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Burlington Northern: The Super Quake and Its Aftershocks

by

John M. Barkett*

Introduction

Talk about shaking up the Superfund world. The Supreme Court's hat trick—*Aviall*,[1] *Atlantic Research*,[2] and now *Burlington Northern*[3]—has done just that. What used to be is no more. Contribution plaintiffs require a predicate § 106 or § 107 action before they can sue (*Aviall)*, but § 107 also permits private rights of action in cost recovery (*Atlantic Research)*. In *Burlington Northern*, the Supreme Court has now confirmed that "intentional steps to dispose of a hazardous substance" must be shown to establish arranger liability under § 107(a)(3), and a reasonable basis for apportionment—or "an allocation of liability," to use the Court's words—can be based on geography, time, and volumetric estimates in the absence of specific and detailed records, thereby clearing the former treacherous path to avoidance of joint and several exposure. What's next? That's the question many are asking and, after discussing *Burlington Northern*, I will try to answer.

*Mr. Barkett is a partner at the law firm of Shook, Hardy & Bacon L.L.P. in its Miami office. He is a graduate of the University of Notre Dame (B.A. Government, 1972, summa cum laude) and the Yale Law School (J.D. 1975) and served as a law clerk to the Honorable David W. Dyer on the old Fifth Circuit Court of Appeals. Mr. Barkett is an adjunct professor of law at the University of Miami Law School.

The Supreme Court's Decision in *Burlington Northern*

From 1960 to 1989, the facility operator in *Burlington Northern,* Brown & Bryant, Inc. (B&B), operated an agricultural chemical distribution business on a 3.8 acre parcel of land in Arvin, California. B&B's property adjoined a .9 acre parcel owned by the Atchison, Topeka & Santa Fe Railway Company and the Southern Pacific Transportation Company (Railroads).[4] From 1975 through 1988, B&B leased the "Railroad parcel" for vehicle and equipment storage, washing, and limited loading and unloading of agricultural chemicals. The alleged arranger in *Burlington Northern*, Shell Oil Company (Shell), sold a soil fumigant called "D-D" to B&B.[5] From time to time during or after delivery of D-D to B&B, D-D spills occurred.[6] There were also releases of chemicals on the Railroad parcel. Both parcels were graded so that runoff flowed to a sump and drainage pond located on B&B's property. The sump and drainage pond were lined in 1979 prior to which runoff would seep into the groundwater.

EPA and the State of California's Department of Toxic Substances Control (Governments) incurred response costs at the site in excess of $8 million.[7] B&B was bankrupt. Hence, the Governments sought to hold the Railroads and Shell jointly and severally liable for all response costs.[8] Shell argued it was not an arranger, and both it and the Railroads argued the harm was divisible. The district court

found Shell to be an arranger, but that the harm was divisible. Using traditional allocation factors,[9] it allocated 9% of the liability to the Railroads[10] and 6% to Shell. 2003 WL 25518047 at *90-94. An appeal was taken. The Ninth Circuit agreed that Shell was an arranger but disagreed that the defendants had made a sufficient showing of divisibility of the harm.[11] In this posture, the matter reached the Supreme Court.

The New "Arranger" Liability

The Court first addressed Shell's argument that it was not an arranger for disposal. While CERCLA does not define "arrange for," the Court was comfortable that it could identify the outer contours of liability:

> It is plain from the language of the statute that CERCLA liability would attach under § 9607(a)(3) if an entity were to enter into a transaction for the sole purpose of discarding a *used and no longer useful hazardous substance*. It is similarly clear that an entity could not be held liable as an arranger merely for selling a new and useful product *if the purchaser of that product later, and unbeknownst to the seller, disposed of the product* in a way that led to contamination.

2009 WL 1174849 at *6 (emphasis added). Between these extremes, the Court acknowledged that arranger liability is the product of a fact-intensive and case-specific inquiry but only after it is first determined that the potential liability is within "the limits of the statute itself." *Id*. Thus, the Court had to determine those limits by interpreting the statutorily-undefined words, "arrange for" disposal. Giving the word "arrange" its ordinary meaning,"[12] the Court held that "an entity may qualify as an arranger under § 9607(a)(3) when it takes intentional steps to dispose of a hazardous substance." *Id*. By its citation to *United States v. Cello-Foil Products, Inc*., 100 F.3d 1227 (6th Cir. 1996),[13] the Court also endorsed the role of "state of mind" in evaluating arranger liability.[14]

But what about the last word in this phrase: "disposal"? Does its meaning affect the outcome? CERCLA defines "disposal" by reference to the Solid Waste Disposal Act, 42 U.S.C. § 6903(3),[15] and based on this definition, the Governments argued that arranger liability exists when an entity sells a useful product that contains a hazardous substance "knowing that some disposal may occur as a collateral consequence of the sale itself." *Id*. at *7.

> Applying that reading of the statute, the Governments contend that Shell arranged for the disposal of D–D within the meaning of § 9607(a)(3) by shipping D–D to B&B under conditions it knew would result in the spilling of a portion of the hazardous substance by the purchaser or common carrier. See Brief for United States 24 ("Although the delivery of a useful product was the ultimate *purpose* of the arrangement, Shell's continued participation in the delivery, with knowledge that spills and leaks would result, was sufficient to establish Shell's intent to dispose of hazardous substances"). Because these spills resulted in wasted D–D, a result Shell anticipated, the Governments insist that Shell was properly found to have arranged for the disposal of D–D.

Id. (emphasis in the original).

The Supreme Court rejected the argument. "Knowledge alone," Justice Stevens wrote, is "insufficient to prove that an entity 'planned for' the disposal, particularly when the disposal occurs as a peripheral result of the legitimate sale of an unused, useful product." *Id*. Rather, to establish liability, "Shell must have entered into the sale of D–D with the intention that at least a portion of the product be disposed of during the transfer process by one or more of the methods described in § 6903(3)." Continuing a pattern in recent Supreme Court jurisprudence of giving meaning again to district court findings of fact, the Court explained that "the district court's findings do not support such a conclusion." *Id*.

> Although the evidence adduced at trial showed that Shell was aware that minor, accidental spills occurred during the transfer of D–D from the common carrier to B&B's bulk storage tanks after the product had arrived at the Arvin facility and had come under B&B's stewardship, the evidence does not support an inference that Shell intended such spills to occur. To the contrary, the evidence revealed that Shell took numerous steps to encourage its distributors to *reduce* the likelihood of such spills, providing them with detailed safety manuals, requiring them to maintain adequate storage facilities, and providing discounts for those that took safety precautions. Although Shell's efforts were less than wholly successful, given these

> facts, Shell's mere knowledge that spills and leaks continued to occur is insufficient grounds for concluding that Shell "arranged for" the disposal of D–D within the meaning of § 9607(a)(3). Accordingly, we conclude that Shell was not liable as an arranger for the contamination that occurred at B&B's Arvin facility.

Id at *8. (emphasis in the original). As a result, the Court did not need to consider Shell's divisibility-of-harm argument.

But it had to address the issue anyway because the Ninth Circuit had ignored the trial court's findings and rejected the Railroads' divisibility of harm defense.

Eschewing Exactitude or Precision in Establishing Divisibility of Harm

While Justice Thomas's statement in *Atlantic Research* that the Court was not deciding whether § 107 imposes joint and several liability[16] may have prompted some to wonder how the Court would address this question, Justice Stevens backed into a holding that it does--sometimes. He called the holding in *United States* v. *Chem-Dyne Corp*., 572 F. Supp. 802 (S.D. Ohio 1983) the "seminal opinion on the subject of apportionment in CERCLA actions." The district court in *Chem-Dyne* had held that the liability standard under CERCLA is joint and several but, relying on the Restatement (Second) of Torts, § 433A, that it can be defeated by a showing of divisibility of harm.[17] In words that will likely resonate often in the Superfund world, quoting Judge Rubin, the Court said that joint and several liability is not mandated in every CERCLA cost-recovery action and that Congress intended the scope of liability to "'be determined from traditional and evolving principles of common law[.]'" 2009 WL 1174849 at *8 quoting 520 F. Supp. at 807-08.

Agreeing that a defendant has the burden of proof on divisibility of harm, the Court explained that the question for resolution was whether the Railroads had met their burden to show a reasonable basis for "the District Court's conclusion that the Railroads were liable for only 9% of the harm caused by contamination at the Arvin facility." *Id*. at *9.

There was a minor hiccup that had to be addressed before answering this question. In the district court, the Railroads argued they had no responsibility for any releases on their parcel, and the Governments argued that there was no basis for divisibility of harm. That prompted the district court to say,

> Apportionment in this case is exacerbated by defendants' "scorched earth," all-or-nothing approach to liability. Neither acknowledged an iota of responsibility, in the case of Shell, for causing "releases of hazardous substances, and in the case of the Railroads, that any release of hazardous substance that required response occurred on Railroad parcel throughout the 13 year lease terms. Neither party offered helpful arguments to apportion liability. On the other hand, the Governments contend that contribution to the harm is indivisible and because the overwhelmingly responsible party, the Site 81% owner and sole operator, B & B is bankrupt, that both defendants are 100% jointly and severally liable. All parties thereby effectively abdicated providing any helpful arguments to the court and have left the court to independently perform the *equitable apportionment analysis* demanded by the circumstances of the case.

2003 WL 25518047 at *82 (emphasis added). The reference to "equitable" apportionment prompted the Court to explain that equitable considerations play a role in a contribution analysis under CERCLA's § 113(f)(1), but play no role in an apportionment analysis. However, it did not matter here:

> The error is of no consequence, however, because despite the District Court's reference to equity, its actual apportionment decision was properly rooted in evidence that provided a reasonable basis for identifying the portion of the harm attributable to the Railroads.

2009 WL 1174849 at *9 n.9.

As described earlier, in making its findings that the Railroads' liability was 9% of response costs, the district court primarily considered geography, time, and volume:

- The Railroad parcel constituted 19% of the surface area of the Arvin site;
- the Railroads had leased their parcel to B&B for 13 years, which was 45% of the time B&B operated the Arvin facility; and
- the volume of hazardous substance-releasing activities on the B&B property was at least 10

> times greater than the releases that occurred on the Railroad parcel, and only spills of Nemagon and dinoseb (not D–D) substantially contributed to the contamination that had originated on the Railroad parcel.

Id. at *9. Because the district court found that Nemagon and dinoseb had contributed to two-thirds of the overall site contamination requiring remediation, the district court multiplied 19% by 45% by two-thirds and "rounded up to determine that the Railroads were responsible for approximately 6% of the remediation costs," to which the district court applied a 1.5 multiplier to allow for "calculation errors," resulting in a liability share for the Railroads of 9%. *Id*.

The court of appeals rejected the district court's logic, and Justice Stevens then summarized the Ninth Circuit's reasons why:

- a lack of sufficient data to establish the precise proportion of contamination that occurred on the relative portions of the Arvin facility;
- a lack of sufficient data to establish the rate of contamination in the years prior to B&B's addition of the Railroad parcel;
- the absence of a relationship between the duration of the lease or the size of the leased area alone to the amount of harm caused by activities on the property owned by the Railroads; and
- reliance on estimates rather than specific and detailed records.

Id. at *10.

The Court was not persuaded:

> Despite these criticisms, we conclude that the facts contained in the record reasonably supported the apportionment of liability. The District Court's detailed findings make it abundantly clear that the primary pollution at the Arvin facility was contained in an unlined sump and an unlined pond in the southeastern portion of the facility most distant from the Railroads' parcel and that the spills of hazardous chemicals that occurred on the Railroad parcel contributed to no more than 10% of the total site contamination, see id., at 247a–248a, some of which did not require remediation. With those background facts in mind, we are persuaded that it was reasonable for the court to use the size of the leased parcel and the duration of the lease as the starting point for its analysis. Although the Court of Appeals faulted the District Court for relying on the "simplest of considerations: percentages of land area, time of ownership, and types of hazardous products," 520 F. 3d, at 943, these were the same factors the court had earlier acknowledged were relevant to the apportionment analysis. See id., at 936, n.18 ("We of course agree with our sister circuits that, if adequate information is available, divisibility may be established by 'volumetric, chronological, or other types of evidence,' including appropriate geographic considerations" (citations omitted)).

Id. With respect to the absence of records and the use of estimates, the Court applied a practical, common-sense analysis in endorsing the approach to apportionment taken by the district court:

> The Court of Appeals also criticized the District Court's assumption that spills of Nemagon and dinoseb were responsible for only two-thirds of the chemical spills requiring remediation, observing that each PRP's[18] share of the total harm was not necessarily equal to the quantity of pollutants that were deposited on its portion of the total facility. Although the evidence adduced by the parties did not allow the court to calculate precisely the amount of hazardous chemicals contributed by the Railroad parcel to the total site contamination or the exact percentage of harm caused by each chemical, the evidence did show that fewer spills occurred on the Railroad parcel and that of those spills that occurred, not all were carried across the Railroad parcel to the B&B sump and pond from which most of the contamination originated. The fact that no D–D spills on the Railroad parcel required remediation lends strength to the District Court's conclusion that the Railroad parcel contributed only Nemagon and dinoseb in quantities requiring remediation.[19]

Calling the district court's "ultimate allocation of liability" "supported by the evidence" and saying it "comports with the apportionment principles outlined above,"[20] the Court reversed the Ninth Circuit's conclusion that the Railroads are subject to joint and several liability for all site response costs. *Id*. at *11.

So now what? I first address the significance of the Court's arranger liability analysis and then the future of joint and several liability under § 107.

"Arranger" Liability Aftershocks

CERCLA § 107(a)(3), 42 U.S.C. § 9607(a)(3), provides for liability of

> any person who by contract, agreement, or otherwise arranged for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility…owned or operated by another party or entity and containing such hazardous substances.[21]

In the earliest days of Superfund litigation, a key question to be answered was whether this language embraced a "sale" of a used but useful product. *United States v. A&F Materials Co*., 582 F. Supp. 842 (S.D. Ill. 1984) provided the first answer to this question. The PRP in question had sold spent caustic as a surrogate for virgin caustic to the operator of the Superfund site. The district court denied the PRP's motion for summary judgment on whether the spent caustic was a "waste" and then, assuming that it was, proceeded to hold that the sale in this case amounts to an arrangement for disposal. The district court held that receipt of consideration for the spent caustic was "irrelevant,"[22] and the only relevant inquiry under § 107(a)(3) was who decided to place the waste into the hands of the Superfund facility. *Id*. at 845.

A&F spawned a litany of reported decisions that have struggled with the role "intent" plays in "arranger" liability. It was followed by the Eighth Circuit in *United States v. Aceto Agricultural Chemicals Corp*., 872 F.2d 1373 (8th Cir. 1989). The court of appeals concluded that a tolling arrangement, where a raw material supplier retains title to the chemicals in question and spillage is a consequence of the third-party's manufacturer's operations, can create arranger liability for the supplier of the raw materials. The juxtaposition of the analysis in *Aceto* and that of Justice Stevens in *Burlington Northern* demonstrates the impact of the Supreme Court's decision on the arranger case law. In arguing that they could only be liable under § 107(a)(3) if they intended to dispose of a waste, the *Aceto* defendants cited the same "dictionary definitions" of the word "arrange," cited by Justice Stevens in *Burlington Northern*,[23] to no avail:

> Citing dictionary definitions of the word "arrange," defendants argue they can be liable under section 9607(a)(3) only if they intended to dispose of a waste. Defendants argue further the complaint alleges only an intent to arrange for formulation of a valuable product, and no intent to arrange for the disposal of a waste can be inferred from these allegations. We reject defendants' narrow reading of both the complaint and the statute.
>
> Congress used broad language in providing for liability for persons who "by contract, agreement, or *otherwise arranged for"* the disposal of hazardous substances. See A & F Materials, 582 F.Supp. at 845. While the legislative history of CERCLA sheds little light on the intended meaning of this phrase, courts have concluded that a liberal judicial interpretation is consistent with CERCLA's "overwhelmingly remedial" statutory scheme.

872 F.2d at 1380 (footnote and citations omitted; emphasis in original).[24]

Other circuits took a different view. Without any mention of *Aceto*, the Seventh Circuit in *Amcast Industrial Corp. v. Detrex Corp*., 2 F.3d 746, 751 (7th Cir. 1993), another spillage in delivery case, held that the words used in §107(a)(3) "imply intentional action."

> The words "arranged with a transporter for transport for disposal or treatment" appear to contemplate a case in which a person or institution that wants to get rid of its hazardous wastes hires a transportation company to carry them to a disposal site.

Id.[25] As noted earlier, the Sixth Circuit in *United States v. Cello-Foil Products, Inc*., 100 F.3d 1227 (6th Cir. 1996) acknowledged that § 107(a)(3) required a showing of "intent" in deciding that there were material issues of disputed facts whether a drum-for-deposit return program constituted an arrangement for disposal where the returned drums, in some cases, contained residual amounts of their original chemical contents. In *Redwing Carriers, Inc*. v. *Saraland Apartments*, 94 F. 3d 1489, 1506, 1512 (11th Cir. 1996), the Eleventh Circuit elected not to adopt the reasoning of the district court that intent was required under § 107(a)(3), holding instead that intent was "relevant" but not required; yet still found that there was not an arrangement for disposal by certain of the defendants.[26] In *Ekotek Site PRP Committee v. Self,* 932 F. Supp. 1328, 1336 (D. Utah 1996), decided a few months before *Redwing Carriers*, the district court predicted that the Tenth Circuit "would follow the Seventh and Eleventh Circuits and require intentional action before arranger liability attaches."[27]

In light of these competing analyses, it was not a surprise that district courts struggled in their attempts to apply § 107(a)(3). In some cases the sale of used transformers was not an arrangement; in another case it was.[28] The sale to a broker of fly ash—a byproduct of coal combustion—by a utility was not an arrangement for disposal where it was later released into the environment at the site in issue by the person who purchased it from the broker but where certain grades of fly ash are commercially valuable as a raw material for road base. *United States v. Petersen Sand and Gravel Inc*., 806 F. Supp. 1346, 1354 (N.D. Ill. 1992).[29] The sale of lead plates reclaimed by a lead-acid battery reclamation facility to a facility involved in secondary smelting of lead was not an arrangement for disposal or treatment, *Douglas County v. Gould Inc*., 871 F. Supp. 1242, 1246-47 (D. Neb. 1995),[30] whereas the sale of intact batteries to a reclaimer was such an arrangement, where battery casings were the source of the contamination and the battery reclaimer took the battery casings to the disposal site in issue. *Catellus Dev. Corp. v. United States*, 34 F.3d 748 (9th Cir. 1994).[31]

In *United States v. Wedzeb Enterprises, Inc*., 844 F. Supp. 1328, 1335-36 (S.D. Ind. 1992), unused but functional capacitors containing polychlorinated biphenyls (PCBs) were delivered "as is" for "next to nothing" to Wedzeb, a surplus electronics component broker, for resale. The transfers were made in anticipation of government regulations controlling the sale of equipment containing PCBs. The capacitors were stored in a warehouse. A fire occurred at the warehouse resulting in an EPA cleanup. EPA sued the capacitor suppliers for response costs. Focusing on the complete definition of "disposal" under the Solid Waste Disposal Act,[32] the district court held that the suppliers had not arranged for disposal of the capacitors, in part, because there was a market for the capacitors:

> CERCLA requires the Court to take an objective look at the capacitors and determine whether they meet the statutory definition of "hazardous waste" and whether the Defendants "disposed" of them. While there may be other ways of determining whether something has value and is not waste, this Court is satisfied that the marketplace provides a reasonable, objective gauge of product worth. Selling a useful, marketable product that is not destined to enter the environment, as for example through application, dumping, or spilling on the land, etc., does not constitute "disposal" under the Act. By definition, such a useful, marketable product is not waste under the Act. The evidence in this case indicates that the consumer demand for Wedzeb's capacitors was sufficient to lift them out of any classification as "waste" or "refuse".

Id. at 1335-36 (citation omitted).

In contrast, cases involving solder dross,[33] solvents,[34] scrap metal,[35] slag,[36] styrene,[37] wheel bearings,[38] and used motor oil[39] focused not on whether a market existed for the product but on whether the transaction was a genuine sale or was designed to "get rid" of the material, or who made the decision to place the wastes at the facility that is contaminated. When arranger liability has been found, the case law is also replete with references to the need to satisfy the broad remedial purpose of CERCLA.[40]

So what impact will *Burlington Northern* have on arranger liability?

For transactions involving scrap paper, scrap plastic, scrap glass, scrap textiles, or scrap rubber (other than whole tires), scrap metal, or spent lead-acid, spent nickel-cadmium, and other spent batteries, "as well as minor amounts of material incident to or adhering to the scrap material as a result of its normal and customary use prior to becoming scrap," the answer is none. 42 U.S.C. § 9627. Added in 1999 as a congressional reaction to the interpretive breadth given by judges to § 107(a)(3),[41] the Superfund Recycling Equity Act (SREA) eliminates arranger and transporter liability under §§ 107(a)(3) and (a)(4)[42] as long as certain conditions are satisfied.[43]

For transactions involving a sale of a used or recyclable product not covered by SREA, the first question that will be asked is whether the statute is even applicable. For a virgin product, as was sold by Shell in *Burlington Northern*, there must be proof of "the intention that at least a portion of the product be disposed of." 2009 WL 1174849 at *7.

For used or non-SREA recyclable materials like used oil or solvents, knowledge of the buyer's planned activities or processes and the motive for the sale will be the focal point of the "fact-intensive inquiry" to determine "whether the arrangement was one Congress intended to fall within the scope of CERCLA's strict-liability provisions." *Id*.

The entity that sold solvents or used oil for fuel blending or recycling will embrace the analytic framework of *Burlington Northern* because it focuses not on a broad remedial purpose of CERCLA but on the statutory language used by Congress: what did the seller arrange for? This is especially the case if a seller is unaware of the creation of wastes as part of a blending or reclamation process and the wastes are disposed of at a location other than the blender or recycler's facility.

One can also expect that there may be a larger scope given to the word "intent" where the transaction in question does not, from the seller's perspective, contemplate that the hazardous substance in question will be spilled, leaked, dumped, discharged, or placed "into or on any land or water" so that the waste "may enter the environment," as is required by the definition of disposal in 42 U.S.C. § 6903(3). By its citation to *Cello-Foil Products*, the Supreme Court elevated an arranger's state of mind to factual prominence in arranger liability trials.

There may be greater emphasis on an arrangement for "treatment" in certain circumstances[44] although this portion of § 107(a)(3) apparently would not apply if the release of hazardous substances in issue occurs at a facility other than the treatment facility. *Catellus Dev. Corp. v. United States*, *supra*, 34 F.3d at 753 (battery casings delivered to a third party site by a battery reclaimer did not amount to an arrangement for treatment at that site by the original source of the used batteries). And the analysis of apportionment or allocation may be affected by the nature of the arrangement.

After *Burlington Northern*, good lawyering will be at a premium, how the facts present themselves or are presented will dictate the outcome, and summary judgments will be less likely in "arranger" cases within the § 107(a)(3) liability contours set forth by Justice Stevens. 2009 WL 1174849 at *6. And, if enough time has passed so that there may not be any evidence to shed light on the seller's intent, the burden of proof may well be outcome determinative since a plaintiff will have to prove the alleged arranger's intent.[45]

Apportionment Aftershocks

The Supreme Court correctly referred to Judge Rubin's opinion in *Chem-Dyne* as the seminal opinion on the liability standard applicable to § 107. As Judge Rubin explained, an earlier draft of the Superfund bill had a joint and several liability standard but it was deleted before final passage of the bill:

> the scope of liability and term joint and several liability were deleted to avoid a mandatory legislative standard applicable in all situations which might produce inequitable results in some cases. 126 Cong.Rec. at S14964, S15004, H11787, H11799, 126 Cong.Rec. H9465 (Sept. 23, 1980) (remarks of Rep. Madigan), H9466 (Remarks of Rep. Stockman). The deletion was not intended as a rejection of joint and several liability. 126 Cong.Rec. S14964, H11787, H11799 (Nov. 24, 1980). Rather, the term was omitted in order to have the scope of liability determined under common law principles, where a court performing a case by case evaluation of the complex factual scenarios associated with multiple-generator waste sites will assess the propriety of applying joint and several liability on an individual basis.

United States v. Chem-Dyne Corp., supra, 572 F. Supp. at 808.

For its part, Justice Stevens' opinion never directly says that the liability standard under § 107 is joint and several. Instead, he backed into this conclusion by saying that Judge Rubin determined that CERCLA did not mandate joint and several liability in every case, and that Congress intended the scope of liability to "'be determined from traditional and evolving principles of common law[.]'" 2009 WL 1174849 at *8 quoting 520 F. Supp. at 807-08. He then explained that the Courts of Appeals had embraced the *Chem-Dyne* approach and agreed that the "universal starting point" for a divisibility of harm analysis was § 433A of Restatement (Second) of Torts, *id*. at 9. § 433A asks the question of whether there is "a reasonable basis for division" of a distinct or single harm caused by two or more persons acting independently, or, as the Court summarized,

> In other words, apportionment is proper when "there is a reasonable basis for determining the contribution of each cause to a single harm." Restatement (Second) of Torts § 433A(1)(b), p. 434 (1963-1964).

Id.

So how many cases actually resulted in a divisibility of harm between *Chem*-Dyne in 1983 and May

3, 2009, the day before the opinion in *Burlington Northern* was issued? Not very many as the following case law survey[46] will demonstrate.

In applying § 433A, the Fourth Circuit found the proof insufficient to establish divisibility in *United States v. Monsanto Company et al*., 858 F.2d 160 (4th Cir. 1988). The arrangers in question had argued that divisibility could be shown based on the volume of waste each contributed to the site. Recognizing that "proportionate volumes of hazardous substances may well be probative of contributory harm" in other cases, it was not here because there was no effort made to account for the toxicity of each waste. *Id*. at 172-73.[47]

The defense was also rejected in *O'Neill v. Picillo*, 883 F.2d. 176 (1st Cir. 1989) *cert. denied* 493 U.S. 1071 (1990), because of a failure of proof. Arrangers had sought to show that divisibility could be determined based on the number of barrels of waste they had sent to the site compared to the total number of barrels removed during a response action. The court of appeals concluded, however, that one arranger was unable to demonstrate how many of its barrels reached the site because (a) it denied that any of its wastes were supposed to go the site (a pig farm), (b) evidence existed as to the business unit that generated the waste, (c) that business unit had generated over 2,000 drums of waste, and (d) the transporter for these drums used by that business unit "proved to be unreliable." *Id*. at 182.[48]

The *Alcan* cases in the Third Circuit and then the Second Circuit created the first ray of divisibility hope for Superfund PRPs. In 1992, the Third Circuit decided *United States v. Alcan Aluminum Corp*., 964 F.2d 252, vacating a summary judgment for the United States and remanded the divisibility issue for trial. The court of appeals uttered the now-famous phrase that rejected a standard argument against divisibility: "we also reject the Government's argument that a hearing is unnecessary because Alcan has admitted that its emulsion was 'commingled' with the other generators' waste: 'commingled' waste is not synonymous with 'indivisible' harm." *Id*. at 270 n.29.[49] The court of appeals also recognized the similarity between apportionment and contribution:

> We observe that some courts have held that a generator may present evidence that it has paid more than its "fair share" in a contribution proceeding, expressly permitted under 42 U.S.C. § 9613(f)(2). In a sense, the "contribution" inquiry involves an analysis similar to the "divisibility" inquiry, as both focus on what harm the defendant caused.

Id.[50]

In January 1993, the Second Circuit addressed Alcan's same waste emulsion which had been disposed of at a facility in New York at which EPA and the State of New York spent over $12 million in response costs. In 1987, the United States sued to recover its response costs and thereafter settled with 82 defendants recovering 74 percent, or $9.1 million. "Alcan was the lone holdout," was found liable, and failed to prove divisibility of harm. *United States v. Alcan Aluminum Corp*., 990 F.2d 711, 717 (2nd Cir. 1993).[51] However, following up on the Third Circuit's decision in *Alcan*, the Second Circuit held that there were disputed issues of fact[52] and remanded the matter.[53]

Later in 1993, the Fifth Circuit decided *Bell Petroleum*,3 F.3d 889, and many Superfund lawyers finally saw a hint of relief from the force of joint and several liability that had swept over PRPs in the ten years since *Chem-Dyne* had been decided. Successive owners of the same plating facility had discharged chromium-contaminated wastes that had contaminated groundwater. One of the facility operators, Sequa, argued that it had contributed 4% of the wastes,[54] a divisible amount of harm. Its proof consisted of the relative years of operation, and "incomplete" records of (a) chrome flake purchases, (b) the value of chrome plating performed by each operator, and (3) summaries of sales. For each facility operator, there was also testimony about rinsing and wastewater disposal practices, electrical usage records, and the relative amounts of chrome-plating activity. Experts converted all of this evidence into a volumetric apportionment. The district court rejected the divisibility defense. The court of appeals reversed:

> Essentially, the question whether there is a reasonable basis for apportionment depends on whether there is sufficient evidence from which the court can determine the amount of harm caused by each defendant. If the expert testimony and other evidence establishes a factual basis for making a reasonable estimate that will fairly apportion liability, joint and several liability should not be imposed in the absence

> of exceptional circumstances. The fact that apportionment may be difficult, because each defendant's exact contribution to the harm cannot be proved to an absolute certainty, or the fact that it will require weighing the evidence and making credibility determinations, are inadequate grounds upon which to impose joint and several liability.

Id. at 903. The court of appeals added this observation:

> Of course, making such apportionment decisions should not be difficult for any factfinder that has been called on to apportion fault under comparative negligence statutes. Such decisions are rarely, if ever, made on the basis of evidence showing to a certainty the proportion of each party's fault.

Id. n.16.

Bell Petroleum was quickly followed by *United States v. Broderick Investment Co*., 862 F. Supp. 272, 277 (D. Colo. 1994), which also permitted the defense based on the geographic separation of two groundwater plumes.[55]

Reality reappeared in *United States v. Vertac Chemical Corp. et al*., 966 F. Supp. 1491 (E.D. Ark. 1997). Consistent with *Bell* Petroleum's observation about the routine nature of comparative fault determinations by factfinders, an advisory jury determined that one defendant, Uniroyal, had established that its harm to the environment was reasonably distinguishable from the harm caused by others. Refusing to consider *Bell Petroleum,* the district court explained that it was not bound by the factfinder's determination, and proceeded to find that Uniroyal failed to demonstrate "that there is a reasonable basis for determining the contribution of each cause to a single harm."[56]

Similarly, in *State of Washington v. United States*, 922 F. Supp. 421, 429 (W.D. Wash. 1996), the district court held that movants failed to carry their burden of showing divisibility in a surface water setting where the proof was "merely showing that there are areas where concentrations of contaminants are higher" as opposed to two separate, unmixed plumes.[57]

Acushnet Company et al. v. Mohasco Corp. et al., 191 F.3d 69 (1st Cir. 1999) was a contribution action where a defendant asserted divisibility of harm. The court of appeals acknowledged that many of the same considerations in an equitable allocation under § 113(f) apply to a divisibility of harm showing but chose not to address the propriety of the defense under the circumstances presented. *Id*. at 78 n.8.[58]

The Sixth Circuit entered the divisibility fray also in 1999 in *United States v. Township of Brighton*, 153 F.3d. 307. Relying on § 433A, it vacated a district court judgment of no divisibility and remanded for reconsideration based on this standard: "we accept only bases that apportion causation, not those that seek to apportion blame in a normative manner." *Id*. at 319.[59] To establish divisibility, the Township argued that it only utilized a discrete portion of the landfill in issue, and was not the source of industrial wastes. The court of appeals acknowledged geography could play a role in divisibility. It also acknowledged that toxicity could play a role but perhaps less so where the Township may have been an operator for a period of time.[60] Finally it agreed that the time period of operation could also be a divisibility-of-harm factor. *Id*. at 319-20.

The Eighth Circuit then decided *United States v. Hercules, Inc. et al*., 247 F.3d 706 *cert. denied*, 534 U.S. 1065 (2001) which also embraced § 433A and vacated the district court's decision to reject a divisibility defense. The stakes were high. Hercules faced a joint and several judgment of $89 million,[61] even though the district court acknowledged that Hercules would be left "holding the bag" for Vertac "who at least arguably caused the greatest amount of harm." *Id*. at 714 quoting *U.S. v. Vertac Chemical Corp*., 79 F. Supp.2d 1034, 1036 (E.D. Ark., 1999). In a pithy discussion leading to the remand, the court of appeals concluded that the district court committed "legal errors" in applying the divisibility defense. 247 F.3d at 719. It did, however, survey the case law to give these examples of divisibility: geographically separate areas or plumes, proof of the degree to which each party contributed to the damage, distinctions in time periods of disposal, and relative quantities of waste. *Id*. at 717-718. The court of appeals agreed with other circuits that commingling of wastes does not defeat the defense. The court of appeals also weighed in on the relationship between apportionment and equitable allocation, saying that divisibility of harm is "conceptually distinct from contribution or allocation of damages" because allocation is guided

by equity and divisibility is guided by principles of causation. *Id*. at 718.

Burlington Northern did not come soon enough, however, for Hercules, which lost on remand because of a failure of proof.[62] Defendant, Schenectady, suffered the same fate in *United States v. Agway, Inc*., 193 F. Supp.2d 545 (N.D.N.Y. 2002). The district court explained:

> Although in some instances, volume might constitute a reasonable basis for apportionment, the Court finds that this is not such a case. There is no dispute that the present case involves the presence of a single harm in which the chemicals contained in Schenectady's barrels became commingled with the chemicals contained in the barrels of others who shipped barrels to the Site. Thus, despite Schenectady's arguments to the contrary, the relative toxicity, migratory potential, degree of migration and "synergistic capacities" of the hazardous substances deposited at the Site are important to the Court's determination of whether the harm is divisible.
>
> Schenectady has presented no evidence about these factors and, in fact, has indicated that it does not intend to do so, other than to demonstrate that these factors had no effect on the costs that EPA incurred

Id. at 552. That was not enough proof for the district court.[63]

In *Chem-Nuclear Systems, Inc. et al. v. Bush*, 292 F.3d 254 (D.C. D.C. 2002), the D.C. Circuit relied on § 433A, following the lead of its sister circuits, but rejected Chemical Waste Management (CWM)'s divisibility defense that only 80 of 1,649 drums reached a discrete portion of the site in issue because of CWM's inability to tracktof the other drums—tin other words, more of them may have reached the site—and because the same contaminants located in the discrete area of the site were located "all over the" site. *Id*. at 260-61.

A defendant divisibility-of-harm dry spell ended with the decision in *Coeur D'Alene Tribe v. Asarco, Inc*., 280 F. Supp.2d 1094 (D. Idaho 2003). The issue was whether the volume of tailings discharged by two mining companies was a reasonable basis to apportion the harm. The United States, the State of Idaho, and an Indian tribe had argued that fingerprinting of each mill's hazardous waste was required for purposes of divisibility where mining scanned "multiple decades, changes in processing method, and changes in ownership." *Id*. at 1120. In applying § 433A, the district court disagreed:

> In the case at bar, sufficient evidence was presented by the Plaintiffs that establishes each generator was contributing tailings and all of the tailings released contained lead, cadmium and zinc. Even though the exact percentages of lead, cadmium and zinc in the tailings from each mill is unknown and differed slightly based on the type of metal being extracted in the milling process, the Court finds the milling methodologies used in the Basin did not differ significantly from mill to mill to preclude divisibility based on the volume of tailings generated.
>
> Clearly, there is a reasonable relationship between the waste volume, the release of hazardous substances and the harm at the site. The Court makes this statement after acknowledging that estimating releases is not an exact science. Dr. Bull calculated tailings production based on best available information, but even he had to estimate some recovery rates. Dr. Stott testified single harms may be treated as divisible in terms of degree based on relative quantities of waste discharged into the waterways. Divisibility of the common harm to the Basin based on causation using volumetric calculations may not be the "perfect" method of divisibility, but it certainly is reasonable based on the historical facts available in this particular case.

Id. at 1120.[64]

However, in another mining case divisibility was rejected, although the ultimate outcome tempered the result somewhat from the defendants' perspective. *United States v. Newmont USA Limited*, 2008 WL 4612566 (E.D. Wash. Oct. 17, 2008). These are the distilled facts. By contract, Newmont managed the affairs of Dawn which operated a uranium mine from 1955-1981. Newmont was found to be an operator of the facility under *Bestfoods*. The United States, which owned the land and knew of and acquiesced in Dawn's and Newmont's activities at the site, was also found to be a liable party. Dawn, as the site operator, was also liable. Newmont argued that the harm was divisible based on the footprint of mining in the earliest period of the mine's operation, an apparent geographic or timing divisibility argument, that was rejected by the district court apparently because it would be inconsistent with the

finding that Newmont was a site operator.[65] The district court then proceeded to find Newmont and Dawn jointly and severally liable, but then allocated response costs 1/3 to Newmont, 1/3, to Dawn, and 1/3 to the United States based on the activities of each and the benefits enjoyed by each from the mining operations. Id. at *60.[66]

Burlington Northern changes this legal landscape in material ways.

The Supreme Court went back to the beginning of joint and several liability under CERCLA, Judge Rubin's opinion in *Chem-Dyne*, and emphasized that CERCLA liability should follow the common law.

> After reviewing CERCLA's history, Chief Judge Rubin concluded that although the Act imposed a "strict liability standard," it did not mandate "joint and several" liability in every case. Congress intended the scope of liability to "be determined from traditional and evolving principles of common law[.]"

2009 WL 1174849 at *8 quoting 520 F. Supp. at 807-08.

Evolution has a new birth in *Burlington Northern*. In an apportionment setting, the Supreme Court blessed the use of basic allocation principles that have been applied in numerous CERCLA cases over the past 25 years. Indeed, it was mildly critical of the Ninth Circuit for ignoring its own articulation of apportionment factors which are the same ones used by courts in allocating Superfund liability[67]:

> Although the Court of Appeals faulted the District Court for relying on the 'simplest of considerations: percentages of land area, time of ownership, and types of hazardous products,' 520 F. 3d, at 943, these were the same factors the court had earlier acknowledged were relevant to the apportionment analysis. See id., at 936, n.18 ('We of course agree with our sister circuits that, if adequate information is available, divisibility may be established by 'volumetric, chronological, or other types of evidence,' including appropriate geographic considerations' (citations omitted))."

2009 WL 1174849 at *10.

In a sense, the Court went out of its away to approve the factfinder's comparative fault analysis. The district court had made these findings:

- The exact amount of contamination that entered the subsurface at the sump "cannot be calculated."
- There is "no basis to determine the source of groundwater contamination in the concentrated area near the southern part of the Railroad parcel."
- The contaminated groundwater "under the southern portion of the Railroad parcel could have come from a source like the D-D tank or from releases on the Railroad parcel."
- "It is not within the realm of science to quantify the contribution from the Railroad parcel over the ground surface or through focused infiltration that has reached groundwater under the Site."

2003 WL 25508047 at *16-17. In its conclusions of law, the district court then followed this rough allocation logic:

- "The volume of hazardous substance releasing activities on the B & B property is at least ten times greater than any Railroad parcel releases."
- "Nemagon and dinoseb were stored on the Railroad parcel and D-D rigs and idle D-D nurse tankers were parked on the Railroad parcel."
- "Nemagon and dinoseb caused contamination of the site."
- "Estimates are that these two chemicals contributed to 2/3 of overall Site contamination."
- "While there is some D-D contamination as a result of D-D rig and nurse tank storage on the Railroad parcel, the slight contamination is offset by the fact that the Site is graded towards the southeast pond and the levels of chemical contamination on the B & B parcel are substantially higher than the reported detections on the Railroad parcel."

Id. at *90. The basis for the calculation that Nemagon and dinoseb represented two-thirds of overall site contamination was not stated by the district court and appears to represent a rough sense of the data picture. By taking the Railroad parcel's percentage of the entire site (19%) and multiplying it by the time period the Railroad parcel was used in relation

to the time period of site operations (45%), the district court calculated about a 9% apportionment share. It multiplied this percentage by two-thirds to account for the share of site contamination roughly represented by Nemagon and dinoseb. Because it was concerned that its analysis had an element of imprecision built into it, the district court applied a margin of error of 50% (in effect a 1.5 multiplier) and gave the Railroads a 9% share.

Justice Stevens acknowledged that the district court's "two-thirds" finding had "less support in the record." However, he said that "any miscalculation on that point is harmless in light of the District Court's ultimate allocation of liability, which included a 50% margin of error equal to the 3% reduction in liability the District Court provided based on its assessment of the effect of the Nemagon and dinoseb spills." 2009 WL 1174849 *11. Without mention of the "difficulty" of proving divisibility, CERCLA's "remedial purpose," "synergistic effects," "normative" causes or "daunting" tasks--invoked by courts in the past to reject divisibility claims--he juxtaposed "apportionment" with "allocation" and concluded that a "reasonable basis" means just that and nothing more:

> Had the District Court limited its apportionment calculations to the amount of time the Railroad parcel was in use and the percentage of the facility located on that parcel, it would have assigned the Railroads 9% of the response cost. By including a two-thirds reduction in liability for the Nemagon and dinoseb with a 50% "margin of error," the District Court reached the same result. Because the District Court's ultimate allocation of liability is supported by the evidence and comports with the apportionment principles outlined above, we reverse the Court of Appeals' conclusion that the Railroads are subject to joint and several liability for all response costs arising out of the contamination of the Arvin facility.

Id.[68]

To make the point a different way, over objection of other responsible parties, courts have routinely approved consent decrees based on a finding of "substantive fairness": approving EPA's determination of comparative PRP responsibility *without* a trial on the merits. Thus in another seminal case, *United States v Cannons Engineering Corp. et al*., 899 F.2d 79 (1st Cir. 1990), the court of appeals explained that substantive fairness "introduces into the equation concepts of corrective justice and accountability." Hence,

> Settlement terms must be based upon, and roughly correlated with, some acceptable measure of comparative fault, apportioning liability among the settling parties according to rational (in necessarily imprecise) estimates of how much harm each PRP has done….
>
> Even accepting substantive fairness as linked to comparative fault, an important issue still remains as to how comparative fault is to be measured. There is no universally correct approach. It appears very clear to us that what constitutes the best measure of comparative fault at a particular Superfund site under particular factual circumstances should be left largely to the EPA's expertise. Whatever formula or scheme EPA advances for measuring comparative fault and allocating liability should be upheld so long as the agency supplies a plausible explanation for it, welding some reasonable linkage between the factors it includes in its formula or scheme and the proportionate shares of the settling PRPs.

Id. at 87. Since *Cannons*, consent decrees have been approved over objection where EPA has apportioned liability based on routine allocation factors[69] as Table 1 on page 13 depicts.

The reality is that comparative responsibility determinations are, as the Fifth Circuit said in *Bell Petroleum,* routinely made by factfinders under "comparative negligence statutes" and, "Such decisions are rarely, if ever, made on the basis of evidence showing to a certainty the proportion of each party's fault." 3 F.3d at 903 n.16. Indeed, "evolving principles of common law" must account for the Restatement (Third) of Torts which explains in Comment a to § 1:

> This Restatement addresses issues that rise in apportioning liability among two or more persons, including the plaintiff. Some of its topics, such as comparative responsibility, were not addressed in the Restatement Second of Torts. Other topics, such as joint and several liability, were addressed in the Restatement Second of Torts. Even for topics that were addressed in the Restatement Second of Torts, the nearly universal adoption of comparative responsibility by American courts and legislatures has had a dramatic impact. This Restatement reflects changes in the law since the publication of the Restatement Second of Torts.

Table 1

EPA Apportionment Based On	*Consent Decree Decision*
The "Gore factors"[70] and relative volume	*United States v. Metropolitan St. Louis Sewer District*, 2004 U.S. Dist. LEXIS 30445 (E.D. Mo. Sept. 9, 2004) (approving a consent decree for payment of 2.5% of response costs where EPA allocated 50% of site costs to owner and 50% to operators, and then split the operator share 46%-4% to two operators based on the volume of waste on each operator's property. *Id*. at *2. "The EPA considered the so-called 'Gore factors' in apportioning fault among the PRPs. Through negotiations, the 4% was reduced to approximately 2.5% for considerations such as time savings, eliminating the risk of litigation and MSD's promise to allow the Government continued access to its property, and a covenant that MSD will limit the future use of its property." *Id*. at *9.)
The weight of batteries shipped to a reclamation facility	*United States v. Atlas Lederer Company,* 494 F. Supp.2d 629 (S.D. Ohio 2005). In this case, the district court approve consent decrees for settlement of a number of parties which shipped used batteries to a battery reclamation site. Records existed for five of the thirty-five years of the reclaimer's operations. Based on witness testimony and PRP affidavits, a PRP group put together an allocation formula based on the weight of the batteries. The district court concluded that the harm was not reasonably apportionable, *id*. at 635, but then concluded that it was fair to use the allocation formula "as a tool" to assess the fairness of the settlements. Invoking *Cannons*, it approve the decree.[71]
The volume of mineral oil in transformers irrespective of toxicity	*United States v. Union Electric Co*., 934 F. Supp. 324 (E.D. Mo. 1996) (approving over objection a consent decree at a PCB-cleanup site based on EPA's adoption of a PRP's group's allocation formula that based liability on the volume of oil contained in transformers sent to a transformer repair shop site irrespective of the concentration of PCBs in the oil or whether oil even contained PCBs).[72]
Years of ownership and the "likelihood" of contamination during the years of ownership	*United States v. SEPTA et al*., 235 F.3d 817 (3rd Cir. 2000) ([The objector] argues that the district court 'wholly disregarded' its settlement proposal, which was based on factors other than years of ownership, to assume 20% of the past and future costs of remediation at the Site. But the district court was not required to accept [the objector's] methodology for apportioning liability. Once it found that the decree was based on a rational determination of comparative fault, its task was complete, whether or not it would have employed the same method of apportionment. The district court did not abuse its discretion by accepting years of ownership and operation as a plausible method on which to judge the fairness of the consent decree." *Id*. at 824 (citation omitted).

EPA Apportionment Based On	*Consent Decree Decision*
Comparative fault of a generator, transporter and landowner based on the activities of each[73]	*United States v. DiBiase*, 45 F.3d 541 (1st Cir. 1995) ("There is no litmus test for it and no one allocation that will, in a CERCLA case, comprise the only fair allocation. Rather, fairness is a mutable construct that 'tak[es] on different forms and shapes in different factual settings.'" *Id*. at 546. (citation omitted). Referring to the objector's burden of proof, the court of appeals wrote: "This burden is particularly weighty when the district judge is called upon to assess the comparative fault of different classes of PRPs. So it is here. The court below had to contrast the fault ascribable to a generator and transporter (SESD) with the fault ascribable to a landowner (DiBiase). In such circumstances, the trial judge is in effect forced to compare apples with oranges. Accordingly, his prolonged exposure to the litigation and his firsthand knowledge of the case's nuances become extremely important, heightening the need for deference." *Id*. n.5.[74])
Volume where wastes have been intermingled	*United States v. Davis*, 11 F. Supp.2d 183 *aff'd* 261 F.3d 1 (1st Cir. 2001) ("In this case the method used to determine accountability was rational. EPA's assessment of relative responsibility was based primarily upon its estimate of the volume of waste attributable to each PRP. That method has been recognized as especially appropriate in cases like this where the wastes have been intermingled and it is virtually impossible to attribute discrete portions of the cleanup cost to particular wastes." *Id*. at 190 (citations omitted).)[75]
Volume and qualitative toxicity ranges ("very low," "low" and "moderate")	*United States v. Cantrell,* 92 F. Supp.2d 718 (S.D. Ohio 2000) ("The United States based its settlement allocations on the volume and toxicity of the wastes each party disposed of at the Site. A theme running through many of [an objector's] individual arguments is that the combustibility and flammability of the waste should have been included in the United States' calculation of settlement shares. The United States argues in response that its focus on toxicity is consistent with CERCLA….Therefore, bearing in mind that CERCLA's focus is on the release of hazardous wastes and not combustibility, and that the Court is not to substitute its judgment for that the EPA, the Court cannot state that the formula allocating responsibility using volume and toxicity alone is not plausible." *Id*. at 726-727.)
Specific waste types, involvement, care, fault, financial ability, benefit, and cooperation	*United States v. BP Amoco PLC et al*., 277 F.3d 1012 (8th Cir. 2002) *cert. denied* 123 S. Ct. 342 (2002) (rejecting the objection of Dico, an owner/operator of a site formerly used for chemical formulation, where EPA's assignment of responsibility was based on: "1) distinguishable costs (based on specific wastes of specific waste types); 2) degree of involvement in management or operations at the facility; 3) degree of care (including measures taken by a party to prevent or minimize contamination); 4) fault (culpability and actual cause of the contamination); 5) degree of cooperation (degree to which a PRP cooperates or assists in cleanup efforts); 6) financial capability (whether the PRP is financially viable); 7) financial benefits derived from waste-producing activity; and 8) financial benefits derived from remediation." *Id*. at 1016 n.3.[76])

Specifically referring to CERCLA, Comment e to § 1 provides that the rules and principles in "this Restatement should influence the resolution of similar issues for other bases of liability. This is especially true when a statutory cause of action calls for courts to develop common-law principles to fill in unanswered questions about apportionment of liability among multiple parties."

Restatement (Third) of Torts, § 26 provides that damages can be "divided by causation" where there is a reasonable basis for the factfinder to determine "that any legally culpable conduct of a party or other relevant person to whom the factfinder assigns a percentage of responsibility was a legal cause of less than the entire damages for which the plaintiff seeks recovery." § 26, cmt. a then explains that most rules about dividing damages by causation were "developed before comparative responsibility" (specifically referring to § 433A as one of those rules) and then further explains

> Division of damages by causation was addressed in Restatement of Second, Torts, §§ 433A (Apportionment of Harm to Causes (and citing to other sections)….This section replaces §§ 433A (and the other sections cited).[77]

After *Burlington Northern*, it will be the rare case that will lack the facts to make a reasonable basis for apportionment. In cases where there is no orphan share and multiple parties, it will behoove EPA and the parties to work on apportionment issues up front to save transaction and litigation costs. Facts relevant to measuring comparative fault, even if imprecise, will dictate the outcome and should be developed early on in the life of such a Superfund site. Volumetric waste-in information may be controlling. Or varying toxicities of released hazardous substances may be. Or geography or time of ownership or operation. A "margin of error" or other comparable multiplier or discount, as the case may be, can now be employed to address uncertainty, with the blessing of *Burlington Northern*.[78] There may be equitable factors as between or among jointly and severally liable parties, e.g., cooperation, that may not relate to apportionment,[79] but not that many cases have utilized this allocation factor, and most judges engage in an allocation exercise that is indistinguishable from an apportionment exercise, as was the case in *Burlington Northern*. *Cf.* Restatement of the Law (Third) Torts, § 1, cmt. a., § 26 cmt. a, *supra*.

Where there is an orphan share, the stakes are much higher after *Burlington Northern*. The trial in *Coeur D'Alene Tribe v. Asarco, Inc.*, *supra*, featured 100 witnesses, 78 days of trial, 8,695 exhibits and over 16,000 pages of testimony before the district court decided that the harm was divisible, among other issues in the case. 280 F. Supp.2d at 1101. Admittedly, this mining case had a long history and not every Superfund site should involve this many witnesses or trial days. But even if an apportionment trial would be shorter with fewer witnesses, it will still behoove the regulator and the regulated to work things out. If EPA becomes the "bank" (funds the work) at a site, after *Burlington Northern*, it may find itself absorbing the orphan share or at least not knowing whether it will until after a trial on the merits.[80] A PRP may be reluctant to become the bank where there is a large orphan share if it does not receive assurance that the orphan share will be addressed fairly, and that may mean more than what EPA is currently offering in its orphan share policy.[81]

Similarly, where there is a large orphan share, consent order and decree negotiations should become less one-sided in the future, although budget constraints may result in fewer orders and decrees, especially in cases where the orphan share potentially is quite large and neither EPA nor PRPs who believe the harm is divisible, both acting in good faith, are willing voluntarily to expend the funds to cover it.[82]

Where *Burlington Northern* leaves activity under § 106 of CERCLA, 42 U.S.C. § 9606, addressing the issuance of orders in the event of imminent and substantial to public health or welfare or the environment because of a release or threatened release of a hazardous substance is uncertain. Does a divisible harm represent "sufficient cause" to refuse to comply with a § 106 order? Would divisibility of harm satisfy § 106(b)(2)(C), which allows a compliant party to obtain reimbursement from the Superfund Trust if establishes that "it is not liable for response costs" under § 107(a)? If this language is read to mean those response costs that are divisible, then presumably the answer would be, "yes." But for now these are unresolved questions.

To be sure, apportionment and allocation are not the same. Equitable allocation accounts for equitable factors that may have no role in apportioning liability for site response costs in a divisibility-of-harm analysis. *See, e.g., Cadillac Fairview/California, Inc. v. Dow Chemical Co. et al.*, 1997 WL 149196 aff'd 299 F.3d 1019 (because of an indemnity, allocating 100% of the liability to the United States not based on contract law but on equitable factors analysis). But apportionment should not necessarily stop PRPs from seeking contribution under § 113(f)(1) if equity dictates that there should be a reallocation of the divisible shares among other PRPs. *Cf. Coeur D'Alene Tribe v. Asarco, Inc., supra,* 280 F. Supp.2d at 1121 *(*"Finally, the Court's ruling on divisibility does not impact Defendants ability to also seek equitable relief in the form of a contribution action under § 113(1) of CERCLA from other mining companies if liability and damages are determined.")

Conclusion

Burlington Northern is on its way to becoming the most-cited decision in future Superfund jurisprudence. It will affect bargaining strategies in consent order and decree negotiations. It adds a premium to the importance of evidence on the motives of arrangers. In cases where there is no such evidence, the burden of proof may be outcome determinative. It should encourage the regulators and the regulated to develop allocation information early and cooperatively and to develop allocation formulas that are fair and reasonable as soon as practicable after a matter is put on the National Priorities List.

In Superfund decision tree analyses, no matter how simple or elaborate they might be, the size of the orphan share will become a major factor. The smaller the share, the larger the number of solvent PRPs, and the smaller the amount of response costs, the more likely it is that transaction and litigation costs will not justify foregoing settlement. The larger the share, the smaller the number of solvent PRPs, and the larger the amount of response costs, the more likely it is that EPA[83] and PRPs will need to work harder to find solutions that make environmental and economic sense or they will find themselves in a courtroom asking a court for relief.

And CERCLA remains a strict liability statute. Beyond the size of the orphan share, transaction costs and litigation costs and risks cannot be ignored in any evaluation of how best to proceed at any given site once the *Burlington Northern* aftershocks have been absorbed by the Superfund stakeholder community.

Finally, given the concern of the district court in *Burlington Northern* over the unfairness of saddling a neighboring landlord with a modest connection to the huge amount of harm caused by the site operator,[84] one Superfund rule of thumb going forward should not be ignored: courts will not likely look kindly on overreaching by any participant in the Superfund process.

Notes

1 *Cooper Indus. v. Aviall Services, Inc.,* 543 U.S. 157 (2004) (if a contribution plaintiff has not first been sued by the Environmental Protection Agency (EPA), a state, or any other person permitted to sue under § 106 or § 107 of CERCLA, it has no right to assert a contribution claim under § 113(f)(1)). *See* Barkett, *Forward to the Past: The Aftermath of Aviall*, 20 N.R.E. 27 (Winter 2006).

2 *United States v. Atlantic Research Corp.,* 127 S. Ct. 2331 (2007) (allowing a private right of action in cost recovery under § 107 of CERCLA)

3 *Burlington Northern and Santa Fe Ry. Co. et al. v. United States*, 2009 WL 1174849 (May 4, 2009) (discussed in the text).

4 Now Burlington Northern & Santa Fe Railway Co. and Union Pacific Railroad Company, two of the petitioners before the Court.

5 B&B also stored and distributed a herbicide, dinoseb, and another pesticide, Nemagon, in addition to D-D. 2009 WL 1174849 at *3.

6 "When B & B purchased D-D, Shell would arrange for delivery by common carrier, f.o.b. destination. When the product arrived, it was transferred from tanker trucks to a bulk storage tank located on B & B's primary parcel. From there, the chemical was transferred to bobtail trucks, nurse tanks, and pull rigs. During each of these transfers leaks and spills could-and often did-occur. Although the common carrier and B & B used buckets to catch spills from hoses and gaskets connecting the tanker trucks to its bulk storage tank, the buckets sometimes overflowed or were knocked over, causing D-D to spill onto the ground during the transfer process." 2009 WL 1174849 at *3 (footnote omitted).

7 "By 1998, the Governments had spent more than $8 million responding to the site contamination; their costs have continued to accrue." 2009 WL 1174849 at *4. EPA had incurred $7.8 million as of June 20, 1997, and the DTSC had incurred a little more than $400,000 as of March 31, 1998. The EPA figure did not include interest or attorneys fees. 2003 WL 25518047 at *79-80 (E.D. Calif. July 15, 2003).

8 Suit was originally brought by the Railroads against B&B to recover a portion of $3 million in response costs incurred to respond to a unilateral administrative order issued to the Railroads by EPA in 1991, two years after the facility was added to the National Priorities List. In 1996, this lawsuit was consolidated with two cost-recovery actions brought by EPA and the DTSC against Shell and the Railroads. The district court held a 6-week bench trial in 1999 and issued its first ruling in 2002 and its amended findings of fact and conclusions of law in 2003. 2003 WL 25518047 (E.D. Calif. July 15, 2003).

9 The district court used volume, geography, fault, knowledge, and time. It looked at rough estimates of relative discharges, how much of the site was represented by the Railroad Parcel, the nature of the activities on B&B's parcel and the Railroad Parcel, what each party knew, and how long B&B used the Railroad Parcel relative to the entire length of time it operated. *See generally*, Barkett, *A Database Analysis of the Superfund Allocation Case Law* (Shook, Hardy & Bacon LLP 2003).

10 The district court explained: "The concept that a passive owner of a contiguous parcel, not representing more than 19% in area of a CERCLA site, operated less than 44% of the time, where substantially smaller volumes of hazardous substance releases occurred, should be strictly liable for the entire site remediation, because no other responsible party is judgment-worthy, takes strict liability beyond any rational limit." 2003 WL 25518047 at *87. The district court multiplied 19% (percentage of Railroads' parcel to total site area) x 45% (term of usage of the Railroads' parcel divided by entire term of site operations) and then discounted this figure by 2/3 representing, roughly, the contribution of Nemagon and dinoseb, which were spilled on the Railroad Parcel, to overall site contamination (D-D was not a significant contaminant on the Railroad Parcel). The district court then took the resulting product, 6%, and applied a 1.5 multiplier to it to account for "calculation errors," resulting in a 9% apportionment/allocation. *Id.* at *90-91. To give itself a relative anchor for analytic purposes, the district court explained that "the volume of hazardous substance releasing activities on the B & B property is at least ten times greater than any Railroad parcel releases." *Id.* at *90.

11 The court of appeals disagreed with every aspect of the district court's analysis calling it a "meat-axe" approach to divisibility. 520 F.3d 918, 944 (9th Cir. 2007). The court of appeals explained that the Arvin site was "a single facility" and that CERCLA premises landowner liability "on ownership of a facility, not on ownership of a certain parcel of land that is part of a facility." It said that site operations "were dynamic"; "empty pesticide cans were stored on the Railroad parcel"; and tanks were stored "all over the facility, including on the Railroad parcel." "A simple calculation of land ownership does not capture any data that reflect this dynamic, unitary operation of the single Arvin facility." *Id.* at 944. It said that the "synergistic use" of the facility "makes division based on percentage of land ownership particularly untenable." *Id.* It complained about the absence of documentation showing the amount of chemical leakage on the Railroad Parcel and how much had flowed off the property. "But these practical considerations cannot justify a 'meat-axe' approach to the divisibility issue, premised on percentages of land ownership, as a means of adjusting for the difficulties of proving divisibility

with precision when PRP status is based on land ownership alone. Such an approach would be tantamount to a disagreement with the imposition of no-fault land ownership liability. Congress, however, created precisely such liability, placing the responsibility to pay for environmental cleanup on parties, such as the Railroads, that profited from the circumstances giving rise to the contamination so that the taxpayers are not left holding the tab. The risk of lack of adequate information for meaningful division of harm therefore must rest on the responsible parties, even when that information is extremely hard to come by." *Id*. at 944-45. It added that there was an "evidentiary vacuum concerning the amount of contamination traceable to the pre-lease period" precluding the elimination of this time period from the Railroad's apportioned share. *Id*. at 945. The district court's use of the 2/3 multiplier to account for the contribution of dinoseb and Nemagon to site contamination contains "a basic factual error," the court of appeals said. "All three chemicals were on the Railroad parcel at some time. There is no evidence as to which chemicals spilled on the parcel, where on the parcel they spilled, or when they spilled. Yet, there is evidence that there may well have been leakage on the Railroad parcel of D-D, the chemical the district court excluded from its calculations. Given the record, the district court clearly erred in its attempt to rely on the proportion of hazardous products present on the Railroad parcel." *Id*.

12 "In common parlance, the word 'arrange' implies action directed to a specific purpose. See Merriam-Webster's Collegiate Dictionary 64 (10th ed. 1993) (defining 'arrange' as 'to make preparations for: plan[;] . . . to bring about an agreement or understanding concerning');…" 2009 WL 1174849 at *6 (alterations in original).

13 *Cello-Foil* involved a drum-deposit arrangement. A company called Thomas Solvent shipped solvent in drums to customers and charged a deposit on the drum. When the customer returned the drum, the deposit was credited back to the customer. Some of the returned drums were empty, but some contained up to fifteen gallons of solvent residue. 100 F.3d at 1230. The question was whether the entities that returned the drums "arranged for disposal" of any hazardous substance residues in the drums. In granting summary judgment, the district court held that they did not. 848 F. Supp. 1352, 1358 (W.D. Mich. 1994) ("The *purpose* of Defendants' returning of the drums was to recover the deposits that Defendants had paid; the Government has absolutely no proof that Defendants' purpose was to dispose of residual amounts of hazardous substances remaining in those drums. That Defendants incidentally got rid of these residues does not mean that it was Defendants' purposeful intent to dispose of the residues; rather, this was merely incidental to the drum return"). (emphasis in the original). The court of appeals reversed saying there were issues of fact: "By leaving amounts of solvents in drums ranging from one-half to ten gallons, which Defendants knew Thomas Solvent would carry away, a trier of fact could infer that Defendants were taking affirmative acts to dispose. By the same token, the finder of fact could conclude that Defendants did not leave solvents in the drums or that their acts in leaving residual amounts of solvents in the drums does not support an inference of purposeful or intentional disposal, or find that the drums were filled with waste water and other debris. A finder of fact must resolve this issue, and thus, the district court acted too hastily in finding no showing of intent. 100 F.3d at 1233-34 (footnotes omitted).

14 After holding that § 107(a)(3) requires intentional steps to dispose of a hazardous substance, for support, Justice Stevens wrote: "*See Cello-Foil Prods., Inc*., 100 F. 3d, at 1231 ('[I]t would be error for us not to recognize the indispensable role that state of mind must play in determining whether a party has "otherwise arranged for disposal . . . of hazardous substances"')." 2009 WL 1174849 at *6.

15 At 42 U.S.C. § 9601(29), CERCLA defines "disposal," "hazardous waste," and "treatment" by reference to the Solid Waste Disposal Act. At 42 U.S.C. § 6903(3), a "disposal" is defined as "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water." The Governments characterized "spilling" and "leaking" as "unintentional acts."

16 "We assume without deciding that § 107(a) provides for joint and several liability." *United States v. Atlantic Research Corp., supra*, 127 S. Ct. at 2339 n.7.

17 The district court in *Chem-Dyne* relied on § 433A of the Restatement (Second) of Torts. "[W]hen two or more persons acting independently caus[e] a distinct or single harm for which there is a reasonable basis for division according to the contribution of each, each is subject to liability only for the portion of the total harm that he has himself caused. Restatement (Second) of Torts, §§ 433A, 881 (1976); Prosser, Law of Torts, pp. 313-314 (4th ed.1971) .... But where two or more persons cause a single and indivisible harm, each is subject to liability for the entire harm. Restatement (Second) of Torts, § 875; Prosser, at 315-316." *Chem-Dyne Corp*., 572 F. Supp. at 810.

18 In Superfund parlance, a "PRP" is a potentially responsible party.

19 The Court acknowledged that the district court's conclusion that Nemagon and dinoseb accounted for two-thirds of site contamination "finds less support in the record," but because of the application of a "50% margin of error" (multiplying 6% by 1.5) by the district court, "any miscalculation" on this point "is harmless." 2009 WL 1174849 at *11.

20 The only "principles" outlined "above" were standard allocation factors: volume, toxicity, time or chronology, and geography. The juxtaposition by Justice Stevens of the words "allocation" and "apportionment" here is telling, as I discuss below.

21 As noted earlier, at 42 U.S.C. § 6903(27), CERCLA defines "disposal," "hazardous waste," and "treatment" by reference to the Solid Waste Disposal Act. For ease of reference, at 42 U.S.C. § 6903(3), a "disposal" is defined as "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water." A "solid waste" means "any garbage, refuse,…and other discarded material." Treatment is defined at 42 U.S.C. § 6903(34): "The term 'treatment', when used in connection with hazardous waste, means any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume. Such term includes any activity or processing designed to change the physical form or chemical composition of hazardous waste so as to render it nonhazardous." Hazardous substances are defined in CERCLA as including "hazardous wastes," 42 U.S.C. § 9601(14), but not all hazardous substances are hazardous wastes. A "hazardous waste" is a solid waste which "because of its quantity, concentration, or physical, chemical, or infectious characteristics may—(A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. 42 U.S.C. § 6903(5). EPA's regulations list certain wastes as hazardous wastes. Other wastes are hazardous by virtue of their ignitability, corrosivity, reactivity, or their failure to pass toxicity characteristic leaching procedure. See 40 C.F.R. § 201.31-33; 40 C.F.R. § 261.21-24. EPA's website also describes "hazardous wastes." *See generally* http://www.ehso.com/ehsoepa.php?URL=http%3A%2F%2Fwww.epa.gov/epaoswer/osw/basifact.htm#hazwaste.

22 "The fact that MDC's decision to give the waste to A & F was governed by the marketplace (*i.e.* the highest bidder) is of no consequence. Indeed CERCLA was enacted to insure that considerations far weightier than price dictate who is given the task of disposing of hazardous waste." 582 F. Supp. at 845.

23 Compare the dictionary definition rejected in *Aceto* and accepted in *Burlington Northern*:

Defendants in *Aceto:* "Defendants contend the word 'arrange' means 'to come to an agreement' or 'to make plans, prepare.' See Webster's Third New International Dictionary 120 (1961)." 872 F.2d at 1380 n.7.

Justice Stevens in *Burlington Northern:* Merriam-Webster's Collegiate Dictionary 64 (10th ed. 1993) (defining "arrange" as "to make preparations for: plan[;] ... to bring about an agreement or understanding concerning") 2009 WL 1174849 at *6.

24 The Eighth Circuit carried its jurisprudence a step further in *United States v. TIC Investment Corp.,* 68 F.3d 1082, 1088 (8th Cir. 1995) where it held that a corporate officer was liable as an arranger for disposal of wastes by the corporation even though he had no knowledge of the disposal arrangement. Defendants argued that, as a matter of law, "arranger liability requires proof that the person had the specific intent to arrange for the disposal of hazardous substances." The court of appeals recognized that if this were the standard, summary judgment was improper "because the United States and Allied were unable to adduce any evidence showing that defendants ever participated in, or had any knowledge of, the arrangement for disposal of WFE's hazardous wastes at the dumpsite." *Id.* at 1088. WFE was a company controlled by the defendant officer in question, Georgoulis. The court of appeals decided that because Georgoulis "so tightly controlled WFE," he was, in effect, the arranger even though he had no knowledge of the arrangement. *Id.* at 1090. The United States successfully argued that his intent was irrelevant because it would insulate from liability "those who own and intrusively run organizations" and control budgets and "strip the company of its cash and its independent decision-making," but who do not impact "the cost-cutting disposal practices of their company." *Id.* at 1089. At argument in *Burlington Northern,* counsel for the United States had a different view: "We agree that the term 'arrange for' connotes intentionality…." Transcript, p. 38 (http://www.supremecourtus.gov/oral_arguments/argument_transcripts/07-1601.pdf). Veil piercing had been raised as an alternative basis of liability but because of the arranger liability holding, it was not considered. 68 F.3d at 1085. This decision predated *United States v. Bestfoods*, 524 U.S. 51 (1998) by three years. *Bestfoods* explained that derivative owner liability of a parent corporation for the acts of a subsidiary required veil piercing, not control: "Thus it is hornbook law that 'the exercise of the "control" which stock ownership gives to the stockholders ... will not create liability beyond the assets of the subsidiary." *Id.* at 61-62 (citation omitted).

25 The court of appeals went on to say that where a shipper uses its own trucks to deliver products and spillage results from those trucks, it is an "operator" of a facility and faces liability under § 107(a)(1). 2 F.3d at 751.

26 "[T]he district court reasoned the Hutton partners could not have 'arranged for' a disposal because the partners lacked the intent to dispose in connection with the repairs in 1986 and 1991, and did not make any of the "crucial decisions" regarding how, when, and where the alleged disposals were to occur. We agree with the district court's disposition of this arranger claim, but for different reasons." 94 F.3d at 1506 (citation omitted). The case involved the presence of tar at the site. The Hutton partners had allegedly agreed to remove the tar but did not keep this promise. The court of appeals held that this failure might represent a breach of contract, but did not represent an arrangement for disposal. Nor was there

proof that the Hutton partners played any role in management of the site and therefore could not have arranged for disposal of hazardous substances by virtue of the repaving of a parking lot in 1996 or repairs on a gas line in 1991 that resulted in the movement of tar. *Cf. Tanglewood E. Homeowners v. Charles-Thomas, Inc*., 849 F.2d 1568, 1573 (5th Cir.1988) (allowing an arranger claim to withstand a motion to dismiss where a contractor had moved and dispersed of soils containing hazardous substances at a facility).

27 The district court apparently was relying on *Florida Power & Light Co. v. Allis Chalmers*, 893 F.2d 1313 (11th Cir. 1990) where the court of appeals affirmed a summary judgment for manufacturers of mineral oil transformers that had been contaminated with polychlorinated biphenyls unbeknownst to the utility purchaser. The transformers were reclaimed at the Superfund site in question. The issue was whether the manufacturers were arrangers for disposal of the PCBs at the Superfund site. They were not, the court of appeals held, because the plaintiffs failed to prove that in selling the transformers the manufacturers "intended to otherwise dispose of hazardous waste when they sold the transformers." *Id*. at 1319. In *Redwing Carriers*, the panel did not refer to this portion of *Allis Chalmers*, when it said that intent was relevant but not required in a § 107(a)(3) analysis.

28 *Compare, e.g., United States v. B&D Electric, Inc*., 2007 WL 1395468 (E.D. Mo. May 9, 2007) (sale of "junk" but intact, nonleaking transformers is not an arrangement for disposal) and *United States v. North Landing Line Constr.,* 3 F. Supp.2d 694, 702 (E.D. Va.1998) (electrical contractor that had a contractual obligation to "dispose" of transformers removed from a Navy base and paid a middleman $1 each to remove them, under the totality of the circumstances, is not an arranger for disposal at a junkyard which purchased the transformers from the middleman for their metal value) with *United States v. Summit Equip. & Supplies, Inc*., 805 F. Supp. 1422 (N.D. Ohio 1992) (where defendants wanted to "get rid of" used, surplus equipment, sold it without placing restrictions on its future use, never inquired about purchaser's planned use, and sought only the highest bidder who agreed to take the equipment away, there was an arrangement for disposal when scrap dealer bought used transformers).

29 "There is no doubt that Commonwealth Edison arranged for the disposal of its fly ash with Chicago Fly Ash. The agreement is styled a "Disposal Agreement"; Commonwealth Edison paid Chicago Fly Ash to dispose of all Commonwealth Edison's fly ash. CERCLA's strict liability emphasis aside, however, it goes without saying that Commonwealth Edison must have arranged for the disposal of the fly ash on this site to be a responsible person with respect to this site. That Commonwealth Edison did not do. The fly ash was, without dispute, sold to Skokie Valley by Commonwealth Edison and Chicago Fly Ash for valuable consideration for the purpose of manufacturing road base, and for manufacturing road base alone. Certainly, seller liability for the later misuse by the buyer of useful but hazardous ingredients in a manufacturing process was not intended by CERCLA's authors; such liability would chill permissible manufacturing. Because a sale was the extent of Commonwealth Edison and American Fly Ash's involvement with the site, they are not liable under CERCLA; their motions for summary judgment are granted." 806 F. Supp. at 1354-55 (record citations omitted).

30 "[T]he lead plates are not a by-product of Madewell's operation. Instead, the lead plates are Madewell's principal business product. In addition, the lead plates were sold at the market price for lead and with the intent of making a profit." 871 F. Supp. at 1247.

31 "An inescapable fact is that the leftover battery casings must be disposed of. The battery casings … *unlike the lead plates within the casings*, were not a subject of recycling. They retained their character as waste throughout and would have to be 'gotten rid of,' either by General, which could have cracked the batteries itself before selling the scrap lead, or as was the case here, by [the reclaimer] after it bought the entire battery." 34 F.3d at 752 (emphasis in the original). The Ninth Circuit separately held that the battery seller had not arranged for "treatment" of a hazardous substance since the contaminated site was not the site where the batteries were treated. *Id*. at 753.

32 As noted earlier, CERCLA defines "disposal" by reference to 42 U.S.C. § 6903(3) which provides that disposal means "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water so that such solid waste or hazardous waste or any constituent thereof may enter the environment or be emitted into the air or discharged into any waters, including ground waters." 42 U. S. C. § 6903(3). Supplying capacitors, which are not a hazardous waste, to a broker who placed them in a warehouse, which did not represent entering the environment, did not represent "disposal," the district court held. 844 F. Supp. at 1336-37.

33 In *California v. Summer Del Caribe Inc*., 821 F. Supp. 574, 581 (N.D. Calif. 1993), the district court determined that the sale of a by-product of can manufacturing designed to get rid of, or to treat, the by-product was enough for § 107(a)(3) liability. The district court also rejected the defense of "a sale of a useful product," saying that the product must be a new product, or one that remains useful for its normal purpose in its existing state.

34 *United States v. Maryland Sand, Gravel & Stone*, 1994 WL 541069, *4 (D. Md. Aug. 12, 1994) (transfer of industrial solvents which had no further use to the transferor, to a recycler who placed a residual value on the waste amounts to an arrangement for disposal).

35 *United States v. Pesses*, 794 F. Supp. 151, 157 (W.D. Pa. 1992) (footnote omitted) (in discussing who made the decision to place wastes at the site in issue, the district court

found: "all of the moving defendants sent hazardous substances to the site. It also appears that they sent scrap materials to Metcoa which could not be used for their intended purpose, i.e., could not be used productively without processing….")

36 *Louisiana Pacific v. ASARCO, Inc*., 24 F.3d 1565 (9th Cir.1994). Slag is a by-product of copper smelting. It was sold by ASARCO through a middleman to logging companies who used it instead of gravel as a ballast to provide firmer ground. When the slag became mixed with other debris, the log yards had it hauled away as waste. The court of appeals rejected arguments that ASARCO was not an arranger for disposal at both log yard sites and the ultimate disposal location: "A by-product of a metallurgical process, if sold, can be a product for purposes of one and waste for purposes of the other. This is especially so given that CERCLA is to be broadly interpreted to achieve its remedial goals." *Id*. at 1575. The court determined that the slag was a "by-product [ ] with a nominal commercial value," and that ASARCO wanted to "get rid of" the slag. *Id*.

37 *Cadillac Fairview/California Inc. v. United States*, 41 F.3d 562 (9th Cir.1994) (reversing a summary judgment for the alleged arranger, the court of appeals held that the sale of contaminated styrene to a chemical company for removal of the contaminants and resale back to the rubber companies could amount to an arrangement for treatment of a hazardous substance). "A trier of fact could readily conclude on the facts thus far in the record that the transfer of contaminated styrene to Dow by the rubber companies was not a sale of a useful product but an arrangement for treatment of a hazardous waste. The rubber companies were engaged in the manufacture and sale of synthetic rubber, not contaminated styrene. After removal of the contaminants, Dow returned the clean styrene to the rubber companies for further use in the manufacture of rubber. Although Dow paid the rubber companies seven cents for each pound of contaminated styrene they sent to Dow, it charged them nine cents for each pound of uncontaminated styrene it returned. A trier of fact could find the substance of the transactions to have been that the rubber companies paid Dow two cents per pound to remove the contaminants from the used styrene and return the fresh styrene to them-that they simply arranged and paid for treatment of the contaminated styrene by Dow." *Id*. at 566.

38 *Pneumo Abex Corp. v. High Point, Thomasville and Denton R.R. Co*., 142 F.3d 768, 775-76 (4th Cir. 1998) (finding no liability where a person arranged to sell worn bearings to a foundry: "The intent of both parties to the transaction was that the wheel bearings would be reused in their entirety in the creation of new wheel bearings. The Foundry paid the appellants for the bearings; the appellants did not pay the Foundry to dispose of unwanted metal. While there was a grease and dirt deduction taken from the price the Foundry paid for the used wheel bearings, that deduction was to account for weight, not reclamation costs. The Foundry refused to pay for any weight not attributable to the bearings themselves. The parties contemplated that the bearings were a valuable product for which the Foundry paid a competitive price.")

39 *Ekotek Site PRP Committee v. Self,* 881 F. Supp. 1516, 1527 (D. Utah 1995) (Kelly, D.J.) (finding the sale of used oil to an oil re-refining facility to be an arrangement for disposal irrespective of the absence of knowledge of conditions at the facility: "Here, neither the original refiners of the oil, nor the automobile owners and other persons who then converted the oil to its "used" status by using it in their engines, did so with the purpose of creating a product which could ultimately be sold for some negligible amount to an oil recycling facility. The used oil created had fulfilled, and was then no longer fit for, its original purpose….So long as the defendants are shown to have arranged for the disposal of waste, the characterization of the transfer as a "sale" will not provide protection from liability under CERCLA.") *Cf. Ekotek Site PRP Committee v. Self,* 932 F. Supp. 1328, 1336 (D. Utah 1996) (Lungstrum, D.J. to whom the case was reassigned after Judge Kelly took senior status) (denying plaintiff's motion for summary judgment on arranger liability where seller of filtered used mineral oil admitted to the sale, but, "Without more, that admission does not establish an intent to get rid of hazardous substances").

40 *See, e.g*., *Pesses, supra*, 794 F. Supp. at 157 at n.21 (citations omitted) ("The term 'arrange' is not defined in CERCLA. However, a liberal judicial interpretation of the term is required in order to achieve CERCLA's 'overwhelmingly remedial' statutory scheme."); *United States v. Aceto Agricultural Chemicals Corp., supra*, 872 F.2d at 1381; *Maryland Sand, Gravel & Stone, supra*, 1994 WL 541069 at *4.

41 "Congress never intended to create a disincentive to recycle when it created the Superfund program…." 145 Cong. Rec. S14987 (Nov. 19, 1999) (Statement of Senator Lincoln). "The Superfund Recycling Equity Act of 1999 (the language of S. 1528) seeks to correct the unintended consequence of CERCLA that actually discourages legitimate recycling. The Act recognizes that recycling is an activity distinct from disposal or treatment, thus sending material for recycling is not the same as arranging for disposal or treatment, and recyclable materials are not a waste. Removing the threat of CERCLA liability for recyclers will encourage more recycling at all levels." 145 Cong. Rec. S15048 (November 19, 1999).

42 Congress has also eliminated liability for "*de micromis*" and "municipal solid waste" arrangers/transporters as these terms are defined in CERCLA and if certain conditions are met. 42 U.S.C. §§ 9607(o) and (p).

43 Illustratively, a transaction involving spent lead-acid batteries is exempt from § 107(a)(3) liability if at least these terms are satisfied: "[A] transaction involving spent lead-acid batteries ... shall be deemed to be arranging for recycling if the person who arranged for the transaction (by selling [the lead-acid batteries] or otherwise arranging the recycling of

[the lead-acid batteries]) can demonstrate by a preponderance of the evidence that at the time of the transaction: (1) The [spent lead-acid battery] met a commercial specification grade. (2) A market existed for the [spent lead-acid battery]. (3) A substantial portion of the [spent lead-acid battery] was made available for use as feedstock for the manufacture of a new saleable product. (4) The [spent lead-acid battery] could have been a replacement or substitute for a virgin raw material, or the product to be made from the [spent lead-acid battery] could have been a replacement or substitute for a product made, in whole or in part, from a virgin raw material." 42 U.S.C. § 9627(e) (incorporating the provisions of § 9627(c)). *See Gould Inc. v. A&M Battery & Tire Service*, 232 F.3d 162, 171(3rd Cir. 2000) (vacating a summary judgment against a seller of batteries to a recycling facility after finding SREA retroactive and applicable factually even though 100% of the material is not recyclable. The court of appeals relied in part on legislative history to interpret the statute: "[M]odern technology has developed to the point where some consuming facilities exclusively utilize recyclable materials as their raw material feedstock and manufacture a product that, had it been made at another facility, may have been manufactured using virgin materials. Thus, the fact that the recyclable material did not directly displace a virgin material as the raw material feedstock should not be evidence that the requirements of [§ 9627(c)] were not met." *Id*. at 172 quoting 145 Cong. Rec. S15049 (November 19, 1999).

44 Again for ease of reference, "treatment" is defined by reference to 42 U.S.C. § 6903(34). It applies to a "hazardous waste" and not all hazardous substances are hazardous wastes. A "hazardous waste" is a solid waste which "because of its quantity, concentration, or physical, chemical, or infectious characteristics may—(A) cause, or significantly contribute to an increase in mortality or an increase in serious irreversible, or incapacitating reversible, illness; or (B) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed. 42 U.S.C. § 6903(5). Generally speaking, hazardous wastes are either ones listed by EPA or are hazardous because they are reactive, ignitable, corrosive, or "toxic" (based on the results of the toxicity characteristic leaching procedure). *See* 40 C.F.R. § 201.31-33; 40 C.F.R. § 261.21-24. "Treatment" then means "any method, technique, or process, including neutralization, designed to change the physical, chemical, or biological character or composition of any hazardous waste so as to neutralize such waste or so as to render such waste nonhazardous, safer for transport, amenable for recovery, amenable for storage, or reduced in volume. Such term includes any activity or processing designed to change the physical form or chemical composition of hazardous waste so as to render it nonhazardous."

45 As with all Superfund sites, the larger the number of parties, the more orphan-share relief that EPA is willing to provide, and the lower the overall response costs, the more likely it is that expensive resolution of "arranger" legal questions and factual disputes will be greater than the cost of settlement and elimination of risk to either EPA or the PRP of losing at trial.

46 The survey is comprehensive but not intended to be exhaustive.

47 "[I]n light of the commingling of hazardous substances, the district court could not have reasonably apportioned liability without some evidence disclosing the individual and interactive qualities of the substances deposited there. Common sense counsels that a million gallons of certain substances could be mixed together without significant consequences, whereas a few pints of others improperly mixed could result in disastrous consequences." 858 F.2d at 172. In a footnote, the court of appeals added: "An EPA investigator reported, for example, that in the first cleanup phase RAD Services encountered substances 'in every hazard class, including explosives such as crystallized dynamite and nitroglycerine. Numerous examples were found of oxidizers, flammable and nonflammable liquids, poisons, corrosives, containerized gases, and even a small amount of radioactive material.' Under these circumstances, volumetric apportionment based on the overall quantity of waste, as opposed to the quantity and quality of hazardous substances contained in the waste would have made little sense." *Id*. n.25.

48 Evidence was similar with respect to the other arranger. 883 F.2d at 182 n.10. The court of appeals suggested that if it could have been shown that the business unit had generated only a small amount of waste and then closed down, then it might have been proven that the arranger was a "limited contributor" to the site. *Id*. n.8. The court of appeals also said that because of toxicity, the cost of removing each barrel of the 10,000 barrels may have varied, whereas the proof presented assumed the cost was identical for each barrel. In addition, soils were removed and contaminants in the soil had become "commingled" and apportionment of soil removal costs, therefore, "would necessarily be arbitrary." *Id*. at 183 n.11.

49 The Third Circuit, 964 F.2d at 269, had earlier quoted the following from § 433A, cmt. d of the Restatement (Second) of Torts (the emphasis is the Court's): "There are other kinds of harm which, while not so clearly marked out as severable into distinct parts, are still capable of division upon a reasonable and rational basis, and of fair apportionment among the causes responsible.... *Such apportionment is commonly made in cases of private nuisance, where the pollution of a stream ... has interfered with the plaintiff's use and enjoyment of his land."* In taking this position, the Third Circuit parted ways with the dicta in the First Circuit's *Picillo* decision, referenced *supra*.

50 Alcan was one of twenty defendants who disposed of waste at the "Butler Tunnel" (a deep borehole in the ground). The Tunnel leaked contaminating the Susquehanna

River. EPA conducted a cleanup and sued. Everyone settled but Alcan. It was found liable for $473,790.18 out of a total response cost claim of $1,302,290.18. The Third Circuit observed that Alcan appeared to be paying a disproportionate share: "Thus, although Alcan comprised only 5% of the defendant pool, it was required by the court to absorb over 36% of the costs. Furthermore, Alcan's share of the liability seems to be disproportionate on a volume basis as well." 964 F.2d at 270 n.29. Nonetheless, on remand, Alcan expressly eschewed the opportunity to present evidence on the ratio of its wastes to the total wastes dumped into the borehole and chose instead what the district court called an "all or nothing approach" (focusing on whether its emulsion was a "hazardous substance" because of the trace metals as opposed to making a volumetric share argument). The tactic failed. *United States v. Alcan Aluminum Corp*., 892 F. Supp. at 648 (M.D. Pa. 1995) *aff'd* 96 F.3d 1434 (3rd Cir. 1996) *cert. denied* 521 U.S. 1103.

51 The trial judge granted summary judgment against Alcan, holding that it had failed to prove the harm was divisible. The judgment had exceeded $5 million by the time of trial because of interest and additional cleanup costs. 990 F.2d at 718. The district court opinion appears at *United States v. Alcan Aluminum Corp*., 755 F. Supp.531 (N.D.N.Y. 1991);

52 "Alcan declares that the response actions at PAS were attributable to substances such as PCB's, nitro benzene, phenol, dichlonoethone (sic), toluene, and benzene. It contends that no soil contamination due to heavy metals was found there, and insists that the metallic constituents of its oil emulsion are insoluble compounds, submitting an affidavit supporting this theory of divisibility. The government submitted a declaration stating that metal contaminants like those found in Alcan's waste emulsion were present in environmental media at PAS, that the commingling of metallic and organic hazardous substances resulted in indivisible harm, and that though some forms of lead, cadmium and chromium are insoluble, they may chemically react with other substances and become water-soluble. These differing contentions supported by expert affidavits raise sufficient questions of fact to preclude the granting of summary judgment on the divisibility issue." 990 F.2d at 722-23. The Second Circuit agreed with the Third Circuit that commingling did not defeat a divisibility argument. *Id*. at 722. Mimicking the Third Circuit, the Second Circuit explained that Alcan could present evidence "relevant to establishing divisibility of harm, such as, proof disclosing the relative toxicity, migratory potential, degree of migration, and synergistic capacities of the hazardous substances at the site." *Id*.

53 Time is sometimes not the friend of a Superfund PRP. On remand, it was established that Alcan's waste emulsion, which Alcan had argued was relatively benign and would never warrant the expenditure of cleanup dollars on its own, contained PCBs, prompting the Second Circuit, in affirming judgment again against Alcan, to explain: "The 'special exception' that we created when this case was previously before us was intended to excuse a responsible party from all CERCLA liability only in instances where (1) a party contributed hazardous substances to a site in quantities that did not exceed background levels and (2) the hazardous substances were incapable of concentrating. *See Alcan,* 990 F.2d at 722. We created this exception based on an awareness that some CERCLA hazardous substances, like metals, occur in the environment naturally. The narrow exception carved out was aimed to shield from liability those entities that have contributed 'hazardous' substances-defined as such in the law-to a site but whose contribution-in the absence of EPA thresholds-did not exceed natural background levels, and did not themselves trigger the incurrence of response costs." *United States v. Alcan Aluminum Corp*., 315 F.3d 179 (2nd Cir. 2003) affirming 97 F. Supp.2d 248 (N.D.N.Y. 2000). On Alcan's failure to prove divisibility of harm, the Second Circuit explained that Alcan, as it had in the Third Circuit, argued that its emulsion was benign, was "really…just like homogenized milk," despite the presence of PCBs. It again argued that its share was zero. 315 F.3d at 187. The Second Circuit rejected the argument. Alcan "did not satisfy its substantial burden with respect to divisibility because it failed to address the totality of the impact of its waste at each of the sites; it ignored the likelihood that the cumulative impact of its waste emulsion exceeded the impact of the emulsion's constituents considered individually, and neglected to account for the emulsion's chemical and physical interaction with other hazardous substances already at the site." *Id*. A 16-year saga finally came to an end.

54 Actually, it was on remand that the district court concluded that Sequa's share was 4% based on the record previously established. The United States sought to add additional evidence to the record to support a higher share but the district court felt that the mandate from the Fifth Circuit precluded additional evidence. On appeal from this determination, the Fifth Circuit held that the United States should have been permitted to receive additional evidence on Sequa's volumetric apportionment. 64 F.3d 202 (5th Cir. 1995). The case is not reported thereafter and presumably settled.

55 The district court determined that where two pentachlorophenol groundwater plumes were geographically separated and distinct, there was a divisibility of harm. Coincidentally, Burlington Northern was the beneficiary of this ruling and limited its liability to the one plume, jointly and severally with the other PRP (who was solely liable for the other plume). The case has a twist to it. EPA later settled with the other PRP at the site and received $10.7 million. Burlington Northern sought to apportion the total amount of this settlement to its plume to reduce its exposure dollar for dollar either as a matter of law or because the EPA settlement did not apportion the payment as between the two site plumes. The district court decided instead to apportion 50% of the settlement as a credit against Burlington Northern's liability. The court of appeals affirmed. *United States v. Burlington*

Northern Railroad Co., 200 F.3d 679, 696-97 (10th Cir. 1999) *affirming* 955 F. Supp. 1268 (1997).

56 "Uniroyal's reliance on volumetric evidence is insufficient in this instance to meet its burden. Where, as in this case, hazardous substances are commingled, a defendant cannot rely on merely volumetric evidence. Evidence must be produced "disclosing the individual and interactive qualities of the substances deposited" at the Site." 966 F. Supp. at 1504 (citations omitted).

57 The district court referred to reliance on EPA's remediation methods with respect to certain concentrations of contaminants in certain areas as "a poor showing on which to grant relief from joint and several liability." The district court suggested how apportionment might have been proven: "A better case might be made for division according to each party's contribution of a particular contaminant akin the apportionment that occurred in *Hatco,* but the parties would have to make an evidentiary showing that their particular waste necessitated a discrete clean-up effort apart from that required for any other party's waste. 922 F. Supp. at 430. The reference was to *Hatco Corp. v. W.R. Grace & Co.-Conn*., 836 F. Supp. 1049 (D.N.J.1993) vacated on other grounds and remanded, 59 F.3d 400 (3rd Cir. 1995), which was an equitable allocation decision, but which the district court described as involving the "apportionment of harm from chemical contamination to an 80-acre parcel [as] a complex exercise. Apportionment was made based on type of chemical, source, area, and time of use." 922 F. Supp. at 426.

58 The case had an unusual procedural posture. The appellee was trying to defend a summary judgment on allocation—a rare event, and was seeking to come within the Second Circuit's divisibility of harm holding in *Alcan* that a party could avoid liability at a site if its wastes contributed no more than background levels and cannot concentrate. The First Circuit agreed with this holding and it was in this context that the statement in the text was made. 191 F.3d at 77-78. *Akzo Nobel Coatings, Inc., et al. v. Aigner Corp. et al*., 197 F.3d 302 (7th Cir. 1999) rejected a divisibility of harm defense where the district court exercised its equitable discretion to treat distinct contaminated areas at a site as one. The Seventh Circuit explained: "Even if some of Akzo's wastes can be traced to one of the many parcels within the Fisher Calo site (the parcel known as Space Leasing), it does not follow that judge was obliged to carve that parcel out when calculating cleanup costs and responsibility." Quoting the equitable factors language of § 113(f) while invoking the Restatement (Second) of Torts, the court of appeals continued: "Allocation of shares thus is not a mechanical process. Doubtless liability for distinct or divisible harms should be kept separate when possible, see Restatement (2d) of Torts sec. sec. 433A, 881, but the district judge held that at the Fisher-Calo site a reliable division is just not possible. Fisher-Calo's records are so sparse and uninformative, and the costs of matching inputs to outputs so high, that compiling a comprehensive inventory would not be sensible, the judge concluded. Akzo loses to the extent it must contribute toward the costs of cleaning up the Space Leasing parcel, but the same inability to trace contributions means that Akzo gains to the extent that other firms must contribute toward the costs of cleaning up the parcels that contain waste attributable to Akzo. How the balance of advantage comes out is impossible to say for the Fisher-Calo site as a whole, the district judge found, and this assessment does not represent an abuse of discretion." The Eleventh Circuit specifically stated in *Redwing Carriers, Inc. v. Saraland Apartments,* 94 F.3d 1489, 1513 (11th Cir. 1996) that divisibility of harm "is not a defense to a contribution action under § 113(f)."

59 This cryptic pronouncement was derived from the Sixth Circuit's view that equitable factors analysis and divisibility of harm were different: "Although we know that we cannot define for all time what is a reasonable basis for divisibility and what is not, we do take this opportunity to reject fairness-based approaches in favor of the more precise and less normative Restatement approach, which concentrates solely on causation. We distinguish the divisibility defense to joint and several liability from the equitable allocation principles available to defendants under CERCLA's contribution provision. The former is legal, the latter equitable; the respective tests used to execute them should reflect this distinction." 153 F.3d at 319.

60 The court of appeals used the word "volume," not toxicity but the argument was one based on toxicity: "Brighton Township argues for a volumetric basis of apportionment, because the hazardous waste in 55-gallon drums in the hot zone was from industrial and non-local sources. Although some of the hazardous waste apparently came from paint and batteries, which could have been from local sources, the record supports a conclusion that much or most of the hazardous waste was industrial. As such, it probably came from side deals between Collett [the site owner who leased the landfill to the town and apparently took in other wastes on the side until the town paid more in fees to stop the practice in 1967] and industrial and non-local sources before 1967. Because there is reason to conclude that the township took an active role in maintaining the site at least as early as 1965, however, this volumetric apportionment may nevertheless be inappropriate as well. However, we leave this determination for the district court." 153 F.3d at 319-20.

61 There was one other defendant, Uniroyal. It was found jointly and severally liable, as discussed above. But in the allocation phase of the matter, it was assigned a 2.6% share, *U.S. v. Vertac Chemical Corp*., 79 F. Supp.2d 1034, 1041 (E.D. Ark., 1999), leaving Hercules with 97.4% of the $89 million judgment that was, of course, accruing interest.

62 On remand, the district court rejected the defense and the court of appeals affirmed saying that Hercules failed to prove the defense. *United States v. Vertac Chemical Corp*.,

453 F.3d 1031 (8th Cir. 2006) *affirming* 364 F. Supp.2d 941 (E.D. Ark. 2005). Illustratively, on the issue of drummed wastes (which had been incinerated), the court of appeals explained: "In *Vertac XI*, we held that a single harm may be treated as divisible when it is possible to discern the degree to which different parties contributed to the damage. 'Single harms may also be treated as divisible in terms of degree, based, for example on the relative quantities of waste discharged into the stream. Divisibility of this type may be provable even where wastes have become cross-contaminated and commingled.' 247 F.3d at 718 (internal quotations omitted). Hercules, however, did not argue that the drums caused a single, divisible harm that could be apportioned based on relative quantities of waste or volumetric evidence. As the government points out, this argument would have been inconsistent with Hercules's argument that it should not be held liable for any of the drummed waste." *Id*. at 1040.

63 Schenectady had argued that apportionment based upon its relative volumetric waste contribution to the Site was a reasonable basis for divisibility because "(1) environmental concerns regarding relative toxicity, migratory potential, or synergistic capabilities played no role in the removal costs incurred at the Site; (2) the costs of the removal remedy at the Site were driven solely by the mere existence and volume of waste there, in conjunction with the physical conditions at the Site; and (3) waste which originated with Schenectady did not have any marginal environmental impact in excess of that caused by other parties' waste generally." 193 F. Supp.2d at 549. The district court concluded: "Therefore, based upon Schenectady's total failure to produce any evidence regarding any of the factors relevant to the issue of divisibility as well as any proof to support its argument that volume alone is a reasonable basis for apportionment, the Court concludes that Schenectady has failed to meet its burden of proof with respect to its divisibility defense." *Id*. at 552

64 As a result, the two mining defendants received 22% and 33% of the liability leaving 45% to be paid by others : "The Court finds Defendants have presented concrete evidence to support divisibility in this case. The cause or source of the hazardous substances in the Basin was the dumping of the tailings into the waterways. The experts on both sides of this case agree that a "reasonable basis" for apportioning is to consider the amount of mining waste discharged into the waterways. All of the tailings contained lead, cadmium and/or zinc and it is the damages from these three primary metals from which the Trustees seek relief. For these reasons, the Court finds divisibility based upon tailings production is reasonable in this particular case. Asarco is responsible for contributing 22% of the tailings and Hecla is responsible for contributing 31% of the tailings." 280 F. Supp.2d at 1121.

65 I say "apparently" based on this passage from the opinion: "Newmont's divisibility argument at trial was based upon its contention that its liability, if any, should be limited to its discrete involvement during the 'early exploration period.' Newmont contended at trial that the evidence demonstrated the 'footprint' of the activities during the early period was subsumed by more invasive excavation, and therefore, any harm from these early efforts 'was so negligible as to be de minimis, especially compared to the harm associated with Phase I and Phase II of mining.' The evidence requires the court to reject these contentions. Newmont has not met its burden of demonstrating the divisibility defense to liability. *Newmont acknowledged this to be the case post-trial in light of the court's oral ruling at trial*." 2008 WL 4621566 at *56 (record citations omitted and emphasis added).

66 Newmont argued that Dawn was an orphan and its share should be reallocated equally between it and the United States. Dawn had a negative new worth but was operating a water treatment plant at the site using funds "loaned" by Newmont. But the district court held that there was no proof provided to it on Dawn's ability to pay, noting there was no evidence on possible insurance coverage or on Newmont's possible obligation to cover Dawn's future financial obligations. 2008 WL 4621566 at *62.

67 *See generally*, Barkett, *A Database Analysis of the Superfund Allocation Case Law, supra*.

68 *Cf*. Restatement of the Law (Third) Torts, §26 cmt. f: "The fact that the magnitude of each indivisible component part cannot be determined with precision does not mean that the damages are indivisible. All that is required is a reasonable basis for dividing the damages."

69 Consent decree settlements can take into account litigation risk and ability to pay but these factors are not usually primary in an evaluation of substantive fairness.

70 The "Gore factors" are named after then Representative Al Gore who had unsuccessfully proposed allocation factors as an amendment to CERCLA. They are: the ability of the parties to demonstrate that their contribution to a discharge, release or disposal of hazardous waste can be distinguished; the amount of the hazardous waste involved; the degree of toxicity of the hazardous waste involved; the degree of involvement by the parties in the generation, transportation, treatment, storage, or disposal of the hazardous waste; the degree of care exercised by the parties with respect to the hazardous waste concerned, taking into account the characteristics of such waste; and the degree of cooperation by the parties with Federal, State or local officials to prevent any harm to the public health or the environment.

71 The district court reasoned as follows: "Herein, Senser [the objector] has not questioned that all available information was utilized to develop the allocation formula. Moreover, it has not disputed that there is a reasonable linkage between the scheme selected by the EPA (the allocation formula) and the proportionate share of the settling PRPs, if only the available information is considered. Senser's complaint is with the limited availability of information concerning

batteries disposed of by various PRPs at the USL Site. That shortcoming does not convince this Court to decline to enter the proposed Consent Decree. Indeed, given that CERCLA was enacted to provide for the cleanup of hazardous waste sites that were operated years ago, it is quite doubtful that complete records of the contribution by each PRP to a particular site are available. Therefore, if the Court were to agree with Senser that the limited availability of information concerning the volume of each PRP's contribution of batteries to the USL Site demonstrates that the settlements at issue are unfair, it would be effectively holding that *no* settlement under CERCLA in this matter would be fair. Moreover, Senser has not cited a single decision in which a court has declined to enter a consent decree proposed by the Government, because information concerning contributions of the PRPs to the hazardous waste site was incomplete." 491 F. Supp.2d at 636.

72 "The fact that liability is based on volume rather than toxicity is not unfair given the evidentiary problems which plague this case. 'Difficulties in achieving precise measurements of comparative fault will not preclude a trial court from entering a consent decree.' Reliable information is typically not available in CERCLA cases: '[A] muddled record is the norm in most CERCLA litigation.' This is not surprising given that CERCLA was enacted relatively recently in 1980 and applies retroactively to conduct occurring decades before environmental regulation." 934 F. Supp. at 329-30 (citations omitted).

73 The basis for EPA's allocation was described by the court of appeals: "To be sure, SESD [the generator and transporter of most of the waste dumped at the site] played a leading role in the contamination of the Site and appellant [the site owner], who came on the scene later, played an appreciably less prominent role. But, an actor cast in a bit part is not to be confused with a mere spectator, whose only involvement is to lounge in the audience and watch events unfold. Appellant contributed to the 1987 incident in a variety of ways. Despite being warned of a potentially dangerous condition, he twiddled his thumbs: he failed to safeguard the Site, thus permitting third parties to dump at will and exacerbate an already perilous situation; fiddled while the earthen berms deteriorated; and turned a blind eye to evolving public health and safety concerns. Allocating 15% of the historic removal costs as appellant's share seems commensurate with these shortcomings and with the quantum of comparative fault fairly ascribable to him." 45 F.3d at 545.

74 See also *United States v. Conservation Chemical Co.*, 628 F. Supp. 391 (W.D. Mo. 1985), where a consent decree entered before the Superfund Amendments and Reauthorization Act in 1986 was approved: "CERCLA is silent as to the methodology to be applied as to the apportionment of costs among liable parties. However, it is clear that whatever method is utilized it must take into account a disparate group of liable parties, i.e., owners/operators, prior owners/operators, generators and transporters. Furthermore, the relative fault of liable parties within each group will depend upon the factual circumstances. Thus, particularly within the generator class of liable parties, different factors such as volume, toxicity, migratory potential, etc., come into play in assessing the culpability of each party. Thus, if these varying factors are to be given effect, the apportionment must be made upon the basis of some variation of comparative fault doctrine." *Id.* at 401.

75 *Cf. United States v. Pesses*, 1994 WL 741277 (W.D. Pa. Nov. 7, 1994), where the United States unsuccessfully argued that a consent decree releasing federal agencies should be entered by the district court. On substantive fairness, the *United States* argued that a log book which "partially reflects the number of shipments sent to the site" was an adequate basis on which to apportion the federal agencies' share. "The total shipments recorded in the receiving log were counted and then compared with the number of currently identifiable federal shipments. The government asserts that even when the shipments from the early operation of the site (which were not recorded in the log book) are included and one "makes the reasonable assumption that federal shipments to other Pesses' operations which ultimately reached the site were in about the same proportion as the shipments whose origins" are known, then the federal agencies are responsible for about one-half of one percent of the shipments. It asserts that the total of these shipments would make the United States responsible for 1.5% of the total shipments to the site." *Id.* at *15. The type of waste did not matter, according to the United States, but the district court disagreed. *Id.* at *16.

76 The court of appeals held: "Dico was not inappropriately assigned complete responsibility for the VOC-related costs, because those costs were found to be related to operations of Dico or one of its corporate predecessors, but could not be traced to the settling defendants. *See* slip op. at 11-12. As the district court concluded, the costs resulting from pesticide contamination were reasonably split between Dico and the settling defendants. *See id.* at 1019. Regarding the parties' relative roles in managing the pertinent operations, the relative degree of care they exercised, their relative fault, and the relative benefits to them from the waste-producing activity, we agree with the district court that there is factual and evidentiary support for the EPA's decision to assign most of the responsibility to Dico, as the "entity in charge of the facility." *See id.* at 1019-20. As to factors such as the degree of cooperation and the benefit of the remediation to the parties, we note that Dico conducted the first and second removal actions at OU-2/4 only after the EPA obtained unilateral administrative orders commanding Dico to do so. *See id.* at 1020. By contrast, the third removal action was performed by the settling defendants pursuant to an administrative consent order. Each of the three removal actions benefitted Dico, as the owner of the property. Finally, although the exact amounts of response costs incurred by the parties are subject to debate, it appears from the record that Dico's share constitutes significantly less than the 90% Dico claims." 277 F.3d at 1020.

77 It is beyond the scope of this article to discuss the possible effects of the Restatement of the Law (Third) Torts on future CERCLA litigation involving divisibility of harm claims. Readers ought to be aware of it and must evaluate the applicability of its principles on a case-by-case basis. It does appear, however, that after *Burlington Northern's* reference to "evolving principles," this source of evolving principles cannot be ignored. *See generally*, Brief of Burlington Northern et al., p. 26-33 for an historical perspective of developments under the First, Second, and Third Restatements. http://www.abanet.org/publiced/preview/briefs/pdfs/07-08/07-1601_Petitioner.pdf. See also Transcript of Burlington Northern Oral Argument, *supra*, p. 26-27 (discussing §433A cmt. h which provided that in exceptional circumstances, to prevent injustice to a plaintiff, insolvency of a party may preclude divisibility; that no cases were ever decided following this rule; and that Restatement of the Law (Third) Torts §28 cmt. c now states that §433A cmt. h was inconsistent with §433A principles.)

78 In fact, based on personal experience, this tool is often used in Superfund allocations that have resulted in consent decrees based on the allocation. It may take the form of an equal share borne by all PRPs to which the allocated share is added. Or there might be a decision to use the low range or midpoint of a range of volumes offered by a transporter witness. It might represent a percentage multiplier/discount to account for possible disposal at sites other than the site in issue. There might be a toxicity multiplier or discount applied to account for differences in the toxicity, mobility, or persistence of a contaminant. There might be an extrapolation to fill in gaps in evidence where a PRP is on both ends of the gap and can't show that it did not use another site during the gap. When dealing with volume, toxicity, time, geography, benefits, knowledge, fault, care, or involvement, the tools are there to compare responsibility; it is just a matter of how one wishes to characterize them. Cf. Restatement of the Law (Third) Torts, §8 cmt. c: "The relevant factors for assigning percentages of responsibility include the nature of each person's risk-creating conduct and the comparative strength of the causal connection between each person's risk-creating conduct and the harm. The nature of each person's risk-creating conduct includes such things as how unreasonable the conduct was under the circumstances, the extent to which the conduct failed to meet the applicable legal standard, the circumstances surrounding the conduct, each person's abilities an disabilities, and each person's awareness, intent, or indifference with respect to the risks. The comparative strength of the causal connection between the conduct and the harm depends on how attenuated the causal connection is, the timing of each person's conduct in causing the harm, and a comparison of the risks created by the conduct and the actual harm suffered by the plaintiff."

79 Cooperation, however, has played a role in consent decree approvals. *See, e.g., United States v. BP Amoco PLC et al, supra,* 277 F.3d at 1016 n.3.

80 Time will tell but presumably summary judgments will become rare on apportionment issues given the fact-intensive nature of the exercise.

81 In part in response to the political backlash from Superfund contribution litigation at multiparty sites and in part because it recognized that joint and several liability could produce unfair results when the orphan share was meaningful, EPA announced in 1995 an orphan share policy designed to ameliorate the financial impact of an orphan share on solvent PRPs. The policy has financial limits, however. See, generally, Barkett, *Orphan Shares*, 23 N.R.E. 46 (2008).

82 The Restatement of the Law (Third) of Torts, §17 cmt. a explains that joint and several liability "has been substantially modified in most jurisdictions as a result of the adoption of comparative fault and tort reform in the 1980s and 1990s." The Restatement (Third) then identifies five different versions of joint and several liability. Restatement (Third), §10 cmt. a explains that the "primary consequence of what form of joint and several liability is imposed is the allocation of the risk of insolvency of one or more responsible tortfeasors." The Restatement authors then describe the tension that *Burlington Northern* will cause: "The rationale for employing joint and several liability and thereby imposing the risk of insolvency on defendants—that as between innocent plaintiffs and culpable defendants the latter should bear this risk—does not coexist comfortably with comparative responsibility." *Id*. Later it adds: "It is difficult to make a compelling argument for either a pure rule of joint and several liability or a pure rule of several liability once comparative responsibility is in place. Each of these alternatives has the handicap of systematically disadvantaging either plaintiffs or defendants with the risk of insolvency." *Id*. The Restatement proposes a number of insolvent-share reallocation mechanisms to try to bring some balance to the treatment of the insolvent share. See generally, Restatement (Third) of Torts, §17 cmt. a. The Reporters Note to §17 also contains a breakdown of which states have adopted joint and several, several, or hybrid liability mechanisms.

83 I could add "States" here to the extent that States are using CERCLA for enforcement purposes rather than State law.

84 "The concept that a passive owner of a contiguous parcel, not representing more than 19% in area of a CERCLA site, operated less than 44% of the time, where substantially smaller volumes of hazardous substance releases occurred, should be strictly liable for the entire site remediation, because no other responsible party is judgment-worthy, takes strict liability beyond any rational limit." 2003 WL 25518047 at *87. There are two sides to this coin. *See United States v. Alcan Aluminum Corp., supra* (where, as a matter of divisibility, the PRP unsuccessfully advocated for no liability).