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### SUPREME COURT OF THE UNITED STATES

Nos. 07-1601 and 07-1607

# BURLINGTON NORTHERN AND SANTA FE RAILWAY COMPANY, ET AL., PETITIONERS

07 - 1601

v.

UNITED STATES ET AL.

#### SHELL OIL COMPANY, PETITIONER

07 - 1607

v.

UNITED STATES ET AL.

ON WRITS OF CERTIORARI TO THE UNITED STATES COURT OF APPEALS FOR THE NINTH CIRCUIT

[May 4, 2009]

JUSTICE STEVENS delivered the opinion of the Court.

In 1980, Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), 94 Stat. 2767, as amended, 42 U. S. C. §§9601–9675, in response to the serious environmental and health risks posed by industrial pollution. See *United States* v. *Bestfoods*, 524 U. S. 51, 55 (1998). The Act was designed to promote the "timely cleanup of hazardous waste sites" and to ensure that the costs of such cleanup efforts were borne by those responsible for the contamination. *Consolidated Edison Co. of N. Y.* v. *UGI Util., Inc.*, 423 F. 3d 90, 94 (CA2 2005); see also *Meghrig* v. *KFC Western, Inc.*, 516 U. S. 479, 483 (1996); *Dedham Water Co.* v. *Cumberland Farms Dairy, Inc.*, 805 F. 2d 1074, 1081 (CA1 1986). These cases raise the questions whether and to what extent a party associated with a contaminated

site may be held responsible for the full costs of remediation.

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In 1960, Brown & Bryant, Inc. (B&B), began operating an agricultural chemical distribution business, purchasing pesticides and other chemical products from suppliers such as Shell Oil Company (Shell). Using its own equipment, B&B applied its products to customers' farms. B&B opened its business on a 3.8 acre parcel of former farmland in Arvin, California, and in 1975, expanded operations onto an adjacent .9 acre parcel of land owned jointly by the Atchison, Topeka & Santa Fe Railway Company, and the Southern Pacific Transportation Company (now known respectively as the Burlington Northern and Santa Fe Railway Company and Union Pacific Railroad Company) (Railroads). Both parcels of the Arvin facility were graded toward a sump and drainage pond located on the southeast corner of the primary parcel. See Appendix, *infra*. Neither the sump nor the drainage pond was lined until 1979, allowing waste water and chemical runoff from the facility to seep into the ground water below.

During its years of operation, B&B stored and distributed various hazardous chemicals on its property. Among these were the herbicide dinoseb, sold by Dow Chemicals, and the pesticides D–D and Nemagon, both sold by Shell. Dinoseb was stored in 55-gallon drums and 5-gallon containers on a concrete slab outside B&B's warehouse. Nemagon was stored in 30-gallon drums and 5-gallon containers inside the warehouse. Originally, B&B purchased D–D in 55-gallon drums; beginning in the mid-1960's, however, Shell began requiring its distributors to maintain bulk storage facilities for D–D. From that time onward, B&B purchased D–D in bulk.<sup>1</sup>

<sup>&</sup>lt;sup>1</sup>Because D-D is corrosive, bulk storage of the chemical led to nu-

When B&B purchased D–D, Shell would arrange for delivery by common carrier, f.o.b. destination.<sup>2</sup> 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.

Aware that spills of D–D were commonplace among its distributors, in the late 1970's Shell took several steps to encourage the safe handling of its products. Shell provided distributors with detailed safety manuals and instituted a voluntary discount program for distributors that made improvements in their bulk handling and safety facilities. Later, Shell revised its program to require distributors to obtain an inspection by a qualified engineer and provide self-certification of compliance with applicable laws and regulations. B&B's Arvin facility was inspected twice, and in 1981, B&B certified to Shell that it had made a number of recommended improvements to its facilities.

Despite these improvements, B&B remained a "'[s]loppy' [o]perator." App. to Pet. for Cert. in No. 07–1601, p. 130a. Over the course of B&B's 28 years of operation, delivery spills, equipment failures, and the rinsing of

merous tank failures and spills as the chemical rusted tanks and eroded valves.

 $<sup>^2</sup>F.o.b.$  destination means "the seller must at his own expense and risk transport the goods to [the destination] and there tender delivery of them . . . ." U. C. C. 2-319(1)(b) (2001). The District Court found that B&B assumed "stewardship" over the D–D as soon as the common carrier entered the Arvin facility. App. to Pet. for Cert. in No. 07–1601, p. 124a.

tanks and trucks allowed Nemagon, D–D and dinoseb to seep into the soil and upper levels of ground water of the Arvin facility. In 1983, the California Department of Toxic Substances Control (DTSC) began investigating B&B's violation of hazardous waste laws, and the United States Environmental Protection Agency (EPA) soon followed suit, discovering significant contamination of soil and ground water. Of particular concern was a plume of contaminated ground water located under the facility that threatened to leach into an adjacent supply of potential drinking water.<sup>3</sup>

Although B&B undertook some efforts at remediation, by 1989 it had become insolvent and ceased all operations. That same year, the Arvin facility was added to the National Priority List, see 54 Fed. Reg. 41027, and subsequently, DTSC and EPA (Governments) exercised their authority under 42 U. S. C. §9604 to undertake cleanup efforts at the site. By 1998, the Governments had spent more than \$8 million responding to the site contamination; their costs have continued to accrue.

In 1991, EPA issued an administrative order to the Railroads directing them, as owners of a portion of the property on which the Arvin facility was located, to perform certain remedial tasks in connection with the site. The Railroads did so, incurring expenses of more than \$3 million in the process. Seeking to recover at least a portion of their response costs, in 1992 the Railroads brought

<sup>&</sup>lt;sup>3</sup>The ground water at the Arvin site is divided into three zones. The A-zone is located 60–80 feet below the ground. It has been tested and found to have high levels of contamination. The B-zone is located 150 feet below ground. Although the B-zone is not currently used as a source of drinking water, it has the potential to serve as such a source. No contamination has yet been found in that zone. The C-zone is an aquifer located 200 feet below ground. It is the sole current source of drinking water and, thus far, has suffered no contamination from the Arvin site.

suit against B&B in the United States District Court for the Eastern District of California. In 1996, that lawsuit was consolidated with two recovery actions brought by DTSC and EPA against Shell and the Railroads.

The District Court conducted a 6-week bench trial in 1999 and four years later entered a judgment in favor of the Governments. In a lengthy order supported by 507 separate findings of fact and conclusions of law, the court held that both the Railroads and Shell were potentially responsible parties (PRPs) under CERCLA—the Railroads because they were owners of a portion of the facility, see 42 U. S. C. §§9607(a)(1)–(2), and Shell because it had "arranged for" the disposal of hazardous substances through its sale and delivery of D–D, see §9607(a)(3).

Although the court found the parties liable, it did not impose joint and several liability on Shell and the Railroads for the entire response cost incurred by the Governments. The court found that the site contamination created a single harm but concluded that the harm was divisible and therefore capable of apportionment. Based on three figures—the percentage of the total area of the facility that was owned by the Railroads, the duration of B&B's business divided by the term of the Railroads' lease, and the Court's determination that only two of three polluting chemicals spilled on the leased parcel required remediation and that those two chemicals were responsible for roughly two-thirds of the overall site contamination requiring remediation—the court apportioned the Railroads' liability as 9% of the Governments' total response cost.4 Based on estimations of chemicals spills of Shell

<sup>&</sup>lt;sup>4</sup>Although the Railroads did not produce precise figures regarding the exact quantity of chemical spills on each parcel in each year of the facility's operation, the District Court found it "indisputable that the overwhelming majority of hazardous substances were released from the B&B parcel." *Id.*, at 248a. The court explained that "the predominant activities conducted on the Railroad parcel through the years were

products, the court held Shell liable for 6% of the total site response cost.

The Governments appealed the District Court's apportionment, and Shell cross-appealed the court's finding of liability. The Court of Appeals acknowledged that Shell did not qualify as a "traditional" arranger under §9607(a)(3), insofar as it had not contracted with B&B to directly dispose of a hazardous waste product. 520 F. 3d 918, 948 (CA9 2008). Nevertheless, the court stated that Shell could still be held liable under a "'broader' category of arranger liability" if the "disposal of hazardous wastes [wa]s a foreseeable byproduct of, but not the purpose of, the transaction giving rise to" arranger liability. Ibid. Relying on CERCLA's definition of "disposal," which covers acts such as "leaking" and "spilling," 42 U.S.C. §6903(3), the Ninth Circuit concluded that an entity could arrange for "disposal" "even if it did not intend to dispose" of a hazardous substance. 520 F. 3d, at 949.

Applying that theory of arranger liability to the District Court's findings of fact, the Ninth Circuit held that Shell arranged for the disposal of a hazardous substance through its sale and delivery of D–D:

"Shell arranged for delivery of the substances to the site by its subcontractors; was aware of, and to some degree dictated, the transfer arrangements; knew that some leakage was likely in the transfer process; and provided advice and supervision concerning safe transfer and storage. Disposal of a hazardous substance was thus a necessary part of the sale and delivery process." *Id.*, at 950.

storage and some washing and rinsing of tanks, other receptacles, and chemical application vehicles. Mixing, formulating, loading, and unloading of ag-chemical hazardous substances, which contributed most of the liability causing releases, were predominantly carried out by B&B on the B&B parcel." *Id.*, at 247a–248a.

Under such circumstances, the court concluded, arranger liability was not precluded by the fact that the purpose of Shell's action had been to transport a useful and previously unused product to B&B for sale.

On the subject of apportionment, the Court of Appeals found "no dispute" on the question whether the harm caused by Shell and the Railroads was capable of apportionment. Id., at 942. The court observed that a portion of the site contamination occurred before the Railroad parcel became part of the facility, only some of the hazardous substances were stored on the Railroad parcel, and "only some of the water on the facility washed over the Railroads' site." *Ibid.* With respect to Shell, the court noted that not all of the hazardous substances spilled on the facility had been sold by Shell. Given those facts, the court readily concluded that "the contamination traceable to the Railroads and Shell, with adequate information, would be allocable, as would be the cost of cleaning up that contamination." *Ibid.* Nevertheless, the Court of Appeals held that the District Court erred in finding that the record established a reasonable basis for apportionment. Because the burden of proof on the question of apportionment rested with Shell and the Railroads, the Court of Appeals reversed the District Court's apportionment of liability and held Shell and the Railroads jointly and severally liable for the Governments' cost of responding to the contamination of the Arvin facility.

The Railroads and Shell moved for rehearing en banc, which the Court of Appeals denied over the dissent of eight judges. See *id.*, at 952 (Bea, J., dissenting). We granted certiorari to determine whether Shell was properly held liable as an entity that had "arranged for disposal" of hazardous substances within the meaning of §9607(a)(3), and whether Shell and the Railroads were properly held liable for all response costs incurred by EPA and the State of California. See 554 U.S. \_\_\_ (2008).

Finding error on both points, we now reverse.

#### TT

CERCLA imposes strict liability for environmental contamination upon four broad classes of PRPs:

- "(1) the owner and operator of a vessel or a facility,
- "(2) any person<sup>[5]</sup> who at the time of disposal of any hazardous substance owned or operated any facility at which such hazardous substances were disposed of,
- "(3) any person who by contract, agreement, or otherwise arranged for disposal or treatment, or arranged with a transporter for transport for disposal or treatment, of hazardous substances owned or possessed by such person, by any other party or entity, at any facility or incineration vessel owned or operated by another party or entity and containing such hazardous substances, and
- "(4) any person who accepts or accepted any hazardous substances for transport to disposal or treatment facilities, incineration vessels or sites selected by such person, from which there is a release, or a threatened release which causes the incurrence of response costs, of a hazardous substance..." 42 U. S. C. §9607(a).

Once an entity is identified as a PRP, it may be compelled to clean up a contaminated area or reimburse the Government for its past and future response costs. See *Cooper* 

<sup>&</sup>lt;sup>5</sup>For purposes of the statute, a "person" is defined as "an individual, firm, corporation, association, partnership, consortium, joint venture, commercial entity, United States Government, State, municipality, commission, political subdivision of a State, or any interstate body." 42 U. S. C. §9601(21).

*Industries, Inc.* v. *Aviall Services, Inc.*, 543 U. S. 157, 161 (2004).<sup>6</sup>

In these cases, it is undisputed that the Railroads qualify as PRPs under both §§9607(a)(1) and 9607(a)(2) because they owned the land leased by B&B at the time of the contamination and continue to own it now. The more difficult question is whether Shell also qualifies as a PRP under §9607(a)(3) by virtue of the circumstances surrounding its sales to B&B.

To determine whether Shell may be held liable as an arranger, we begin with the language of the statute. As relevant here, §9607(a)(3) applies to an entity that "arrange[s] for disposal . . . of hazardous substances." 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. See Freeman v. Glaxo Wellcome, Inc., 189 F. 3d 160, 164 (CA2 1999); Florida Power & Light Co. v. Allis Chalmers Corp., 893 F. 2d 1313, 1318 (CA11 1990). Less clear is the liability attaching to the many permutations of "arrangements" that fall between these two ex-

<sup>&</sup>lt;sup>6</sup>Under CERCLA, PRPs are liable for: "(A) all costs of removal or remedial action incurred by the United States Government or a State or an Indian tribe not inconsistent with the national contingency plan;

<sup>&</sup>quot;(B) any other necessary costs of response incurred by any other person consistent with the national contingency plan;

<sup>&</sup>quot;(C) damages for injury to, destruction of, or loss of natural resources, including the reasonable costs of assessing such injury, destruction, or loss resulting from such a release; and

<sup>&</sup>quot;(D) the costs of any health assessment or health effects study carried out under section 9604(i) of this title." §9607(a)(4).

tremes—cases in which the seller has some knowledge of the buyers' planned disposal or whose motives for the "sale" of a hazardous substance are less than clear. such cases, courts have concluded that the determination whether an entity is an arranger requires a fact-intensive inquiry that looks beyond the parties' characterization of the transaction as a "disposal" or a "sale" and seeks to discern whether the arrangement was one Congress intended to fall within the scope of CERCLA's strict-liability provisions. See Freeman, 189 F. 3d, at 164; Pneumo Abex Corp. v. High Point, Thomasville & Denton R. Co., 142 F. 3d 769, 775 (CA4 1998) ("'[T]here is no bright line between a sale and a disposal under CERCLA. A party's responsibility . . . must by necessity turn on a fact-specific inquiry into the nature of the transaction" (quoting *United States* v. Petersen Sand & Gravel, 806 F. Supp. 1346, 1354 (ND Ill. 1992))); Florida Power & Light Co., 893 F. 2d, at 1318.

Although we agree that the question whether §9607(a)(3) liability attaches is fact intensive and case specific, such liability may not extend beyond the limits of the statute itself. Because CERCLA does not specifically define what it means to "arrang[e] for" disposal of a hazardous substance, see, e.g., United States v. Cello-Foil Prods., Inc., 100 F. 3d 1227, 1231 (CA6 1996); Amcast Indus. Corp. v. Detrex Corp., 2 F. 3d 746, 751 (CA7 1993); Florida Power & Light Co., 893 F. 2d, at 1317, we give the phrase its ordinary meaning. Crawford v. Metropolitan Government of Nashville and Davidson Cty., 555 U.S. (2009); Perrin v. United States, 444 U.S. 37, 42 (1979). 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"); see also Amcast Indus. Corp., 2 F. 3d, at 751 (words "'arranged for . . . imply intentional action"). Consequently,

under the plain language of the statute, an entity may qualify as an arranger under §9607(a)(3) when it takes intentional steps to dispose of a hazardous substance. 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'").

The Governments do not deny that the statute requires an entity to "arrang[e] for" disposal; however, they interpret that phrase by reference to the statutory term "disposal," which the Act broadly defines as "the discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land or water." 42 U.S.C. §6903(3); see also §9601(29) (adopting the definition of "disposal" contained in the Solid Waste Disposal Act). The Governments assert that by including unintentional acts such as "spilling" and "leaking" in the definition of disposal, Congress intended to impose liability on entities not only when they directly dispose of waste products but also when they engage in legitimate sales of hazardous substances<sup>8</sup> knowing that some disposal may occur as a collateral consequence of the sale itself. 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

<sup>&</sup>lt;sup>7</sup>"Hazardous waste" is defined as "a solid waste, or combination of solid wastes, which . . . may . . . pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed." §6903(5)(B); §9601(29).

<sup>&</sup>lt;sup>8</sup>CERCLA defines "hazardous substance" to include a variety of chemicals and toxins including those designated by EPA as air pollutants, water pollutants, and solid wastes. §9601(14).

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.

While it is true that in some instances an entity's knowledge that its product will be leaked, spilled, dumped, or otherwise discarded may provide evidence of the entity's intent to dispose of its hazardous wastes, knowledge alone 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. In order to qualify as an arranger, 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). Here, the facts found by the District Court do not support such a conclusion.

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.

#### III

Having concluded that Shell is not liable as an arranger, we need not decide whether the Court of Appeals erred in reversing the District Court's apportionment of Shell's liability for the cost of remediation. We must, however, determine whether the Railroads were properly held jointly and severally liable for the full cost of the Governments' response efforts.

The seminal opinion on the subject of apportionment in CERCLA actions was written in 1983 by Chief Judge Carl Rubin of the United States District Court for the Southern District of Ohio. United States v. Chem-Dyne Corp., 572 F. Supp. 802. After reviewing CERCLA's history, Chief Judge Rubin concluded that although the Act imposed a "strict liability standard," id., at 805, it did not mandate "joint and several" liability in every case. See id., at 807. Rather, Congress intended the scope of liability to "be determined from traditional and evolving principles of common law[.]" Id., at 808. The Chem-Dyne approach has been fully embraced by the Courts of Appeals. See, e.g., In re Bell Petroleum Services, Inc., 3 F. 3d 889, 901–902 (CA5 1993); United States v. Alcan Aluminum Corp., 964 F. 2d 252, 268 (CA3 1992); O'Neil v. Picillo, 883 F. 2d 176, 178 (CA1 1989); United States v. Monsanto Co., 858 F. 2d 160, 171–173 (CA4 1988).

Following *Chem-Dyne*, the courts of appeals have acknowledged that "[t]he universal starting point for divisibility of harm analyses in CERCLA cases" is §433A of the Restatement (Second) of Torts. *United States* v. *Hercules*,

Inc., 247 F. 3d 706, 717 (CA8 2001); Chem-Nuclear Systems, Inc. v. Bush, 292 F. 3d 254, 259 (CADC 2002); United States v. R. W. Meyer, Inc., 889 F. 2d 1497, 1507 (CA6 1989). Under the Restatement,

"when 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.

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).

Not all harms are capable of apportionment, however, and CERCLA defendants seeking to avoid joint and several liability bear the burden of proving that a reasonable basis for apportionment exists. See *Chem-Dyne Corp.*, 572 F. Supp., at 810 (citing Restatement (Second) of Torts \$433B (1976)) (placing burden of proof on party seeking apportionment). When two or more causes produce a single, indivisible harm, "courts have refused to make an arbitrary apportionment for its own sake, and each of the causes is charged with responsibility for the entire harm." Restatement (Second) of Torts \$433A, Comment i, p. 440 (1963–1964).

Neither the parties nor the lower courts dispute the principles that govern apportionment in CERCLA cases, and both the District Court and Court of Appeals agreed

that the harm created by the contamination of the Arvin site, although singular, was theoretically capable of apportionment. The question then is whether the record provided 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.

The District Court criticized the Railroads for taking a "scorched earth,' all-or-nothing approach to liability," failing to acknowledge any responsibility for the release of hazardous substances that occurred on their parcel throughout the 13-year period of B&B's lease. According to the District Court, the Railroads' position on liability, combined with the Governments' refusal to acknowledge the potential divisibility of the harm, complicated the apportioning of liability. See App. to Pet. for Cert. in No. 07–1601, at 236a–237a ("All parties . . . 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"). Yet despite the parties' failure to assist the

<sup>&</sup>lt;sup>9</sup>As the Governments point out, insofar as the District Court made reference to equitable considerations favoring apportionment, it erred. Equitable considerations play no role in the apportionment analysis; rather, apportionment is proper only when the evidence supports the divisibility of the damages jointly caused by the PRPs. See generally United States v. Hercules, Inc., 247 F. 3d 706, 718–719 (CAS 2001); United States v. Brighton, 153 F. 3d 307, 318–319 (CA6 1998); Redwing Carriers, Inc. v. Saraland Apartments, 94 F. 3d 1489, 1513 (CA11 1996). As the Court of Appeals explained, "[a]pportionment . . . looks to whether defendants may avoid joint and several liability by establishing a fixed amount of damage for which they are liable," while contribution actions allow jointly and severally liable PRPs to recover from each other on the basis of equitable considerations. 520 F. 3d 918, 939-940 (CA9 2008); see also 42 U. S. C. §9613(f)(1) (providing that, "[i]n resolving contribution claims, the court may allocate response costs among liable parties using such equitable factors as the court determines are appropriate"). The error is of no consequence, however, because despite the District Court's reference to equity, its actual apportionment

court in linking the evidence supporting apportionment to the proper allocation of liability, the District Court ultimately concluded that this was "a classic 'divisible in terms of degree' case, both as to the time period in which defendants' conduct occurred, and ownership existed, and as to the estimated maximum contribution of each party's activities that released hazardous substances that caused Site contamination." *Id.*, at 239a. Consequently, the District Court apportioned liability, assigning the Railroads 9% of the total remediation costs.

The District Court calculated the Railroads' liability based on three figures. First, the court noted that the Railroad parcel constituted only 19% of the surface area of the Arvin site. Second, the court observed that the Railroads had leased their parcel to B&B for 13 years, which was only 45% of the time B&B operated the Arvin facility. Finally, the court found that the volume of hazardoussubstance-releasing activities on the B&B property was at least 10 times greater than the releases that occurred on the Railroad parcel, and it concluded that only spills of two chemicals, Nemagon and dinoseb (not D-D), substantially contributed to the contamination that had originated on the Railroad parcel and that those two chemicals had contributed to two-thirds of the overall site contamination requiring remediation. The court then multiplied .19 by .45 by .66 (two-thirds) and rounded up to determine that the Railroads were responsible for approximately 6% of the remediation costs. "Allowing for calculation errors up to 50%," the court concluded that the Railroads could be held responsible for 9% of the total CERCLA response cost for the Arvin site. Id., at 252a.

The Court of Appeals criticized the evidence on which

decision was properly rooted in evidence that provided a reasonable basis for identifying the portion of the harm attributable to the Railroads.

the District Court's conclusions rested, finding a lack of sufficient data to establish the precise proportion of contamination that occurred on the relative portions of the Arvin facility and the rate of contamination in the years prior to B&B's addition of the Railroad parcel. The court noted that neither the duration of the lease nor the size of the leased area alone was a reliable measure of the harm caused by activities on the property owned by the Railroads, and—as the court's upward adjustment confirmed—the court had relied on estimates rather than specific and detailed records as a basis for its conclusions.

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)).

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 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.

The District Court's conclusion that those two chemicals accounted for only two-thirds of the contamination requiring remediation finds less support in the record; however, 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. 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.

#### IV

For the foregoing reasons, we conclude that the Court of Appeals erred by holding Shell liable as an arranger under CERCLA for the costs of remediating environmental contamination at the Arvin, California facility. Furthermore, we conclude that the District Court reasonably apportioned the Railroads' share of the site remediation costs at 9%. The judgment is reversed, and the cases are remanded for further proceedings consistent with this opinion.

It is so ordered.

# Appendix to opinion of the Court

# APPENDIX

