.”¹³¹ Thus, with one fell swoop, the court collapsed complex

primary and excess insurers disregards the degree of risk an insured transferred or retained over time.

128. In *Koppers*, for example, the plaintiff selected the years of insurance that would be liable in the first instance. On appeal, the Third Circuit directed that the insurer’s liability be offset by an “apportioned share” assigned to settling insurers equivalent to their pro rata share of the liability. See *Koppers Co. v. Aetna Cas. & Sur. Co.*, 98 F.3d 1440 (3d Cir. 1996).

129. Such an assumption runs counter to the clear language of the insurance contracts themselves. Primary insurance provides an initial layer of protection against liability. Excess insurance, by contrast, provides coverage only after a predetermined amount of primary coverage has been exhausted. The expected loss costs for primary insurers are therefore larger than for excess insurers. As a result, each dollar of primary insurance coverage is usually more expensive than the same dollar of excess insurance. See, e.g., *American Specialty Risk Ins. Co. v. A-Best Products, Inc.*, 975 F. Supp. 1019, 1021 (N.D. Ohio 1997), *aff’d mem.*, 166 F.3d 1213 (6th Cir. 1998).

130. See *Koppers Co. v. Certain Underwriters at Lloyd’s London*, No. 85-2136, 1997 U.S. Dist. LEXIS 16123, at *15 (W.D. Pa. June 23, 1997), *on remand from Koppers Co. v. Aetna Cas. & Sur. Co.*, 98 F.3d 1440 (3d Cir. 1996) (applying Pennsylvania law). It is not entirely clear that this unpublished opinion, which purports to “mold” the trial verdict in light of the Third Circuit’s opinion is still good law. The opinion is available only on Lexis and cannot be found on Westlaw. Moreover, a published opinion issued the next month in the same case, 993 F. Supp 358 (W.D. Pa. 1997), suggests in a footnote that the allocation process was not yet finished. Either way, this opinion, which embodies all the worst aspects of serial-vertical allocation, is useful for illustrative purposes.

131. *Koppers*, No. 85-2136, 1997 U.S. Dist. LEXIS 16123, at *15.

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layers of consecutive coverage into one giant mass of concurrent insurance coverage. The court then stacked¹³² all insurance policies together to determine the total amount of coverage available. Based on this total, the *Koppers* court assigned each insurer a proportional share of liability.

This apportionment method ignored the policyholder's elaborately constructed layers of primary and excess insurance coverage. Excess policies¹³³ typically provide coverage only after a certain lower level of insurance coverage, or self-insurance, has been exhausted.¹³⁴ Based on this difference in the risk assumed, excess insurance carriers generally write insurance policies at premiums lower than primary insurers.¹³⁵ By calcu-

132. As articulated in *J.H. France*, Pennsylvania permits stacking of insurance policies. See *J.H. France Refractories Co. v. Allstate Ins. Co.*, 626 A.2d 502 (Pa. 1993). Most states that have considered the issue have refused to permit stacking of consecutive insurance policies.

133. Excess insurance policies are not to be confused with excess "other insurance" clauses. Excess "other insurance" clauses purport to define the interrelationship between insurance policies. Excess policies, by contrast, set as a condition of the insurer-policyholder relationship, a threshold loss that must be exceeded before the insurance will be triggered. Excess insurance policies are therefore written in excess of underlying coverage. Sometimes these excess policies are excess to the specific underlying policy and sometimes they are excess to the amount of the underlying policies. Either way, it is clear that both insurer and policyholder contemplated that these excess policies should not be liable in the first instance. See *General Refractories Co. v. Allstate Ins. Co.*, No. CIV.A.89-7924, 1994 WL 246375 (E.D. Pa. 1994) (holding that all applicable primary coverage must be exhausted before an excess insurer's liability arises, not just the underlying policies specifically set forth in a given excess policy); *Iolab Corp. v. Seaboard Sur. Co.*, 15 F.3d 1500 (9th Cir. 1994) (same); *Continental Cas. Co. v. Armstrong World Indus., Inc.*, 776 F. Supp. 1296 (N.D. Ill. 1991) (same); *North River Ins. Co. v. American Home Assurance Co.*, 257 Cal. Rptr. 129 (Ct. App. 1989). But see *Chemical Leaman Tank Lines, Inc. v. Aetna Cas. & Sur. Co.*, 978 F. Supp. 589 (D.N.J. 1997); *Koppers Co. v. Aetna Cas. & Sur. Co.*, 98 F.3d 1440 (3d Cir. 1996) (applying Pennsylvania law).

Excess insurers frequently attempt to import the requirement that all primary insurance policies be exhausted before any secondary policies pay into the continuous trigger scenario. Requiring all primary policies to exhaust first might therefore arguably stay closer to the intent of the contracting parties. But in fact, such a requirement gives excess carriers a tremendous windfall. The typical excess insurance policy requires only exhaustion of specifically designated "underlying" limits of liability, nothing more. Requiring all primary policies across time to exhaust first would be a direct subsidy from the primary to the secondary carriers. Such an approach would not effectuate any contractual intent of the parties and would permit happenstance to swing allocations of significant sums of money.

134. See *Continental Cas. Co. v. United States Fid. & Guar. Co.*, 516 F. Supp. 384 (N.D. Cal. 1981); *Associated Int'l Ins. Co. v. St. Paul Fire & Marine Ins. Co.*, 269 Cal. Rptr. 485 (Ct. App. 1990).

135. Courts have generally concluded that those insurers should not be required to cover risks on an equal basis with primary carriers. See, e.g., *Allstate Ins. Co. v. Em-*

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lating a proportional share for each insurance policy without regard to the exhaustion of underlying policies, the court in effect rewrites those policies. For example, a policy that provides one million dollars as excess coverage over twenty million dollars in underlying primary and excess policies will pay dollar for dollar with a policy providing one million dollars of primary coverage.

Finally, under a policy-limits approach, shares of liability are allocated solely on the happenstance of how much insurance the policyholder purchased over an extended period of time. Information about a policyholder's future behavior was not available when the policies were issued and therefore played no part in the parties' expectations. Such information, moreover, is typically unavailable to the insurers before litigation commences, making settlement difficult and planning for potential liabilities impossible.

2. "*Time-on-the-Risk*" apportionment¹³⁶

By contrast, what I have termed "time-on-the-risk" secondary apportionment allows vertical allocation to consider issues unique to long-tail injuries. In many ways the obverse of weighted-horizontal allocation, time-on-the-risk secondary apportionment offers the best method of spreading a long-tail loss across the horizontal time axis after an initial vertical allocation. First the policyholder selects a targeted insurance period to pay any claims. Within this period, the insurance policies are exhausted vertically—primary, then first-level excess, and so on up the coverage ladder. These targeted insurers can then seek subrogation or contribution from the other triggered policy periods, which are deemed liable in proportion to the years and amounts of coverage they provided.¹³⁷

Applying this time-on-the-risk analysis permits a vertical allocation court to acknowledge the existence of horizontal time frame and to apportion the loss along it, while still requiring

employees Liab. Assurance Corp., 445 F.2d 1278 (5th Cir. 1971); Liberty Mut. Ins. Co. v. Truck Ins. Exch., 420 P.2d 66 (Or. 1966) (en banc).

136. Time-on-the-risk is often used to refer to straight-horizontal allocation. The term arose from the *Armstrong* case, which employed vertical allocation with secondary time-on-the risk apportionment. I use the term in its original sense. See *Armstrong World Indus. v. Aetna Cas. & Sur. Co.*, 52 Cal. Rptr. 2d 690, 710 (Ct. App. 1996).

137. Within each policy period, liability is again allocated along the vertical coverage ladder.

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insurers to provide “all sums” indemnification to the insured. By permitting a court to consider time-on-the-risk in conjunction with policy limits, this method provides for equitable apportionment of liability among the insurers. Because it respects the degree of risk assumed by the various insurers,¹³⁸ time-on-the-risk secondary apportionment can accommodate the long-tail scenario while still preserving the vertical allocation goal of treating long-tail injuries like conventional injuries. Insurers who contracted for greater exposure through higher policy limits or through a longer period of exposure will bear a larger share of any loss.

Although closely related to horizontal allocation, time-on-the-risk secondary apportionment avoids the major logistical problems associated with weighted-horizontal allocation. Where horizontal allocation must create fictitious “self-insurance” policies for periods without insurance, those years simply drop out of the time-on-the-risk secondary apportionment.

IV. COMPARISON OF HORIZONTAL AND VERTICAL ALLOCATION: TREATMENT OF ORPHAN SHARES

The core difference between the two approaches to allocation is the fate of any orphan shares—shares of liability that might otherwise be attributable to an insolvent insurer, to a lost insurance policy, or to a period without insurance. In vertical allocation, the insurers are typically on the hook for these sums, while in horizontal allocation, that same share would be allocated to the policyholder.

A. Orphan Shares in Vertical Allocation

If the policyholder’s coverage over the targeted policy period is sufficient, vertical allocation will assign any orphan share entirely to the insurers. For this reason, critics frequently accuse vertical allocation of engaging in an ends-rationalized attempt to maximize the insurance coverage available to contribute to an environmental cleanup.¹³⁹ Although there is language

138. To achieve that end, a court can apportion greater shares of liability to more recent years, which will presumably have more insurance coverage.

139. See Doherty, *supra* note 62; Rob S. Register, Comment, *Apportioning Coverage Responsibility of Consecutive Insurers Where the Actual Occurrence of Injury Cannot Be Ascertained: Who Has to Contribute to a Settlement?*, 49 MERCER L. REV. 1151

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in some of the cases that could be interpreted to support this accusation,¹⁴⁰ it is important to remember that single-vertical allocation does not necessarily maximize coverage. If, for example, a policyholder suffered a six-million-dollar loss as a result of an eighteen-year continuous long-tail injury, but had only one million dollars of insurance coverage each year, single-vertical allocation would result in a substantially smaller recovery than would horizontal allocation. Under single-vertical allocation, the most the policyholder could recover would be one million dollars—the maximum policy limits for each year. Under horizontal allocation, by contrast, the policyholder would be fully covered for the loss.¹⁴¹ Even if the policyholder was uninsured for one or more of the eighteen years, there are many scenarios under which horizontal allocation would still result in a larger recovery. Thus, it is plainly inaccurate to characterize vertical allocation as universally “favoring” the policyholder. Which allocation method will favor the policyholder depends entirely on the unique circumstances of a particular case.

For single-vertical allocation, as long as the policyholder has enough insurance within a policy period, the insurers will have to bear the risk of any orphan share. However, the question remains as to who among the insurers must bear that cost. Vertical allocation could draw an analogy from general CERCLA jurisprudence and mandate that the insurers in the targeted policy period be held jointly and severally liable up to their policy limits, with insurers from other policy periods only severally liable.¹⁴² Equally plausibly, each of the insurers could be held liable for an allocated portion of any orphan share. Thus far, vertical allocation theory is silent on this point. Because courts engaged in the allocation process are acting in equity, the second option is more appropriate. It is simply more logical to spread the orphan share burden equally across all triggered insurance policies, rather than permit orphan share

(1998).

140. *See Keene Corp. v. Insurance Co. of North America*, 667 F.2d 1034, 1042 (D.C. Cir. 1981).

141. In fact, such a recovery under horizontal allocation would be exactly the sort of stacking of insurance coverage rejected in *Keene*. *See id.*

142. Such a method would be consistent with some strains of thought about CERCLA liability where under § 107 liability for direct defendants is joint and several, but liability for third-party defendants under § 113 is several.

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liability to be controlled by the happenstance of which policy period is targeted in the first instance.

B. Orphan Shares in Horizontal Allocation

Horizontal allocation claims to avoid the orphan share problem entirely. Regardless of the reason for the lack of insurance, horizontal allocation would allocate the share for any periods without insurance entirely to the policyholder. In avoiding one set of problems, however, horizontal allocation exchanges it for another. What about orphan share due to insolvency, lost policies, or the complete unavailability of insurance? For straight-horizontal allocation, the answer is clear—the policyholder must bear a pro rata share for the periods in which it could not prove insurance coverage.¹⁴³ Lost policies and insurer insolvency thus returned the transferred risk squarely to the insured.

Weighted-horizontal allocation recognizes the serious inequities inherent to this approach and suggests a reluctance to assign policyholders the risk of any and all orphan shares.¹⁴⁴ Rather than resolving the question, however, weighted-horizontal “puts aside” the question and never returns to it, thus providing no guidance.¹⁴⁵ But, if horizontal allocation is really about segregating those risks that the policyholder transferred from those risks that the policyholder chose to bear, any periods of insurer insolvency, or any lost policies present a tremendous dilemma. The policyholder did not elect to “go bare” during those policy periods, yet is allocated a share of liability anyway.

One possible solution to this troubling orphan share issue in horizontal allocation would be to segregate different kinds of orphan shares. Orphan shares created by a failure to purchase insurance would be considered risks retained by the policyholder. Under horizontal allocation, there is no equitable bar to assigning those shares to the policyholder. The remaining or-

143. See *Insurance Co. of North America v. Forty-Eight Insulations, Inc.*, 633 F.2d 1212, 1224 (6th Cir. 1980), *reh'g granted, in part, clarified*, 657 F.2d 814 (6th Cir. 1981).

144. See *Owens-Illinois, Inc. v. United Ins. Co.*, 650 A.2d 974, 995 (N.J. 1994); *Stonewall Ins. Co. v. Asbestos Claims Mgmt. Corp.*, 73 F.3d 1178, 1200-03 (2d Cir. 1995).

145. See *Owens-Illinois*, 650 A.2d at 993 (“[P]ut[] aside for a moment the problem of periods of self-insurance.”).

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phan shares, arising from liability that would otherwise be allocated to an insolvent insurer, or to a lost policy, could then be evenly divided among all triggered policies. Under this proposal, horizontal allocation would spread the risk of insurer insolvency to the solvent insurers but would not similarly spread the risk of failure to purchase insurance. Although this is slippery ground, the logic behind horizontal allocation can support such a result. The rationale for the distinction is clear: respect the risk that was transferred, but require policyholders to internalize any risk they did not transfer.¹⁴⁶ Such a result requires partial abandonment of horizontal allocation's "during the policy period" reasoning, but may be justifiable in light of the indisputable facts that the insurance industry acted as a unified whole in drafting and promoting CGL policies and that each insurer did agree to the risk of paying its full policy limits. Because weighted-horizontal allocation already relies on a special master to perform the necessary allocations, this additional calculation could be incorporated into the horizontal allocation process without much effort.

An even larger conceptual problem for horizontal allocation is the fate of those years since adoption of the absolute pollution exclusion in 1986. As time drags on, the number of years since all CGL policies included this language increases. If horizontal allocation is applied literally, the policyholder's coverage must shrink every year as the ratio of insured to uninsured years decreases. At some point, the passage of time alone would decrease this ratio to the point that coverage under the policies would be illusory.

For example, if a suit were filed in 1996 claiming a continuous environmental injury dating back to 1966, any insurance coverage for the last ten years of that period, one-third of the continuous injury, would contain an absolute pollution exclusion. If a court employed horizontal allocation, and included the 1986-1996 time period in the calculation, the most the policyholder could recover, regardless of years of coverage or of policy limits, would be two-thirds of the loss. By contrast, a policyholder that suffered an identical injury but discovered the

146. See *Stonewall*, 73 F.3d at 1204 ("Moreover, we note that judges who have endorsed proration-to-the-insured have done so only to oblige a manufacturer to accept a proportionate share of a risk that it elected to assume, either by declining to purchase available insurance or by purchasing what turned out to be an insufficient amount of insurance.").

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problem in 1986 would be fully covered. And pity the poor policyholder who does not discover the same injury until 2006; its maximum potential recovery would be reduced even further. In all three cases, the injury is identical, and the policies from 1966 through 1985 are triggered and liable. But the insurance industry's 1986 decision to include an absolute pollution exclusion will reduce, year by year, the coverage available under the earlier policies. Such progressively disappearing coverage could not possibly be consistent with the reasonable expectations of either the insurer or the policyholder.¹⁴⁷

This critique highlights a major contradiction inherent to horizontal allocation. In adopting the continuous trigger rule, courts were addressing the insurers' argument that policyholders could not establish actual injury during the policy period and thus were failing to establish that a policy had been triggered at all. The continuous trigger rule responded to this argument by concluding that where a long-tail injury occurred, but the parties could not segregate discrete injuries in any meaningful fashion, all policy periods between exposure and the claim were presumed triggered. When environmental contamination arises from discrete and identifiable events, then the actual injury trigger requires those policies on the risk at the time of the injury to pay "all sums" for property damages, up to their policy limits.¹⁴⁸ If that same injury continues undetected for a period of years, however, it would become a long-tail injury subject to horizontal allocation. Under this latter scenario, the insurers' liability would automatically convert from "all sums" coverage to a pro-rata share of the loss. But each policy has a separate and independent obligation to indemnify the policyholder. There is no obvious reason to permit the event that triggers coverage to define the extent of coverage. By importing the continuous trigger notion into the allocation process, horizontal allocation curtails each insurer's liability to its policyholder simply because a long-tail injury occurs continuously over time and thereby implicates other insurance policies.

147. See *id.* at 1203 ("[W]e do not agree with the District Judge's subsidiary ruling that proration-to-the-insured should be applied to the years after 1985 when asbestos liability insurance was no longer available."). This logic applies at least as forcefully to the situation in which there is an orphan share based on insurer insolvency.

148. See, e.g., *Dotmar, Inc. v. Niagara Fire Ins. Co.*, 563 N.W.2d 724, 733-34 (Minn. 1997).

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Such an allocation is necessarily based on the conclusion that discrete injuries occurred in each policy period—a direct contradiction of the logic underlying the continuous trigger rule in the first place.

Were this just a matter of intellectual consistency, the contradiction might be of small moment. Unfortunately, the real world reverberations of this contradiction are extremely powerful. By reading the continuous trigger into the allocation process, horizontal allocation permits the insurance industry, through its subsequent decision not to offer environmental coverage, to retrospectively reduce the nature and extent of liability under these triggered policies. Such an approach makes a policyholder's coverage contingent on an insurer's decision not to later change the coverage provision. A rule that reduces or deprives an insured of previously purchased coverage is not only contrary to the basic canons of contract law but also expressly contradicts ISO representations in 1986 that the new CGL policies would not affect the operation of previously-issued policies.¹⁴⁹

Some jurisdictions escape this conundrum by drawing from vertical allocation and simply dropping years after addition of the absolute pollution exclusion from the allocation calculation. These jurisdictions limit any allocation to years “that would be triggered if a policy were applicable in that year.”¹⁵⁰ Such an approach relies on the notion that policies containing an absolute pollution exclusion could not have been triggered by a long-tail injury. Like the insurer insolvency issue addressed above, this approach tempers horizontal allocation's focus on “during the policy period” and instead emphasizes the distinction between a failure to purchase available insurance and the unavailability of environmental insurance after a certain date.¹⁵¹ In an extremely powerful dissent, however, Justices

149. See James F. Hogg, *The Tale of a Tail*, 24 WM. MITCHELL L. REV. 515 (1998) (describing ISO representations); see also, *Stonewall*, 73 F.3d at 104 (recognizing that policyholders did not “bargain away” asbestos coverage but rather had no voice in the insurer decision to eliminate this coverage).

150. *American Nat'l Fire Ins. Co. v. B & L Trucking & Constr. Co.*, 951 P.2d 250, 256 (Wash. 1998) (en banc). See *Owens-Illinois*, 650 A.2d at 995 (“When periods of no insurance reflect a decision by an actor to assume or retain a risk, as opposed to periods when coverage for a risk is not available, to expect the risk-bearer to share in the allocation is reasonable.”).

151. *Stonewall* rejected proration-to-the-insured for those years in which insurance was not available due to a coverage exclusion.

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Madsen, Alexander, Sanders and Chief Justice Durham of the Washington Supreme Court argue that this distinction between self-insurance by affirmative decision and self-insurance where coverage is not available is contrary to the root principle of horizontal allocation.¹⁵² The justices suggest that the reason for a failure to insure is irrelevant and that consideration of insurance availability cannot be reconciled with the bedrock horizontal principle that each policy provides coverage only for injuries that occur “during the policy period.”

V. CONCLUSION

In an ideal world, all jurisdictions would agree on one allocation method to be employed in every long-tail insurance case. This article suggests that the method should be what I have termed single-vertical allocation followed by “time-on-the-risk” secondary apportionment. For jurisdictions that have yet to decide this issue, this suggested method holds out the promise of consistent and equitable results that carefully balance the competing policy concerns implicated by long-tail environmental insurance claims. Not only does this method make sense of the law and of the underlying social questions, but it also streamlines litigation. Parties will be able to calculate their likely allotted shares and settle accordingly, thereby sparing themselves and the judicial system protracted litigation.¹⁵³

Because insurance questions are a matter of state law, and various state supreme courts have already adopted horizontal allocation, total unanimity on this point is unlikely in the near future. Under a second-best approach, horizontal jurisdictions can standardize and rationalize their allocation process. Done in the most reasonable manner, horizontal allocation involves weighted-primary allocation followed by “fill-the-glass” secondary apportionment. If horizontal jurisdictions additionally elect to exclude orphan shares created by the absolute pollution

152. See *B & L Trucking*, 951 P.2d 250, 260 n.10 (“While some courts distinguish those cases where the insured has affirmatively elected self-insurance (going bare) from those where, for example, coverage is not available, in either case, the insurer which has contracted to provide coverage for insured periods has not contracted to provide coverage for damage outside the policy period.”) (Madsen, J., dissenting).

153. See, e.g., Robert H. Mnookin & Lewis Kornhauser, *Bargaining in the Shadows of the Law: The Case of Divorce*, 88 YALE L.J. 950 (1979) (describing the law as providing a framework within which parties bargain to privately order their respective rights).

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exclusion or by insurer insolvency from the shares of liability prorated to the policyholder, such a decision would go a long way towards minimizing the otherwise troubling weaknesses inherent to horizontal allocation.